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CONTENTS

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Air Ambulance Card® Case Study: Exploring Strategies for Small Business Expansion

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ABSTRACT

Sam Jackson and his business partners had accumulated over sixty years of knowledge and experience in the medical evacuation and healthcare industries. In the eight years since the founding of Air Ambulance Card®, the business had experienced a great deal of growth and established itself as a respected leading provider of medical evacuation services.

Air Ambulance Card® (AAC), a medical evacuation provider based in Birmingham, Alabama was eager to grow their business, particularly in their group sales segment. This case describes decisions facing Sam Jackson, managing director of AAC, had to make concerning:

1. *Devising strategies for increasing the group sales component of revenue from 30 percent to 40 percent.*
2. *Determining the viability of aggressively pursuing the college and university travel market.*
3. *Determining if a new hire is justified to serve as a dedicated salesperson to this new target market, and if so, what should his or her qualifications must be and what form compensation should take.*

AIR AMBULANCE CARD®

Air Ambulance Card®, LLC (AAC) was a Birmingham, Alabama based company founded in 2002 that offered a membership program which flew sick or injured members home to a U.S. or Canadian hospital of their choice when hospitalized away from home. Medical evacuation costs could run as high as $250,000 for individuals hospitalized overseas. In the already stressful and complicated situation of a medical emergency, AAC members did not have to worry about medical transport being cost prohibitive.

For a relatively small annual membership fee, AAC members were covered in the case of the need for medical evacuation. The way the pro-

gram worked was simple, if a member was hospitalized more than 150 miles from their permanent address and wished to return to their home hospital or another domestic hospital of their choice, they simply called AAC. After the member made initial contact, AAC assigned a case manager to them and the Medical Director from AAC made contact with the hospital where the member was admitted. Once the Medical Director got a report, he then called the member's home hospital and confirmed admission for the member. The case manager stayed in contact with the member or family 24 hours a day until they arrived in the hospital of their choice. All the details, such as going through customs, getting the members to and from the plane and to the hospital, were taken care of by AAC.

Air Ambulance Card® had a modest advertising budget, but relied on their website and word of mouth to drive membership sales. Traditional methods of advertising, such as radio or magazine historically, had not been very effective in driving sales. Feature articles or mentions of AAC in national publications such as The New York Times and The Wall Street Journal helped raise AAC's visibility and helped educate potential consumers about the benefits of purchasing a medical evacuation membership.

The principals of the company, Samuel Jackson, Jr., Claude Bradley, Jr., and Darrel Weaver, MD, had been involved in the air medical transportation and healthcare business for over sixty years combined, so collectively they had a large pool of knowledge about the medical evacuation industry. Together, they wrote large group plans that had been adopted by large insurance companies such as BlueCross and BlueShield of Alabama. In order to ensure that AAC members were well cared for, AAC developed a network of over 60 aircraft that were stationed at 17 locations around the world. AAC had aircraft equipped for any medical situation; they even had two aircraft in their network that could transport as many as five patients at a time. AAC's motto was simple, "We Bring You Home." ACC was dedicated to giving its members peace of mind throughout their travels and assurance they would be well taken care of in case of an emergency.

THE ISSUE AT HAND

Sam Jackson and Claude Bradley, managing directors of AAC, sat down at the fiscal year end of June 2010 for a meeting to analyze the most recent year's financial statements. "We've grown this business from the ground up; we've gone from having zero customers in 2002 to having thousands of subscribers and growing annual revenues," Sam stated with pride. But Sam was not one to rest on his own laurels. Looking at the numbers, he was happy with AAC's most recent financial performance, but was always looking for ways to continue to grow the young business. Claude reminded Sam, "Medical Evacuation service memberships are really a niche product. Not everyone travels, and many of those who do, travel without a great deal of frequency. Although long-distance domestic and international travel numbers continue to grow, we don't really offer a mass-market product. We need to identify and capture the greatest percentages of different lucrative travel segments as possible."

Also at the meeting was Atticus Rominger, who had recently been engaged to serve as a Public Relations consultant to the business. A few weeks prior to the meeting, Sam and Claude charged Atticus with helping them brainstorm new avenues and methods for the business to capitalize on expansion opportunities. Sam and Claude were eager to hear what ideas Atticus would come up with to help them grow their business.

There were some challenges unique to the Medical Evacuation business that Sam and Claude had communicated to Atticus at the beginning of his work with AAC. One central issue Sam and Claude emphasized was that education had always been a core marketing challenge for AAC. Potential consumers were often uneducated or misinformed about travel insurance. Many believed that their existing insurance or basic travel insurance would provide medical evacuation in case of an emergency during their travels abroad. In reality, many insurance plans did not include medical evacuation, and those that did often did not cover the full amount of these extremely costly trips. Furthermore, some plans did not cover domestic travel or would only fly you to specific hospitals; AAC covered all travel 150 miles or more from your home, flew you to the hospital of your choice, whether that be in your home town or a hospital that specialized in your condition.

One avenue that Sam and Claude wanted to explore was trying to pursue younger customers. Given that the average age of an AAC customer

was 42, educating the existing customer base had been a challenge, and they knew that educating younger consumers would be even more challenging, as younger consumers often did not even have basic medical insurance. Atticus took this issue seriously when formulating his ideas and compiled some research on the subject in a memo.

> Young adults, defined as those aged 18-29, were uninsured in larger numbers than any other segment of the U.S. population. According to recent data from the Census Bureau, in 2007, there were an estimated 13.2 million uninsured young adults, making it not only the largest but also the fasting growing group of the estimated 46 million uninsured Americans. There are many reasons that young adults do not have insurance. Some have exceeded the age to be carried on their parents' plans, even though they might be still in school or not yet employed. Of those who are employed, 50% have employers that do not provide healthcare, compared to just 25% of all other adults. Many fall into the gap of making too much money to be eligible for government provided benefits, but not enough to purchase individual insurance policies. There is also the problem of many young adults harboring illusions of invincibility- on the whole, they have relatively few chronic health problems as compared to older Americans and may view health insurance as a waste of money since they feel they may not need it.

Atticus presented this information at the year-end meeting, "So, you see Sam, I think these consumers will be extremely difficult to connect with and sell our product to. We need to think about a concentrated way to approach the younger consumer."

Atticus then distributed a current news article to support this point; recently a young woman from Gainesville, Georgia had been struck by a car in Italy and had been in a coma since the accident. She remained in Italy, largely because she did not have any kind of insurance and her family could not afford the high cost of chartering a flight to bring her home to continue her treatment (Exhibit 1).

Sam and Claude realized that in order to effectively reach this largely untapped market, they needed to identify promising avenues to pursue large numbers of young travelers. Immediately, college and university study abroad programs came to mind. Group sales had been a growing segment of AAC and currently comprised about 30 percent of total sales. Ideally, Sam and Claude wanted group sales to be around 40 percent of all AAC sales and tapping in the college and university market could provide a boost to the group sales percentage to get it into the target range. However, Sam and Claude did not want group sales to comprise more than 40 percent of their customer base because they did not want to become overly reliant on a handful of large clients.

AAC had a small staff that did not include any full-time salespeople; the only salespeople AAC had employed were in a contract capacity. Sam realized he had to look hard at potential additional staffing needs to successfully enter this new market. Without a salesperson dedicated to breaking ground in this new market, would AAC have the time and manpower to make a foray into the college and university market worthwhile? Having noted that any position he created would be a 100 percent sales position, Sam had to determine how they would go about recruiting a salesperson that would meet the needs of their growing small business. Additionally, there was the issue of how they would go about compensating a salesperson dedicated to this market.

Now that Sam and Claude had identified a market to explore, they charged a team of marketing consultants to test the waters of this potential new market, conduct a competitive analysis, and learn about the study abroad programs at several universities.

AIR AMBULANCE CARD'S COMPETITORS

With a new target for group sales in mind, Sam and his business team knew they had to move quickly if they wanted to gain a competitive advantage over rival medical evacuation companies. Though AAC had only two main direct competitors in the medical evacuation membership business, both competitors were located in the immediate proximity of AAC's headquarters. MedjetAssist and AirMed, both Birmingham based medical evacuation providers, offered comparable, although not identical, services to AAC.

However, the pricing details and policy stipulations of each company were somewhat different. All three companies offered student rates at the time for similar prices, but Sam and his partners believed they had a competitive advantage in the fact that AAC had recently begun offering a new semester rate, which would provide students a more affordable option than having to purchase a full year plan. Still, despite these facts, Sam and the rest of the AAC team wanted to find a way to accelerate the growth of group sales, especially among student travelers. Sam needed to devise a plan on how to go about capturing the university market before his competitors captured large market shares in this potentially lucrative market. After doing some quick research, he noted his closest competitors latest advertised prices (current as of July 1, 2010).

Air Ambulance Card® Student Rates

$295 Semester—6 Month Continuous

$495 Full Year—1 Year Continuous

AirMed® Student Rates

Student Away Rate — $400 (up to one full year)

MedJetAssist® Student Rates

$250 Individual—(no longer than 20 consecutive weeks)

$420 Extended Stay Rate—(180 days)

$520 Extended Stay Rate—(270 days)

$655 Extended Stay Rate—(365 days)

Sam noted that these rates did not reflect that discounts could be applied to groups buying a large number of memberships. AAC was willing to offer modest percentage discounts to groups or organizations that purchased a large number of memberships together.

SCHOOL RELATED TRAVEL

Traveling was a must for nearly all colleges and universities. Throughout the course of each school year, universities across the nation sponsored multiple forms of student travel, whether through athletic teams, clubs, or other various organizations. Faculty and students often attended conferences at various locations, including other universities around the world, and academic groups such as debate teams and Model United Nations clubs traveled for competitions and other events. Although there were many components of university travel, study abroad programs involved the largest numbers of students and faculty traveling the longest distance away from home for the greatest length of time.

According to the Open Doors 2009 report, which was published annually by the Institute for International Education, the total number of students who traveled abroad during the 2007-2008 academic year was 262,416. This was an 8.5 percent increase from the previous year's then record number of 241,791 students. In the ten year span between the 1996-1997 and 2006-2007 academic years, the number of U.S. students traveling abroad increased nearly 150 percent. Roughly 40 percent of students who went abroad did so for a semester or quarter. Female students made up 65 percent of the participants, while men comprised the remaining 35 percent. Of the region that students traveled to, Europe was the most popular with 56 percent of students traveling there. The second largest, Latin America, hosted a total of 15 percent. Next was Asia with 11 percent. Oceania (Australia, New Zealand and South Pacific Islands) hosted 5 percent, while Africa also had 5 percent. While large colleges sent the greatest number of students abroad, it was smaller institutions that sent a larger percentage of their students abroad.

The market for services that targeted students going abroad had grown quickly and continued to show promise of continued growth. Furthermore, the recent introduction of the Senator Paul Simon Study Abroad Foundation Act was geared toward supporting the growing trend of studying abroad; this piece of legislation was an initiative to expand study abroad opportunities for U.S. undergraduates. It aimed to, in the near future, send 1,000,000 U.S. students to study abroad each year (equating almost a quarter of the national undergraduate student population). The potential for this market was promising and the market was attracting an ever increasing number of businesses offering goods and services to cater towards this growing segment of young travelers.

POTENTIAL TARGET SCHOOLS

In order to get a better idea of the receptiveness of colleges and universities of ACC, five schools in the Southeastern U.S. were surveyed. Three of the college campuses were in the same metropoli-

tan area as ACC and offered the opportunity to pursue sales "in their own backyard."

Samford University, a private college located in Homewood, AL, just south of Birmingham was a relatively small school that had an enrollment of 4,658 students as of Fall 2009. Samford students hailed from 40 different states and 17 different countries. Many students chose to attend Samford because of the diverse academic offerings at the school; Samford boasted 138 degree programs at both the undergraduate and graduate levels.

Another small private school just three miles west of Birmingham's center was Birmingham Southern-College (BSC). As of Fall 2009 BSC's enrollment stood at 1,400, comprised primarily of undergraduate students, although the school offered a handful of graduate degrees. BSC drew their student body from 30 different states and 8 countries.

Another school located in Birmingham was University of Alabama at Birmingham (UAB). UAB was a much larger public state university that had 16,874 enrolled students as of the fall of 2009. UAB routinely attracted students from all 50 states and over 100 countries around the globe. One top reason that UAB was able to attract such a globally diverse student population was because of UAB's world class medical school and other healthcare training and research programs.

Other schools AAC chose to study were Lipscomb University (Nashville, TN) and Southern Methodist University (Dallas, TX).

Samford University

Samford offered several summer study abroad programs that carried students across much of Europe, The Middle East, Africa and Asia. During the 2010 summer term, Samford had ten different programs that carried students around the globe for up to nine weeks. During the fall and spring terms at Samford students had the opportunity to travel to London for classes or internships as well as academic opportunities in a host of other locations. Although many students enjoyed taking advantage of semester long opportunities, there are many more students that participated in shorter term trips by studying abroad during Jan Term. (Jan Term was a short three week academic term in between the fall and spring classes.) Overall, approximately 10 to 15 percent of Samford students studied abroad at some point during their time at Samford.

Of the thousands of students and faculty that have participated in Samford Study Abroad over the past 25 years, only two had to come home because of being sick or injured- one student and one faculty member. In order to help protect the students while traveling, Samford offers a supplemental insurance policy that students can choose to purchase. This policy is administered by Cultural Insurance Service International, the leading provider of study abroad and international student insurance coverage. Although the policy has a number of benefits, there are no provisions that allow for an insured person to be transported to the hospital of their choice if they are injured while studying abroad. Samford's study abroad director was under the impression that the policy they currently offered did include those provisions.

Birmingham-Southern College

Birmingham-Southern College (BSC) was another small private school located in Birmingham, AL. BSC was considerably smaller than Samford and only had 1,400 students enrolled in the Fall of 2009. Despite its small student body, BSC had a diverse offering of study abroad opportunities. Like Samford, BSC also had a short study abroad term during January called Interim Term. Students also had opportunities to study abroad for a semester, a summer, or a year. BSC's Office of International Programs (OIP) facilitated three different categories of study abroad programs, directs enrollment, tuition exchange programs, and faculty-led programs. In direct enrollment the OIP helps coordinate a student's enrollment in a foreign university, and the student pays tuition to that university and a study abroad fee to BSC. Through tuition exchange programs, partner foreign universities host BSC students, while the student still pays BSC tuition rates in addition to a study abroad fee. The faculty-led programs took place only in summer and interim terms, with tuition and fee paid to BSC through enrollment in BSC courses taught abroad. Approximately 15-20 percent of BSC students studied abroad at some point in their college careers.

Regardless of which type of program the student participated in, BSC charged a mandatory

study abroad fee (varying from $250-$650 based on length of travel) that included medical insurance for the traveling student. This insurance plan was administered by HTH International and covers routine and emergency care for the student during the study abroad period. This insurance covers a portion of emergency (life-threatening) medically supervised evacuation costs up to $50,000 in the event that the student could not receive adequate care at their current location, but not for other non-life threatening medical evacuations. The evacuation was not necessarily back to the United States, but simply to the nearest adequate facility, with additional transport home provided after stabilization only if the attending physician signed off on its medical necessity. It was interesting to note that in the parents section of the OIP website, AAC was advertised and a link to their site provided. AAC and competitor MedJet were also mentioned in the travel section of the student study abroad handbook (see Exhibit 3).

University of Alabama at Birmingham

University of Alabama at Birmingham (UAB) also had a program that allowed students to study abroad called Study Away. Study Away allowed students to either take a particular class or classes taught by UAB faculty that involved travels to a particular country or study abroad on their own at another school or university and transfer credits back to UAB. UAB reported that between 1 and 3 percent of its students usually partake in the Study Away program at some time in their collegiate education. While this number may seem small in comparison to other schools, it must be remembered that UAB had the largest enrollment (nearly 17,000 students), and the number of students from each graduating class who have traveled abroad can range between 168 and 500. Study Away's faculty-led programs lasted no longer than a summer term and could be as short as ten days. The inclusiveness of costs varied with each program, but all lodging, transportation costs to scheduled visits, and entrance fees are included in the program's cost, while meal costs could differ. Faculty-led programs could range in price from $2,000-$7,000, but this included budgeting for all costs and tuition hours. The Study Away office made all arrangements for its programs, whether they were UAB administered or directed via a partner institution. Students had access to budgeted airfare, but were responsible for booking their own flights.

Within the past five years, no participant in the Study Away program suffered serious injury or illness which required medical evacuation back to the United States. However, this is not to say that students did not get sick or require hospitalization. In cases of injury or illness, UAB handled each incident case by case depending on its severity. Most cases were handled in local hospitals or clinics. In the case that a student does need to be evacuated from a foreign country, they are covered under a blanket insurance policy purchased by the university. This coverage comes at no extra cost to the students or faculty and covers medical evacuation, repatriation of remains, and accidental death or dismemberment. However, at the time UAB was possibly considering new medical evacuation avenues, but these decisions would need to be made by the Risk Management Department, not the Study Away Office itself.

Southern Methodist University

Southern Methodist University (SMU), located in Dallas, Texas, offered a diverse study abroad program, known as SMU Abroad, to its student body. With opportunities to study in Latin American, the Caribbean, Europe, the Middle East, Africa, and Asia, many students took advantage of the diverse offerings of SMU Abroad. SMU's graduating class of 2010 had a 35 percent participation rate in study abroad programs. SMU Abroad offered semester, year, spring break, and summer programs. These programs ranged in length from one week to one year.

All SMU semester programs abroad were equal in cost to the SMU Dallas campus, with 12-18 term credit hours costing $16,520. Summer programs vary in cost, as the duration for each program is different. Program fees included tuition, fees, health insurance, and study trips. Summer programs were faculty-led; therefore travel was scheduled according to the professor's agenda and course materials. For semester programs, SMU had partnerships with host institutions that organized study tours. Similar to BSC's policy, SMU students who went abroad were required to have HTH travel insurance. Likewise, the policy covered routine and emergency care for students during the study abroad period. This insurance covered a portion of emergency medical evacuation costs up to $50,000, but did

not cover other non-life threatening medical evacuations. Students were provided a benefits pamphlet which detailed what HTH covers and the limits. Procedures to follow in the event of a medical emergency were outlined for the students in the provided pamphlet.

Lipscomb University

Lipscomb University was a private Christian school in Nashville, Tennessee. In the Fall of 2009 they had an enrollment of 3,050 students and operate a small, but growing study abroad program through the Office of Global Learning. As of July 2010 they had a flagship study abroad center that they owned and operated in Vienna, Austria with plans for a second center to open in Santiago, Chile in Spring 2011. Additionally there were several shorter trips led by Lipscomb staff members offered during spring break, winter holidays and other school holidays to a rotating selection of locations including France, Mexico, and China. Lipscomb also offered study abroad opportunities through the Council of Christian Colleges and Universities to a variety of sites worldwide for terms ranging from a few weeks to an entire academic year.

Lipscomb students were required to purchase travel insurance and/or an STA Travel Card (which offered a limited form of travel insurance), but the decision of providers for additional insurance is left up to the student. At the time, Lipscomb University does not make specific recommendations or require students to purchase a certain level of coverage in travel insurance that included medical evacuation. Lipscomb did not have plans to mandate a certain insurance provider to their students, and the program was rapidly gaining popularity among the student body and was constantly expanding to serve new locations and more students.

CONCLUSION

A month after the initial meeting, Sam sat down to read the report presented to him by his team of marketing consultants. As he studied their findings, several things became clear to him. The issue of education was just as important as he initially imagined it would be; many college and university program directors seemed unsure of exactly what kind of coverage they offered or what level of coverage they thought was necessary to best protect their students. The question remained, was this a promising market to enter? How important was it to move quickly before their immediate competitors attempted to create a focused effort to targeting this market? If AAC decided to make a move in the college and university market, what were some ways to market the AAC membership to potential new clients? What selling points would make AAC attractive and should be emphasized to students, parents, and school program officials? Would AAC need to hire a dedicated salesperson to focus on this market segment; if so, how would he or she be compensated?

EXHIBIT 1
Gainesville Family Struggles to Get Comatose Daughter Home from Italy

Updated: Monday, 14 Jun 2010, 8:09 AM EDT
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By KAITLYN PRATT/myfoxatlanta

GAINESVILLE, Ga. - A Gainesville family is struggling to get their loved one home from Italy. She's been in a coma for months after being struck by an accused hit and run driver. Julie Bryan's family checks on the 23-year old each day - over the phone. She's in an Italian hospital bed thousands of miles away from her Gainesville home. Bryan has been in the hospital since March. Italian investigators say the driver of a car struck her as she stepped off a street curb in Rome and kept going. He has since been arrested. A relief - her family says. But their focus on her health hasn't wavered.

"But the worst of it is the traumatic brain injury she had. She's been in a coma ever since," said Brandon Sullins, Julie Bryan's brother. Her sister, Amanda Jones, said, "Everything's healed. The brain injury will stay there, but we don't know what kind of damage she will have at all."

Julie's mother - Lisa Sullins- has been in Rome since the accident. She says her daughter didn't have health or travel insurance. "She was accepted to graduate school at Boston College but decided to take the year in between. During this year she did not obtain health insurance on her own. I can't blame anyone except

Julie herself. But a lot of young people don't think that way," said Lisa Sullins.

The family is now trying to arrange for Bryan to get out of the hospital and into a rehabilitation center. That's the tough part. The cost for space on a commercial flight home to Atlanta is about $20,000 dollars. "She's not progressing at all where she is. She needs to be moved around, she needs to be talked to," said Jones. Brother Brandon Sullins is a medic. He's hoping to escort Julie home. "I want her here. So I can understand what the doctors are telling me," said Brandon Sullins.

Several Hall County businesses have made donations to help get Julie home: "She physically has to come to my house because I haven't been able to get Medicaid approved for her. So there is not a nursing home or rehab hospital that will accept her once she's back," said mother Lisa Sullins.

They don't want other families to experience the frustration and helplessness they do."It needs to be part of the Visa process. If you are being accepted into another country it should be mandatory insurance is in place," said Lisa Sullins. They're now organizing some fund raisers to help pay the flight and healthcare costs. As far as Julie's prognosis is—it's still uncertain. She was planning to pursue her master's degree in psychology this fall.

Exhibit 2
Insurance Benefit Comparison

Insurance Provider	Mandatory purchase of selected/ recommended plan	Associated School	Summary of Medical Evacuation Benefits
CISI- Cultural Insurance Services International	No	Samford University	Reimbursement of costs up to $100,000 Emergency only Evacuated to nearest adequate facility
HTH Travel Insurance	Yes	Birmingham Southern College	Reimbursement of costs up to $50,000 Emergency only, evacuated to nearest adequate facility
HTH Travel Insurance	Yes	Southern Methodist University	Reimbursement of costs up to $100,000 Emergency only Evacuated to nearest adequate facility
STA Travel Card	No	Lipscomb University	Reimbursement of costs up to $250,000 Emergency only Evacuated to nearest adequate facility, Non-emergency transportation home if physician recommended
None	N/A	University of Alabama at Birmingham	N/A

EXHIBIT 3
Existing Promotion of Medical Evacuation Services at Birmingham Southern College

Excerpt from Student Study Abroad Manual

2. Insurance

The mandatory BSC Study Abroad Insurance is covered by the study abroad fee. This plan, administered by HTH Worldwide, covers routine and emergency care for the period of time the student is overseas for his or her study abroad program. In an emergency, the student should go immediately to the nearest physician or hospital and then contact HTH Worldwide as soon as possible. HTH Worldwide will then take the appropriate actions to assist and monitor the medical care until the situation is resolved. If the student is unable to contact HTH

Worldwide, parents may contact BSC, and the Sklenar Center will contact the company. In nonemergency situations, the student should first contact HTH Worldwide; HTH will make an appointment for the student and pay for it. If a student schedules an appointment, he or she should contact HTH with the name of the healthcare provider, so that HTH may prepay for the appointment. In addition to the HTH Worldwide plan (see Appendix 8), an optional medical evacuation plan is offered by Air Ambulance Card (http://www.airambulancecard.com/) or Medjet Assist (http://www.medjetassist.com/) for interested students and parents.

http://www.bsc.edu/academics/oip/handbook/OIP_Handbook-Revisedall..pdf

From "Information For Parents" portion of website

Study Abroad Insurance

All students who go abroad are covered under the BSC Study Abroad Insurance Plan. The mandatory study abroad fee covers this cost, and the coverage can be extended for $1/day.

Though this plan also covers necessary medical evacuation costs, students and parents who are interested in a separate plan for medical evacuation (no medical evacuation necessity requirement) will find reduced costs for BSC students with Air Ambulance Card LLC.

http://www.bsc.edu/academics/oip/study-abroad/parents.cfm

EXHIBIT 4
INSTRUCTOR'S MANUAL CASE USE AND NATURE OF RESEARCH

This case was written to be used in an undergraduate entrepreneurship or marketing course. It was written from field interviews the authors had with Sam Jackson, the entrepreneur in the case, Atticus Romminger, Public Relations consultant to Air Ambulance Card®, LLC, and students, staff and faculty at selected universities and well as secondary research of study abroad programs and travel insurance providers.

CASE ABSTRACT

Air Ambulance Card® (AAC), a medical evacuation provider located in Birmingham, Alabama was eager to grow their business, particularly in their group sales segment. This case describes decisions facing Sam Jackson, managing director of AAC had to make concerning:

1. Devising strategies for increasing the group sales component of revenue from 30 percent to 40 percent.
2. Determining the viability of aggressively pursuing the college and university travel market.
3. Determining if a new hire is justified serve as a dedicated salesperson to this new target market, and if so, what should his or her qualifications must be and what form compensation should take.

TEACHING SUGGESTIONS

This case can be used over one or two class periods. Students should be instructed to read all case materials and be familiar with the issues at hand before the designated discussion period. In class, the instructor should be prepared to discuss of all discussion questions, but should realize due to the depth of information presented and debate

that might arise among students, that it may be impractical to assume all questions can be thoroughly covered in a single class period.

LEARNING OBJECTIVES

1. Discuss whether the potential exists for business expansion into the college and university travel market.
2. Discuss strategies for conducting market research.
3. Identify and discuss different approaches for entering this new market.
4. Identify target audience(s) for purchase of the student travel memberships.
5. Brainstorm potential marketing strategies that AAC can employ with a limited advertising budget to reach their target audience.
6. Identify other potential markets for group sales.
7. Discuss the effects and considerations of staffing expansion in a small business atmosphere.
8. Determine how best for AAC to align compensation of a potential new dedicated sales representative to business goals.

DISCUSSION QUESTIONS

Question 1

What factors should AAC consider in deciding whether or not to enter the student travel market?

Factor 1- Is AAC's service needed?

In the process of interviewing the directors of several study abroad programs, both in Alabama and out of state, the coordinators were under the impression their schools offered some form of medical evacuation insurance in the study abroad insurance policies. However, after examining the of policies and procedures of the schools in this case study, it was found that policies did not offer the same level of care and services that AAC does. Given the fact that university staff and faculty focus mainly on the educational aspects and overall personal growth opportunities of travel within study abroad programs, the safety, health and well-being of the students are often not given the level of attention one would expect. As a result, health issues receive attention reactively instead of proactively. AAC has the opportunity to educate potential clientele on the importance of a medical evacuation membership for students and faculty who are traveling. It is important to create a niche where AAC membership is relevant, valued and of a great deal of importance to target consumers.

Factor 2- Additional Liability

There is no doubt that college students are more risk averse and partake in activities that pose a lot of risk. However, college students are less prone to engage in risky activities when traveling with school related activities. The more reckless activities are engaged in more frequently when students are traveling without supervision (i.e. spring break trips without parents). Additionally, students are less susceptible to health related problems than older clientele. Noting that college students are risky, the potential growth that this market poses outweighs the risk. Additionally, it was also noted in the case that at Samford, only two people (a student and a faculty member) have had to come home in twenty years of studying abroad.

An "A" student might additionally point out the fact that more information may need to be obtained before entering the market.

Noting that there are thousands of universities throughout the country, AAC may consider researching more universities. Additionally, they may consider setting up a test market at certain universities in order to gain more detailed information. Being armed with a wealth of information before entering a new marketing could prove to be a key component to AAC's success in this market.

Question 2

What education issues does Air Ambulance need to address if they decide to enter this new market? What are some ideas on how to combat these issues?

The average student should recognize at least two of three groups of people that AAC should con-

centrate on educating and brainstorm at least one idea on how to educate those groups.

"A" students should correctly identify all three groups and detail reasons why these groups must be educated and brainstorm at least three ideas on how to coordinate education efforts.

1) Study Abroad Coordinators

Coordinators of study abroad programs believed the travel insurance programs they recommended/required met the needs of their students. As a whole, university study abroad programs believed their insurance covered some form of medical evacuation, but none knew the details of the coverage. However, upon examining the details of the policies, no school offered insurance that offered an equal or better care than Air Ambulance Card® offers. Coordinators have many different responsibilities, and often face on the educational aspects of their programs and are not as focused or knowledgeable about how to best ensure the safety, health and well-being of students. As a result, these issues are often given attention reactively instead of proactively.

2) Students

University students are another group of individuals who must be educated, since young adults have the lowest rates of insurance in the United States. Some reasons for young adults not carrying even basic medical insurance were outlined in the course reading. If individuals do not have basic coverage, it will be difficult to convince them of the value of AAC's membership program.

3) Parents

University students are often still financially dependent to some degree on their parents, so parents may be the group actually paying for the AAC membership. Many parents are greatly concerned for their child's safety at college, especially when their child is traveling across the globe or even simply attending college out of state. Parents, often being the financial decision makers in a student's study abroad trip and keenly aware of risks international travel poses, would likely respond positively to education efforts by AAC. Parents would also likely respond to testimonials about the benefits of the service.

Some Suggestions for Education Efforts

Direct mail piece to parents at targeted universities.

1. AAC informational piece distributed at university orientations/study abroad fairs
2. Hosting an information booth with AAC representative at selected university student centers.
3. Arranging to speak to students/faculty in information study abroad information sessions.
4. Partnering with universities to include AAC information in selected school mailings.
5. Make information available at study abroad offices.
6. Having a presence at the Birmingham National College Fair (or other regional and national college fairs)

Question 3

What methods should AAC consider using to market its services to the study abroad market?

Sales Staff—AAC could hire a salesperson that can go directly to the colleges and universities to promote and sell its products in group form.

Internet—AAC could promote itself on the internet. With many young college students being very computer and internet savvy, one of the first things they are going to do when they want to study abroad is do some research on the internet. AAC could advertise on study abroad websites purchase Google search term ads to ensure customers searching for "study abroad travel" or "study abroad insurance" see AAC. Since AAC already relies heavily on their website to drive interest and education of consumers, expanding internet marketing efforts seems a logical next step.

Marketing Brochures—It is always important to have a good marketing brochure that can catch potential customers' attention. Creating brochures and other basic marketing materials would allow AAC to have something that they could easily hand out to prospective buyers. It would also allow students to have something

to give to their parents if the parent wanted to know more about the product. The brochures should help establish the AAC brand and convey the company message through text and pictures. Quotes from national press mentions of AAC or testimonials of satisfied customers in addition to clear and concise description of the service and pricing options would be key components of AAC marketing materials.

Form Partnerships—Lobby to become "official medical evacuation provider" to specific universities. Persuade colleges to include your brochures in student mailings and mention AAC on university study abroad websites and informational materials.

Engage Students— Establish AAC presence at college, orientation or study abroad fairs. Offer prizes to collect student contact information.

Social Media—Increase social media presence to engage younger consumers.

While average and "A" students will both give you answers listed above, an "A"

student will more than likely tell you why you need multiple marketing approaches.

As successful business leaders and salespeople know, often a sales approach must be tailored to individual clients when marketing their product or service. Depending on the customer's familiarity with the product and their current situation, AAC should be able to market its product in a variety of ways. Different types of customers shop for products in different ways.

Question 4

Other than the study abroad market at universities, what other avenues could AAC pursue for group sales?

Just like study abroad programs at colleges and universities, sports related travel takes a large number of students to away games and tournaments every year. Large state schools like Auburn will no doubt have a much larger athletic department than a school like Samford. However, each school takes pride in its athletes, and if one of them is critically injured, a service like AAC could help get them home to a local hospital. Knowing this, athletic departments at schools could serve as a potential market for AAC to sell its product.

Other than colleges and universities, AAC could consider groups outside of colleges and universities. Dozens of groups that travel outside the United States for service related trips.

Every year, churches (and many student groups from religiously affiliated colleges and universities) take people on mission trips to third world countries. When traveling to third world countries the people traveling there do not want to be hospitalized. Noting this, AAC could pursue avenues such as these to increase group sales.

An "A" student might add make some of the following points, recognizing that partnerships are important in many avenues of business.

Given that a lot of universities have supplemental insurance policies for students and faculty that travel and study abroad, Air Ambulance Card should consider partnering with the insurance companies that provide the supplemental insurance policies for those students. By pursuing insurance companies rather than universities, Air Ambulance Card can partner with the insurance company, which already has a relationship with the schools because of the polices it sells to them. This approach is considered as the back door approach. Rather than try to go to the universities directly, ACC would go to the insurance companies who already sell to the universities and know the decision makers there. This would eliminate the step of AAC having to build relationships with multiple universities and let them focus on encouraging the insurance companies to included AAC's service into the supplemental insurance policies that it sells to colleges. It would further allow AAC to reach markets outside of Alabama and the Southeast much easier.

Question 5

If AAC decided to pursue the college study abroad market, describe the ideal candidate and how he or she should be compensated?

Average students and "A" students should both be able to list the traits listed below. The "A" student will respond with a more detailed reason why these qualities are desirable in a salesperson. An average student will not give as much detail in their response. An "A" student's response would have similarities to the job description below:

Title:
Group Sales Associate

Department:
Sales, reports to Managing Partners

Overall responsibility:
Grow and maintain Air Ambulance Card memberships in the group sales segment. This job's initial primary focus is generating demand in the college and university market

Key areas of responsibility

- Serve as contact for all group sales transactions
- Research target colleges and universities, develop customized strategies for pursing individual schools
- Develop relationships with school administration, particularly in an institution's study abroad office
- Develop sales presentations targeted to three different audiences: students, parents and university officials
- Search for and pursue additional opportunities to expand and optimize Air Ambulance Card's group sales segment

Required Education and Experience

- Bachelor's degree in any field
- 3+ years of sales experience
- Excellent written and verbal communication skills
- Comfortable using Microsoft Work, PowerPoint, Excel, Outlook, as well as Adobe Products

Applicant Should

- Possess excellent time management skills
- Be aggressive, consistent and committed
- Be highly motivated under minimal supervision
- Have polished and professional presentation skills
- Previous experience in school administration helpful
- Knowledge of international travel market helpful

This position is based in Birmingham, Alabama. This position involves approximately 25 percent travel; initially travel will be throughout Southeastern United States. This position offers 100 percent commission compensation, with salesperson receiving 20 percent commission on new sales, and 10 percent on renewals.

As far as compensation, the job should be commission based. This is how many sales jobs compensation is structured. This structure would help protect AAC from unnecessary expense of paying a set salary if the market for their service in colleges and universities is not as strong as anticipated. If AAC becomes firmly established and finds success in this market, compensation structure could be revisited to help attract and retain sales talent.

Question 6

What of these five schools should AAC choose as its first school to target and why?

This question is intended to foster discussion and there is not one answer that all students should necessarily reach. Most students will likely recognize that SMU and Lipscomb are not logical points of entry into the market because of their geographic distance from AAC headquarters. Students will be left to debate the merits of approaching Samford, UAB or BSC first. After reading the case, students should recognize that there exists the possibility of making sales to each of these schools, although the sales approach would likely have to be customized for each program. Some students will point out that UAB's size and absence of any recommended travel insurance plan will make it a likely first target. Others will point out that Samford, with a large study abroad program in a smaller school setting may be easier to approach. Students may make the same argument for BSC, but may be reluctant to recommend it over Samford due to the difference in size limited potential sales. They might also be reluctant to recommend BSC because the information about AAC product is already included in study abroad materials for students and parents.

"A" students should recognize some other, more subtle issues that may affect AAC's choice of first entry school. SMU and Lipscomb need not be discounted solely on distance if the decision to hire a salesperson is made. If reasonable arguments can be made that either of these schools offer the highest potential, distance should not be a deciding factor. UAB's lack of recommended program may appear to make them a logical first target, but that may speak to a lower level of organization in the program, which could make a sales effort more difficult. "A" students may also pick up on the fact that Samford's study abroad program is misinformed (and therefore may be misinforming students) as to the level of service their current insurance option provides, providing a possible avenue for entry through education. "A" students will likely realize that BSC's awareness of the AAC service may make it a more enticing first entry option. Awareness of the service may make it easier to form relationships with BSC study abroad faculty, staff and students, and efforts can then be made to expand existing information levels about AAC at BSC.

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How Strategic are Information Systems in the Organizations at Kingdom of Bahrain

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ABSTRACT

The Information Systems has the potential to be the major driver for economic wealth in the twenty first century. In addition to improving organizational efficiency and effectiveness, IS are playing more strategic roles in building and sustaining the organization competitive advantage. In fact, the IS core competencies are becoming increasingly important to implement competitive strategies. Therefore, organizations need to be prepared to integrate and incorporate IS in a strategic way to promote such competitiveness. Therefore, the aim of the current research is to help the organizations at Kingdom of Bahrain to identify to what extent their information systems are strategic and are impacting their competitive advantage. To achieve this aim, three objectives have been set: 1) identifying the IS stages of maturity in the organization, 2) investigating the relationship between the different IS stages of maturity and the adopted IS strategies and their impact on the organizational performance, and 3) examining the alignment between IS stages of maturity and the adopted IS strategies and the impact of this alignment on the organizational performance. IS strategy was assessed using Chan et al. (1997) STROIS dimensions and the descriptions of Nolan's (1979) IS stages of maturity model was adopted to determine the organizations level of IS maturity. The research findings revealed that most of the organizations at Kingdom of Bahrain are in the data administration and integration stage of maturity while none of the participated organizations were founded to be in the maturity stage. Moreover, the results show that there is an existence relationship between the IS stages of maturity and the adopted IS strategy and that both of them have a strong impact on the organizational performance. The results therefore, demonstrate that the organizations at Kingdom of Bahrain are utilizing IS effectively and reaping most of the benefits offered by their IS.

INTRODUCTION

The Information Systems (IS) has the potentia to be the major driver for economic wealth in the twenty first century. In addition to improving organizational efficiency and effectiveness, IS are playing more strategic roles in building and sustaining the organization competitive advantage (Marthandan and Meng, 2010, Burn, 1991). In fact, the IS core competencies are becoming increasingly important to implement competitive strategies. The new roles of IS have been widely recognized by researchers and business communities. Therefore, organizations need to be prepared to integrate and incorporate IS in a strategic way to promote such competitiveness (Kanungo et al, 1999, Marthandan et al., 2010). Despite the strategic importance of IS, many organizations are adopting IS for automation and efficiency purposes at the functional and operational levels of management (Burn, 1991). Some organizations have overlook most of the competitive opportunities supported by the IS (Burn, 1991). They are paying no attentions to the IS opportunistic role due to many reasons include: the top management technical perception of IS, the lack of instruments to assess and evaluate the return on the IS investment, and the misalignment between IS strategy and the overall corporate objective (Burn, 1991). Therefore,

there is a need to review what the organizations are currently attain by adopting the IS internally and externally (Sixsmith, Culjak, 2005).

Organizations at the Kingdom of Bahrain, which is one of the Arabian Gulf countries, are placing little emphasis on the importance of IS to the overall business objectives. While in some organizations the IS professionals often are aware of management in order to produce relevant information for the managers they serve, it is sometimes hard for the top managements to recognize the business needs and the information required. These organizations need to make a distinction between the technical and strategic perspectives. Karim (2011) has conducted a study on the banking sectors at the Kingdom of Bahrain to encourage the top management in this sector to participate in enhancing IS and make an effective contribution to their design. He demonstrated that there is a need for a proper orientation to be conducted in order to help managers at all levels to ensure appropriate and adequate use of IS facilities in generating and disseminating information for better decisions in the banks (Karim, 2011). Moreover, MIS/IT units should be adequately maintained to ensure a free flow of information and adequate use of IS in the strategic planning (Karim, 2011). Therefore, the aim of the current research is to help the organizations at Kingdom of Bahrain to identify to what extent their information systems are strategic and are impacting their competitive advantage. To achieve this aim, three objectives have been set: 1) identifying the IS stages of maturity in the organization, 2) investigating the relationship between the different IS stages of maturity and the adopted IS strategies and their impact on the organizational performance, and 3) examining the alignment between IS stages of maturity and the adopted IS strategies and the impact of this alignment on the organizational performance.

Nolan's IS stages of growth (Nolan, 1979) and Galliers and Sutherland (1991) revised model were used to identify the level of IS maturity in the organizations. Nolan's model is considered to be one of the most influential, best-known and probably the first in the IS area that attempts to describe and characterize the growth and evolution of IS in organizations (Damsgaard and Scheepers, 2000). According to Nalon (1979), IS in any organization can pass through six stages: initiation, contagion, control, integration, data administration, and maturity. Each stage of growth in the Nolan's model can be characterized by the attainment of specific features related to various issues of IS use and management in organizations. Galliers and Sutherland (1991) however, proposed the "seven Ss" model for identifying the IS stages of maturity in organizations. The model analyses the stages of IS growth in organizations with respect to seven key elements "seven Ss" that were derived from Pascale and Athos (1981) and were used in the analysis of organizational processes and management. The seven Ss are: Strategy, Structure, Systems, Staff, Style, Skills and Super-ordinate goals. Each element represents an important aspect of the way that the IS function might operate at different stages of growth.

On the other hand, the current study focus on the realized IS strategy, which is the part of the planned or intended strategy that has been achieved and pursued by the organization (Mintzberg, 1994). Realized IS strategy focuses on the information systems or business applications of IT, and it concentrates primarily on aligning those applications with business needs to derive strategic benefits (Earl, 1989). Chan et.al. (1997) developed and validated an instrument to measure realized IS strategies by emphasizing IS applications and determine the way in which IS support are used by an organization to provide support for business strategy. Their instrument is named STRategic Orientation of Information Systems (STROIS). Those orientations are: IS support for the Company's Aggressiveness, Analysis, Defensiveness, Futurity, Pro-activeness, Risk Aversion, and Innovativeness. STROIS is a useful approach for measuring a realized IS strategy.

RESEARCH MODEL AND HYPOTHESES

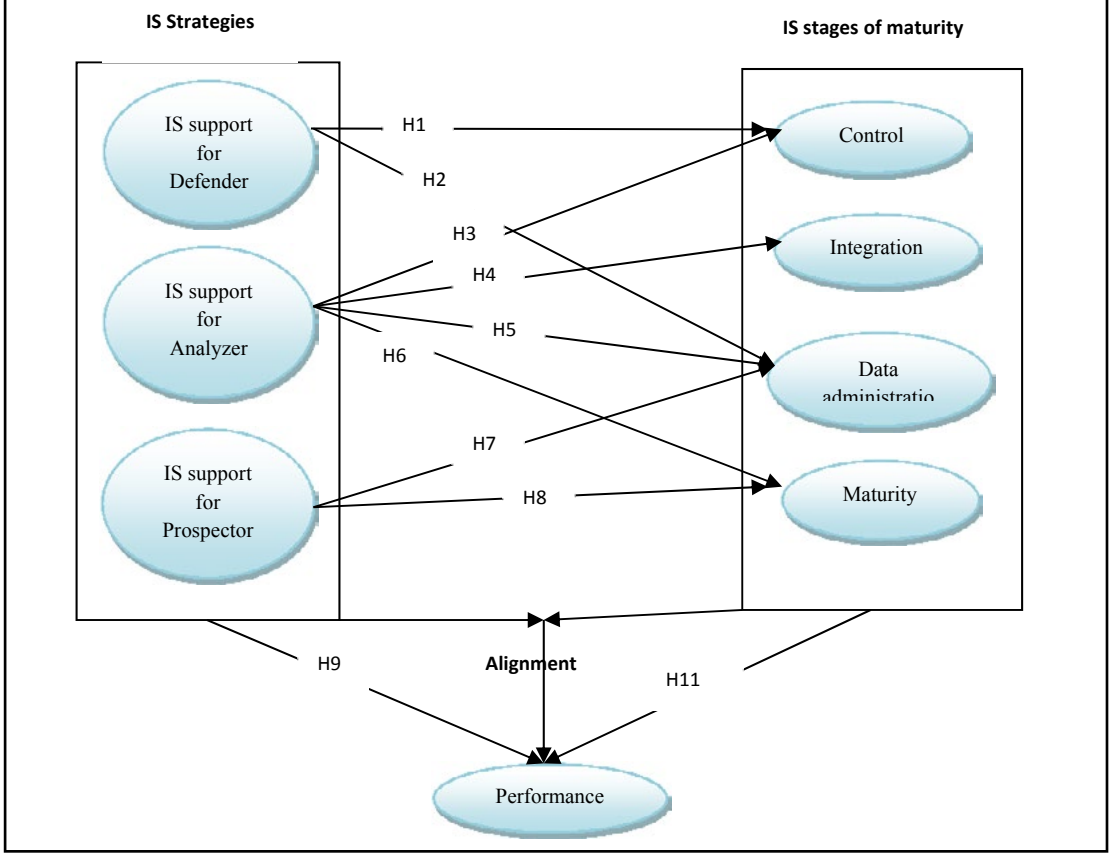
Research Model

To achieve the objective of the current research a conceptual model was developed as depicted in Figure (1). The model focus on

the relationship between IS stages of growth (Nolan, 1979) and IS strategy (Chan et al., 1998). Moreover, the research model illustrate that different IS strategies are associated with different level of IS maturity and that the alignment between them contribute to organizational performance. In order to set the relationship between Chan et al. (1997) and Nalon (1979) IS stages of growth; there is a need to synthesizing some of the previous researches on these models. Sabherwal et al (2001) have developed an ideal profile that relates Miles and Snow's (1978) strategies with Venkatraman's (1989) business strategies. Based on their result, defender of Miles and Snow (1978) found to be best matches Venkatraman (1989) defensiveness, risk aversion and futurity strategies. Prospector strategy, however, has been shown to best match aggressiveness, innovativeness and pro-activeness strategies. Additionally, they considered that Miles and Snow's (1978) analyzer strategy to be related closely to Venkatraman IS support for analysis.

Al-Ammary (2008) on the other hand, has identified a strong relationship between Miles and Snow (1978) generic business strategy and Chan et al. (1997) generic strategies for IS. Based on her findings IS support for defensiveness, risk aversion and futurity strategies share the attributes of defender strategy while IS support for pro-activeness, innovativeness and aggressiveness have a common attributes of prospector strategy. Consequently, and for the purposes of the current research, Chan et al. (1999) IS support for company aggressiveness, innovativeness and pro-activeness are considered to be IS support for prospector company. IS support for company defensiveness, risk aversion and futurity are considered to be IS support for defender company. Moreover, Chan et al. (1999) IS support for company analysis is considered to be IS support for company analyzer.

Figure 1
Research Model



Research hypotheses

The research hypotheses concerning the relationship(s) between Chan's IS strategies and the various stages of IS maturity will be derived based on the available literature regarding porter's generic business strategies (Porter, 1980), Miles and Snow topology (1978), Vennkatraman's (1989) business strategies, Chan's (1997) STROIS model for IS strategies and Ward's (2009) work. The relationship between the IS maturity level and the adopted strategy for IS on organization has been revealed by many researches (Ward, 2009; Karimi et al. 1996). Karimi et al. (1996) has found that the degree of IT integration within firms is a primary determinant of firms' willingness to use IT as part of their strategic response to globalization. The results moreover, suggest that the new competitive strategies will be increasingly technology-based global initiatives that are affected by the firms' IT maturity (Karimi et al., 1996). Ward (2009) in addition, suggests that there is a logical relationship between Parsons generic IS strategies and the various stages of IS maturity. For instant, monopoly and scarce resource strategies tend to be successful adopted strategies for the organization in the control stage of maturity since they provide the necessary budget controls needed for this stage. Moreover, Ward (2009) has identified a default relationship between Parsons' (1983) generic IS strategies and Porter's Generic business strategies in which several IS strategies have been related to a given business strategy.

The alignment between the IS strategy and IS stages of maturity

IS support for defender company is adopted to defend organizational IT and market position by helping the origination in maximizing the efficiency of the business operation (Chan, 2001). Such strategy is characterized by its defensive behavior that rely on cost reduction and efficiency seeking methods (Venkatraman ,1985 and 1989). IS support for defensiveness supports the current situation to support the organization conservation decision making and the orientation aims at providing the organization with the information they need to minimize business risk (Ragu-Nathan et al., 2001). It is also helping the organization in developing medium and long term measurements of IS achievement and tracking significant future trends in IT (Chan, 2001). To succeed in such strategy, cost control systems, standards and procedures are required along with the usage of project management techniques. Such characteristics are clearly apparent in two stages of IS maturity, namely: control and data administration. While the initiation stage implies the usage of several applications mainly to assist in saving costs, it's unlikely that IS support for defensiveness, risk aversion and futurity strategies to be located under this stage since it's an outdated one that does not have the needed skills, experience and resources (Nolan, 1979) to allow the organization to pursue a defender or cost leadership strategy. Moreover both contagion and integration stages imply the absence of cost reduction methods and an uncontrolled growth in the IS expenditure (Nolan, 1979). So it's unlikely for an organization that pursues IS support for defender company to be adopted in those stages. Additionally, as the maturity stage implies a balance between efficiency and effectiveness and seeks to develop new IT-based products and services (Galliers and Sutherland, 1991) rather than preservation of the organization's own products, markets and technologies, so it would expect that such strategy can be located at a lesser extent in this stage. Accordingly, the following hypotheses were proposed:

H1: Organizations with an IS rely in the control stage of maturity should best adopt IS support for defender company

H2: Organizations with an IS rely in the data administration stage of maturity should best adopt IS support for defender company

IS support for organizational analysis need to carry out detailed analysis of the major business decision and present situation (Chan, 2001). IS support for Analyzer Company reflects the overall problem-solving behavior and the tendency to search deeper for the roots of problems, and to generate the best possible solution alternatives (Venkatraman, 1989). Accordingly, this strategy emphasizes an effective coordination among different

functional areas, relies on planning techniques, and uses the outputs of management information, control, and decision support systems (Venkatraman, 1989). Consequently, four stages of IS maturity are expected to support such strategy, they include control, integration, data administration and maturity. Moreover, IS support for analyzer company is considered as unsuitable IS strategy to be adopted for organization that are in the initiation or contagion stages. In both stages there is a clear absence of coordination between the various organizational units and an obvious lack of systems needed to support such strategy. Accordingly, the following hypotheses were developed:

H3: Organizations with an IT rely in the control stage of maturity should best adopt IS support for Analyzer company

H4: Organizations with an IT rely in the integration stage of maturity should best adopt IS support for Analyzer company

H5: Organizations with an IT rely in the data administration stage of maturity should best adopt IS support for Analyzer company

H6: Organizations with an IT rely in the maturity stage of maturity should best adopt IS support for Analyzer company

In order to be proactive in seeking new opportunities, introducing new brands or products ahead of competition, and participating in emerging industries (Miles and Snow, 1978), organizations need to perform a substantial environmental scanning, develop and implement strategic systems that provide a competitive advantage to the organization and maintain a strong links with the organization's suppliers, customers and government. IS support the prospector company intend to integrate effective and efficient ways to promote IS product innovation then top management and users should involve and interact with the IS in the organization (Chan, 2001). Such requirements cannot be achieved unless the organization is located mainly at data administration and maturity stages of IS maturity. Accordingly, the following hypotheses were proposed:

H7: Organizations with an IT rely in the data administration level of maturity should best adopt IS support for prospector company

H8: Organizations with an IT rely in the maturity level of maturity should best adopt IS support for prospector company

Based on the above discussions on the relationship between the IS strategy and the IS stages of maturity, it can be realized that the organization should adopt and plan for an IS strategy that should support its level of IS maturity in order to achieve its objectives and enhance its competitive advantage. Consequently it can be hypothesis that

H9: The alignment between IS level of Maturity and the adopted IS strategy has a positive effect on the organizational performance

IS strategy and organizational performance

The positive relationship between IS strategy and organizational performance have been revealed by number of studies (Earl 1989, Weill 1990, Reich and Benbasat (2000). For instance, Cao and Schniederjans (2004) have examined the relationship between operations strategy and IS strategic orientation in an e-commerce environment. They found that IS strategic orientation positively and directly influences organizational performance. Moreover, Chan et al. (1992) and Chan (2001) found that the alignment between IS strategic orientation and Business strategic orientation has a positive impact on organizational performance. Additionally, specific IS orientation found to be related to some aspects of organizational performance (Chan et al., 1992). The expected relationship between IS strategy and organizational performance leaded to the following hypothesis:

H10: IS strategy has a positive effect on the organizational performance.

Stages of IS maturity and organizational performance

There is a little empirical research conducted to demonstrate the relationship between IS stages of growth and the organizational performance. Kanungo et al. (1999) examined

the relationship between Nolan's IS stages of growth and IS effectiveness. The results of this study revealed that there is a positive and consistent relationship in a way that IS effectiveness increases as organizations move on to higher stages of IS development. Kivijarvi and Saarinen (1995) have examined the relationship between the investment in IS and the financial performance of the organization. They have found that investment in IS is associated with the maturity of IS and such association can improve the organizational performance. Others such as Kivijarvi et al. (1995), Ragowsky et al. (1996) and Ki and Ye (1999) have empirically shown the mediating effect of IS maturity on the relationship between IT investment and the improvement in the organizational performance. Bharadwaj (2000) examined the association between IT capability and organizational performance. IT capability was expressed in terms of: IT infrastructure, human, skills, and IT-enabled intangibles. The findings of this study indicate that superior IT capabilities lead to superior organizational performance. Therefore, it can be expected that a positive relationship may exist between IS stages of growth and the organizational performance:

H11: Stages of IS maturity have a positive effect on organizational performance.

RESEARCH METHODOLOGY

To achieve the objectives of the current research a quantitative method was adopted. The study sample is comprised of senior and middle IT managers and head of IT from different types of organizations at Kingdom of Bahrain. These organizations include manufacturing, insurance, banks, health/medical service, educational, IT services, government, airlines, and communications. Two hundred questionnaires were distributed. Only handed and nine completed questionnaires were returned. The survey instruments for this study were developed using validated items from the prior researches. As such, scales for measuring IS strategy were developed by adopting items from the measurements of Chan, and Huff (1993). Scales to measure the organization current position in respect of each of the seven S's - strategy, structure, system, staff, style, skills and super-ordinate goals were divided into five subsection include IM and IT strategy, scope of current systems, IS staff, style and skills of the IS function, and super-ordinate goals. The scale was developed by adopted item from the measurement of Finlay and Marples (2000). Scale for measuring organizational performance was developed by adopting items from the measurements of Morgan and Strong (2003), Cao and Schniederjans (2004), Sin et al.(2006) and Sabherwal and Chan (2001). All items were measured on a seven-point Likert-scale anchored at both extremes to 1 (strongly disagree) and 7(strongly agree). The midpoint (4) represents the state of unsure or "neutral".

DATA ANALYSIS AND RESULTS

A Partial Least Squares (PLS) was applied to test the current model using Smart-PLS 2.0. PLS is a structured equation modeling method that analyzes how the items load on their constructs simultaneously with estimating all the paths in the model and is extensively used in MIS research (Gefen and Straub, 2005). Data analysis in the current research possessed in two stages. First, the measurement model was evaluated to validate the reliability and validity of the constructs. Next, the structure model was estimated using hypotheses testing to test the significance of the path coefficients.

Demographics

The survey instrument provides a response rate of 54.5% which can be considered as high rate bearing in mind the difficulty in reaching very busy people such as managers. In addition, many IT managers refused to answer the questionnaire either because they were very busy or they were not interested. Demographic characteristics of the overall participants are presented in Table (1). The table revealed that most of the participants are from the banking sector (23 %) and that most of them are head of IT department (23%) or CIO (22%) that have more than 5 years of experience (63%). Moreover, the results show that most of the organizations that have participated in the current research are small size (84%) that have maximum of 50 employees in the department of IS or IT (53%).

Table 1
Demographic Characteristics of the Overall Participants

Types of Organizations	%
Manufacturing	6%
Insurance	15%
Banks	23%
Wholesalers distributors retailing	3%
Health medical service	4%
Government	45%
Others	4%
Nunber of IS Employees	**%**
1Ø or less	45%
11.-5Ø	53%
51-1ØØ	2%
> 1ØØ	Ø%
Organization's Size (Employees)	**%**
5ØØ or less	84%
5Ø1 -1ØØØ	13%
1ØØØ-5ØØØ	3%
>5ØØØ	Ø%
Respondent's Title	**%**
CEO	9%
CIO	22%
IT Manager	19%
Head of IT department	23%
Technical staff	19%
Customer service "help desk"	8%
Years of Experience	**%**
5 Years or less	25%
5.-1Ø	63%
11.-2Ø	1Ø%
>2Ø	2%

Table 2
IS stages of maturity

IS stages of Maturity		No.	%
Stage 1	**Initiation**	Ø	Ø.Ø%
Stage 2	**Contagion**	4	3.6%
Stage 3	**Control**	5	4.8%
Stage 4	**Integration**	32	32.1%
Stage 5	**Data Adm.**	6Ø	59.5%
Stage 6	**Maturity**	Ø	Ø.Ø%

To identify the IS stages of maturity, the organization current position in respect of each of the seven S's - strategy, structure, system, staff, style, skills and super-ordinate goals were divided into five subsection include IM and IT strategy, scope of current systems, IS staff, style and skills of the IS function, and super-ordinate goals. Thus 41 items were analyzed and the results were presented in Table (2). As show in Table (2) most of the organization are rely on the integration (32.15) and the Data administration (60%) level of maturity.

Assessing the measurement model

The strength of the measurement model is determined by its reliability and validity. Cronbach' alpha was used to assess the reliability value of each dimension. All the reliability values are higher than Ø.7, except that of initiation and performance (Ø.625 and Ø.637, respectively). However, these values are accepted because they are closed to Ø.7. Therefore, all the reliability values of the current research measurements considered to be in the acceptable range. Convergent validity was assessed by the examination of composite reliability and Average Variance Extracted (AVE) (Fornell and Larcher, 1981). The data indicates that the measures are robust in term of their internal consistency reliability. The composite reliabilities of the different measures ranged from Ø.733 to Ø.938 which exceed the recommended threshold value of Ø.7 for each construct. AVE values were all above the recommended range (Ø.5Ø) (Hair et al., 1998), with values ranging from Ø.5Ø2 to Ø.792, thereby establishing convergent validity for each construct. Moreover, to assess the convergent validity confirmatory factor analysis with Varimax rotation was conducted to assess the underlying structure for the items of each research construct. The loading of each factor should be greater than or equal to Ø.5.

Structural model

The causal relationships in the proposal research model were tested. Consistent with Chin (1995), bootstrapping was applied to produce standard error and t-statistics. This permits us to measure the statistical signifi-

cance of the path coefficients. The statistical objective of PLS is to show high R and significant t-values, thus rejecting the null hypothesis of no effect. The t-values need to be significant to support the hypothesized paths.

Properties of the causal paths, including standardized path coefficients and t-values are presented in Table (3). The result show that H1 was not supported in that IS support for defender company can't be adopted and realized by organizations rely on a control stage of maturity (Ø.Ø78 (Ø.91Ø), while it can be adopted by organizations rely on integration stage of maturity (Ø.291 (5.397)). Thus H2 was supported. As expected H3, H4, H5, and H6 were supported. Thus, IS support for analyzer company can be adopted by organization rely on control, integration, data administration and maturity stages of maturity with path coefficients and T-value of Ø.513 (7.879), Ø.615 (1Ø.449), Ø.424 (6.138), and Ø.629 (8.341) respectively. However, the results show that while IS support for prospector company can be adopted by organizations rely on maturity stage of maturity (Ø.482 (3.818)), it cannot be realized by organization rely on data administration stage of maturity (Ø.Ø59 (Ø.466)). Thus, H7 were rejected while H8 was accepted as shown in Table (4). Moreover, the results show that both IS strategy and IS stage of maturity have a positive effect on the organizational performance (Ø.343 (4.66Ø), Ø.343 (4.6Ø5) respectively). Then both H9 and H1Ø were accepted.

The alignment between IS stages of maturity and IS strategy and its contribution on organization performance was measured using mediation approach of alignment as shown in Figure (2) (Baron and Kenny, 1986). The mediation approach of alignment indicates that a given variable may said to function as a mediator to the extent that it accounts for the relation between the independent variable and the dependent variable. Thus, there is an indirect effect via the mediator between the independent variable and dependent variable. Accordingly, three regression equation have been applied to investigate the role of IS stages of maturity as a mediator. The result in Table (4) suggest that the IS Stages of maturi-

Table 3
Model Testing Results

	Hypothesis	Path Coefficient	T-value	Hypothesis status
1	Control stage of maturity → IS support for defender company	Ø.Ø78	Ø.91Ø	rejected
2	Data administration stage of maturity → IS support for defender company	Ø.291	5.397	accepted
3	Control stage of maturity → IS support for Analyzer company	Ø.513	7.879	accepted
4	Integration stage of maturity → IS support for Analyzer company	Ø.615	1Ø.449	accepted
5	Data administration stage of maturity → IS support for Analyzer company	Ø.424	6.138	accepted
6	Maturity stage of maturity → IS support for Analyzer company	Ø.629	8.341	accepted
7	Data administration level of maturity → IS support for prospector company	Ø.Ø59	Ø.466	rejected
8	Maturity level of maturity → IS support for prospector company	Ø.482	3.818	accepted
1Ø	IS strategies → organizational performance.	Ø.349	4.66Ø	accepted
11	Stages of IS maturity → organizational performance.	Ø.343	4.6Ø5	accepted

Table 4
Alignment Testing Using the Moderation Method

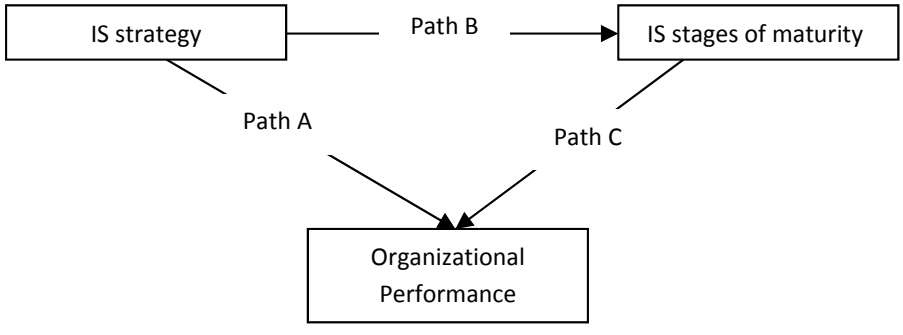
Mediation path	Independent variables	Dependent variables	
		IS Strategy	Performance
Path 1	IS stages of maturity	R2= 0.270 F= 6.621 b= 0.291 t = 3.101	
Path 2	IS stages of maturity		R2= 0.311 F= 7.541 b= 0.343 t = 4.605
Path 3			R2= 0.341 F= 8.012
	IS Strategy		b= 0.300 t = 3.956
	IS stages of maturity		b= 0.295 t = 3.345

ty contribute to predict IS strategy (*b*= 0.291, *t*= 3.101) in the first regression equation, and that IS Stages of maturity contributes to predict organizational performance (*b*= 0.343, *t*= 4.605) in the second regression equation. Moreover, the results in Table (6), have demonstrated that IS Stages of maturity positively and significantly affected organizational performance in the third equation (*b*= 0.295, *t*= 3.345). The contribution of IS Stages of maturity in the third equation is less than its contribution on the organizational performance in the second equation (*b*= 0.343, *t*= 2.605). Since the effect of IS Stages of maturity on the organizational performance in the third equation was decreased but remained significant, then IS Stages of maturity can be considered to have a partial mediation effect on the IS strategy and performance relationship.

DISCUSSION AND CONCLUSION

The aim of the current research was to investigate the strategic importance of information systems in the organizations at Kingdom of Bahrain. Accordingly, several aspects of IS have been studied and assessed within the Kingdom of Bahrain environment such as: IS strategy, IS maturity and the impact of IS, in terms of IS maturity and IS strategy, on organizational performance. IS stages of growth was assessed to determine the level of sophistication and hence the level of contribution of IS and IS function to the organization. On 1992, Khan has assessed the level of IS maturity in a sample of eight organizations at the Kingdom of Bahrain .His results indicated that the majority of the organizations were primarily distributed between stage 2"contagion" and stage 4" integration" (Khan, 1992). After approximately 20 years, the results of the current research show that the majority of the 109 surveyed

Figure 2
Mediation approach



organizations are in advanced stages of IS maturity. Specifically, one-third of the organizations are in the integration stage (32.1%) while the majorities (59.5%) are in the Data administration stage, and none of the organizations were founded to be in the maturity stage. The results indict that some organizations at Kingdom of Bahrain are providing good efforts to emerge to more advance levels of IS maturity. Thus, improving their IS strategic planning for effectively and efficiently utilizing IS and reaping most of the benefits offered by the IS. However, taking twenty years to reach one maturity level is still not a good indication for the improvement in using IS at Kingdom of Bahrain. There are many reasons for getting such results. In addition to the effect of the small sample size of the study, previous studies that have investigated and identified the level of IS maturity achieved by some organizations have based only on technical-centric instruments that focus primarily on the technical aspects of IS (Li and Rogers, 1991). However, in the current study the achievement of maturity is based on the managerial and strategic and organizational characteristics, in addition to the technical characteristics of the organization. Managerial and strategic characteristics are easily to be achieved like the technical aspects. Second, by having a closer look to the level of IS maturity in each of the seven Ss it can be noticed that more than half of the organizations are in the maturity stage with regard to the scope of current systems, style, skills, structure, staff and super-ordinate goals. However, under strategy element, none of the organizations have achieved the maturity stage and therefore the strategy element could affect the final composite IS stage of growth. For example, an organization that has scored 6 in five of the "Ss" and 3 and 2 for the remaining two "Ss". The latter two "S" elements that are in the contagion or control stage will significantly influence and affect the final composite stage of IS maturity. Therefore, the instrument adopted by the study needs to be reviewed or the way of how to measure the maturity using such measurement needs to be modified by using different weights for each of the Ss based on its impact on the IS stages of maturity.

The second main objective for the current research is to examine the relationships between IS strategy and IS stages of growth. The results indicate that there is an existence relationship between some- but not all- of the constructs. For instant, IS support for defender company (IS support for defensiveness, IS support for Futurity) is shown to has a positive relationship with the data administration stage of maturity but not control stage of IS maturity. Mostly this is due to some characteristic of IS support for risk aversion. Such strategy has some characteristics which are not related to the control stage of IS maturity- this result is not appear in the current study. On the other hand, IS support for prospector company – IS support for pro-activeness, innovativeness and aggressiveness- was shown to have no effect on data administration level of maturity. However, this strategy has strong relationship with the maturity level. Moreover, an interesting finding in this context is related the significant effects of IS support for analyzer company on the control, integration, data administration and maturity stages of maturity. This can be explained by the fact that strategy such IS support for analyzer usually takes the positive characteristics of the other strategies (i.e. defender and prospector).

The study also examined the relationships between IS strategy and organizational performance. It was proposed that IS strategy is expected to have a positive and direct relationship with organizational performance. An examination for the overall IS strategy was conducted. As such the relationship between IS support for defensiveness, risk aversion, futurity, analysis, aggressiveness, innovativeness and pro-activeness, have a direct and positive relationship with organizational performance. Although this is what the result show, examining the effect of individual strategy may show another results based on the characteristics of each strategy. For instant, IS support for defensiveness, risk aversion, and futurity strategies have a centric focus on risk avoidance and cost reduction. Moreover, IS support for analysis focuses on IS that can help in the achievement of an internal consistency in the organization's overall resource allocation. Hence these strategies are expected to have a positively contribute

to organizational performance. On the other hand, the characteristics of the IS support for aggressiveness and IS support for pro-activeness request the organizations to be proactive, risk-taking and flexible for new ideas. However, organizations at Kingdom of Bahrain may not have this attitude due to some factors such as organization, culture and environment factors. Particularly, some elements of the culture such as openness to change and power distance may play a role in inhibiting the organizations from embracing and adopting risk-taking strategies. Another finding of the study was related to the relationship between stages of IS maturity and organizational performance. It was hypothesized that there is a direct relationship between the various levels of IS maturity and organizational performance. Again, an overall impact of the IS stages of maturity was examined. The results indicate that there is a clear excising of such relationships. Despite this clear direct relationship, it cannot be concluded and generalized that IS stages of growth have an effect on organizational performance. Such results can be attributed to many reasons. In addition to the lack empirical evidence on the existence relationship between IS maturity and organizational performance to support the results of the current research, the instrument used to measure the IS stages of growth needs additional modifications and testing. Finally, the alignment between IS strategy and the IS stages of growth was examined. By applying the mediation approach of alignment, the results show that there is an alignment between both strategic aspects and that alignment has a positive effect on the organizational performance.

In conclusion, this research has provided a set of unique contributions to the IS field. While some of these contributions are general, others are specific to the Kingdom of Bahrain environment. Organizations this country tends to be more sophisticated and advanced in terms of the use and utilization of IS. The IS function are at a stage of providing strategic benefits to the organization in its own right rather than simply providing a support services to the other parts of the organization. Thus, inter-organizational systems are being implemented to support internal and external coordination to use IS/IT to realign business activities and their relationships to achieve performance breakthroughs and to change the way information is used by the organization.

In the Gulf countries there is a growing need to conduct researches to identify how IS are strategic to their organizations. In fact, this research is one of the few researches that have been conducted in the field. Although, there is a substantial literature documenting the adopting and using ICT at the Gulf countries, few attempts have been made to delineate the strategic implementation of the IS in such countries. Therefore, the current research will contribute in promoting the use of IS and its importance to the organizations as it provides important insights regarding the effect of IS strategy on both IS maturity and organizational performance.

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Is China Becoming the New World Creditor? A Study on Global Financial Stability and Liquidity of Governments.

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ABSTRACT

The current economic crisis is revealing which governments are liquid and which governments have accumulated too much debt. The financial failure of the Greek government was the result of too much debt. The question is how much debt is too much for a country? Although government debt was explored in the past no one have ever developed a model to analyze how much debt a country can safely manage.

This paper develops a model based on publicly available data that measures a country's liquidity index to determine if the country has taken on too much debt. One hundred and one countries were analyzed and ranked based on their liquidity index. Countries with a negative liquidity index are in trouble of defaulting on their debt. Countries with a liquidity index below the country of Greece (-4.5) should already be in default. Countries with a positive liquidity index have not taken on too much debt. These countries are identified and ranked based on how much debt (liquidity) they still have available.

China was specifically examined due to their recent liberal lending policies to foreign countries. Based on the liquidity index for China (0.61), China is managing its debt and still has money to lend. However, China should be careful in future lending because it is close to moving to a negative liquidity.

INTRODUCTION

When Greece and Italy ran out of cash in 2011, they looked for investors to buy government debt (Wall Street Journal, 2011). However, with the recent economic troubles, other European Union members and the United States were not in a position where their economies could sustain more debt (McHugh & Steinhauser, 2011). Not even the International Monetary Fund had sufficient resources to close the debt gap (Strupczewski & Za, 2011). China came to the rescue of Greece in 2010 and is now offering to help in 2011 with the Euro debt crisis. However, China believes that "...developed nations must first 'put their own houses in order,' cut deficits and open markets

rather than rely on China to bail out the world economy." (Bloomberg News, 2011) This begs the question about which governments are fiscally sound and have reserves to lend in these cash strapped economic times.

Current practice is to relate government debt to its gross domestic product as a way to measure if a country is too far in debt. Examining this one finds the top 15 indebted nations are: Zimbabwe 230.8%, Japan 208.2%, Saint Kitts and Nevis 185%, Lebanon 137.1%, Iceland 130.1%, Antigua and Barbuda 130.0%, Jamaica 126.5%, Italy 119.6%, Greece 116.0%, Portugal 110.1%, Ireland 104.9%, Barbados 103.9%, United States 102.0%, Sudan 100.8%, and Belgium 98.5%. (CIA World Factbook and Eurostat, 2011 data) Since Greece has already failed in paying back its debt this measure would indicate that eight other countries should have also defaulted on their debt. However, this is not the case indicating this method is not sufficient in ranking the fiscal soundness of a country.

Country credit ratings, such as those done by private firms like the Standard and Poor's, Fitch, Moody's and Dagong are another measure. However, comparing their rankings against debt to GDP ratios indicates there are other political factors involved in the rankings and not just pure financial factors. An example is the United States which is ranked high on all credit rating services but has a high debt to GDP ratio. Moreover, the US needed to raise its debt ceiling or close its government operations. Credit ratings are also more reactive then proactive and still don't seem to be a good predictor of fiscal soundness or liquidity of a government.

This paper is an exploratory study to determine an overall picture of world debt and currency holdings of the major countries. Although one would think this data is easily obtainable preliminary research indicated this question is much more complex and that no one standard exists to answer this question. This paper develops a model to evaluate fiscal soundness and liquidity of a country, rank orders countries based on the model, and uses Greece as a marker in the rankings to identify which countries are in fiscal distress and which countries still have cash to lend.

LITERATURE REVIEW

Previous academic research on public debt focuses on six major areas: the history of public debt, case studies on various country debt, causes of public debt, reasons why governments can't sustain debt, how governments can reduce debt and new models of debt measurement. The fact is that currently only four countries do not have any public debt (Central Intelligence Agency, 2012). Debt seems to be a necessity to any government but excessive debt to the point of being insolvent has now become a concern causing some banks to sell off their holdings in government debt (McHugh, 2011; Strupczewski & Za, 2011).

History and Case Studies on Public Debt

Countries acquire debt when their expenses outweigh their revenues. To cover the differences, countries issue bonds both public and private. Since World War II public debt has risen exponentially in many countries (Grewal, 2010). Grewal (2010) attributes this to unmanaged globalization. However, public debt is not a new concept. It has existed as far back as 1880 (Ali Abbas, Belhocine, El-Ganainy, & Horton, 2011). James (1987) examined the historical patterns of public debt finding governments that are continually borrowing cash to finance government budget deficits can lead to debt crises and economic depressions. Herman (2007) and Dylewski (2009) attribute excessive public debt to insufficient debt regulations and the mechanisms in place that allow for unregulated debt to occur. However, the change in international finance systems of the 1980s holds some hope. One area of hope was the change in international finance system that helped Mexico establish a new debt management plan (Strange, 1998).

There are many public debt case studies examining particular countries. Street (1987) and Strange (1998) focused on the Mexico debt crisis of the 1980s. Dennis (1997) examined Bolivia public debt. Catalouk (2009) and Sakar (2009) examined the Turkey debt crisis of 2008 where the World Bank warned Turkey about a high current account deficit and slow growth forecast. Even stable countries like Brittan have public debt issues (Ussher, 2010). However, Ecuador ranks the worst with 109 public debt defaults in the last 184 years (Porzecanski, 2010). Other country case studies showed Poland (Dylewski,

2009) and Nicaragua (Vukelich, 1999) also had public debt problems. All case studies examined past failures and the specifics that caused their failures. However, no common cause was identified that permeated all countries with debt problems.

Case studies on China by Tung (2003) and Li (2011) revealed concerns with government supplied data when analyzing federal government debt. Tung found that China had a weak federal government causing debt inequality between its state regions implying federal debt may be underreported. Li confirmed this observation noticing that China seems to be manipulating its current debt categories. China is one of the few countries that seems to have adequate cash supplies due to its high export/import ratio. However, previous studies indicate that the data supplied by the Chinese government may be unreliable (Chang, 2011). The Wall Street Journal (2011) reports China having $3,200 trillion in foreign exchange reserves.

Causes of Public Debt

Faruqee (1997) blames excessive public debt on the short-term focus of most political systems. The Finite-Horizon Model suggests that politicians will do what is needed in the short-term to take care of immediate problems. However, they do so by taking on debt that has to be paid back in the future. The future debt is past the horizon limit and is therefore not addressed until it becomes an issue. In the past, this only affected the country in question. However, with the unmanaged globalization of the financial markets in the 1980s (Grewal, 2010) the United States, through its economic self-interests, began dumping its public debt on the world financial markets which fueled a trend where other countries also sold future debt for immediate cash (Frank, 2006).

Properly managed short-term debt is acceptable as long as the current economic conditions are improving. However, people started living longer, populations got larger and retirement costs increased across the board (Birkland & Prescott, 2007; Davig & Leeper, 2011). Birkland & Prescott (2007) defined this as a deadweight cost to the government. In essence, these issues took more cash from the government then they contributed. These changes in economic conditions worsened the federal debt problem.

Sakar (2009) was more direct about causes of public debt by blaming political instability and poor public management. For many countries with unstable or corrupt governments this is a major cause of debt. Yet, these unstable countries are still able to find countries or consumers to purchase their public debt (McHugh, 2011; Strupczewski & Za, 2011).

For the European Union, Leaman (2011) blames the debt problem on flawed EU policies that allow member countries to amass excessive debt. However, Leaman's work was published as an editorial without supporting research.

Nooruddin (2008) examined the natural resource causes of debt. In specific, Nooruddin showed that poor countries with natural oil reserves were not able to translate the oil wealth into economic growth. The government became accustomed to paying debt with oil earnings and never built up the economy. When the oil ran out there was no sustainable tax base to draw from driving the countries into debt.

In some cases public debt is taken with no intention of paying the debt back. Ong (2006) found this a common practice with the state governments in China. Where the federal government gave state loans knowing the state would not pay it back. This also occurred with Greek public debt. Creditors had to forgive approximately 40% of Greek public debt or Greece would have defaulted on the entire debt (Strupczewski & Za, 2011).

Government Debt Sustainability

Radice (2011) states that government debts have now become unsustainable. Excessive debt limits capital expenditures, affects the ability of long-term planning, and limits a developing countries ability to industrialize (Mahdavi, 2004; Street, 1987). The problem arises because citizens are unwilling or unable to pay higher taxes (Davig & Leeper, 2011) and there is no bankruptcy protection for governments (Cooper, 2002).

Spillover effects of debt restricts the government's ability to provide social services (Barry, 2006) and negatively affects the country's banking system (Bolton, 2011). Public debt also affects a country's interest rates and inflation. All agree that debt causes higher interest rates. However, there is conflicting evidence that debt causes inflation. Hafer & Hein (1988) showed

that debt did not cause inflation. However, Hsing (2010) showed debt does cause inflation. In either instance, unresolved excessive debt eventually causes economic turmoil (Dennis, 1997), corruption (Vukelich, 1999; Dennis, 1997), and economic collapse (Barry, 2006). Some of these effects are now being seen in the countries of Greece and Italy (Woods & Giles, 2011).

Not all academic research has such dire predictions. There are empirical studies that argue that the rising debt is sustainable for low and middle income countries (Fincke & Greiner, 2010). However, the same could not be shown for developed countries carrying excessive debt.

Studies on Public Debt Reduction

Global public debt first became an issue in 1985 when the United States recognized that excessive debt was causing a "long-term economic and political barrier to development that is affecting the whole world." (Bogdanowicz-Bindert, 1985-1986) The excess public debt caused countries to erect protective trade barriers to shore up their own economies. The result was a decrease in international trade worsening the economic problem. Action was taken to reduce the trade barriers and promises were made to address the debt issue. However, after trade barriers were lowered the promises of public debt reduction went unfulfilled.

The rise in public debt of the 1980s also resulted in increases of private debt in the United States (Blain, 1987). Blain argued that private debt was worsening the downward spiral of the debt crisis and the only way to resolve both debt issues was for the government to control public debt. Blain stated that the best option was for the government to promote the widest distribution of work and money to ensure full employment. Only through higher employment rates could the government address reducing public debt.

Gramarra & Arango (2000) addressed the public debt issue from the financial perspective. They argued that governments should pay their debt through monetary emission and allowing higher inflation rates. By devaluating the currency the debt is reduced in real dollars and payment burdens are decreased. Although their study was about the country Colombia the United States used the same approach in the late 1980s to successfully address its immediate public debt issues.

Public debt again became a global issue in 2002 when the International Monetary Fund (IMF) considered suspending bailouts (Cooper, 2002). In short, IMF loans were not being paid back in full. IMF began an aggressive approach to demanding that countries that borrow from the IMF conform to debt restructuring requirements. This seemed to address the problem until the 2010 debt crisis in Greece indicating the new debt restructuring requirements were insufficient. Moreover, it does not address countries that continue to borrow from sources other than then IMF.

Alternate Debt Measure Models

Erbil & Salman (2006) developed a new measure of public debt they called the Debt Burden (DB) of a country and applied it to Turkey. They argued that the current measures of government debt don't accurately measure the government's true debt obligation. Their method of measurement relied on the intertemporal debt obligation which they claimed could be updated daily for a more accurate representation of current debt obligations. However, their study only looked at better ways to track hidden daily debt that causes the yearend budget overruns. It did not address whether the current debt levels were sustainable or whether a country was taking on too much debt.

China has the largest debt for any developed country (Li & Lin, 2011). However, there is some concern that their debt was being measured accurately. Because of this Li & Lin (2011) developed a measure of true government debt for China. Their method included three additional areas where China may be hiding its true debt: local government debt, university debt and state banks' nonperforming loans. China has a history of forgiving local debt thus pushing the debt burden back to the federal level. Adding in these areas that would default back to federal government payments gives a more accurate representation of China's debt. It also adds in factors that one may have to consider when examining other countries and their true debt.

The literature demonstrates that public debt concerns began as early as the 1980s. However, it seems that only band aid approaches were taken to address these issues. Now these issues have grown to the point that countries are carrying so much debt that it has become a burden to their

development. Literature has tried to develop new models to access this debt but no one has examined the debt from the approach of how much cash is still left that governments can use to improve their economy or lend to other countries. This available cash is significant because it is an indicator of how well a government is managing its debt.

MODEL DEVELOPMENT

Developing a generic public debt model is complex. It must be generic enough to be applied to all countries, have easily obtainable information, and accurately represent the debt status of a country. Although government debt does not work the same as private debt, one can use the factors of private debt as a basis to develop a debt payback model.

When a private individual applies for a loan several factors are examined. The ability to pay back the loan is a critical factor. Looking at future income is the basis of the ability to pay back the debt. However, if future income is in doubt current liquid assets are reviewed to determine the value of assets available to pay back the loan if the future income does not meet projections. Lastly, the past reliability of paying back previous debt is examined. These three general areas can also be applied to public debt.

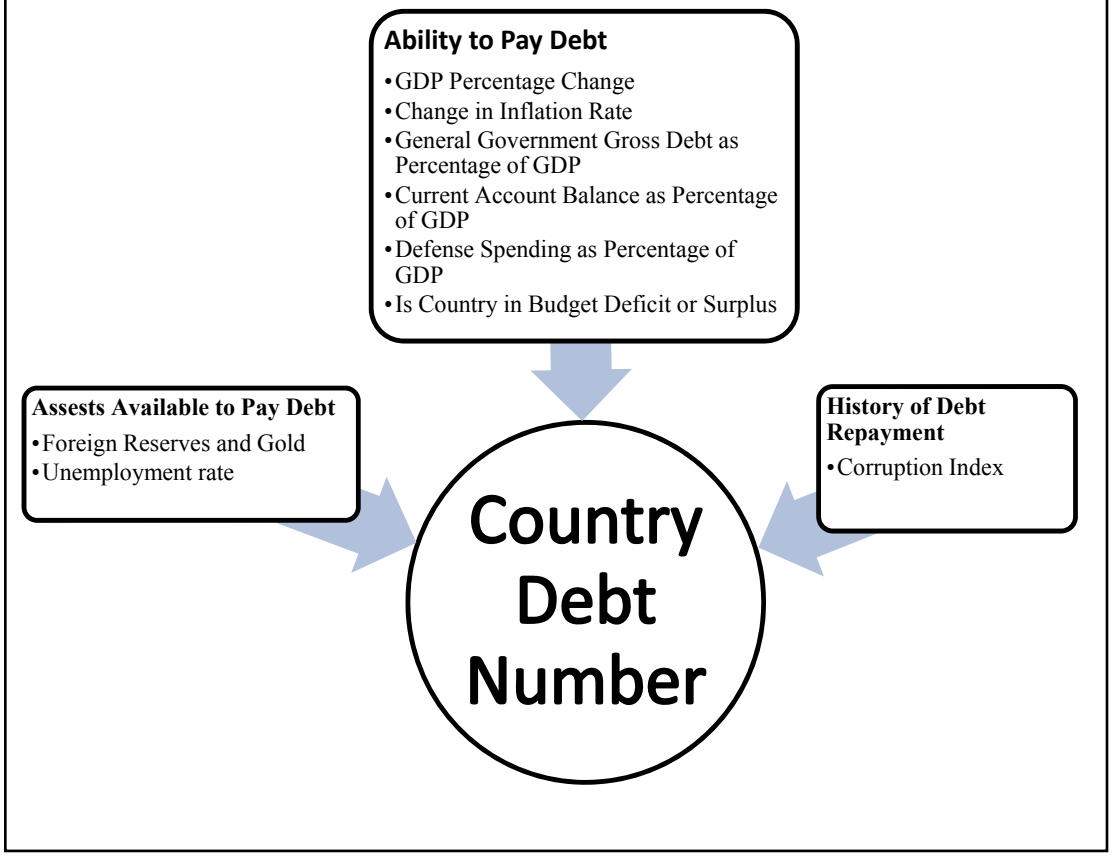
The modeling developed for assessing public debt is built on these three factors:

1. Ability to pay debt
2. Assets available to pay debt
3. History of debt repayment

The issue now is finding currently available data to measure these three factors. A review of all publicly available data for countries was examined. Sources include the CIA World Factbook, International Monetary Fund database, Transparency International and The World Bank.

Based on the review of previous research nine critical factors were identified that related to a

FIGURE 1
COUNTRY DEBT NUMBER MODEL



country's debt: gross domestic product percentage change, change in inflation rate, unemployment rate, general government gross debt as percentage of gross domestic product, current account balance as percentage of gross domestic product, foreign reserves and gold, defense spending as percentage of gross domestic product, corruption index of country and if the country is currently in a budget deficit or surplus.

METHODOLOGY

Nine factors were identified from previous literature as critical in determining a country's debt capability. However, there was no general consensus on which factors were more important or how much each factor weighed in the decision. A review of current country debt measures found four existing systems used to measure a country's ability to pay back debt. The measures were the Standard and Poor's, Fitch, Moody's and Dagong country credit indices. Each had its own credit rating system based on proprietary methods. Moreover, none of the systems were in full agreement in the rankings or standings of countries. An examination of the systems found that the Standard and Poor's and the Moody Credit scales were similar and could be related to each other. Based on this, a conversion was develop that related the two scales developing a new average credit score for each country ranging from positive 10 to negative 11. The more positive the greater debt a nation could take on. The negative numbers indicate countries that are beyond their debt capacity and were at risk of default. This resulted in an average measure and led to the ability to rank order the countries and index them based on their credit worthiness.

The nine factors of the proposed model were stepwise regressed to the country's average credit rating to identify the critical factors, their relationship strength and affect on a country's credit rating. The analysis used 101 countries in the study. A list of countries and the results are presented below.

RESULTS

Based on the stepwise regression four factors were identified as related to a country's credit score. However, only three variables were significant to the final regression results. Table 1 shows the results of the stepwise regression.

The Corruption Index from the Transparency International organization was the number one factor in explaining a country's credit risk. The Corruption Index explained 63% of the variation in country credit risk. Adding in the factor current account balance as percentage of GDP explained an additional 7.8% of a country's credit risk. While adding in the factor general government gross debt as a percentage of GDP added another 2.1% in explaining the country credit risk. All factors met the level of significance of 0.05 used in the model.

The factor foreign reserves and gold was significant in its relation to a country's credit score but adding in the factor did not increase the adjusted R-Squared of the model. Therefore the final model did not include this factor.

The final result indicated that the average credit rating of a country (what the authors are now defining as the liquidity rating of the country) is based on the three factors stated and the relationship is defined by the regression formula:

Country Liquidity Rating = -5.764
+ 1.834(CI)
+ 0.136(CABPGDP)
- 0.023(GGGDPGDP)

Where:
CI = Corruption Index
CABPGDP = Current Account Bal-

Table 1
Stepwise Regression Results

	Corruption Index	Current Account Balance as Percent of GDP	General Government Gross Debt as Percentage of GDP
Adjusted R-Squared (Cumulative)	0.630	0.708	0.729
Level of Significance	0.000	0.000	0.006

ance as Percentage of GDP
GGGDPGDP = General Government Gross Debt as Percentage of GDP

The Country Liquidity Rating ranges from positive 12 to negative 7. Countries with high positive numbers are managing their debt well and have not yet reached a critical debt ceiling. The higher the positive number more liquidity a country has. Countries in the negative range are at risk of defaulting on current loans. Countries with ratings lower than Greece (-4.54) should already be in default. Country rankings with their Moody's/S&P credit averages and liquidity ratings is given in Table 2 below.

Table 2
Country Liquidity Ratings

Country	Average Credit Score	Liquidity Rating
Singapore	10	11.773336
Norway	10	11.587568
Sweden	10	11.348105
Denmark	10	11.245403
Switzerland	10	11.161589
Qatar	8	10.582629
Luxembourg	10	10.280678
New Zealand	9	10.254012
Netherlands	10	10.053655
Finland	10	9.71817
Australia	10	9.547885
Kuwait	8	8.189964
Canada	10	7.855585
Germany	10	7.814546
Austria	9.5	7.042145
Chile	6.5	7.036386
Iceland	1	6.474554
United Kingdom	10	6.382423
Estonia	6.5	6.265731
Belgium	8.5	5.708634
Taiwan	7	5.687355
Ireland	1	5.588143
Uruguay	-1	5.527321
Saudi Arabia	7	5.454756
France	9.5	4.786286
Oman	5.5	4.720855
Barbados	1	4.704883

Table 2
Country Liquidity Ratings

Country	Average Credit Score	Liquidity Rating
United States	9.5	4.463217
The Bahamas	3	4.197206
Botswana	4.5	4.104363
Japan	7	3.901885
Slovenia	5.5	3.821521
Korea	5.5	3.677472
Spain	4.5	3.527951
Bahrain	2.5	3.318984
Israel	6	3.174193
Cyprus	-1	2.985891
Malaysia	4	2.47442
Poland	4.5	2.463324
Malta	4	2.438153
Trinidad and Tobago	4	2.179214
Portugal	-2.5	2.093953
Azerbaijan	0	1.980514
Lithuania	2.5	1.91
Costa Rica	-0.5	1.627556
Hungary	0	1.040422
Czech Republic	6.5	0.95091
Latvia	0	0.907139
Croatia	1	0.643411
China	7	0.618555
Slovak Republic	5	0.564914
South Africa	3.5	0.414438
Bulgaria	2	0.159417
Thailand	3	-0.020292
Kazakhstan	2.5	-0.024534
Peru	1.5	-0.203621
Turkey	-2	-0.315603
Jordan	-2	-0.404199
Brazil	2	-0.420523
Romania	0	-0.486187
Suriname	-3.5	-0.590699
Colombia	1	-0.711462
Sri Lanka	-4	-0.732888
Georgia	-3	-0.745305
Tunisia	1	-0.78266
Indonesia	-1	-0.80437

Table 2
Country Liquidity Ratings

Country	Average Credit Score	Liquidity Rating
Russia	2.5	-0.839847
Bangladesh	-3	-0.870272
Bolivia	-4	-1.088106
Ecuador	-7	-1.263728
Argentina	-5.5	-1.346805
Mexico	2.5	-1.373195
Vietnam	-3.5	-1.392196
El Salvador	-2.5	-1.497838
Philippines	-2	-1.553385
Angola	-3	-1.704079
Guatemala	-1.5	-1.752002
Morocco	0	-1.779742
Italy	3.5	-1.807406
Bosnia and Herzegovina	-5	-1.964292
India	1	-2.026795
Montenegro	-2.5	-2.126269
Venezuela	-4.5	-2.154578
Paraguay	-3.5	-2.200686
Panama	1	-2.313532
Egypt	-4	-2.47176
Senegal	-4	-2.508504
Pakistan	-6	-2.533564
Dominican Republic	-4	-2.747832
Honduras	-5	-2.818465
Ukraine	-4.5	-3.150436
Albania	-4	-3.235829
Cambodia	-5	-3.880396
Belarus	-6	-3.933408
Jamaica	-6	-4.255987
Greece	-11.00	-4.542489
Mongolia	-3.5	-4.948232
Lebanon	-4.5	-6.271707
Papua New Guinea	-4	-6.39468

It is worthy to note that the following factors did not correlate to a country's liquidity index: GDP percentage change, change in inflation rate, unemployment rate, defense spending to GDP or whether the country had a current budget in surplus or deficit. Although these factors were mentioned in previous studies it could not be confirmed they were actually related to country liquidity.

CONCLUSIONS

Based on the modeling it appears that countries with high transparency in their governments are the ones that manage their debt better. Moreover, these countries have higher levels of liquidity and less risk of default on their foreign loans. It is notable that one independent factor explained so much of country liquidity. Moreover, that this can identify countries that still have reserves to loan in the international arena.

The initial focus of this research was to determine countries with financial stability and liquidity and this was done. The second question was to examine China and its current lending practices to see if they do have reserves to lend. On a liquidity scale of negative 7 to positive 12, China ranked at positive 0.61. This indicates China is managing their debt but not as well as other countries. In fact, China is very close to moving into the negative liquidity index category. In short, China appears to be highly liquid in its lending practices but the liquidity index indicates that China does not have sufficient reserves to continue this aggressive lending practice.

The authors had concerns that several countries may have been misranked by the liquidity index. This was based on a comparison of the average credit score developed from the S&P/Moody index compared to the liquidity index generated. Since the model did explain approximately 73% of the variation, there were questions if the model missed some explanatory factors. Based on peer examination the authors believe further research on the liquidity model is needed and possible factors to include are: a raw size factor to account for population and land mass, a cotangent factor to account for the importance of a country to its neighbors, and cultural factors that may explain why some country's government manage money better than others.

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Assessing The Need For A More Comprehensive Measure for System Quality

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ABSTRACT

The large IT investments by most companies force organizations to accept the need to ensure system quality. This need becomes critical by increased company dependency on 24/7 follow-the- sun global business operations. Despite continuous efforts to improve the software development process, controlling software quality remains difficult in today's environment. The complexity of assessing software system quality stems from its many important dimensions. This study has the primary objective of assessing the need of expanding the existing user-based measure of IS quality to encompass two additional dimensions: a technological and a corporate managerial one. This is a follow-up on two separate research efforts. The first was to empirically validate (face/content validity) the three constructs proposed by DeLone & McLean (2003) through a qualitative research process. The second was to translate these constructs into an overall measure of system quality to be used in practice. In-depth structured discussions with top managers, members of the users community, and various IS personnel roles, were used to collect evidence. The need to add an IS perspective and a corporate perspective to the assessment of system quality was corroborated by the opinion of personnel in all six host organizations. Here an empirical test of this measure is conducted to address the importance of the comprehensive measure of quality with a larger sample. A convenience sample of thirty organizations participated in this study. Each received a packet with three questionnaires to be filled out by representatives from three separate groups: top managers, system designers/developers, and system end-users. The results show that in a significant number of cases a particular system receives diametrically opposed ratings for system quality, unequivocally indicating the need for a measure of quality encompassing all three perspectives.

INTRODUCTION

The widespread use of information systems (IS) to enable the basic operations of most business processes, to support decision making at the operational and strategic level, or as integral parts of many products and services, have made them of critical importance to most organizations. As a result, whole industry sectors are dependent on them for their very existence. The quality of something so important has not escaped the attention of most business and IS managers. From a user perspective, system quality is thought to be an important motivating factor for people to use their systems and derive any benefits essential for companies to gain a return on their investment (Ifinedo, Rapp, Ifinedo, & Sundberg, 2010; Gorla & Lin, 2010; Medina & Chaparro, 2007-08; Vance, Elie-Dit-Cosaque, & Straub, 2008). Also, the importance of user satisfaction with system quality cannot be overestimated because of its political implications to IS departments; that is, IS department relations with individual users, department managers, and corporate man-

agers, to ensure further financial support for the IS department. Therefore, ensuring system quality from these different perspectives should be viewed as a critical issue for information technology management.

Indeed, considerable attention is being paid to improving system quality in practice. Two of the most important among the many industry standards for systems quality control are those prescribed in the Malcolm Baldrige National Performance Excellence Award and the ISO 9000 series. The Baldrige Award requires that candidate organizations use software quality metrics and sophisticated quality measurement systems. ISO 9000 series quality standard requirements for software development include: the definition of management responsibility in quality control; document control; implementation of process control by inspection, testing and verification of test results; performing corrective actions when appropriate; internal quality audits; personnel training; and after-delivery servicing statistical analysis. Some organizations have applied total quality management (TQM) principles to address systems quality. For example, Corning Inc. (Shrednick, Shutt, & Weiss, 1992) and Dun and Bradstreet Software (Kane, 1992) reported positive results from the use of TQM in systems development. Similar improvements in system quality also have been reported by others (Lawlis, Flowe, & Thordahl, 1995; Krishnan, 1996). Despite these successes, quality improvement continues to be a key challenge facing many IS managers actively seeking to adopt TQM methods and practices (Anthes, 1997; Williamson, 1997; Gross, Stepanek, Port, & Carey, 1999). Despite continuous efforts to improve the system development process, controlling quality remains difficult in today's development environment. A study by Pearson, McCahon, and Hightower (1995) found that it normally takes three to five years for a quality program to yield significant benefits in terms of customer satisfaction and the quality of products and services. Another study by Jones (1986) found the costs associated with removing defects among the top expenses in system development projects. Furthermore, inadequate and insufficient published empirical studies on system quality have made it difficult for project managers to effectively apply available metrics and strategies in management and quality control.

Few research studies have focused on ways to enhance IS quality. Some system evaluation studies have focused on measuring the IS impact on decision making, but have not devised ways to measure the extent to which it satisfies the needs of decision makers (Benbasat & Nault, 1990). The increasing attention paid to system quality issues in academic journals (Gorla, Somers, & Wong, 2010; Pather & Usabuwera, 2010; Floropoulos, Spathis, Halvatzis, & Tsipouridou, 2010) is an indication of TQM's importance in systems development. Further, a fundamental principle of TQM states that to properly control quality, it must be measured (Hoffer, George, & Valacich, 1996). Santhanam and Guimaraes (1995) discussed the strengths and limitations of the several existing approaches to system quality assessment and recommended one specifically for institutional DSS developers to assess users' needs, how well these needs are being met by a particular system, and how the system should look and behave to satisfy those needs.

Part of the problem is that quality is a broad construct with many different perspectives, and the complexity of assessing system quality stems from its many important dimensions. Quality planning/control activities are undertaken with the objective of designing, developing, and tailoring a product to satisfy user's requirements. Companies that have attained high levels of quality state that the ultimate yardstick of quality is attaining maximal satisfaction of customer's needs and expectations. Obviously, if customers are not satisfied they will not buy the products which is the ultimate objective for a business organization. Thus, by its very nature, a measure of user satisfaction with IS can be considered as a measure of IS quality. Coincidentally, many researchers have long assessed user satisfaction with their IS as a surrogate measure for system quality (Guimaraes & Gupta, 1988; DeLone & McLean, 2003). Therefore, starting with the expanded DeLone and McLean (2003) model we developed a more comprehensive model of system quality (Guimaraes, Armstrong, & Jones, 2009) with one major question remaining: is there enough difference in the quality ratings by different stakeholders for a particular system to require such a comprehensive measure for system quality? The main objective of this study is to address this critical question.

THE THEORETICAL FRAMEWORK

From an engineering perspective, the quality of a product or service is commonly measured in terms of its fitness for intended use, that is, it must be adequate for the application the customer has in mind (Dilworth, 1988). According to the American National Standards Institute, quality "is the totality of features and characteristics of a product or service that bears on its ability to satisfy given needs" (ANSI/ASQC, 1978).

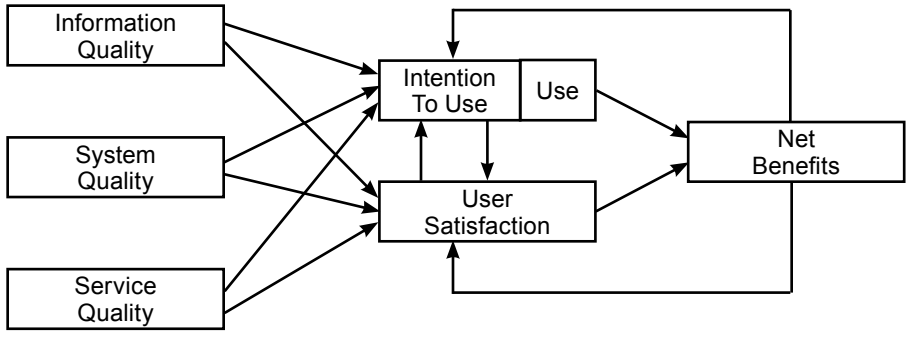
As mentioned earlier, researchers in the IS area have long employed user satisfaction with their systems as a surrogate measure for success (Rai, Lang, & Welker, 2002; Guimaraes, Staples, & McKeen, 2003; Guimaraes, Armstrong, & O'Neal, 2006). More important for this research, the widely known construct originally proposed by DeLone and McLean (1992) to measure system success, after taking into account researchers' suggestions, has been modified and extended (DeLone & McLean, 2003) as shown in Figure 1.

The main construct now includes three separate sub-constructs designed to assess information quality, system quality, and the quality of service provided by the IS department, as perceived by the system users. These three sub-constructs, and all the work that has been done to develop them, provide the basic theoretical framework used to develop an overall measure for system quality to be used in practice.

Very important from a practitioners' perspective as well as an academic one, there is empirical evidence that these three constructs are related to desirable outcomes in practice. Some studies (Seddon & Kiew, 1994; Etezadi-Amoli & Farhoomand, 1996; Teo & Wong, 1998; Wixom & Watson, 2001) confirmed a direct relationship between information quality and the individual worker's decision-making performance, job effectiveness, and quality of work. Similar results were reported (Seddon & Kiew, 1994; Goodhue & Thompson, 1995; Etezadi-Amoli & Farhoomand, 1996; Teo & Wong, 1998; Wixom & Watson, 2001) confirming a direct relationship between system quality and its impact on the individual worker's work environment quality and job performance.

Service quality has a less well-established track record in the IS area since its adoption from the marketing department to the IS domain (Kettinger & Lee, 1995; Pitt, Watson, & Kavan, 1995). Despite some earlier criticisms regarding its reliability and validity (Van Dyke, Kappelman, & Prybutok, 1997), this measure's validity and reliability have been found to be acceptable (Jiang, Klein, & Carr, 2002). The authors agree with DeLone and McLean (2003) that "...service quality, properly measured, deserves to be added to system quality and information quality as components of IS success," and "...each of these quality dimensions will have different weights depending upon the level of analysis. To measure the success of a single system, information quality or system quality may be the most important quality component. For measuring the overall success of the IS department, as opposed to individual systems, service quality may become the most important variable. Once again, context should dictate the appropriate specification and application of the DeLone and McLean IS suc-

FIGURE 1
UPDATED DELONE AND MCLEAN IS SUCCESS MODEL
(DELONE & MCLEAN 2003)



cess model." The authors believe this contextual contingency approach to assessing overall system quality to be critical to a successful evaluation.

Analogous to the proposition by DeLone and McLean (2003) regarding net benefits, overall system quality raises some critical issues: what qualifies as quality and for whom? What qualifies as system quality depends on the evaluator's perspective. Different actors, players, or stakeholders may have different opinions as to what constitutes system quality. The authors' main objective of developing a comprehensive measure of system quality requires that one first identify the complete set of actors, players, and stakeholders involved, and then define sub-constructs to measure system quality from their corresponding perspectives.

RESEARCH METHODOLOGY

Given the many issues regarding the measurement of overall system quality from the different perspectives of the three primary stakeholders interested in system quality, a qualitative research approach was deemed necessary to accomplish our objective stated above. In depth structured discussions with top managers, members of the users community, and various IS personnel roles, were used to collect evidence. These three groups of stakeholders were the starting point with the researchers paying special attention to the potential need to add more perspectives/stakeholders to a more comprehensive measure of system quality. The following section describes the research effort which used the items proposed by DeLone and McLean (2003) as a starting point.

The Pilot Test

Six companies were selected because they were well known by the researchers for their dedication to system quality. These host organizations operate in various industry sectors and implement the process of system quality assurance in different ways. This variety was deemed important to gain insights into any strengths and weaknesses that the quality measure being developed may reveal in practice, given the need for this measure to be fairly robust and applicable to widely different system development and operation environments. A more detailed description of these companies and the process used to study them is available in Guimaraes, Armstrong & Jones (2009).

The list of items defined by DeLone and McLean (2003) under the three constructs (information quality, system quality, and the quality of service provided in the context of the specific system) were presented to personnel (CIO, IS developers, QA, and users) within a host organization. For each host company one of the researchers directed the discussion to define any further items under each construct. A previously defined set of questions was used to keep the discussions on target. From these discussions the need to add items reflecting an IS perspective and a corporate perspective to system quality became apparent. Thus the list of items proposed by DeLone and McLean (2003) were expanded with several items under the two new sub-constructs for system quality to additionally reflect a top management and a system designer/developer's perspective. Appendix A shows the resulting four sub-constructs and their component items.

Besides providing the knowledge to expand the measure for system quality, two major insights were derived from the pilot study:

1. A standard measure for system quality is not advisable. The quality of different systems must be measured in terms of the features which are important to the system objectives and user/management expectations. In other words, for some systems including the IS perspective may be critical to a valid assessment of system quality, while for other systems such perspective may be irrelevant. The same can be said for the construct addressing the corporate perspective i.e., fit with corporate plans, goals and objectives of system quality.
2. To manage this contingency view of system quality, the idea of first measuring the importance of each item in Appendix A was suggested. Only the items deemed important in the context of the specific system by the corresponding stakeholders (user, IS department, or corporate management) should be included in measuring its quality. Alternatively, the measure of system quality

can be a weighted average of the relevant items.

Table 1
Demographics for Companies, Systems, and Respondents

Selected Respondent Variables	N	Min	Max	Mean	Std Dev
Responding top managers, years with the company	34	2	33	12.25	9.69
Responding Users, years with the company	34	0	32	10.47	10.39
Responding Users, years using the system being rated	34	0	24	5.15	5.49

Company Industry Sector	F	%
Manufacturing	10	31%
Other	9	28%
Health Care	6	19%
Utilities (electric, gas, etc.)	3	9%
Financial Services	2	7%
Merchandising	1	3%
Wholesaling	1	3%
Total	32	100%

Business Processes Supported by the System	F	%
Sales/order entry	19	12%
Invoicing/billing	19	12%
Customer Service	18	11%
Inventory Management	16	10%
Pricing	15	10%
Quality Management	12	8%
Distribution/logistics	11	7%
Personnel Management	11	7%
Purchasing	10	6%
Production scheduling/planning	8	5%
Business planning	6	4%
Other	4	3%
Advertising/promotion	3	2%
Product design/development	3	2%
Marketing Research	2	1%
Total	157	100%

Total System Development Time	F	%
Less than 1 month	2	6%
1 to 3 months	3	10%
4 to 6 months	7	21%
7 to 12 months	8	24%
13 to 24 months	3	9%
Over 24 months	10	30%
Total	33	100%

User Respondent's Level in the Organization	F	%
Professional staff	15	44%
Clerical staff	8	23%
Middle manager (department head)	5	15%
Other	3	9%
First level supervisor	2	6%
Strategic Management (Executive)	1	3%
Total	34	100%

Frequency User Respondent Uses the System	F	%
Less than once a month	0	0%
Once a month	1	3%
A few times a month	1	3%
A few times a week	3	9%
About once a day	1	3%
Several times a day	28	82%
Total	34	100%

User Respondent Primary Functional Area	F	%
Personnel	6	19%
Other	6	18%
Sales	5	16%
Accounting	4	13%
General Management	4	12%
Information Systems	4	13%
Engineering	3	9%
Finance	0	0%
Marketing	0	0%
Manufacturing/Production	0	0%
Research and Development	0	0%
Total	32	100%

Time/day User Respondent Spends Using the System	F	%
No time	0	0%
Less than 1/2 hour	2	6%
From 1/2 our to 1 hour	2	6%
1 to 2 hours	6	17%
2 - 3 hours	6	17%
More than 3 hours	19	54%
Total	35	100%

Thus, Appendix A was expanded to provide a measure for the extent to which the particular system satisfies each item, as well as a measure of importance for each item. Less important items are discounted based on their importance or completely discarded if "not applicable" to the quality of the specific system. Readers should note that the merger of the original "system quality" and "service quality" into one measure does not imply that these two constructs should be one. The merger in this case is strictly a simplification of the data collection instrument, based on the discussions at the host companies.

Further Data Collection

To test the need for a more comprehensive system quality measure, the questionnaire shown in Appendix A was submitted to the top managers, system/developers, and end-users of systems in thirty companies. This represents a convenience sample of organizations known to the researchers. The respondents were asked to target a specific system recently implemented but fully operational for at least one year. Table 1 presents some demographics for the companies, the respondents, and the systems in this study.

DATA ANALYSIS

The data analysis for this study is quite simple and straightforward. Besides the averages and standard deviations for the demographical variable (shown in Table 1) and the variables measuring system quality from the different perspectives (shown in Table 2), only high/low cross tabulations were produced and are presented in the next section.

Table 2
Descriptive Statistics for Major Study Variables

	N	Mean	Std. Dev.
Upper Management View of System Features			
The fit of this system with the company's business model	33	5.52	1.12
The fit of this system with the company's corporate future plans	33	5.06	1.54
The contribution of his system to the company's strategic vision/ goals	32	5.03	1.51
Compared to the benefits to our firm, the development costs for this system	31	4.23	1.73
Compared to the benefits to our firm, the costs for operating/ maintaining this system	30	4.53	1.63
Developer View of System Features			
Integration with other existing systems	31	4.55	1.77
Portability to different computing environments	30	4.20	1.85
Effort required to maintain/ improve this system	30	4.47	1.91
Quality of the data resources used/ managed by the system	30	5.43	1.48
Compared to similar systems, the cost of operating this system is	30	3.97	1.88
User View of Information Features			
Availability	34	6.00	1.02
Usability	34	5.62	1.18
Understandability	34	5.15	1.40
Relevance	34	5.59	1.35
Format	34	4.94	1.65
Conciseness	34	5.00	1.39
Accuracy	34	6.00	0.98
Timeliness	34	6.12	0.95
Completeness	34	6.00	0.92
Consistency	34	6.41	0.70
User View of System Features			
Ease of use	34	5.00	1.54
Ease of learning	34	4.94	1.59
Flexibility	34	4.35	1.52
Sophistication	34	4.76	1.48
Customization	34	4.53	1.66
Functionality	34	5.56	1.02
Reliability	34	5.97	1.00
Importance	34	6.15	1.05
Extent to which this system is kept up to date	34	5.59	1.26
Dependability of the IS people while working on this system	34	5.94	1.07
Promptness of the IS people while working on this system	34	6.00	0.95
Knowledge of the IS people working on this system	34	6.09	1.06
Extent that IS people working on this system have the users' interest at heart	34	5.71	1.31

Cross Tabulation Results

The cross tabulations in Tables 3-8 below are based on the average rating of the multiple items by the respondents. The scale for the responses to the items is from 1 (Extremely Low) to 7 (Extremely High). The Low and High has been determined by whether the average is above or below the median rating for each group. While many of the systems have been consistently rated by its stakeholders (i.e. top managers rated the quality of the system high or low but the same as the users' rating of high or low), a notable number of quality ratings by the different stakeholder groups do not agree: One group rates the system as high quality while another group rates the same system low quality. Therefore, for these "controversial" systems, it becomes imperative to use a measure of system quality which reflects the various perspectives: upper management, developer, and system user.

Table 3
Comparing Hi/Lo User Ratings of Information Quality versus User Overall System Quality

		User System Ratings		Total
		Low	High	
User Information Ratings	Low	15	2	17
	High	1	16	17
Total		16	18	34

Table 4
Comparing Hi/Lo User Ratings of Information Quality versus Top Management

		User Information Ratings		Total
		Low	High	
Top Management System Ratings	Low	13	7	20
	High	4	9	13
Total		17	16	33

Table 5
Comparing Hi/Lo Top Management Ratings of System Quality versus User Overall System Quality

		User System Ratings		Total
		Low	High	
Top Management System Ratings	Low	12	8	20
	High	4	9	13
Total		16	17	33

Table 6
Comparing Hi/Lo Developer Ratings of System Quality versus User Information Rating

		User Information Ratings		Total
		Low	High	
Developer System Quality Rating	Low	11	6	17
	High	6	8	14
Total		17	14	31

Table 7
Comparing Hi/Lo Developer Ratings of System Quality versus User System Rating

		User System Ratings		Total
		Low	High	
Developer System Quality Rating	Low	12	8	20
	High	4	9	13
Total		16	17	33

Table 8
Comparing Hi/Lo Top Management Ratings of System Quality versus Developer Quality Rating

		Developer System Quality Rating		Total
		Low	High	
Top Management System Ratings	Low	12	7	19
	High	5	7	12
Total		17	14	31

Table 9
Summary of Rating Conflicts for Specific System

HI/LOW Rating Perspectives In Conflict	System Quality Rated By End-users	System Quality Rated By Top Management	System Quality Rated By Developer
Information Quality Rated By End-users	3/34	11/33	14/31
System Quality Rated By End-users		12/33	9/31
System Quality Rated By Top Management			12/31

CONCLUSIONS AND RECOMMENDATIONS

While the quality rating of the information provided by a system coincides rather closely with the user rating of that system as a whole, Table 3 indicates that in one instance the same user rated the information provided as high quality while otherwise rating the system as low quality; and the reverse is true in two instances. Thus, Table 9 reflects that by showing that in 3 out of 34 systems end-user ratings for information provided versus for the overall system conflict. More shockingly, Table 9 indicates that in almost half (14/31) of the systems studied here the quality rating for the same system by its' developers were the opposite of the quality ratings for the information received by the systems users. In 38 percent (12/31) of this small sample of systems, the system quality ratings by top managers and system developers were in direct conflict. Based on these results one must conclude that there is a strong need to measure system quality in a way which reflects the opinion of these different stakeholders.

The results confirm that an inflexible standard measure for system quality is not advisable. The quality of different systems must be measured in terms of the features that are important to the specific system objectives and user/management expectations. In other words, for some systems including the IS perspective may be critical to a valid assessment of system quality, while for other systems such a perspective may be irrelevant. The same can be said for the construct addressing the corporate perspective (that is, fit with corporate plans, goals, and objectives) of system quality. To manage this contingency view of system quality, the idea of first measuring the importance of each item in Appendix A is recommended. Only the items deemed important in the context of the specific system by the corresponding stakeholders (user, IS department, or corporate management) should be included in measuring its quality.

Alternatively, the measure of system quality can be a weighted average of the relevant items. Thus, Appendix A provides a measure of the extent to which the particular system satisfies each item, as well as a measure of importance for each item. Less important items are discounted based on their importance or completely discarded if "not applicable" to the quality of the specific system. Readers are reminded that the merger of the original "system quality" and "service quality" into one measure does not imply that these two constructs should be one. The merger in this case is strictly a simplification of the data collection instrument, based on the discussions at the pilot study host companies.

Recommendations to Practitioners

Some organizations do not have a corporate perspective for system quality. In these settings no one in the organization directly cares if a particular system fits with corporate objectives, mission statements, or even corporate plans. In some cases they probably should, but in other cases, company control is too decentralized to require a corporate perspective on system quality. In such cases managers need to represent a sub- corporate view (that is, subsidiaries or divisions). In other more integrated organizations, a corporate perspective on system quality is absolutely critical to IS department performance evaluation. Similarly, system quality from the IS department perspective is often ignored by IS managers, resulting in poorly designed systems that could lead to costly operational difficulties in the future.

Researchers and practitioners have been dealing with system implementation failures for at least 35 years, with such failures remaining a prevalent problem (Drevin & Dalcher, 2011.) While there is a lot of lip service in industry about the importance of ensuring system quality, even the companies that have dedicated considerable attention and resources to this area are falling short: too many system blow ups, too many unhappy users, and so on (Drevin & Dalcher, 2011). A common theme among the organizations supporting this study is that while system quality is clearly recognized as very important to the company in general and to the IS departments in particular, limited human resources and time constraints prevent them from pursuing system quality to the necessary extent. For example, if end users fail to clearly define system-specific problems in their complaints, the developers assume the system is satisfactory. Further, there is little effort to formally assess quality after system release.

As discussed earlier, many companies use a variety of approaches to improve system quality, and managing system quality can be difficult and expensive. The authors' intention here is not to replace what companies are already doing; instead, their primary objective is to develop a comprehensive but flexible and simple tool for assessing system quality after the system is operational. The measure proposed here should be viewed as comprehensive because it incorporates all the main stakeholders' perspectives to system quality. On the other hand, the results clearly indicate that the objectives and characteristics of a specific system will render irrelevant many of the items identified as important for system quality. Thus, for a particular system, a flexible measure of importance for each item becomes important in computing a weighted average for overall system quality. The item importance will indicate the weight that it should receive in the final quality score. The quality measure shown in Appendix A provides the vehicle for a quick, comprehensive, and valid assessment. The overall quality for a system is computed by the sum of all feature/item ratings multiplied by their respective importance ratings. This total is then divided by the total number of items after excluding "not applicable" items.

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APPENDIX A
SYSTEM QUALITY DIMENSIONS AND IMPORTANCE

If any item is not applicable to the system being evaluated, please enter N.A. in the "Importance" column. Otherwise, for rating all items on this page, please use the following scale:

1	2	3	4	5	6	7
Extremely Low	Very Low	Low	Neither	High	Very High	Extremely High

1. (User perspective) Using the scale above, please rate the *information provided by this system* in terms of the following features and their importance to you.	**Extent to which item is satisfied by the system**	**Item Importance**
a. Availability		
b. Usability		
c. Understandability		
d. Relevance		
e. Format		
f. Conciseness		
g. Accuracy		
h. Timeliness		
i. Completeness		
j. Consistency		

2. (User perspective) Using the scale above, please rate the following features of *this system* and their importance to you.	**Extent to which item is satisfied by the system**	**Item Importance**
a. Ease of use		
b Ease of learning		
c. Flexibility		
d. Sophistication		
e. Customization		
f. Functionality		
g. Reliability		
h. Extent to which this system is kept up to date (tangible)		
i. Dependability of the IS people while working on this system (reliability)		
j. Promptness of the IS people while working on this system (responsiveness)		
k. Knowledge of the IS people working on this system (assurance)		
l. Extent that IS people working on this system have the users' interest at heart (empathy)		

3. (IS perspective) Using the scale above, please rate this system along the following items and their importance to you.	**Extent to which item is satisfied by the system**	**Item Importance**
a. Integration with other existing systems		
b. Portability to different computing environments		
c. Effort required to maintain/improve this system		
d. Quality of the data resources used/managed by the system		
e. Compared to similar systems, the cost of operating this system is		
f. The security and data integrity of the system is		

4. (Top management perspective) Using the scale above, please rate this system along the following items and their importance to you.	**Extent to which item is satisfied by the system**	**Item Importance**
a. The fit of this system with the company's business model		
b. The fit of this system with the company's corporate plans		
c. The contribution of this system to the company's strategic vision/goals is		
d. Compared to the benefits to our firm, the development costs for this system are		
e. Compared to the benefits to our firm, the costs for operating/maintaining this system are		

Foreign Exchange Effects and Share Prices

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ABSTRACT

In recent years, U.S. multinational corporations have reported substantial gains and losses due to fluctuations in currency values. Previous studies have examined the impact on share prices of changes in accounting rules for foreign exchange gains and losses as reported on corporate balance sheets with mixed results. We examine the relationship between share prices and foreign exchange gains and losses as reported on cash flow statements using the foreign exchange effects as a proxy for currency risk. We test three models using 2011 second quarter percentage change in share price, monthly dollar change for the first two calendar quarters for 2011, and the monthly percentage change in share prices for the same period as dependent variables. Foreign exchange effects are found to be statistically significantly related to the quarterly change in share prices. Foreign exchange effects were also found to be significant for the April-May period coinciding with the earnings reporting season in the second quarter.

INTRODUCTION

As trade and economic activity over the past several decades increasingly globalized, companies throughout the world have expanded operations outside of their home countries. They have done so to increase market share and sales, improve profit margins, and achieve economies of scale. As the U.S., European, and Japanese economies declined in 2008 or experienced subsequent slow economic growth, firms have shifted their focus onto the emerging economies, especially China, which are currently experiencing rapid growth. FAS 52 took effect in 1981 and specifies the accounting procedures for consolidating foreign operations into the financial statements of U.S. multinational corporations (MNCs). As a result, an issue in finance has been the impact of the accounting for gains or losses on converting foreign currency denominated assets into U.S. dollars. Research in the 1980s and 1990s has produced mixed results concerning the impact of the transition in the foreign exchange accounting rules from FAS 8 to FAS 52 on stock returns (and prices).

Financial markets have changed substantially since the publication of previous studies on the stock market impact of the accounting treatment of foreign exchange gains and losses. Not only has real economic activity become globalized, financial markets and participants have as well. Over the past two decades we have seen the growing importance of the equity and fixed income trading of international investors with the increasing number of hedge funds, institutional investors, sovereign wealth funds, and wealth management firms participating in financial

markets. Since the stock market and economic decline of 2008, the U.S. financial markets have become dominated by these professional investors as individual investors have remained on the sideline. Currency trading has become increasingly globalized, and we have witnessed unexpectedly large changes in value in leading trading currencies such as the depreciation of the U.S. dollar before the 2008 economic decline and its subsequent appreciation and the more recent depreciation of the euro. In this new environment of global trade, global financial and currency markets, and global investing we might expect greater attention paid by investors to the impact of currency fluctuations on reported earnings and on the financial statements of corporations. As an example of the importance of currency value volatility to MNCs, the *Wall Street Journal* reported (Loftus 2011) that pharmaceutical firms Pfizer and Eli Lilly had benefitted from the recent depreciation in the U.S. dollar. About one-sixth of Lilly's increase in revenue was attributed to changes in exchange rates. Loftus cited Johnson and Johnson's annual report which indicated that each 1% change in the value of the U.S. dollar changes net income by $65 million and revenue by $300 million. Other U.S. multinationals would feel the same impact on earnings and revenue with changes in currency values. In an environment of volatile currency values, we would expect investors to take notice and react accordingly. In efficient markets, the changes of firms' financial conditions caused by fluctuations in exchange rates would be expected to be capitalized into share prices as investors absorb the information.

With the changes in the financial environment in which corporations with international operations exist, the accounting translation process under U.S. and international accounting standards may be more important today than expected in 1981 when the accounting profession modified the standards used to translate assets, liabilities, and equity of corporations. This would be especially true if investors are concerned with the impact of currency volatility on corporate financial conditions. The purpose of this study is to examine whether stock prices reflect the impact of currency risk (fluctuations in currency values) through reported foreign exchange gains or losses reported on corporate cash flow statements. We examine the relationship between stock prices of corporations that are publicly traded in the United States and the foreign exchange gains or losses as reported under FAS 52 and international accounting standards (IASB).

LITERATURE REVIEW: FOREIGN CURRENCY TRANSLATION, FAS 52, AND SHARE PRICES

Previous research has focused on two related areas: the impact of FAS 52 on share prices and the impact of currency volatility on share prices (or returns). The earlier studies examined the impact of FAS 52 and the change from the original accounting standard under FAS 8 to FAS 52. Garlicki, Fabozzi, and Fonfeder (1987) examined investor reaction to the earnings impact of the change from FAS 8 to FAS 52 and did not find any significant positive reaction and concluded that investors can discern the difference between accounting changes and earnings effects. Ziebart and Kim (1987) examined the pricing impact of the proposal of change in accounting for foreign currency gain or loss and found there were market effects and investors had reacted to the draft of FAS 52. Chin, Comisky and Mulford (1990) looked at the foreign currency translation gains and losses on the variations in security analyst forecasts and found that there was less variation in analyst earnings forecasts related to FAS 52. Kim and Ziebart (1991) examined the price reactions and stock trading volumes occurring with the draft and issuance of FAS 52. They found positive effects with the draft announcement and issuance of the standards. Soo and Soo (1994) found that investors do incorporate foreign exchange gains and losses reported in income statements into stock prices under FAS 52 and FAS 8 just as prices reflect impact of earnings of firms. Razaee (1994) used event study methodology and found return effects for the release of the draft of FAS 52 that were related to firm size and financial leverage, though no impact was found when the standard went into effect. Bartov and Bodnar (1995) investigated the impact of different currencies under the two accounting rules and found that it did make a difference in investors' ability to discern the impact on firm value.

Shin and Soenen (1999) concluded that there was a significant relationship between currency risk (using the U.S. dollar as the benchmark currency) and stock market performance. They also found that the relationship exists with a one-

month lag after the fiscal year with the impact decreasing over time. Bazaz and Senteney (2001) found that unrealized foreign currency gains and losses were valued by investors under FAS 52. Pinto (2001), using a sample of 204 MNCs with operations in Germany and Mexico, found that per share foreign currency translation gains and losses predicted changes in earnings per share. Louis (2003), however, found that the translation gain or loss was not important in valuing a sample of manufacturing firms. A related study on stock prices and currency risk has been published by Jorion (1991) who found a statistically significant relationship between stock returns and the value of the U.S. dollar. DeBondt (2008) tested a stock price model that indicated fundamental factors beyond a firm's price-earnings ratio, such as exchange risk, are important in determining share price.

In general, the results on the return or pricing impacts of the currency accounting under FAS 52 (and relative to its predecessor FAS 8) have been mixed with initial results not indicating significant abnormal returns and later studies providing evidence of some impact as it relates to earnings. Further studies have concluded that financial leverage and other factors along with currency translation effects influence stock prices and returns. Previous work has concentrated on either the pricing or return impact of the change in foreign currency treatment under the old and new accounting standard or on the relationship between the currency translation account in the balance sheet and stock prices/returns.

HYPOTHESIS AND EMPIRICAL MODELS

Hypothesis and General Model

Under FAS 52 gains or losses on the conversion (or remeasurement) of assets and liabilities of foreign entities are to appear as an adjustment in stockholders' equity of parent corporations (Financial Accounting Standards Board, 1981). Additionally, the cash flow statement includes an account titled Effect of Exchange Rate Changes (or foreign exchange effects) which measures the impact of currency translation on a firm's cash account. Its purpose is to be an adjustment to the cash balance of the firm to account for the change in cash and cash equivalents due to changes in currency values (Deloitte, 2010 and International Accounting Standards Board, 2010). The Effect of Exchange Rate Changes appearing on the cash flow statement is an account used to "balance" the change in cash and cash equivalents on that statement with the change in the firm's cash account on its balance sheet during its fiscal year. Foreign exchange effects function in a similar way to the foreign currency translation account on the balance sheet which insures that total assets match a firm's liabilities and equities after accounting for the firm's various currencies.

The focus of this study is on the relationship between foreign currency gains or losses as measured by the foreign exchange effects on the cash flow statement and share prices. Our main hypothesis is that variations in stock prices are related to the foreign currency translation account as measured by the foreign currency effect in a firm's cash flow statement. Specifically, the general empirical model to be tested is:

$$SP_t = \alpha + \beta 1\ FXE + \beta 2\ LEV + \beta 4\ PBV + \beta 4\ EPS + \varepsilon \quad (1)$$

Where:

SP_t = share price in month t

FXE = foreign exchange effect per share in fiscal year n

LEV = long-term debt to equity in fiscal year n

PBV = price to book value in fiscal year n

EPS = earnings per share in fiscal year t

ε = error term

LEV, PBV, and EPS are control variables to account for other factors that have been found to explain stock returns and prices in prior studies (Fama and French, 1992; Rezaee, 1994; Dhaliwal, Subramanyam and Trezevant, 1999; and Hahn and Lee, 2009). We hypothesize there is a statistically significant relationship between the foreign exchange effect (gain or loss) that appears on firms' cash flow statements and the share prices of firms. Given the changes in financial and currency markets that have occurred, we expect, *a priori*, that investors would incorporate into stock prices the risk of volatile currencies in addition to the fundamental company factors found by previous studies to effect stock returns and prices. FXE is interpreted as a cash flow statement account that is a proxy for currency risk. We expect that investors would be more concerned with the impact of currency risk on a

firm's cash flows than with the existence of an accounting entry (consistent with the conclusion of Garlicki, et. al.). Our hypothesis predicts a statistically significant and positive relation between FXE and share prices.

Empirical Models Tested

Given the general model in equation 1 we tested three models using different dependent variables which are shown in Table 1. The explanatory variables are the same for each of the three models. First, the explanatory variables were regressed against the 13-week percentage change in share prices (Model 1). The dependent variable measures the change in share prices over the period of June to April, representing the change over the second quarter of 2011. Model 1 determines the relationship of share price change and foreign exchange effects over a quarterly period. Model 2 disaggregates the quarterly change examined in Model 1 into monthly dollar change. The explanatory variables were regressed against the monthly dollar change (April-May, March-April, February-March, January-February, and December-January) producing five estimated equations for Model 2. We expect that information about foreign exchange gains or losses made public would be reflected in the changes in share prices rather than reflected in the end-of-the-month prices reported in the database. Model 3 examines the relationship between the explanatory variables and the monthly percentage price change to determine whether the change in share prices relative to the initial price captures the impact of foreign exchange effects.

DATA

The data is taken from the Stock Investor Professional database of the American Association of Individual Investors for 2010 and 2011. The total sample consists of 2,461 corporations that have shares traded on exchanges in the United States (the sample includes both U.S. domestic and non-U.S. firms with shares traded on U.S. exchanges) and have foreign currency gains or losses (foreign exchange effects) on the statement of cash flows. Of the total sample, 1,158 of the firms reported losses in 2010 and 1,303 reported gains. Companies with missing data were deleted as were financial firms (consistent with Fama and French, 1992). Using the listing rules of NASDAQ, firms with share prices below one dollar were deleted from the sample. The usable sample is composed of 1,851 corporations.

The data for the independent variables were collected for the 2010 fiscal year and were regressed against the end-of-the-month closing share prices for each month of the first and second calendar quarters of 2011. The data for foreign exchange effects came from the 2010 cash flow statements

Table 1
Variables in Empirical Models

Model 1 **13-Week Price Change in Stock Price** **Dependent Variable**	**Explanatory Variables**
13-week Price Change	FXE,LEV, PBV,EPS
Model 2 **Monthly Change in Stock Price** **Dependent Variable**	**Explanatory Variables**
Monthly Price Change	FXE, LEV, PBV,EPS
Model 3 **Percentage Change in Stock Price:** **Dependent Variable**	**Explanatory Variables**
Percentage Price Change	FXE, LEV, PBV,EPS

Where:

FXE = foreign exchange effects per share in fiscal year n
LEV = long-term debt to equity ratio in fiscal year n
PBV = price-to-book value ratio in fiscal year n
EPS = earnings per share in fiscal year n

of our sample firms. The data for LEV, PBV, and EPS were also for 2010. We expect the impact of foreign exchange effects on share prices would occur after the issuance of the firms' financial statements for 2010 and would tend to diminish over time similar to the findings of Pinto, and Shin and Soenen. That is, with the public disclosure of financial statements in early 2011, we expect share prices to then change in reaction as investors discount the currency impact information into prices.

RESULTS

Descriptive Statistics and Correlations

Descriptive statistics for the explanatory variables are in Table 2. The median foreign exchange effect (FXE) per share reported on the sample cash flow statements was a loss of $0.28 in 2010 with a standard deviation of $5.56 a share. For the independent variables, the variation as measured by standard deviation is relatively large, especially for LEV. Both EPS and FXE have large deviation relative to the mean values. Table 3 contains the Pearson correlation coefficients which indicate generally low association among the independent variables. In Table 3, EPS is negatively associated with financial leverage (LEV) and price-to-book ratio. Higher earnings per share are associated with lower levels of long-term debt and lower price-to-book value. Higher EPS may be consistent with lower share prices relative to the book value per share, perhaps implying a lower valuation for companies that have higher earnings in 2010.

Regression Results

Using Model 1 as a measure of a multi-month period relationship between percentage share price and FXE, as shown in Table 4, most of the explanatory variables are significant at the 0.01 level with the exception of LEV. The equation is significant at the 0.01 level. The regression coefficient for FXE is similar in magnitude to the coefficient for EPS and PBV implying a corresponding impact of FXE on the percentage change in share prices. For the second quarter of 2011, the foreign exchange effect on the cash flow statement is statistically significant and positively related to the percentage share price change. As

Table 3
Correlation Coefficients of Explanatory Variables

	FXE	EPS	PBV	LEV
FXE	1.00			
EPS	0.033	1.00		
PBV	0.0183	-0.0187	1.00	
LEV	0.0343	-0.0168	0.267	1.00

Table 4

Foreign Exchange Effects and 13-Week Percentage Change in Stock Prices The 13-week percentage change in share prices for the period of June to April 2011 was regressed against the explanatory variables of foreign exchange effects (FXE), long-term debt to equity ratio (LEV), price-to-book value ratio (PBV), and EPS.

Variable	Coefficient	T-statistic
Intercept	-5.518	-8.528*
EPS	0.194	2.675*
PBV	0.525	3.124*
LEV	0.006	1.136
FXE	0.232	2.880*
R2 = 0.014		
F statistic = 7.520*		
*significant at the .01 level		

Table 2
Descriptive Statistics for Explanatory Variables

Statistic	FXE per share (exchange rate effects)	LEV (long-term debt to equity)	PBV (price to book value ratio)	EPS
Mean	-0.16	49.54	2.65	1.55
Median	-0.28	19.80	1.89	0.98
Standard Deviation	5.56	89.79	2.76	6.18
Minimum	-141.8	0	0.05	-21.79
Maximum	44.33	905.60	48.43	231.69

a proxy for the impact of currency risk (or volatility), FXE is a contributor to the change in share prices.

In Model 2, with the results shown in Table 5, we break out the overall quarterly effect of FXE into monthly changes in share price on a dollar basis. FXE is significant at the Ø.1Ø level for the April-May period, with a positive sign as expected but is not significant for the months prior to and after. EPS is significant at the Ø.Ø1 level for each month period; however, the relationship is negative for the March to April and April to May periods. The significance of earnings per share is positive for the earlier periods, consistent with previous studies that have shown net income as an important determinant of share price. This result is also consistent with expectations that stock prices discount corporate earnings, though the sign of the coefficients is negative for the last two monthly periods. The significance of PBV and LEV varied over the six month period. All of the regressions are significant at the Ø.Ø1 level.

The influence of FXE on the dollar price change occurs during the period when most U.S. firms publicly report their earnings; that is during the earnings season. In an efficient market, as earnings are reported to the public and with changes in currency values reported as part of the public disclosure process, investors would be expected to react to the new information with share prices changing as a consequence. Once the information has been discounted into stock prices, we would not expect further changes unless new information comes out in regard to currency fluctuations. Overall, the results corroborate our hypothesis that exchange rate effects are associated with share price changes in the short-run, at least.

In Model 3, shown in Table 6, FXE is positively related and significant at the Ø.Ø5 level for the February-March and March-April periods, and at the Ø.1Ø level for the April-May periods, though the regression equations are not consistently statistically significant as with Model 2 results. The LEV variable is positively related to the dependent variable and significant at the Ø.Ø1 level for the December –January period only. The PBV is also positively related to the dependent variable and significant at the Ø.Ø1 level for March-April and significant at the Ø.1Ø for February-March, and is negatively related to the percentage change

Table 5
Foreign Exchange Effects and Month to Month Change in Stock Price

The dollar change in share prices, month-to-month, for the first six months of 2Ø11 were regressed against the explanatory variables of foreign exchange effects (FXE), long-term debt to equity ratio (LEV), price-to-book value ratio (PBV), and EPS. Below each coefficient in parenthesis is the t-statistic.

	Coefficients					Regression	
Period	**Intercept**	**EPS**	**PBV**	**LEV**	**FXE**	**R2**	**F**
May-April	-Ø.151 (-1.45)	-Ø.295* (-25.33)	-Ø.Ø37 (-1.36)	-Ø.ØØØ1 -(Ø.13)	-Ø.ØØ2 (-Ø.15)	Ø.26	16Ø.9*
April- March	Ø.611* (5.35)	-Ø.Ø64* (-5.Ø2)	Ø.161* (5.42)	.ØØØ3 (Ø.3Ø)	Ø.Ø26*** (1.85)	Ø.Ø3	15.57*
March -Feb	-.235** (-2.Ø6)	Ø.328* (25.72)	Ø.168* (5.67)	-Ø.ØØ2** (-2.Ø2)	Ø.Ø23 (1.59)	Ø.27	174.2*
Feb - Jan	-Ø.764* (-5.24)	1.Ø82* (66.36)	Ø.135* (3.57)	-Ø.ØØØ6 (-Ø.51)	Ø.ØØ6 (Ø.31)	Ø.71	11Ø4.2*
Jan- Dec	Ø.182 (1.64)	Ø.Ø66* (5.29)	Ø.ØØ5 (Ø.18)	Ø.ØØ2*** (1.78)	-Ø.ØØ5 (-Ø.39)	Ø.Ø2	7.8*

*significant at the .Ø1 level
**significant at the .Ø5 level
***significant at the .1Ø level

Table 6
Foreign Exchange Effects and Monthly Percentage Change in Stock Prices

The monthly percentage changes in share prices for the first last month of 2010 and the first five months of 2011 were regressed against the explanatory variables of foreign exchange effects (FXE), long-term debt to equity ratio (LEV), price-to-book value ratio (PBV), and EPS. Below each coefficient in parenthesis is the t-statistic.

	Coefficients					Regression	
Period	Intercept	EPS	PBV	LEV	FXE	R^2	F
April-May	-0.030* (-7.81)	0.0003 (0.67)	0.0002 (0.19)	0.00001 (0.26)	0.0008*** (1.77)	0.002	0.96
March-April	0.012* (3.28)	0.0002 (0.55)	0.003* (2.70)	0.00004 (1.49)	0.001** (2.32)	0.01	4.68*
Feb-March	0.005 (1.22)	0.001 (1.42)	0.002*** (1.82)	-0.00001 (-0.28)	0.001** (2.22)	0.01	2.64**
Jan-Feb	0.040* (8.84)	0.0001 (0.24)	0.0004 (0.38)	0.000004 (0.10)	0.0006 (1.06)	0.001	0.35
Dec-Jan	0.014* (3.44)	-0.0002 (-0.32)	-0.002** (-2.18)	0.0001* (3.05)	-0.0008 (-1.59)	0.01	3.45*

*significant at the .01 level
**significant at the .05 level
***significant at the .10 level

in share price and significant at the 0.05 level for the December-January period.

CONCLUSION

Using three models to examine the relationship of foreign exchange effects, the results indicate a correlation between exchange rate effects on the cash flow statements and changes in share prices. The strongest relationship is over the thirteen week period from June to April. Over that quarter, exchange rate effects may be capturing the impact of investors capitalizing currency risk into share prices. On a monthly dollar price basis, exchange rate effects have a significant relationship to share price change during the earnings season of the second quarter of 2011 with no impact on share prices in the immediate months prior to or after March-April. This is consistent with an efficient markets expectation that information would be discounted into share prices when the information is disseminated publicly. On a percentage basis, FXE has a significant and positive relationship over the second quarter, though the results may not be sufficient to indicate a strong relationship between share price changes and exchange rate effects. Overall, our results are generally consistent with the hypothesis that share prices (or changes in share prices) are positively correlated to exchange rate effects on the cash flow statement and that FXE may be capturing investor reaction to currency risk. In addition to considering the "usual suspects" that explain returns-- market-to-book value, long-term debt-to-equity, and EPS-- currency risk as proxied by cash flow statement exchange rate effects may be another factor that should be taken into consideration by investors. In a world with currency volatility that impacts the earnings of multinational firms, investors may want to include currency risk as one of the factors in evaluating the return potential of stocks.

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Bankruptcy, Inequitable Conduct, and the *Therasense* Decision: An Analysis of Dippin' Dots Inc.

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ABSTRACT

Dippin' Dots Inc., a Kentucky manufacturer of cryogenically frozen ice cream, found itself garnering much attention in late 2011 due to its bankruptcy. However, Dippin' Dots was also of interest for other reasons in 2011. Specifically, the Therasense federal patent decision and the subsequent updated guidelines on Inequitable Conduct put out by the US Patent Office fit very closely with a 2003 patent case involving Dippin' Dots. These guidelines resolved an important ambiguity and lack of clarity in US patent doctrine. Had these guidelines existed in 2003, it is possible the Dippin' Dots bankruptcy may not have occurred, or may have occurred in a different format.

INTRODUCTION: WHY THIS SUBJECT SHOULD BE OF INTEREST

The patent system has been an integral part of the United States economy for over 150 years. The explicit definition, as given by the U.S. Patent and Trademark Office (2012), is a property right granted by the Government of the United States of America to an inventor "to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States" for a limited time in exchange for public disclosure of the invention when the patent is granted. This process is in place to seemingly protect an inventor may result in financial benefits from the aforementioned invention. One would tend to think it absurd that the patent application process and subsequent approval would hasten the financial collapse of a corporation.

However, in 2003, Curt Jones, the majority owner of an innovative ice cream company called Dippin' Dots, received a jury verdict of having committed Inequitable Conduct1 before a federal government agency, specifically the U.S. Patent Office (Dippin' Dots, Inc. v. Mosey, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007). Inequitable Conduct was in the past sometimes referred to as "fraud on the patent office". Such a finding is extremely rare, and usually arises only from egregious and abusive conduct. Many felt that this verdict of Inequitable Conduct for Mr. Jones was undeserved, unjustified, and disproportionate to his offense.

In 2011, the US Patent Office came out with improved guidelines for Inequitable Conduct ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633). Also in 2011, Dippin' Dots Inc. declared bankruptcy ("Dippin' Dots Tries to Avoid Meltdown", Wall St. Journal, November 28, 2011, by Katy Stech).

In considering the information given above, as well as several other factors, this analysis will attempt to answer the following questions:

1. If the updated guidelines had existed in 2003, would the verdict of Inequitable Conduct against Curt Jones have occurred?
2. Did the 2003 verdict of Inequitable Conduct contribute to Dippin' Dots 2011 bankruptcy?
3. Was Curt Jones treated reasonably and fairly by the US patent system?

1 Within this document, the words "Issue", "Issued", "Issuance", "Inequitable Conduct", "Assignment", "Assign", "Examiner", and "Applicant" will be capitalized to signify that they are legal terms of art within the patent industry, and thus have a legal significance beyond their ordinary meaning.

4. What are the ramifications for other corporations?

BACKGROUND: DIPPIN' DOTS, CURT JONES, AND INEQUITABLE CONDUCT

Dippin' Dots, Inc. (DDI) is an ice cream company headquartered in Paducah Kentucky. The Dippin' Dots products are mainly tiny beads of ice cream (*Dippin' Dots, Inc. v. Mosey*, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007). In 1988, microbiologist Curt Jones used his background in cryogenic technology to invent Dippin' Dots. More information about Dippin' Dots can be found at www.dippindots.com, and this site remains active even during the company's bankruptcy. In 1992, Mr. Jones was awarded a patent for his method of manufacturing ice cream. (U.S. Patent No. 5,126,156) That patent, hereafter referred to as the '156 patent, Mr. Jones eventually Assigned to the company he founded, DDI. (U.S. Patent No. 5,126,156)

The '156 patent had 14 claims. A patent "claim" is a mechanism for establishing the boundaries of an invention (Method of Patent Examining Procedure (MPEP) § 2106 C). Most patents have more than one claim. During the process of obtaining a patent, the Applicant and the Examiner engage in a process of modifying and altering the various claims within a patent application, depending on numerous factors. The Patent Office charges a fee for each separate claim above a certain minimum (U.S. Patent and Trademark Office Fee Schedule, effective September 26, 2011 (Last Revised on January 10, 2012)).

An Applicant and an Examiner usually start out at different positions regarding the scope of claims within a patent application. This is at least because the Examiner has an incentive to protect the integrity of the patent system, while the Applicant has an interest in being awarded a strong, broadly enforceable patent. The result is a negotiation process in which an Examiner may try to weaken a claim, or refuse to Allow any claims, while an Applicant may try to strengthen a claim.

This negotiation process requires the Applicant to be completely forthcoming with the Examiner. Often, an Applicant will have better and more complete information about a particular area of technology than an Examiner. Consequently, it is important for the integrity of the patent process for an Applicant to be completely forthcoming to the Examiner, and to the entire U.S. Patent Office. There is no dispute that Mr. Jones was not completely forthcoming. (*Dippin' Dots, Inc. v. Mosey, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007)*

Claim 1 of the '156 patent reads as follows.

> A method of preparing and storing a free-flowing, frozen alimentary dairy product, comprising the steps of: preparing an alimentary composition for freezing; dripping said alimentary composition into a freezing chamber; freezing said dripping alimentary composition into beads; storing said beads at a temperature at least as low as -20° F. so as to maintain said beads free-flowing for an extended period of time; bringing said beads to a temperature between substantially -10° F. and -20° F. prior to serving; and serving said beads for consumption at a temperature between substantially -10° F. and -20° F. so that said beads are free flowing when served (U.S. Patent No. 5,126, 156, claim 1).

Within the initial application that eventually issued as the '156 patent, filed on March 6, 1989, claim 1 omitted the final "serving" step. (*Dippin' Dots, Inc. v. Mosey*, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007) After some negotiation between the Examiner and Mr. Jones, the '156 patent Issued in June 1992. (prosecution history of U.S. Patent No. 5,126,156)

Much of Mr. Jones' problems arose from sales made at the Festival Market in Lexington, Kentucky, more than one year before Mr. Jones filed his patent application. (*Dippin' Dots, Inc. v. Mosey*, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007) This is because of an important patent statute known as 102(b), partially reproducd herein.

> 35 U.S.C. § 102 Conditions for patentability; novelty and loss of right to patent.
>
> A person shall be entitled to a patent unless -

> . . .
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or **in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States . . .**
>
> (35 United State Code Section 102(b), emphasis added)

As shown above, sales made more than one year before a patent application's priority date are barred by the "in public use or on-sale" portion of 35 U.S.C. § 102(b). For the '156 patent, this critical date is March 6, 1988. Unfortunately, starting on July 24, 1987, Mr. Jones sold cryogenically-prepared, beaded ice cream at the Festival Market. During Mr. Jones's time at Festival Market, which lasted at least until July 29th, 1987, over 800 customers purchased his beaded ice cream while others received free samples. (*Dippin' Dots, Inc. v. Mosey*, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007)

It is undisputed that the Festival Market sales were never disclosed to the U.S. Patent Office during prosecution of the '156 patent. (*Dippin' Dots, Inc. v. Mosey*, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007) Further, the declaration of commercial success which ultimately persuaded the examiner to grant the patent contained a sworn statement by Jones that "[t]he initial sales were in March of 1988," which was on or after the critical date. (*Dippin' Dots, Inc. v. Mosey*, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007) Thus, not only were the Festival Market sales not disclosed, but Mr. Jones made a statement that was arguably misleading.

In testimony, Mr. Jones argued around this by stating that at Festival Market he only practiced the first three steps of the claimed method, not the storing, bringing, or serving steps. (*Dippin' Dots, Inc. v. Mosey*, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007) He also testified that he considered the evidence of what had happened at Festival Market to be irrelevant to patentability. Specifically, at least the "bringing" and "storing" steps were not practiced at the time in question. This in turn bolstered Mr. Jones' contention that he could not have committed Inequitable Conduct. (*Dippin' Dots, Inc. v. Mosey*, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007)

Nevertheless, despite the aforementioned information, in 2003 a jury found Mr. Jones to have committed Inequitable Conduct before the U.S. Patent Office. (*Dippin' Dots, Inc. v. Mosey*, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007) However, the reasons the jury did so may have been based on the fact that the standards for Inequitable Conduct were somewhat unclear, even to experts in the patent field. Paradoxically, the jury awarded zero damages for this commission, although eventually Dippin' Dots was forced to pay some portion of the attorney costs of their opponent. (*Dippin' Dots, Inc. v. Mosey*, Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007) This 2003 verdict was upheld by the Court of Appeals of the Federal Circuit (CAFC) in 2007. (*Dippin' Dots, Inc. v. Mosey,* Court of Appeals of the Federal Circuit, 476 F.3d 1337, February 9, 2007)

In 2003, the standard for sustaining a verdict of Inequitable Conduct required a presence of both materiality and intent. (*Therasense v. Becton-Dickenson, Court of Appeals for the Federal Circuit; May 25, 2011*) If materiality was high, a verdict of guilty was still sustainable even if intent was low. Thus, the two could exist in inverse proportion, sometimes referred to as a "sliding scale". (*Therasense*) Unfortunately, this makes it difficult to know in advance what the boundaries are for Inequitable Conduct, which in turn makes it difficult for patent attorneys to know how to advise their clients. (*Therasense*) It also means that juries, usually unfamiliar with U.S. patent doctrine, are sometimes charged with making very difficult and complex legal judgments. The jury that found against Mr. Jones is one example of this.

In 2011, the CAFC criticized this practice, stating that placing intent and materiality together on a sliding scale further weakens the showing needed to establish Inequitable Conduct (*Therasense*) This modification to the inequitable conduct doctrine held patents unenforceable based on a reduced showing of intent if the record contained a strong showing of materiality, and vice versa. In effect, this change conflated, and diluted, the standards for both intent and materiality. (*Therasense*)

Along comes *Therasense* (too late for Curt Jones)

Therasense, Inc. (now Abbott Diabetes Care, Inc.) and Abbott Laboratories (collectively, "Abbott") filed numerous patent applications. In 1997, Abbott studied the novel features of their application and decided to present a new reason for a patent. The new claims were presented to the examiner based on a new sensor that did not require a protective membrane. It was asserted that this distinction overruled a prior art reference being asserted by the Examiner, which required a protective membrane. The Examiner requested an affidavit to show that the prior art required a membrane for whole blood at the time of the invention. To meet this evidentiary request, Abbott submitted a declaration to the U.S. Patent and Trademark Office ("PTO").

However, several years earlier, while prosecuting the European counterpart to the U.S. patent, Abbott made contradictory representations to the European Patent Office. Specifically, to distinguish a German reference labeled D1, which required a membrane, Abbott's European patent counsel argued that their invention did *not* require a membrane. (*Therasense*, emphasis added)

Ultimately these contradictory statements eventually caught up to Abbott. They said one thing at the European Patent Office in order to get a European patent. (*Therasense*) They made a completely opposite and damaging claim before the United States Patent Office in order to get a US patent. (*Therasense*) Eventually the truth came out, and both patents were found invalid due to Inequitable Conduct. (*Therasense*) However, the (higher) CAFC sent it back to the (lower) District Court to re-litigate the issues using the "but for" standard, rather than the confusing "sliding scale" standard.

In this case, the district court held the '551 patent unenforceable for Inequitable Conduct because Abbott did not disclose briefs it submitted to the EPO regarding the European counterpart of the '382 patent. (*Therasense*) However, because the district court found statements made in the EPO briefs material under the PTO's Rule 56 materiality standard, not under the but-for materiality standard, the *Therasense* court vacates the district court's findings of materiality. (*Therasense*) On remand, the district court will determine whether the PTO would not have granted the patent but for Abbott's failure to disclose the EPO briefs.

Therasense and the US PTO

In conformity with the *Therasense* holding, 37 CFR 1.56(b) is proposed to be amended as follows:

> . . . information is material to patentability if it is material, where materiality is determined by:
>
> 1. The Office would not allow a claim if it were aware of the information, applying the preponderance of the evidence standard and giving the claim its broadest reasonable construction; or
> 2. The applicant engages in affirmative egregious misconduct before the Office as to the information. Neither mere non-disclosure of information to the Office nor failure to mention information in an affidavit, declaration, or other statement to the Office constitutes affirmative egregious misconduct.
>
> ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/ Thursday, July 21, 2011/Proposed Rules 43633)

Applying the above to Dippin' Dots principal facts, it is still likely that Mr. Jones' pre-critical date sales would be considered material. These sales would likely have affected the Examiner's decision, thus part (1) is met. The more important issue is part (2), which explicitly states that *non-disclosure of information would not constitute affirmative egregious misconduct*. This matches very closely with the behavior of Mr. Jones.

A district court should not use a "sliding scale," where a weak showing of intent may be found sufficient based on a strong showing of materiality, and vice versa. ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/ Thursday, July 21, 2011/Proposed Rules 43633) Moreover, a district court may not infer intent solely from materiality. ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633) Instead, a court must weigh the evidence of intent to deceive independent of its analysis of

materiality. ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633) Proving that the applicant knew of a reference, should have known of its materiality, and decided not to submit it to the PTO does not prove specific intent to deceive. ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633)

Coordination between federal agencies and federal courts

While *Therasense* does not require the Office to harmonize the materiality standards underlying the duty of disclosure and the Inequitable Conduct doctrine, the U.S. Patent Office believes that there are important reasons to do so. ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633) The materiality standard set forth in *Therasense* should reduce the frequency with which applicants and practitioners are being charged with Inequitable Conduct. ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633)

The *Therasense* court stated they are not bound by the definition of materiality in PTO rules (*Therasense*). While the *Therasense* court respected the PTO's knowledge in its area of expertise, the routine invocation of Inequitable Conduct in patent litigation has had adverse ramifications beyond its effect on the PTO. (*Therasense*)

The US Patent Office tries to be a final authority on patent doctrine, but must also defer to the federal courts. The *Therasense* court tightened the standards for finding both intent and materiality in order to redirect *a doctrine that has been overused to the detriment of the public*. (*Therasense*, emphasis added) Mr. Jones would certainly agree that this doctrine was overused to his detriment.

After *Therasense*, the US PTO breathed a sigh of relief and decided that this would be a good time to clarify the guidelines for Inequitable Conduct. There no longer is any sliding scale, no strange inverse relationship between materiality and intent. Instead, there will now be one standard. The U.S. Patent Office also believes that a unitary materiality standard is simpler for the patent bar to implement. ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633) Under the single ''but-for-plus'' standard of materiality, patent applicants will not be put in the position of having to meet one standard for materiality as defined in *Therasense*, and a second, different materiality standard to fulfill the duty to disclose before the U.S. Patent Office. ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633)

Although the Office is proposing to revise §§ 1.56(b) and 1.555(b) to match the ''but-for-plus'' materiality standard announced in *Therasense,* the Office recognizes that *Therasense* could be reviewed by the U.S. Supreme Court. ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633)

False Accusations of Inequitable Conduct

A verdict of Inequitable Conduct is rare. The problem is not that Inequitable Conduct is rare. The problem is when Inequitable Conduct is asserted, even on dubious grounds, it is difficult to defend against. Thus, patent litigation counsel frequently assert Inequitable Conduct, knowing a successful verdict is unlikely, but instead to distract and anger their opponent, because it causes so much extra work, and because asserting it is quite easy while defending against it is difficult. "If your opponent is of choleric temperament, irritate him". ("Art of War", Sun Tzu)

A charge of Inequitable Conduct conveniently expands discovery into corporate practices before patent filing, and disqualifies the prosecuting attorney from the patentee's litigation team. (*Therasense*, quoting Stephen A. Merrill et al., Nat'l Research Council of the Nat'l Academies, *A Patent System for the 21st Century* 122 (2004)). Moreover, Inequitable Conduct charges cast a dark cloud over the patent's validity and paint the patentee as a bad actor. Further, prevailing on a claim of Inequitable Conduct often makes a case "exceptional" under 35 U.S.C. § 285, leading potentially to an award of attorneys' fees to the party injured by the Inequitable Conduct. (*Therasense*) Indeed, attorney fees were eventually awarded to Mr. Jones' opponents. Without the verdict of Inequitable Conduct, this award would have been much less likely to have occurred.

With these consequences, it is no wonder that asserting Inequitable Conduct has become a common litigation tactic. One study estimated that eighty percent of patent infringement cases included allegations of Inequitable Conduct. (*Therasense*) The habit of charging Inequitable Conduct in almost every major patent case has become an absolute plague. (*Therasense*) In Mr. Jones' case, one could argue that his opponents made the usual assertions of Inequitable Conduct without a serious expectation that they would be successful, and then somehow landed a lucky punch.

Dippin' Dots and McDonalds

Dippin' Dots embarrassing verdict did not prevent them from developing a very promising arrangement to sell their products in various McDonalds locations. As shown in court documents filed by Regions Bank in 2011, very close to the time of bankruptcy, Dippin' Dots began borrowing in 2003. The reasons for this borrowing are unclear, but one of them may have been to finance an expansion of their manufacturing capability. (*Regions Bank v. Dippin' Dots, Motion to Appoint Bankruptcy Receiver*, February 25, 2011) This expansion may have been to accommodate a potential increase in demand from McDonalds, a customer/partner with capability of generating very high demand for Dippin' Dots products. (History – DippinDots.com, "regular menu offering" in McDonald's starting in 2002, and "growing to several hundred McDonald's restaurants")

These factors have nothing to do with Inequitable Conduct, and are instead only meant to provide balance for the contention that the finding of Inequitable Conduct adversely impacted Dippin' Dots. Specifically, McDonald's was still willing to go forward with Dippin' Dots despite the verdict of Inequitable Conduct. (Wall St. Journal, 2005) This suggests that the Inequitable Conduct verdict did not by itself injure Dippin' Dots reputation enough to contribute to their bankruptcy. However, if one takes into account the entire scenario it may have been better for Dippin' Dots if McDonald's had been dissuaded by the adverse verdict. If so, perhaps Dippin' Dots might not have become so heavily leveraged and thus burdened with overwhelming and ultimately unmanageable interest payments. (*Regions Bank v. Dippin' Dots, Motion to Appoint Bankruptcy Receiver*, February 25, 2011)

DDI, Curt Jones, and the U.S. Patent Office

Mr. Jones' unfortunate verdict in 2003 also did not prevent Dippin' Dots from continuing to make use of the US patent system, as shown in Appendix A. This is another factor in a large group of factors suggesting that the doctrine of Inequitable Conduct was misapplied with respect to Curt Jones and, by extension, his company Dippin' Dots. Clearly Mr. Jones takes the U.S. patent system very seriously. Otherwise, why would he file so many patent applications?

Further (as shown on the facing page), for part of July and August of 2005, Curt Jones was the featured inventor shown on the front page of the US PTO website. (archives of www.uspto.gov, front page, July 18, 2005) This is a very rare honor. This is also symbolic of the ambiguous message that the U.S. Patent Office sent to Mr. Jones. Curt Jones was so popular, and such a strong symbol of a successful independent inventor, that the US Patent Office featured him on the most visible page of their website. (archives of www.uspto.gov, front page, July 18, 2005) At the same time, Mr. Jones was under a verdict of Inequitable Conduct, a rare punishment that has only happened to a handful of persons among literally millions of inventors. This is certainly a "mixed message". It would be justifiable if Curt Jones felt that the US Patent Office was inconsistent and contradictory in its treatment of him.

CONCLUSION

In putting out the updated guidelines on Inequitable Conduct ("Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633), the US Patent Office states that the earlier state of the law in this area was ambiguous and unsatisfactory (see "to the detriment of the general public", FR page X). Specifically, if these 2011 guidelines existed in 2003 Curt Jones, and by extension Dippin' Dots, may not have had the problems associated with a finding of Inequitable Conduct.

It is the authors' belief that governmental agencies are not in the business of destroying a perfectly good corporation. However, ambiguous

regulations and overzealous prosecution may have detrimental effects on the capitalist system that so importantly defines the United States economy.

It is interesting to pontificate that if the updated guidelines (a.k.a. the *Therasense* guidelines) had existed in 2003, would the verdict of Inequitable Conduct against Curt Jones have occurred? The evidence shows that this verdict probably would not have occurred. The change of the rules to carve out "mere non-disclosure of information" from Inequitable Conduct might have been written with Curt Jones in mind, as the facts match up very closely. Did the 2003 verdict of Inequitable Conduct contribute to Dippin' Dots 2011 bankruptcy? It can also be argued that this is probably not the case. These events were too far apart in time, and the injury to Dippin' Dots reputation did not prevent them from, for example, further developing their relationship with McDonald's. The PTO even featured Mr. Jones on the front page of their website as an inventor to be emulated and respected, more than 1.5 years after the verdict of Inequitable Conduct. Was Curt Jones and Dippin' Dots treated reasonably and fairly by the US patent system? Although both sides could make convincing arguments, it would appear that he was not treated fairly. The federal court system and the US PTO together created a carve-out exception which likely would have saved Mr. Jones from the verdict of Inequitable Conduct. However, this carve-out came eight years too late to help Mr. Jones. Also, even after the verdict of Inequitable Conduct, Mr. Jones continued to spend considerable money and resources filing U.S. patent applications. Finally, what are the ramifications for other corporations? It is clearly shown in this study that corporations should make use of protective resources such as the US PTO. However, a clear understanding of the patent process is necessary to successfully navigate the mine field that is corporate America.

Appendix A
Table Showing Selected Patent Filings by Dippin' Dots
(not a complete list)

Title	Application Number	Patent Number	Year Published
Method and apparatus for combining cookie dough and ice cream		7,464,564	2008
Tray for producing particulate food products		7,316,122	2008
Kiosk for vending ice cream		D515,846	2006
Kiosk with lettering for vending ice cream		D515,845	2006
Cleaning drain apparatus for an auger assembly		6,915,896	2005
System for combining ice cream and coatings	20090047393		2009
Method and apparatus for combining cookie dough and ice cream	20090004340		2009
Particulate frozen food product	20080138487		2008
Method and apparatus for combining particulate and soft-serve ice cream	20080011009		2008
Combined particulate and traditional ice cream	20070140044		2007
Method of manufacturing particulate ice cream for storage in conventional freezers	20070134394		2007
Novelty frozen product and method for making same	20070065552		2007
Particulate ice cream dot sandwich	20060093719		2006

REFERENCES

Therasense v. Becton Dickenson, Court of Appeals for the Federal Circuit; May 25, 2011

"Dippin' Dots Tries to Avoid Meltdown", Wall St. Journal, November 28, 2011.

US Patent No. 5,126,156, to Curt Jones, for "Cryogenically Frozen Ice Cream"

Prosecution history, U.S. Patent No. 5,126,156

United States Patent Office patent database, uspto.gov

Sun Tzu, "Art of War", Oxford University Press, 1971

Motion to Appoint Bankruptcy Receiver, February 25, 2011, court filing finding Dippin' Dots in default on payments due Regions Bank

"Guidelines on Inequitable Conduct", Federal Register/Vol. 76, No. 140/Thursday, July 21, 2011/Proposed Rules 43633

www.uspto.gov (archives, front page from July 18, 2005)

www.uspto.gov/main/glossary/ (glossary of terms from uspto.gov)

Stephen A. Merrill et al., Nat'l Research Council of the Nat'l Academies, *A Patent System for the 21st Century* 122 (2004)

Method of Patent Examining Procedure (MPEP) § 2106 C

U.S. Patent and Trademark Office Fee Schedule, effective September 26, 2011 (Last Revised on January 10, 2012)

An Analysis of Social Media use in America's Fortune 500 Companies

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ABSTRACT

As social media continues to become a part of many people's daily lives, companies are beginning to use them for a variety of ways including recruitment, communication with customers, and advertising. We looked in what amount of today's top firms are present on social media platforms and examined whether there was any link between social media use and the success of a company. The 2011 Fortune 500 was used as our sample data, and each company's website was visited in order to identify whether or not they were using a social media. This data was then analyzed in order to look for patterns or trends. We broke the 500 companies into smaller subsets in order to see if companies are sharing similar qualities displayed any similarities in their social media use. The three subsets we looked at were the best companies to work for, the fastest growing companies, and the companies with the highest and lowest profits. We include an examination of RSS Feeds and LinkedIn as they showed particular significance in our study.

INTRODUCTION

Technology today is changing the way the workplace functions. Mobile phones allow people to be available twenty four hours a day, and the internet has opened up opportunities not only to collaborate with individuals within an office, but with coworkers around the globe. These same technologies that connect individuals in a company are also available to the general public, and as a result large amounts of information that were once closed off to the public are now accessible. Many of the new interactions between companies and the public have been made possible through social media (SM). SM is still relatively new and is constantly changing in what it offers. In addition, each SM offers a different service, which makes it difficult to describe it with a single definition. However, SM is defined by Webster's dictionary as "Forms of electronic communication through which users create online communities to share information, ideas, personal messages, and other content" (Merriam-Webster Dictionary, 2012). In general, SM allows users to interact with information, which could include sharing it, commenting on it, or modifying it. Everyday individuals are engaging in dialogue across a variety of SM platforms through which they are able to voice their ideas and opinions in a public forum, and are in turn exposed to thoughts, opinions, and information of others.

The web of interactions created by SM is an amazing opportunity for companies to engage their clients, customers, and partners in new and creative ways that were previously unavailable. Many of the top companies are taking advantage of opportunities created by SM and are using them to create a competitive advantage for their company. We wanted to see how today's top firms were using SM in their business environments. We predicted that there will be a connection between successful companies and a SM presence.

BACKGROUND

Types of Social Media

The first and most widely used SM is Facebook, with a reported 483 million daily users (http://newsroom.fb.com/content/default.aspx?NewsAreaId=22). It is a familiar program to much of the population. Facebook is versatile in what content can be posted, and companies are using it to communicate about their company culture, create polls and surveys, as well as share pictures, clips, blogs, and promotional links (Hunt, 2010). Users can also comment on company postings so Facebook is ideal for engaging in discussion. In contrast, Twitter allows users to follow a company and receive information from the firm in 140 character messages. While users can reply to these messages, dialogue is not as fluid as with Facebook. Companies use Twitter mainly to send out links for updated information, promotions, or employment opportunities (Hunt, 2010).

RSS (Really Simple Syndication) Feeds provide an avenue for companies to send out short updates and exciting new information. Interested parties subscribe to these feeds and can receive them automatically in their email or other programs. These are attractive to users because it allows them to stay up to date with the latest information without being overwhelmed. Tumblr is described as a micro blog which gives users the ability to post text, photos, music, and videos. This allows users to share information in whatever format they need. LinkedIn is similar to Facebook in that the user creates a profile and connects with other individuals. However, LinkedIn is promoted as a professional networking site. Companies primarily use this platform as a recruiting tool. A benefit of using LinkedIn is that firms can contact individuals who are not actively searching for a job and by doing so can attract talented individuals from other companies. LinkedIn provides a free service, but also offers a more advanced option companies can subscribe to in order to conduct higher quality recruitment including sending private messages, managing profiles, and offering webinars about the company (Hunt, 2010). Finally, YouTube is being utilized by many firms in order to improve their company's image and communicate their values and goals. As visuals replace written word in many contexts, YouTube provides an easy to use platform where companies can post videos that convey company messages.

Social Media Resistance

While SM holds many benefits for a company, and most firms are exploring ways they can successfully utilize SM, this new technology is not always as simple as it may initially appear. First, a company that has just learned about SM may have fears of where they should start and what site they should be on (LaDuque, 2010). This is an important question to ask, and the answer usually lies is what the company hopes to achieve with their SM. A second concern companies may have is that while many SM services are free it takes time and resources to update and manage these sites. As a result, managers want to be able to know what their return on their investment will be if they allocate resources to these projects. This is a difficult question to answer because often times the goal of these projects is to gain exposure, improve brand image, create dialogue, and learn new ways to serve your clients rather than drive sales (Carmona, 2011). Companies are developing ways to set goals with SM and examine whether their goals are accomplished in order to support SM investment. Some of these financial metrics include analyzing sales, advertising, subscription renewals, and recruiting (Carfi, 2009).

Finally, many companies fear the intimate exposure that SM creates. Large firms are accustomed to releasing carefully crafted press releases and having a third party in between themselves and the public, so the raw exposure they are now receiving through SM is uncomfortable. In spite of these fears and discomfort, SM is being adopted by many large companies as they begin to see how it can benefit marketing, sales, and recruitment. SM is becoming a standard that the public expects from companies, and it is beneficial for firms to embrace this trend and reap its benefits.

RESEARCH METHODOLOGY

Every year the top companies in the United States are ranked on the Fortune 500 list presented by CNN (CNN Money, 2012). We used this list of companies as our reference group because it provided a large sample size of successful companies spanning a variety of industries. After some initial research on which SM are most popular we decided to focus on seven SM platforms which

were Facebook, Twitter, RSS Feeds, Mobile Apps, LinkedIn, Tumblr, and YouTube. We then began collecting information on which SM platforms were used by each of the 500 companies. A company was identified as using a certain SM if they advertised for it on their company webpage. We decided on this criterion for the following two reasons. First, a company has the ability to regulate their own webpage, yet they have no control over whether an individual uses their company name on a SM site. Therefore, there was no way to verify whether a company was on a SM platform unless they announced it on the company's official website. Second, SM is designed so that an individual can easily become connected with a company. Therefore, we assumed that if a company did not announce their use of a SM site, they were not present. We visited each of the Fortune 500 company's official web pages, and recorded which companies announced the use of SM on their webpage. All 500 companies were initially analyzed together in order to see what overarching trends appeared, but then the list was broken into smaller subgroups in order to see how SM use would differ among the best companies to work for, the fastest growing companies, and the most and least profitable companies.

DATA ANALYSIS

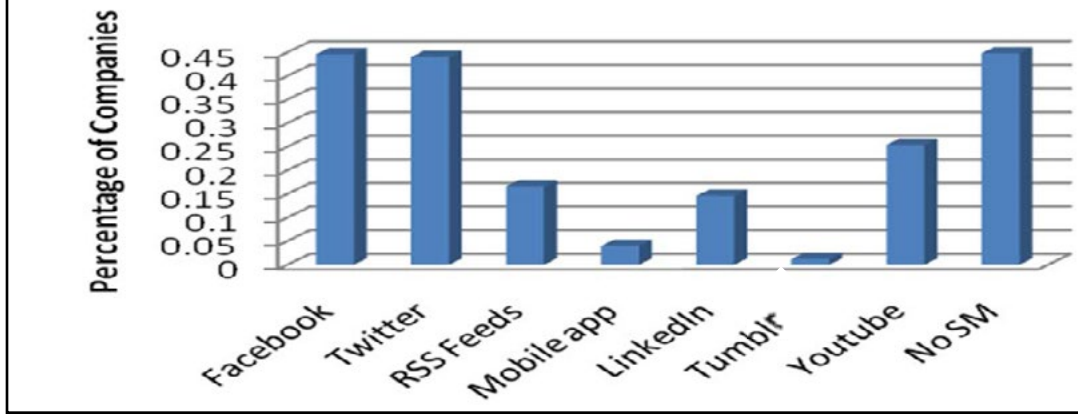
Overall 500 Companies

Once all of our data was collected, we began examining our results. Out of the 500 companies on the list 223 (45%) used Facebook, 220 (44%) used Twitter, 83 (16%) used RSS Feeds, 20 (4%) used a Mobile App, 73 (14%) used LinkedIn, 6 (1%) used Tumblr, 127 (25%) used YouTube, and 224 companies (44%) had no social media presence at all (see figure 1). Based on our research of many benefits SM holds, it was surprising to see how many companies neglected using any SM platform. As a result of the extremely low use of Mobile Apps and Tumbler by Fortune 500 companies we will remove them from consideration throughout the rest our research so that we can focus on the five main SM platforms which are Facebook, Twitter, RSS Feeds, LinkedIn, and YouTube. While each of these platforms is considered SM, they share information in different ways which can affect what goals a company hopes to achieve.

Best Companies to Work For

Each year when Fortune's 500 top companies are released, they also release a second list identifying the top 100 companies to work for. In an effort to avoid bias, the list is compiled by the non-profit Great Place to Work Institute. The list is assembled through a rigorous process which includes surveys of employees and management based on a variety of criteria including employee engagement and satisfaction, with an emphasis on the "Trust Index." The trust index measures factors such as credibility, respect, fairness, and pride (Zappe, 2011). More than one thousand companies submit applications each year in an effort to make it onto this list because membership on the list is used for marketing opportunities, exposure to future employees, and validation of the quality

FIGURE 1
PERCENTAGE OF COMPANIES USING EACH SOCIAL MEDIA



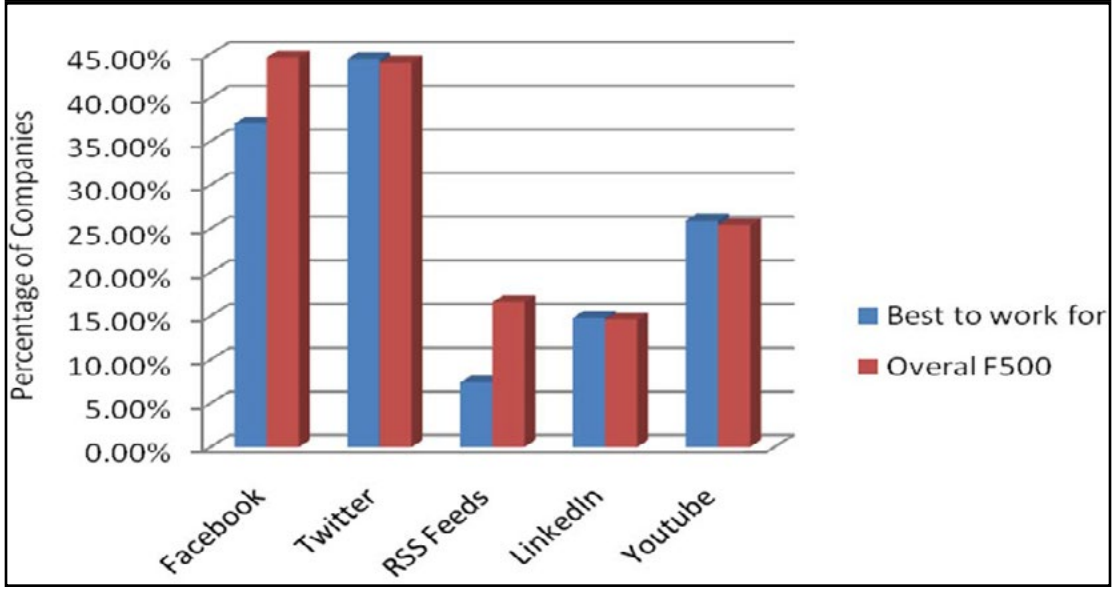
of one's company (Zappe, 2011). Of the 100 companies on this list, 27 were also on the Fortune 500 list. We analyzed this group of 27 companies because they represent both successful companies and companies that individuals want to work for. Our prediction was that these companies would use SM more than the average company in order attract and keep high quality employees.

In order to analyze the SM use of the Fortune 500's best companies to work for, we calculated what percentage of companies used each type of SM by dividing how many companies used each platform by the 27 companies in this category and then compared those results with the percentages of all 500 companies as a whole. Of the companies representing the best companies to work for, 10 (37%) used Facebook, 12 (44%) used Twitter, 2 (7%) used RSS Feeds, 4 (14%) used LinkedIn, and 7 (25%) used YouTube (See figure 2). These numbers were surprising when compared with all Fortune 500 companies as a whole. The best companies to work for barely used Twitter, LinkedIn, and YouTube. Their usage was barely more than the Fortune 500 average with an increase of 0.44%, 0.21%, and 0.53% respectively. However, the best companies to work for used Facebook 7.56% less and RSS Feeds 9.19% less. Based on these findings, it seems that a SM presence plays a negligible role in helping a company achieve the status of "best to work for".

Fastest Growing Companies

The second subgroup we looked at was the fastest growing companies. These companies were identified as the 50 companies with the highest percentage increase in their earnings per share over the previous year. One way SM can help a company grow is through advertisements. Often a company can obtain free advertising if they are an active user of a SM site and many SM platforms allow for targeted ads so that users are exposed to products that are relevant to their interests or circumstances. These advertisements are often placed on the side of the screen so that there is a constant ad presence. Companies and SM sites must be careful however, not over saturate these media because it can have an adverse effect of distracting users which can create a negative response, or discourage people from using a SM site (Taylor and Strutton, 2011). A second way SM is being used to grow company's sales is by creating product networks. A product network links the product, consumer, and the consumer's social network. This allows the consumer to make comments and recommendations about a product that will hopefully influence their connections who may share a similar interest to purchase that product also. In essence, the consumer becomes a spokesperson for a company's product (Oestreicher-Singer and Sundararajan, 2012).

Figure 2
Social Media Use of the Best Companies to Work For Compared to Entire Fortune 500



Using the data collected, we looked at the fastest growing companies of 2011. We identified these companies by individually comparing total profits earned in 2010 vs. the total profits earned in 2011. We then identified the 100 of the fortune 500 that experienced the most growth, and used them as our sample group. Among all groups researched, we found that the fastest growing companies utilized social media icons more than any other group, with 56% having at least 1 SM icon noticeable on their home page. Of those companies using SM, 82% used Twitter and 78% used Facebook.

Berry (2011) discusses the top five reasons why SM should be used by businesses. The number one reason found is that businesses have identified that a SM presence increases customer conversion. Berry writes, "35% of consumers want to look at businesses Facebook, Twitter and LinkedIn profiles before buying any product or service. Of those, a massive 70% said they would not deal with a new company if they did not have a social media presence." This shows that businesses not participating in SM will be immediately disqualified by some consumers. In addition, Berry also discusses the benefits SM has on Search Engine Optimization (SEO). For example the more "likes" a business has on Facebook the higher the company will rank on Google. Based on this information a company could experience growth from a SM presence.

The Most Profitable and Least Profitable Companies

The list of Fortune 500 companies can be broken into two subsets referred to as the winners and losers. CNN Money included this breakdown based on company profits instead of revenue, so the fifty companies with the highest profits were categorized as winners, and the fifty companies with the lowest profits were deemed the losers. Some companies such as Fannie Mae and Freddie Mac had very high revenue, 153 billion and 98 billion dollars respectively (CNN Money, 2012). However, both companies had a 14 billion dollar deficit in profits, which is why profits were used as a more accurate way of identifying a company as successful, or not. The purpose of comparing the winners and losers to each other is to try and identify any trends that might be present in successful companies compared with unsuccessful companies.

As we began our analysis the first step was to look into which SM were used by each company. We then tallied our results so we could get a picture of each category as a whole. The winners had a total of 22 companies (44%) using Facebook, 25 (50%) using Twitter, 10 (20%) using RSS Feeds, 8 (16%) using LinkedIn, and 13 (26%) using YouTube. The losing group was surprisingly similar with 23 companies (46%) using Facebook, 21 (42%) using Twitter, 2 (4%) using RSS feeds,

Figure 3
Number of Winning Companies Compared to Losing Companies in Social Media Use

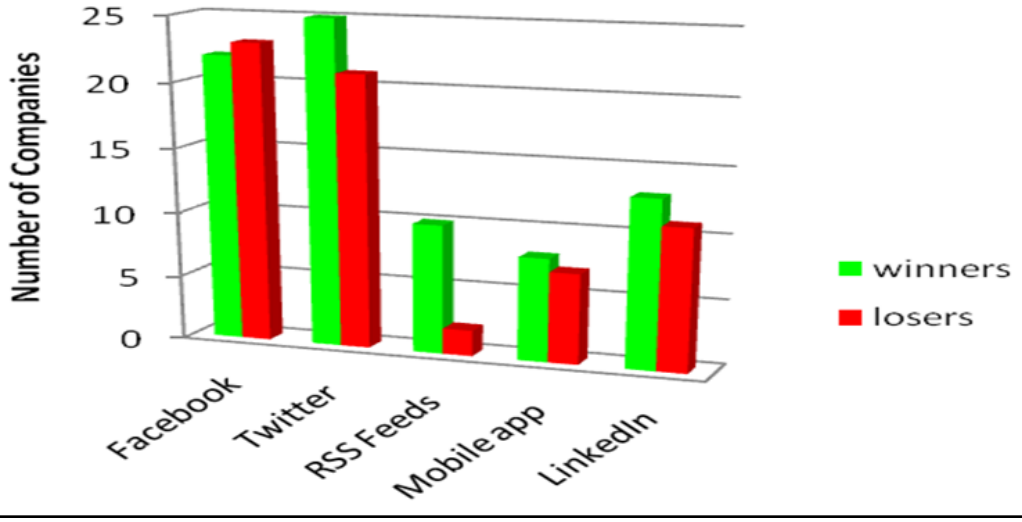
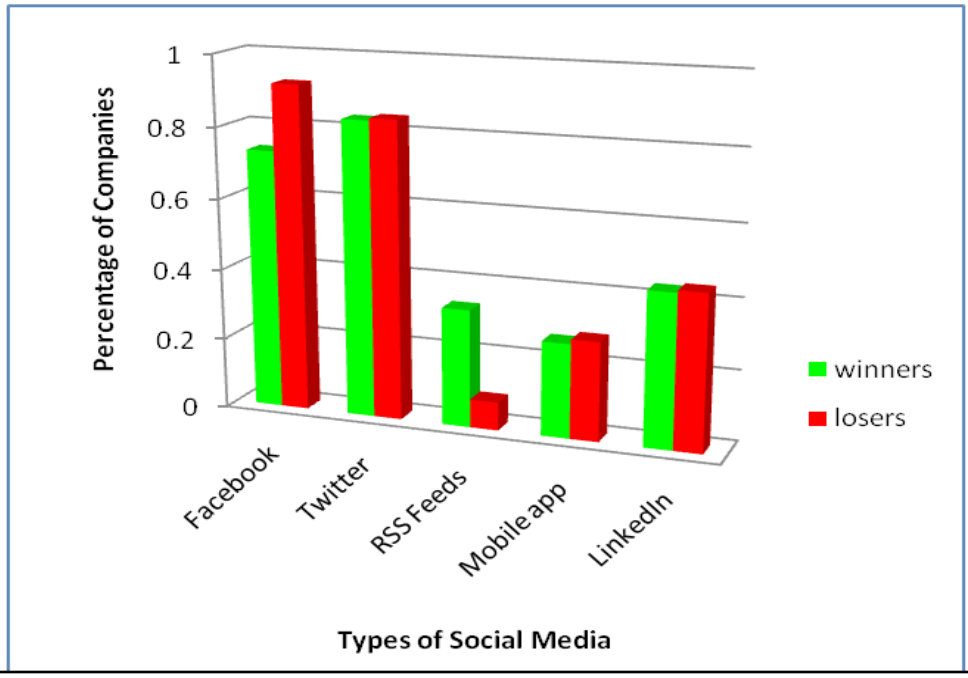


Figure 4
Percentage of Winning and Losing Companies
Social Media Use When Non-Users are not included



7 (14%) using LinkedIn, and 11 (22%) using YouTube (See figure 3). After analyzing our results the close proximity in SM use between the winners and losers went against our hypothesis. When comparing the two groups they differed by 2% in Facebook use, 8% in Twitter use, 16% in RSS feed use, 2% in LinkedIn use, and 4% in YouTube use. Overall, these differences are barely noticeable. The one SM that had the highest difference was RSS Feeds which will be discussed later.

While many companies are using some sort of SM, a larger number still neglect using any type of SM at all. 25 companies (50%) in the losing category did not use any social media, while 20 companies (40%) in the winning category did not use any SM. We analyzed how our percentage of SM use changed when companies that did not use any SM were factored out. This changed the winners category to thirty companies, and the losers category to twenty-five. When the percentages of SM use were recalculated, surprisingly the numbers between the two categories came out even closer. Facebook was used by 73% of winning companies compared with 92% of losing companies, which equals an 18% difference in favor of losing companies. Twitter is used by 83% of winning companies and 84% of losing companies, a difference of 1% between categories. RSS feeds are used by 33% of winning companies but only 8% of losing companies, for a difference of 25% in favor of winning companies. LinkedIn is used by 26% of winning companies and 28% of losing companies, a difference of less than 2%. Finally, YouTube is used by 43% of winning companies and 44% losing companies with a difference of 1% (See figure 4). When the two different categories were compared after removing non-users of SM, the differences between the groups was less than 2% with the exception of Facebook being used more by losing companies, and RSS Feeds having a larger presence with winning companies.

DISCUSSION

Recruitment

The 27 companies we identified as being on the lists of both best companies to work for and the Fortune 500 are an elite group because they demonstrated their success as individual companies

and also showed that they care about their employees. As a result these companies attract the most talented people in their industries. This creates a positive reinforcing cycle so as the company becomes more successful, more talented individuals want to join the firm, which in turn helps the company become even more successful. SM can play a key role in helping companies make connections with future employees and actively pursue them in ways previously not possible.

SM can be used to help a company create a strong preliminary candidate pool. In order for SM to be social, these platforms create networks by linking an individual with other people they know so that information can be shared. The company can take advantage of these vast networks by asking their employees for referrals. It has been shown that referred candidates outperform unconnected applicants three fold in retention and have lower termination rates (Berkowitch, 2010). SM allows companies to utilize the networks that their current employees have in growing and improving their workforce.

In the past, companies posted available positions with a specific candidate in mind but they often had to settle for a less than ideal candidate. SM now allows companies to target individuals, attract them to the company, track them through the recruiting process, and ultimately hire them onto the team (Berkowitch, 2010). SM is also an ideal platform for a company to brand themselves as an employer. Employer branding is becoming more important in acquiring the most talented people in an industry. This is because these individuals often have a choice of where they want to work, and this is generally with a company whose beliefs they align with, and who will also respect them as an individual (Laick & Dean, 2011). SM allows a firm to communicate a company's culture, describe company goals, and share pictures, links and videos with an employee prospect. Many of the SM then allow the prospective employee to respond with follow up questions, or even connect with current employees for further discussion.

LinkedIn

As a company begins using SM to recruit future employees they have the option of using just about every SM platform. In a Fortune 500 analysis 48% of companies reported using some sort of SM as a recruitment tool (Barnes, 2010). LinkedIn has emerged as the best platform to use for recruiting future employees. LinkedIn provides a free service which allows companies to search for candidates and establish relationships.

An additional benefit for employees provided by LinkedIn is the ability to make connections with candidates who are already employed. LinkedIn allows individuals to be passive job seekers by making their professional credentials available to companies. Individuals benefit from this by opening themselves up to new job opportunities while not actively pursuing a new position. Companies benefit because they now have access to talented individuals who were previously unavailable (DeKay, 2009).

RSS Feeds

Of the five SM examined, RSS Feeds had the greatest difference in use between our winning category and losing category, which promted an investigation into a possible cause of this difference. The format of an RSS Feed is usually one to two sentences with some type of updated information with a link with more detail if the reader is interested. RSS Feeds are unique in the sense that the reader must subscibe to receive the feeds, but once they have subcribed new feeds will automatically be sent to them. RSS Feeds were described by social media strategist J.D. Lasica as "news that comes to you." (Kennedy, 2011, p. 19). One major benefit of an RSS Feed is that it allows an interested party to receive valuable information without having to search through every article and news report. Useful and vital information that used to be buried inside data streams is now easily accesable (Tebbutt, 2007). An additional benefit offered by RSS Feeds is it gives the subscriber full control over what they want to see, what they want to ignore, and what they want addional information on. As a result of these feeds gaining information from a variety of websites, the user can tailor their information to receive what is useful to them (Yu and Hui, 2008).

While RSS Feeds can create many benefits, a majority of companies are not utilizing them. One reason for this could be that companies do not see value in what RSS Feeds provide. Some of the ways this SM is used include creating an online press room so those interested can have access to inside information, market new products or up-

coming events, and create personalized customer relations (Albrychu, 2005). Overall, RSS Feeds make a company more transparent to interested parties. As we looked at company websites two areas where RSS feeds were prevelent were the investor and employment pages. This SM is a great way to provide automatic updated information in order to attract future employees and help investors feel comfortable investing in a company. Both can help give a firm competitive advantage in their industry and therefore there could be a connection between RSS Feed use and a companies presense in either the winner or loser category.

CONCLUSION

Upon completion of our results, we were surpised at the low use of SM in the Fortune 500 companies. Overall only 55% of Fortune 500 companies had some SM presence and a large number had no presence at all. This could be due to a belief that SM is not worth the cost in time and resources, or the view that SM does not equate to any financial benefit for the company. As new methods of measurment are developed, companies will be able to explore what types of benefits SM holds (Barnes & Lescault, 2012).

While SM use was lower than expected, our research supports the idea that it will continue to be a major theme for companies in the future. Consumers, business partners, and investers are becoming accustomed with interacting with businesses through SM and expect companies to be present on these platforms. Even though SM does require resources, the amount of time and money required is low compared with the relative benefits a company can gain. As SM use grows within companies, firms that embrace this new tool will be able to leverage it as a competive advantage in order to improve recruitment, marketing, and profits.

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Regulation Fair Disclosure (Reg FD) and its Impact on Earnings Forecasts

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ABSTRACT

During the late 1990s, both Congress and the Securities and Exchange Commission (SEC) sought to encourage more forward-looking disclosures. As a result, in 2000, Regulation Fair Disclosure, better known as Reg FD was created. Extant research documents managers' reluctance to issue voluntary forecasts of earnings due to legal and other considerations. This study finds that when comparing firms that release voluntary earnings forecasts in Pre-Reg FD versus Post-Reg FD environments, more firms are found to issue voluntary earnings forecasts in a Post–Reg FD environment. In addition, forecasts tend to be more accurate than those in a Pre-Reg FD environment, and also tend to have more significant effect on security prices than those in a Pre-Reg FD environment. Overall, it appears that Reg FD has met its goal of increasing transparency, accuracy and numbers of forward-looking financial disclosures to investors.

INTRODUCTION

Prior research in the study of voluntary earnings disclosures finds that managers release financial information that tends to contain more bad news than good news [Baginski et al (1994), and Frankel et al (1995)]. Such releases are also found to contain information content to the investors [Patell (1976), Waymire (1984)]. Although forecast release is costly, credible disclosure will occur if sufficient incentives exist. These incentives include bringing investor/manager expectations in line [Ajinkya and Gift (1984)], removing the need for expensive sources of additional information such as brokers [Diamond (1985)], reducing the capital to the firm [Diamond and Verrechia (1987)], and reducing potential lawsuits [Lees (1991)].

More recent studies show that firms are more likely to issue voluntary earnings forecasts in a less litigious environment [Frost (1994)], while other studies show that there are legal environment differences between the U.S. and Canada in issuing earnings forecasts [Baginski et al (2002], and that Canadian firms issue earnings forecasts more frequently than U.S. firms [Stunda (2006)]. The reason is that Canadian courts generally protect firms that release earnings forecasts [Clarkson et al (1992)]. This protection includes requiring unsuccessful plaintiffs to pay the court costs for a successful defendant. In addition, there is no absolute right to a jury trial in Canada, instead, judges tend to hear technical cases and are less likely to issue large award settlements. So with the encouragement of the Canadian government, Canadian firms have increased forward-looking disclosures significantly.

In the late 1990s, both the U.S. Congress and the Securities and Exchange Commission (SEC) sought to encourage more transparency in information flow and forward-looking disclosures between U.S. companies and investors. In an attempt to obtain more numbers of credible earnings forecast disclosures the Regulation Fair Disclosure, known as Reg FD was enacted in August, 2000. The rule mandates that all publicly traded companies must disclose material information, both historical and forward-looking, to all investors at the same time. This Regulation stamped out selective disclosure to mainly large institutional investors. Publicly held companies now had a Federal Regulation which encouraged them to release financial forecast data. Pier (2011) looks at the effectiveness of this Regulation, and using a sample of 150 firms, finds that the number of forward looking disclosures significantly increased after its passage. The study was silent, however, with respect to the accuracy of these forecasts, and their impact on security prices. This study will extend the Pier (2011)

study to incorporate an analysis of both accuracy and information content of forecasts in periods Post-Reg FD and Pre-Reg FD.

HYPOTHESIS DEVELOPMENT

Three hypotheses are tested. First, King et al (1990) finds that forward-looking information disclosure in the U.S. increases the firm's exposure to legal liability. It is, in part, for this reason that many U.S. firms have exhibited a reluctance to issue voluntary forecasts on a consistent and on-going basis. Reg FD fundamentally changes how companies communicate with investors by creating more transparency with more frequent and timely communications, thus eliminating the sporadic and selective disclosure process that has had a tendency to breed a litigious environment. The first hypothesis, stated in the null form is:

H1: Post-Reg FD firms engage in a similar number of voluntary earnings forecasts as Pre-Reg FD firms.

The second hypothesis, also stated in the null form, relates to previous studies that indicate U.S. firms are less likely to issue voluntary forecasts during good news periods for fear of litigation (thus a bad news bias):

H2: Average management forecast error (actual EPS – management forecast of EPS) is not significantly different for firms in Pre-Reg FD versus Post-Reg FD periods.

The third hypothesis assesses the information content of the voluntary forecast. If investors interpret earnings forecasts as just additional noise, the market would discount this information. If, however, investors view the earnings forecast as a positive (or negative) signal from management, the market would not discount the information. The expectation for information content of voluntary management forecasts would revolve around these two notions. These alternative notions suggest the following null hypothesis:

H3: The information content of voluntary forecasts in Pre-Reg FD periods is equal to the information content of voluntary forecasts in Post-Reg FD periods.

RESEARCH DESIGN

This study consists of samples of all management forecast point estimates (both quarterly and annual) made during two periods; 1991-2000 (this will be the Pre-Reg FD sample of earnings forecasts), and 2001-2010 (this will be the Post-Reg FD sample of earnings forecasts). These samples have met the following criteria: 1) The earnings forecast was recorded by the Dow Jones News Retrieval Service (DJNRS). 2) Security price data was available on the Center for Research on Security Prices (CRSP). 3) Earnings data was available on Compustat. Table 1 provides the summary of the samples used in the study.

HYPOTHESIS 1

Table 1 reports a final earnings forecast sample of 9,770 for the Pre-Reg FD sample period. These forecasts are made by a total number of 1,017 firms (9.61 forecasts per firm over 10 years). By comparison, there were 18,762 final earnings forecasts for the Post-Reg FD sample period. These forecasts were made by a total number of 1,438 firms (12.84 forecasts per firm over 10 years).

When U.S. firms issuing voluntary earnings forecasts from 1991-2010 are separated into two distinct 10-year periods, Pre-Reg FD (1991-2000) and Post-Reg FD (2000-2010), findings indicate two noticeable results; First, the number of point estimates increase by 89% (18,762 versus 9,770). Second, the number of forecasts per firm increase by 34% (12.84 per firm versus 9.61 per firm).

TABLE 1
STUDY SAMPLE SUMMARY

	Sample 1 (1991-2000)	Sample 2 (2001-2010)
Forecasts identified by DJNRS	10,506	19.851
Firms removed due to insufficient Compustat data	(680)	(1,001)
Firms removed due to insufficient CRSP data	(56)	(88)
Final overall sample	9,770	18,762

Given that the majority of constraints in issuing a voluntary earnings forecast, as exhibited in extant literature, still apply to both study periods, one major condition that has changed between the two sample periods is the enactment of Reg FD. Therefore, the Regulation passage must be considered as at least having an influence in both the increase of total number of forecasts and in number of forecasts per firm. These findings lead to rejection of H1 that the two study periods are not dissimilar.

HYPOTHESIS 2

The management forecasts of earnings must be related to actual earnings in order to determine if bias exists. McNichols (1989) analyzes bias through the determination of forecast error. Stated in statistical form the hypothesis is represented as follows:

Where: fe_i = forecast error of firm i (forecast error = actual eps – management forecast of eps), deflated by the firm's stock price 180 days prior to the forecast.

In order to test hypothesis 2, firm forecasts are analyzed for the Pre-Reg FD and Post-Reg FD periods. Statistical analysis is performed on the

$$\sum \frac{fe_i}{n=0}$$

sample in order to determine if the average forecast error is zero. McNichols (1989) and DeAngelo (1988) conduct a t-test on their respective samples in addition to a Wilcoxon signed rank test. Lehmann (1975) reports that the Wilcoxon test has an efficiency of about 95% relative to a t-test for data that are normally distributed, and that the Wilcoxon test can be more efficient than the t-test for non-normal distributions. Therefore, this analysis consists of performing a t-test and a Wilcoxon signed rank test on the average cross-sectional differences between actual earnings per share and management forecast of earnings per share.

Table 2 contains the results of the hypothesis 2 test. Panel A of Table 2 indicates results for the sample of 9,770 forecasts for the Pre-Reg FD (1991-2000) study period. Mean forecast error for these firm forecasts is .13 with a p-value of .01. Using the distribution-free rank test, significance is observed at the .01 level. Panel B of Table 2 indicates results for the sample of 18,762 forecasts for the Post-Reg FD (2001-2010) study period. Mean forecast error for these firms is .02 with a p-value of .01. Using the distribution-free rank test, significance is observed at the .01 level. The results associated with these statistics are consistent with the notion of greater bad news bias of forecasts in the Pre-Reg FD study period versus the Post-Reg FD study period (i.e. mean forecast error of .13 versus .02, with a positive forecast error indicating actual eps exceeds the management forecast of eps). Stated in another manner, extant literature is consistent in finding significant negative bias in earnings forecasts. The Pre-Reg FD forecasts support this finding. With respect to the Post-Reg FD forecasts, median forecast error is closer to zero, meaning less negative bias and more accuracy in the forecasts. This may be in part due to the enactment of Reg FD. These results lead to a rejection of hypothesis 2 that average management forecast error is not significantly different for Pre-Reg FD and Post-Reg FD study periods.

HYPOTHESIS 3

The purpose of this test is to assess the relative information content of management earnings forecasts in Pre-Reg FD versus Post-Reg FD periods. The following model is used to evaluate information content:

$$CAR_{it} = a + b_1UE_{it} + b_2D_{it}UE_{it} + b_3D1_{it}UE_{it} + b_4MB_{it} + b_5B_{it} + B_6MV_{it} + e_{it}$$

Where:

- CAR_{it} = Cumulative abnormal return forecast i, time t
- a = Intercept term
- UE_{it} = Unexpected earnings for forecast i, time t
- D_{it} = Dummy variable, 0 for Pre-Reg FD, 1 for Post-Reg FD
- $D1_{it}$ = Dummy variable, 0 for Post-Reg FD, 1 for Pre-Reg FD
- MB_{it} = Market to book value of equity as proxy for growth and persistence
- B_{it} = Market model slope coefficient as proxy for systematic risk
- MV_{it} = Market value of equity as a proxy for firm size
- e_{it} = error term for forecast i, time t

The coefficient "a" measures the intercept. The coefficient b_1 is the earnings response coefficient

Table 2
Test of Hypothesis 2

Table entry is
Average Management Forecast Error Deflated by Firm's Stock Price 180 Days Prior to Forecast

Model: $\sum_{n=0} \frac{fe_i}{}$

Panel A- Management forecast error for Pre-Reg FD period forecasts (1991-2000)

Mean (t-statistic)	Median	Minimum	Maximum	Standard Deviation
.13 (2.38)[a]	.13	.09[b]	.0728	.1581

a Significant at the .01 level (two-sided test).
b Significant at the .01 level using the non-parametric sign rank test.
fei = forecast error of firm I (actual eps – management forecast of eps).
n = sample of 9,770 forecasts for period 1991-2000.

Panel B- Management forecast error for Post-Reg FD period forecasts (2001-2010)

Mean (t-statistic)	Median	Minimum	Maximum	Standard Deviation
.02 (2.44)[a]	.03[b]	-.0285	.0392	.0011

a Significant at the .01 level (two-sided test).
b Significant at the .01 level using the non-parametric sign rank test.
fei = forecast error of firm I (actual eps – management forecast of eps).
n = sample of 18,762 forecasts for period 2001-2010.

(ERC) for all firms in the sample (during both Pre-Reg FD and Post-Reg FD study periods). The coefficient b_2 represents the incremental ERC for Post-Reg FD forecasts. The coefficient b_3 represents the incremental ERC for Pre-Reg FD forecasts. The coefficients b_4, b_5, and b_6 are contributions to the ERC for all firms in the sample. To investigate the effect of the information content of management forecasts on ERC, there must be some control for variables shown by prior studies to be determinants of ERC. For this reason, the variables represented by coefficients b_4 though b_6 are included in the study.

Unexpected earnings (UE_i) is measured as the difference between management earnings forecast (MF_i) and security market participants' expectations for earnings proxied by consensus analyst following as per Investment Brokers Estimate Service (IBES) (EX_i). The unexpected earnings are scaled by the firm's stock price (P_i) 180 days prior to the forecast:

$$UE_i = \frac{(MF_i - EX_i)}{P_i}$$

For each disclosure sample, an abnormal return (AR_{it})is generated for event days -1, 0, +1, where day 0 is defined as the date of the forecast disclosure identified by DJNRS. The market model is utilized along with the CRSP equally-weighted market index and regression parameters are estimated between -290 and -91. Abnormal returns are then summed to calculate a cumulative abnormal return (CAR_{it}). Hypothesis 3 is tested by examining the coefficients associated with unexpected earnings forecasts in the Post –Reg FD study period (b_2) and the coefficient associated with unexpected earnings forecasts in the Pre-Reg FD study period (b_3). There are two possible conclusions; the forecast may be noisy, which in this event, the b_2 and/or b_3 variables ≤ 0, or it will possess an information-enhancing signal to the

investor, which will result in the b_2 and/or b_3 variables ≥Ø.

Table 3 contains the results of the hypothesis 3 test. As indicated in the table, the coefficient representing the variable which is the incremental ERC for Post-Reg FD forecasts (b_2), has a value of .19 with a p-value of .Ø1. The coefficient representing the variable which is the incremental ERC for Pre-Reg FD forecasts (b_3), has a value of .11 with a p-value of .1Ø. The coefficient representing the overall ERC for all forecasts (b_1) has a value of .15 with a p-value of .Ø5. All other control variables are not significant at conventional levels. These findings indicate that not only do forecasts contain information content, there is a difference in the information content of Pre-Reg FD versus Post-Reg FD forecasts. Results, therefore, suggest rejection of the hypothesis that information content of management forecasts during these two study periods is equal.

CONCLUSIONS

This study uses the largest sample of voluntary earnings forecasts to date, covering a total of 2Ø years and 28,532 annual and quarterly forecasts, to research the impact of Regulation Fair Disclosure (Reg FD). Past studies have found that firms are reluctant to release earnings forecasts, in part due to potential lawsuits that may result from their release. In addition, studies indicate that those forecasts that have been released tend to contain a negative or bad news bias, again, partially due to the potential litigation aspects. Reg FD was an attempt by the SEC and U.S. Congress to encourage publicly held firms to release increased, and more precise, earnings forecasts with the backing of a Federal Regulation.

This study provides empirical evidence regarding the accomplishment of both the SEC and Congress in obtaining their stated goals. Specifically, results indicate that the number of forecasts (both quarterly and annual) have increased since the adoption of the Reg FD, and that firms are issuing a higher number of earnings forecasts

TABLE 3
TEST OF HYPOTHESIS 3

Model: $CAR_{it} = a + b_1UE_{it} + b_2D_{it}UE_{it} + b_3D1_{it}UE_{it} + b_4MB_{it} + b_5B_{it} + B_6MV_{it} + e_{it}$

Table represents Pre-Reg FD and Post-Reg FD period forecasts

Coefficients (t-statistic)							Adjusted R^2
a	b_1	b_2	b_3	b_4	b_5	b_6	
.28	.15	.19	.11	.Ø5	.Ø9	.22	.121
(.91)	(1.93a)	(2.35b)	(1.76c)	(.12)	(.27)	(.64)	

[a] Significant at the .Ø5 level (one-sided test)
[b] Significant at the .Ø1 level (one-sided test)
[c] Significant at the .1Ø level (one-sided test)

$CAR_{it} = a + b_1UE_{it} + b_2D_{it}UE_{it} + b_3D1_{it}UE_{it} + b_4MB_{it} + b_5B_{it} + B_6MV_{it} + e_{it}$

Where:

CAR_{it} = Cumulative abnormal return forecast I, time t
a = Intercept term
UE_{it} = Unexpected earnings for forecast I, time t
D_{it} = Dummy variable, Ø for Pre-SLUSA, 1 for Post-SLUSA
$D1_{it}$ = Dummy variable, Ø for Post-SLUSA, 1 for Pre-SLUSA
MB_{it} = Market to book value of equity as proxy for growth and persistence
B_{it} = Market model slope coefficient as proxy for systematic risk
MV_{it} = Market value of equity as a proxy for firm size
e_{it} = error term for forecast I, time t
n = sample of28,532 forecasts for period 1991-2Ø1Ø

per firm. In addition, earnings forecasts since the Reg FD have tended to show less downward bias, and in that respect have become more accurate. Also, the market tends to assign a different degree of information-enhancing content to forecasts made in a Post-Reg FD environment. This information signal is both positive and significant.

The net results indicate that when U.S. firms are encouraged and backed by Federal Regulation, they tend to release increased numbers of forecasts, which are more precise, and therefore more beneficial to those stakeholders dependent upon the forecast information.

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Philanthropy and Corporate Social Responsibility: Is Giving, Enough to Truly Be Ethical?

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ABSTRACT

Corporate philanthropy and charitable contributions are often a "visible" example of responsible and ethical behavior by businesses. However, when viewed under the historic concepts morality, the act of charitable giving may have little or no connection to ethics. Most cultures recognize philanthropy as "good", but ethics is more about choices we make when the normal "rules" no longer serve the situation and the decision maker faces a choice for which he or she is unprepared. By reviewing traditional philosophies of ethics, this manuscript shows how charitable giving, while "good," should not be a measure of "ethical behavior" for businesses. In fact, it is recommended that philanthropy and much of what we consider "corporate social responsibility" should in fact be considered a component of the marketing mix.

INTRODUCTION

In our society, perhaps no action is considered as unquestionably moral or ethical as voluntarily helping others in need. A famous example for this type of virtuous act is the story of the Good Samaritan, who pitied a poor robbery victim, treated his wounds, helped him find a place to rest and recover, and paid the innkeeper to look out for him. In performing this altruistic act, he put aside his own concerns and interests to care for the needs of another. The Samaritan gave of his own means with no expectation of any compensation or benefits in return—not even the expectation that he would be recognized for his charity. A self-less act of giving is a traditional virtue among many cultures and many religious creeds. Charity or giving alms (to the poor) requires a renunciation of self to some degree and an elevation of the interests of another. In western cultures, much of what we consider "good" is based on the ability of a person to consider others ahead of self and to sacrifice personal desires for the good of others.

As societies around the world increasingly become a part of a global business network, we find that many large corporations gain assets and revenues even greater than the GDP of many smaller nations. Some have argued that this implies obligations for organizations to advance social justice when governments cannot achieve those aims (Halme and Laurila 2009). The assumption that corporations have a social responsibility suggests that corporations and businesses, as members of society, are expected to participate as a societal member and "give back" to the society that en-

ables their existence. The purpose of an organizations existence, under this model, is to not only look after the interests of the shareholder, but to also take into account the interests and impacts it has on its stakeholders. It is assumed by acting in a socially responsible manner that corporations can fulfill much of their ethical obligations to society. This expectation mirrors the belief that service to others before service to oneself is a moral and noble action.

CORPORATE SOCIAL RESPONSIBILITY AS A MORAL OBLIGATION

Corporate social responsibility (CSR) is a form of self-regulation to monitor and ensure compliance with the spirit of the law, ethical standards, and societal norms. The goal of CSR is to embrace responsibility and encourage a positive impact through its activities on stakeholders. If we assume that corporations must act in a socially responsible manner, then it can be expected that business leaders would seek an accepted "standard" for responsible behavior. Targeted philanthropy becomes a way for companies and communities to pursue a win–win strategy. Morally acceptable philanthropy can also be strategic so that charitable efforts improve the competitive context. Philanthropy can align social and economic goals and improve a company's long-term business prospects (Porter and Kramer 2004).

However, not all companies view philanthropy in self-interested terms. Many believe that giving to the community is simply the morally right thing to do. When *Business Week* compiled its 2003 list of the most philanthropic American companies, it polled 218 companies in the Standard and Poor's 500 index (BusinessWeek Online 2003). Only four respondents agreed with Milton Friedman's claim that "the business of business is business" and that companies should give only when doing so increases a company's efficiency and profitability. The other 214 respondents argued that giving is good in itself and should occur because it is the morally right thing to do. Employees report feeling better about working for companies that seek to better society (Iannou 2003). Portfolio managers who promote socially responsible investing claim that investors examine philanthropic history because investors believe there is a correlation between company generosity and how well the company treats its employees (Belsie 2005). It is not surprising, then, that *Business Ethics* magazine uses corporate philanthropy as one indicator of how "moral" a particular company is when compiling its annual 100 Best Corporate Citizens list (Koehn and Ueng 2010).

For these reasons, business leaders, in an attempt to follow the precepts of social responsibility, donate organizational funds and various other resources to a number of community charities, typically with the assumption they are completing a moral obligation to the community and are exhibiting "good ethical behavior." However, when we examine ethical philosophy, we find that corporate giving may have little to do with morality and may not be an ethical issue at all. That leaves us with the underlying question, should corporations give, and if so, why?

Charity as an Ethical Act

It is assumed that charity is an act of kindness and love for others. True "charity," requires that we consider others before ourselves when we give. The Biblical injunction, "Love your neighbor as yourself" is named among the greatest commandments in the Christian belief system and includes charitable actions toward those in need. According to the Christian tradition, we are to demonstrate *agape* (the Greek word for Biblical love that is unconditional and self-sacrificing) in our interactions with others. Christian apologist C. S. Lewis (1944), in *The Abolition of Man*, argues that charity is a central component of the *Natural* Law or the *Tao* and a common element in the moral codes of cultures and creeds over time and location--stated in different terms, but with similar meaning, and all embracing the common moral obligation to show charity. Examples include:

- "What good man regards any misfortune as no concern of his?" (Roman)
- "Speak kindness...show good will." (Babylonian)
- "Men were brought into existence for the sake of men that they might do one another good." (Roman)
- "He who is asked for alms should always give." (Hindu)
- "Do to men what you wish men to do to you." (Christian)

- "Man is man's delight." (Old Norse)

Moral philosopher Immanuel Kant explains how charitable giving is a moral imperative. Could a person for whom life is going well legitimately (morally) dismiss the obligation to help another who is struggling with "great hardships"? Kant says no, because to deny help would be self-contradictory. The uncharitable person would be unwilling to establish his action as a universal rule for guiding the behavior of others. The case might arise in which the selfish or stingy person is in need of *love and sympathy,* but by his actions, he would have established a maxim forbidding his receiving help in the time of his own struggles—thus the contradictory nature of the action. According to Kant, charitable giving is an *imperfect duty*; not being charitable does not attract disapprobation, but engaging in charity is a praiseworthy act.

Utilitarian ethical theory holds that the right course of action is the one that maximizes the overall "good" consequences of the action. The most ethical decision is the one wherein the pleasures or benefits created by the action exceed the pains or costs created by the action, when the consequences to all affected parties are considered. The benefits and costs may not be distributed equally, but an ethical decision requires that, on balance, the overall good is greater than the overall "bad". In the case of charitable giving, a charitable act, judged by a utilitarian standard of ethical behavior, brings good consequences to the recipients of the charitable gift. While the benefactor may experience some sacrifice of his own wealth, the satisfaction of knowing that benefits have accrued to others helps offset any loss of the donor's wealth.

Charity Is a Central Feature of Corporate Responsibility

Corporate responsibility (CR) is a complex phenomenon since it relates business to society. Since societies differ, concepts about responsibility are bound to differ (Halme and Laurila 2009). Different national, cultural and social contexts call for different sorts of responsibility (Midttun et al., 2006). The complexity of the CR phenomenon has also led to a proliferation of concepts such as corporate social responsibility (CSR), corporate sustainability, 'business in society', corporate citizenship, social issues in management and corporate accountability (Garriga and Mele′ 2004; Halme and Laurila 2009; Meehan et al. 2006; Waddock 2004). Halme and Laurila (2009) have distinguished three primary CR types: (1) Philanthropy (2) CR Integration (conducting business operations more responsibly) and (3) CR Innovation (developing new business models for solving social and environmental problems).

A popular conceptualization of the notion of corporate social responsibility that describes corporate charity as integral is that of Archie Carroll. ....

> The most popular and enduring critique of CSR is the 1970 article by economist Milton Friedman. He argues that corporations do not have "social responsibilities" as defined by most proponents—to do good deeds for society, good deeds above and beyond the fiduciary obligations responsibilities managers have to owners (shareholders) of the business. Yet Friedman acknowledges the place of corporate charity in the sphere of corporate social responsibility....

In an effort to showcase corporate responsibility, many organizations have selected the philanthropical approach to CSR, financially supporting charities, impoverished communities, community activities, educational institutions, etc. It is assumed that factors encouraging a philanthropical view of CSR are 1) it is easy for the organization to show specific CSR activities, 2) it provides good publicity and 3) the public has come to expect businesses to shoulder much of the responsibility of supporting charitable organizations. Both proponents and critics of the philosophy of corporate social responsibility recognize that one key aspect of CSR is making charitable contributions. The degree to which corporations can, like humans, be said to have moral obligations, may still be debatable. Whether corporations have "social responsibilities" (beyond merely utilitarian image-building actions) may be debatable, but the discussion of those social responsibilities leaves no doubt that the *responsible* corporations will make charitable contributions.

IS GIVING ETHICAL? SHOULD CORPORATIONS GIVE?

One research area regarding philanthropy and CSR is the "bottom line" financial performance of those who donate. This interest is reflected in much of the corporate responsibility research which examine the influence of CSR on financial performance. The results of most studies, however, remain mixed (Arago´n-Correa and Sharma 2003; Barnett and Salomon 2006; Halme and Niskanen 2001; McWilliams and Siegel 2000; McWilliams et al. 2006; Porter and van der Linde 1995; Orlitzky et al. 2003; Salzmann et al. 2005; Schaltegger and Figge 2000; Simpson and Kohers 2002), although two meta-analyses provide some evidence of a positive relationship between corporate responsibility and financial performance (Margolis and Walsh 2003; Halme and Laurila 2009; Orlitzky et al. 2003).

Others have tried to show that CSR pays off, if not in the short term, at least in the longer run in the form of social legitimacy, employee motivation or other benefits. There is case study evidence indicating that responsibility generates economic benefits through increased employee loyalty, long-term relationships with customers, better risk management and efficiency improvements (Dunphy et al. 2003; Halme and Laurila 2009; Reinhardt, 1999).

Arguments against philanthropy have typically been based on the grounds that the profits of the firm belong to its shareholders and should be returned to them, not given away to various causes favored by management (Freidman 1962). In a study by Koehn and Ueng (2010), it was shown that some organizations even use charitable donations to help disguise financial restatements, many involving fraud. A number of those firms restating suspect earnings appear on lists of top corporate givers or of most ethical firms, prompting suspicion that companies can use philanthropy as a kind of moral window-dressing (Koehn and Ueng 2010).

Those who argue in favor of philanthropy contend that the role of business in society has been transformed. Consumers and policy-makers expect businesses to act as good corporate citizens and this behavior is encouraged by tax-breaks, laws guaranteeing limited liability for corporate agents, and support for programs and institutions that educate future employees (Koehn and Ueng 2010). In this view, justice demands that corporations use resources to reciprocate the benefits they have accepted from the larger social system. Thus, Michael Porter has argued, "We are learning that the most effective way to address many of the world's most pressing problems is to mobilize the corporate sector in a context of rules, incentives, and partnerships where both companies and society can benefit" (Porter 2002, p. 4).

Ethics is in the Motive

The question raised by philosophers about the ethics of giving typically has to do with the motivation behind the gift. Kant states...

> To be beneficent where one can is a duty, but I assert that in such a case an action of this kind, however it may conform with duty and however amiable it may be, has nevertheless no true moral worth but is on the same footing with other inclinations, and the maxim lacks moral content, namely that of doing such actions not from inclination but from duty.

Kant may draw his conclusion from Christian and classical origins that include statements such as...

> 1"Be careful not to practice your righteousness in front of others to be seen by them. If you do, you will have no reward from your Father in heaven." Matthew 6:1 New International Version

> 2"So when you give to the needy, do not announce it with trumpets, as the hypocrites do in the synagogues and on the streets, to be honored by others. Truly I tell you, they have received their reward in full. 3But when you give to the needy, do not let your left hand know what your right hand is doing, 4so that you're giving may be in secret. Then your Father, who sees what is done in secret, will reward you." Matthew 6:2-4 New International Version

Aristotle (2003) suggests that ethics is rooted in different types of goods. Goods of first intent refer to virtuousness, or "a chief good...which is, in itself, worthy of pursuit...always desirable in itself and not for something else" [2003: 611]. In

contrast, goods of second intent describe "that which is good for the sake of obtaining something else" (e.g., profit, prestige, power, etc. [Aristotle, 2003: 611]. The pursuit of goods of second intent is considered amoral as it tends to define people, society, etc. as objects to exploit.

It becomes evident that motive is important in determining the moral praiseworthiness of a charitable act. Corporate charity is a public practice. Corporate websites seem happy to proclaim all the ways that they have helped the communities in which they operate. Essentially the Christian motive for giving is love, as in love for God and love for others as one loves oneself. Corporate giving at its best is "strategic"—which is another word for instrumental or utilitarian. Kant differentiates between an adherence to duty, or acting in a way to which we feel a social obligation, in contrast to true goodwill. He states...

> I also set aside actions that are really in conformity with duty but to which human beings have no inclination immediately and which they still perform because they are impelled to do so through another inclination. For in this case it is easy to distinguish whether an action in conformity with duty is done from duty or from a self-serving purpose. It is much more difficult to note this distinction when an action conforms with duty and the subject has, besides, an immediate inclination to it.
>
> For example, a shopkeeper does not overcharge an inexperienced customer, and where there is a good deal of trade a prudent merchant does not overcharge but keeps a fixed general price for everyone, so that a child can buy from him as well as everyone else. People are thus served honestly; but this is not nearly enough for us to believe that the merchant acted in this way from duty and basic principles of honesty, his advantage required it.

A gift given purely for the benefit of deserving recipients is clearly praiseworthy. If the gift helps the illiterate learn to read, or the ill to be healed, the benefits are obvious. However, it is suspected that gifts and donations are seldom given without thought of self-interest. If self-interest is involved, then according to Kant the act of giving was not a moral act. While giving is certainly not "wrong" or immoral and is socially encouraged, it is not a measure of corporate ethical behavior. The key for assessing "virtue" seems to rest on whether an organization's philanthropy is given for reasons of first intent (a virtuous pursuit) or of second intent (an instrumental pursuit).

DISCUSSION

The context in which this is written assumes corporations as organizations owned by shareholders. While sole proprietors, partnerships, etc., can choose, as individual owners to spend their assets as they wish, managers and board members have a fudiciary obligation to the shareholders (owners) of the corporation. Classic liberal economists, such as Milton Friedman and former OECD chief economist David Henderson, insist that corporations have no moral obligation whatsoever to address social ills. On the contrary, when corporations give away profits to charities or NGOs, they effectively steal money that should be returned to shareholders.

The only social responsibility of business is to increase profits...f\Few trends would so thoroughly undermine the very foundations of our free society as the acceptance by corporate officials of a social responsibility other than to make as much money for their stockholders as they possibly can. This is a fundamentally subversive doctrine (Friedman 1962, p. 133).

Kant says that good will is *good*, without limitations. Good will is not good because of what it accomplishes but rather because of its volition, that is, it is good in itself. He continues this

> I also set aside actions that are really in conformity with duty but to which human beings have no inclination immediately and which they still perform because they are impelled to do so through another inclination. For in this case it is easy to distinguish whether an action in conformity with duty is done from duty or from a self-serving purpose. It is much more difficult to note this distinction when an action conforms with duty and the subject has, besides, an immediate inclination to it.

In the example given earlier, Kant discusses the shopkeeper acting honestly because if his dishonesty or trickery were made public, he could potentially lose business. Therefore, he acts as he does from duty and basic principles of honesty because his advantage requires it. Kant further states that...

> To be beneficent where one can is a duty, but I assert that in such a case an action of this kind, however it may conform with duty and however amiable it may be, has nevertheless no true moral worth but is on the same footing with other inclinations, and the maxim lacks moral content, namely that of doing such actions not from inclination but from duty.

Based on these precepts, it is difficult for us to ascertain the motive behind corporate giving. It is also likely that some intention of gain is desired by the organization when making a choice about charitable donations. Whatever one may say about the broader issue of the corporation's social responsibilities, corporate charity does not measure up to the altruistic standard of selflessness or self-sacrifice that individual charity demonstrates. Paul Godfrey's (2005) suggests that consistent philanthropic activity raises moral capital by enhancing an organization's reputation. Raising moral capital serves as a form of insurance against future misbehavior. With moral capital comes greater social license. This of course begs the question, are you truly moral if you are banking credits in preparation for possible future immoral behavior?

Managers may see philanthropy as a way to meet minimum, intangible obligations to society. Risk management and insurance theory emphasizes goods of second intent, thereby encouraging an instrumental mode of reasoning. Associating responsiveness with purely instrumental motives can change the intrinsic nature of philanthropic activity into "another technique of manipulation" (Gergen, 1990: 154), thus diluting the genuineness of philanthropic action. While organizations may certainly choose to support philantropical causes and donate to charity, they should choose to do so for strategic reasons and not try to assume such behavior supports organizational ethics. Ethical behavior is about the choices we make (not the donations we give).

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