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FAMILIARITY AND KNOWLEDGE OF THE U.S. CONSTITUTION: A SURVEY OF GUAM'S RESIDENTS

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ABSTRACT

Guam is an organized, unincorporated territory of the United States, in the western Pacific Ocean. As such, the island falls under certain auspices of the U.S. Constitution, even though Congress can determine which portions of the document apply to it. In recognition of U.S. Constitution Day, students at the University of Guam polled Guam residents in a short, fun, informative survey that measured familiarity and knowledge of the U.S. Constitution. The survey results were pitted against results of a similar, nationwide survey posted online. In this paper, I explain the process the students completed to create the survey as well as the informal reactions of the respondents. More critically, I examine certain results of this survey and explore reasons for Guam's relatively good scores. The island's young history as a U.S. territory, its historic and contemporary close affiliation with the U.S. military, and its continual quest for greater sovereignty are all factors that must be considered. I also discuss how other political entities have undergone status change and compare and contrast aspects of Puerto Rico's and Guam's affinity for the United States. Ultimately, I explore the political scene on Guam in light of residents' fondness for their government leaders and understanding how government works. I conclude that Guam's interest in organized government stems from ancient times and examine recent suggestions that the residents and leaders the class surveyed establish a local Constitution to continue advancing Guam's political maturity.

INTRODUCTION

United States Constitution Day was birthed from the idea of establishing a day to recognize and celebrate American citizenship, and has evolved into a remembrance of the day that the Constitutional Convention signed the United States Constitution, September 17, 1787. Many Americans use this day to reflect on the rights granted to U.S. Citizens, the freedoms protected by the U.S. Constitution, and the visionary steps the delegates took throughout the summer of 1787 to secure lasting, founding principles for their fledgling new nation. Over 200 years later, the Congress of that same nation, now transformed dramatically by modern times, passed legislation concerning this date, stating '[e]ach educational institution that receives Federal funds for a fiscal year shall hold an educational program on the United States Constitution on September 17 of such year for the students served by the educational institution" (Civic Impulse, 2015).

The University of Guam is one such institution, and during the Fall 2014 semester, graduate students from Dr. John Rivera's "Administrative Thought" class at the university were challenged to recognize U.S. Constitution Day in a creative, participatory way. Students would take part in conducting a short, non-invasive survey assessing Guam residents' familiarity with

and knowledge of the United States Constitution. Results would be pitted against results given from a similar, nationwide survey found online, and presented in a functional, fashionable infographic.

The annual survey is posted online at http://www.constitutionfacts.com and, while available to any web-user, offers to record and summate data only from residents of the 50 U.S. states and the District of Columbia (DC). The students found that this data set leaves out residents of the U.S. territories, including Guam, thus leaving out what could be some very interesting and revealing findings from a unique section of U.S. citizens. The students wanted to know, *how would Guam residents fare? Which age group would score the highest? Which questions would most Guam residents answer incorrectly?* The students further thought that both the authors and the users of the online survey might find our conclusions enlightening, perhaps provoking them to re-examine including a more complete, holistic set of the population in subsequent annual surveys. The students at least wanted to give Guam residents a chance for their voice to be heard in civic engagement, comparing and contrasting to the voices of others within the United States, and, in a way, extend "fair and equal representation" to Guamanians.

METHODOLOGY

To extend the survey to Guam residents, the students determined they would poll, to the greatest possible degree, a wide variety of the population (excluding minors). Their aim was 260 survey respondents; in all they polled 240. These respondents were co-workers, customers, friends, relatives, and other students; military service members, retirees, and civilians; self-employed, Federal employees, local government employees, and private sector employees; of a variety of education levels and a host of ethnic and cultural backgrounds. Questions covered civic topics such as: The Articles of Confederation, the role of Congress, the term length of presidents, rights of the accused, the country's first vice-president, the Bill of Rights, the Secretary of State, and electoral votes.

Furthermore, the class discussed several questions they'd add to augment the data to pit against the online survey. They found it prudent to ask respondents' age group (18-35, 36-50, or 51 and over), respondents' professional status (local government employee, Federal government employee, private sector employee, self-employed, student, or other), and highest level of education completed (elementary, secondary, undergraduate, or graduate and higher). Moreover, they thought it would be interesting and revealing to know respondents' own self-assessment of how much they felt they knew about the U.S. Constitution (nothing at all, not much, some, or a great deal).

Even though each member of the class would conduct 10 surveys each, the class broke down into several committees; some members served on more than one committee, some committees were formally organized, and others were structured more haphazardly.

Realizing they'd be conducting a survey while representing the University of Guam, they sought approval for this project from the university's Institutional Review Board (IRB). Class members took the lead in completing applications for review and securing approval of the survey questions and the demographic data they'd collect.

One committee deftly created a spreadsheet that could be distributed to accurately count and tally statistics: each of the 10 participants' responses to each of the 10 questions, as well as their demographic data. This spreadsheet was emailed to each member of the class to complete once their surveys had been collected on paper. Each spreadsheet would then be returned to the "Stats Committee" for final compilation.

The ultimate product would be an infographic planned for distribution at a later date. An Infographic Committee was formed composed of creative, software-savvy students who would put the findings together. Feeding data to this committee would be 7 other committees, each responsible for producing a rough draft of a following Chart: 1. Most Perfect Scores; 2. Highest Average Score; 3. How Did Guamanians Fare?; 4. Scores by Age Group; 5. Scores by Profession; 6. Scores by Education Level; and finally 7. Familiarity Self-Assessment. The Stats Committee would provide the raw data for the other committees to create these charts and descriptive text to accompany each visual aid.

Strict deadlines were set by committee leaders to achieve the desired draft by the class due date. Some committees planned ahead and prepared template charts and narrative descriptions in advance, based on results from the survey online. With these in place, once the Stats Committee sent new data, it would be simple to enter the Guam-specific information into each chart and description.

After IRB granted approval, students had approximately 24 hours to actually conduct the survey. Some of the surveys were physically given on paper to individuals, while others were given orally and their responses recorded. Some of the surveyors found that co-workers they polled were hesitant to complete the survey because they had been out of school for so long and were embarrassed at their unfamiliarity with the U.S. Constitution. Even though through the entire process no names were recorded and those surveyed were kept completely anonymous, some individuals were resistant, at which point they were not asked to continue. Many of those surveyed were immediately curious as to how they did on the survey. This reveals an interest in the topics the survey covered as well as an understanding that Guam residents are expected to be familiar with the Constitution's provisions.

Are Guam residents obligated to have an equal understanding of the Constitution as the average American? Should their knowledge of its content and implications exceed that of the average American? If so, what factors drive this expectation? These were some of the deeper, more reflective questions the class began asking, after the numbers had come in and their early, data-based projections had been answered.

HISTORICAL REVIEW

Guam's early affiliation with American administration came at the end of the 19th century, with the tenure of the first American governor, U.S. Navy Admiral Richard Leary. Leary was the first of a succession of officers appointed to govern Guam for decades, with "little effort to understand the Chamorro people and their society, running the island almost like a naval ship" (Goetzfridt, 2011, p. 6). (Chamorros are the indigenous people of Guam.) One great exception to this indifference came from Governor Willis W. Bradley. Bradley realized that the effect a military government had on a civilian population could be deviant to the very rights and

freedoms that United States citizens enjoyed. Though Bradley had tried for multiple years to attain United States citizenship for the people of Guam, and had been denied this, he continued to press for what may be considered the next best thing, a Bill of Rights. Not surprisingly, he failed to catch the ear of the Navy Department whom he hoped would author and support such provisions, and went on to draft one himself. In December, 1930, Bradley issued his own Bill of Rights, containing nearly all of the rights found in the United States Constitution (Hofschneider, 2001; Rogers, 1995).

Although the Department of the Navy never approved it, the people of Guam certainly did. Written into the local law codes of 1933 were many of the guarantees Bradley had envisioned. With this inauguration, the people of Guam began to feel the wide boundaries of the U.S. Constitution. It was an introduction to non-citizens of the defining document of the liberties of a U.S. Citizen, and it's easy to see this as the mere beginning of the push for ultimate citizenship for Guamanians, indeed, the push for full rights as citizens. A generation of Guamanians, enthusiastic about Bradley's efforts (if not Washington's non-reaction), became familiar in a whole new way with the effects and parameters of the U.S. Constitution.

Eight years later, this generation watched in horror as the limited rights they had were shattered when Japanese troops invaded and occupied the island with limited resistance. During World War II, residents were under Japanese martial rule, a much harsher rule than that of the American naval governors. Lifestyle was dramatically changed as the Japanese attempted to oust all remaining American vestiges left on the island. Personal effects were confiscated, food was rationed, and Japanese customs and language were forcibly instituted. While many residents were harassed or killed for allegedly aiding or allying with the United States military, the underground yearning for the return of life under the U.S. Constitution is perhaps most well-remembered with the popular song, "Uncle Sam, Won't You Please Come Back to Guam" (Sanchez, 1987).

The meager U.S. military strength before the war was dwarfed by the American recapture of the island, a cataclysmic amphibious assault and bloody three-week battle, and the presence of over 200,000 military personnel assigned to the island a year later (Sanchez, 1987). Quickly, local residents joined forces with the 3d Marine Division to commence "mopping-up" activities as the Guam Combat Patrol, a re-imagining of the eager military enlistment as seen in the earlier Guam Insular Force Guard (Rogers, 1995). Following the battle, thousands of villagers were removed and tens of thousands of acres stripped to transform the island into sprawling military bases. Herman (2011) reflects that the villages of "Guam [were] restructured around...new military holdings" (p. 638). Thus, the people's livelihoods also became restructured and intertwined with military affairs.

The continued military establishment has not left Guam, and its imprint has not left Guamanians. Despite currents and variances, overall, Guamanians are seen as very patriotic and proud of their own military service to the nation (Paik, 2010): "[m]ore soldiers from the Marianas have fought and died in American wars since 1950, per capita, than those from any other region in the country" (p. 27). Coincidentally, 1950 is the year that Guam entered into a new relationship with the United States that of an organized, unincorporated territory. While this status breathed new life into Guam by granting U.S. citizenship to its people, the island still falls

under the Constitution's Territorial Clause (Article IV, Section 3, Clause 2). Thus, Congress can determine on its own accord how to govern Guam, and which portions of the Constitution apply to the island; in addition, Guam residents' single Congressional delegate has no vote in the general session, ironically leaving the application of the U.S. Constitution to be drawn by outsiders. (Guam residents are unable to vote for President. Although this may be the starkest reminder of residents' limited voice in principle, on the larger scale, the minimal number of voters cast against the larger body of voters in the 50 U.S. States could hardly make a difference.)

As Guam moves forward considering changes in its political status, it is important that her people bear in mind the ramifications of the U.S. Constitution as the document applies to an unincorporated territory. In a compressed span of seven decades, generations have witnessed how the U.S. Constitution interacts with the island, and many have begun to interact with it. For these reasons, it behooves the people of Guam to understand the basics of the document. And, indeed, the results of the students' survey reveal many are aware of their level of understanding.

SAMPLE RESULTS AND REASONING

The survey tracked the "Average Score for Each Familiarity Group." The question to self-assess respondents' level of understanding was asked before any of the quiz questions were asked, so respondents did not know on which points in particular they were being evaluated. The average quiz score out of 10 for those who felt they knew "nothing" about the Constitution was 4.750; for those who felt they knew "not much," 5.062; for those who felt they knew "some," 6.431; and for those who felt they knew "a great deal," 8.105.
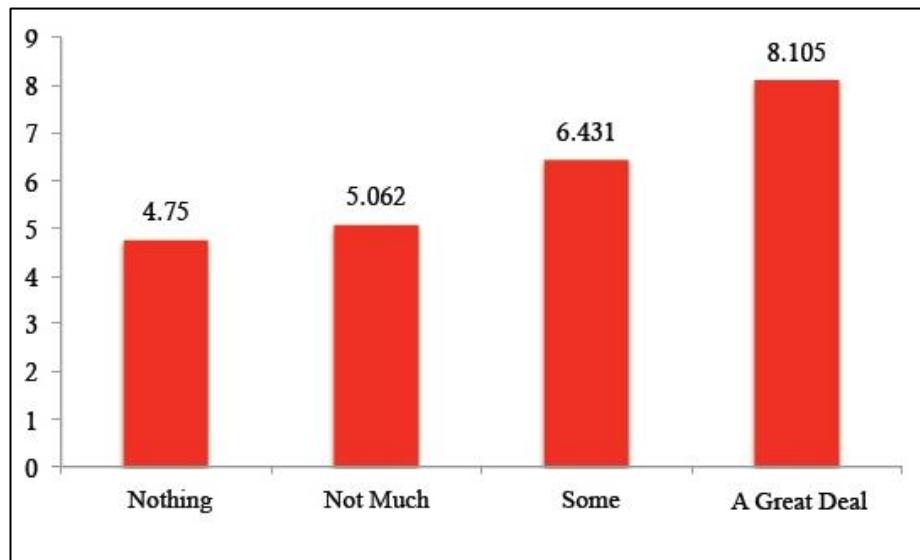

Figure 1: Average Scores by Self-Assessment of Knowledge of the Constitution

Here it can be easily seen that the averages increase progressively according to how well the respondents felt they understood the material. These results were congruent with the class's hypothesis that respondents could fairly accurately gauge their familiarity before the quiz began.

The class determined that respondents who work with legal and political matters on a regular basis would assert their comfort with the Constitution and that those who felt they knew "nothing" would not be ashamed to vocalize this beforehand. In a way, this question generated a comfortable atmosphere to begin the survey: once they could unabashedly declare their familiarity level, respondents could give natural, honest answers without feeling the need to impress or mislead the surveyor.

Despite the high averages for those who "knew a great deal" about the Constitution, only 4.17% of all Guam respondents answered 10 questions out of 10 correct. According to the nationwide online survey, among the top ten states with the highest percentage of respondents who scored 10 out of 10 correct were California, with 16.01% of respondents answering all questions correctly, and New York, with 13.40%, more than 3 times the percentage of Guam's perfect scores.
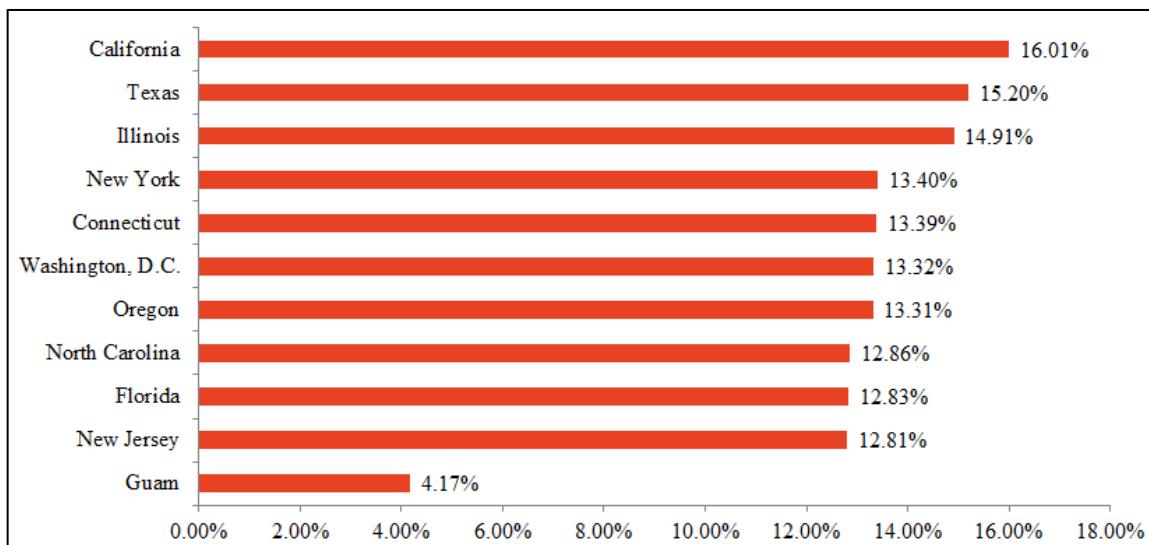
Figure 2: Most Perfect Scores

Some perspective is important for this comparison, however. The question most frequently missed – 84% of Guam respondents missed it – asked the maximum number of years a person can serve as President: 4 years, 8 years, 10 years, or 12 years. (The answer is 10 years. According to Oak Hill Publishing Company, "Based upon Amendment Twenty-Two of the Constitution, no person can be elected to the office of President more than twice or serve more than two years of a term to which some other person was elected President.") Guam lacks the ability to vote for President. This may explain why so many respondents missed the question, resulting in an imperfect score on the quiz. Voters, simply because they are disconnected from the process of electing the President, may have known the term limit of 2 terms, but might not have been familiar with the additional two year exception. One must also consider cumulative experience established with intricacies of U.S. Constitution and the ability to answer all 10 questions correct: the Territory of Guam is 100 years younger than the State of California, and more than 160 years younger than the State of New York.

However, waiving the expectation to answer all questions correctly, Guam did comparatively well with its average score, 6.11 out of 10. This ranks Guam at 8th place in comparison with the top ten states with highest average scores, including California, again at the top with an average of 6.69 questions correct, and New York with an average of 6.51 questions correct. Guam's score is higher than Florida, Michigan, and Vermont, which scored 6.01, 5.98, and 5.96, respectively. Guam's ranking among the top ten states surprised the class. They began to consider what factors may have given the territory a better understanding of the Constitution than 40 states had.
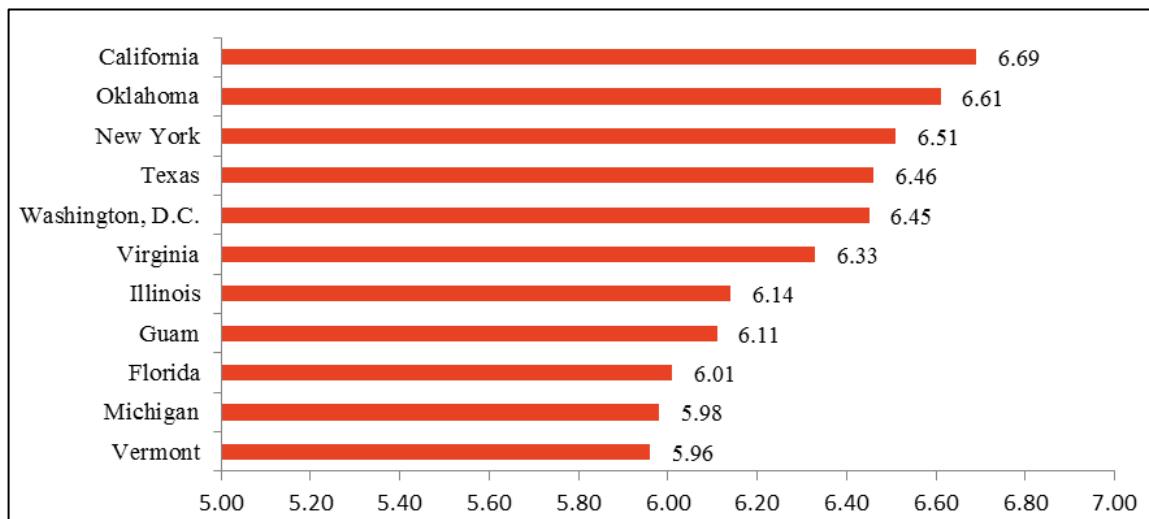
Figure 3: Highest Average Scores

The Oath of Office

As mentioned, many residents of Guam currently serve in the military, once served in the military, or are retired from the military. In 2010, 10.8% of Guam's population was active duty, dependents, or retired (Bureau of Statistics and Plans, 2013). It can be assumed that a large percentage of these persons would interest themselves in becoming familiar with the document that defines the nation they serve. Indeed, military members are required to swear an oath of office to "defend the Constitution against all enemies foreign and domestic" (Oath of Office). Younts (2012) examines this "unique obligation to the Constitution, rather than to a particular political leader or military officer" (p. 43). His findings suggest that allegiance to an unchanging, time-tested document and its principles is more substantial than allegiance to a leader who changes over time and has varying political views. As such, a greater, long-lasting familiarity can be achieved. Each servicemember enters "a special relationship with the Constitution" (p. 47), subject to the authority of the elected official and subordinate to the branches of government the Constitution establishes. Proper function and full realization of a servicemember's job is achieved when one possesses knowledge and understanding of this guiding document.

This same sentiment applies to federal workers on Guam. Most federal employees also take an "Oath of Office" to the Constitution. According to Hiles (2014), the number of federal employees on Guam increased 5% between September 2013 and September 2014, to 4,140. This

represents 6.6% of Guam's labor force. In contrast, The Fact File (2012) reports that federal employees make up only around 1.2% of the total nationwide workforce. With these figures, Guam has five times more federal employees per capita than the rest of the country. Chances are, a greater percentage of workers on Guam have taken an "Oath of Office" to the Constitution than workers throughout the mainland.

Passport Holders

Many islanders are regular off-island travelers, or have at least once traveled, either to Hawaii, the mainland, or farther afield. The reasons for off-island travel are many, but two examples will suffice: Guam's population often has medical needs best met through off-island travel. A sample of these needs may include cost, shorter wait times, and unavailability of procedures on-island. Common destinations for medical care include Hawaii (both civilian and military hospitals), Los Angeles, the Philippines, or Thailand. Medical travel reimbursement is even built into some commercial insurance plans offered to Guam patients, as this practice is commonplace. The older generation with increased medical needs might be the most common population for this type of travel. Additionally, another common reason for off-island travel is the abundance of other trainings, developmental opportunities, education options, and conference venues the island simply does not offer, but other locations do. Young adults who seek college or career advancement might be the most common population for this type of travel.

Although the reasons for travel are varied, all U.S. Citizens who travel to and from Guam share one commonality: they each carry a U.S. Passport. As they travel in and out of boundaries of the United States and foreign countries, travelers must be cognizant of the applicable laws and policies. Travelers involuntarily conceptualize differences and similarities between the country they travel to and the United States. They may invariably seek to learn more about the freedoms and liberties granted in the United States as well as recent threats against the United States and Guam's role in the United States' Asia/Pacific posture. A personal awareness or interest in one's protection and rights as a U.S. Citizen could lead to a greater understanding of the Constitution. More fundamentally, each passport carries a statement regarding "Liberty," "Welfare," and "Justice" – it's the Preamble to the Constitution, and it's printed directly above the signature field.

Not all travelers are out-bound, and not all hold a U.S. Passport at first. In fact, over the past several decades, Guam has seen tens of thousands of immigrants from countries within the Asia/Pacific region. Large populations have come from Japan, Taiwan, South Korea, the Philippines, the Federated States of Micronesia, and Palau. Refugees have come from Vietnam during the 1970s in Operation New Life and from Iraq during the 1990s in Operation Pacific Haven (Rogers, 1995; Gordon-Eghabali, 1997). Smaller groups have come from Australia, Indonesia, Thailand, and Europe. It's no surprise that the U.S. Citizenship and Immigration Services website claims that the Agana office conducts naturalization ceremonies several times per month (Guam – Agana Field Office, 2014). Recent news reports tout dozens of persons naturalized during a sample of these ceremonies (Joint Region Marianas, 2014; District Court, 2015).

The U.S. Military and Guam's Self-Determination Movement

Many of these immigrants come as a result of the military. Military spouses, military contract workers, military-catering business owners, or even military-aided refugees have found a niche on the island. Lee (2010) notes, "For Guam, the military and economy [are] hard to pull apart. Moreover, since the economic benefits sculpt the life-style of the people in Guam, it is...obvious that both the economy and military will affect the culture in the island" (p. 8). Fulghum (2008) agrees that the heightened military activity contained in such a small island has a powerful effect on its servicemembers and civilians: the everyday fact of life is that the United States has amassed considerable power on Guam.

There is a self-determination movement on the island which contemplates and commonly opposes the military's use of Guam. According to Paik (2010), the U.S. military, already occupying "fully a third of the island" (p. 26), ignited indignation from movement leaders when large-scale plans for a military buildup were announced. The Draft Environmental Impact Statement, released in 2010, called for "a litany of ecological catastrophes...turning Guam into the planet's premier parking lot for billion-dollar fighter jets, helicopters and drones" (p. 27). Annoyed at seeing more of the island's natural and cultural resources threatened, wider local audiences became increasingly interested in political sovereignty. This provided still another platform for discussion and debate on the merits of the U.S. Constitution. Yet, Paik writes, "[t]he island remains one of only sixteen UN-designated 'nonself-governing territories' - in other words, colonies. As such, its people have no legal route to appeal any decisions made in Washington" (p. 26).

Consider the movement toward self-governance over the past decades. Guam's urgency for self-determination resulted in positive steps for political improvement, many of which are still fresh in the minds of the older generation. This generation was alive when they were granted U.S. citizenship in 1950, a declaration sparked by the outrage of the local legislative body over a perceived lack of civil liberties. This had been one final bone of contention over a period of several decades of a lack of self-government, respect, and the honor of American citizenship. Written into the Guam Organic Act of 1950 was not only the declaration of citizenship for Guam residents, but transfer of territorial administration from the U.S. Navy to the U.S. Department of Interior. With this declaration ended hundreds of years of military administration. More freedom followed when residents were granted the ability to elect their own civilian governor in 1968, a rite the people celebrate wildly each election season. Indeed, Guam's respect and affinity for the United States might be best viewed as admiration for the nation's strides for its own independence.

Would the framers of the Constitution in 1787 sympathize with Guam's self-determination leaders? Just released from the tyranny of Great Britain, would they apply the notion of "colonialism" to the people of Guam? Whether yes or no, what limited rights that are given to the people of Guam are enough not to incite a violent revolution.

DISCUSSION

East Timor and Puerto Rico: Comparisons

In a quite different vein, the attempted colonialism of East Timor by Indonesia had tumultuous effects on the population. In the 1970s, while many of the residents the class surveyed were learning the basics of United States civic affairs, East Timor, a nation of over 5,400 square miles on an island in Maritime South East Asia, was violently occupied and colonized by Indonesia (Brief History of Timor-Leste, 2012). Anderson (2003) reflects that the "... forcible introduction of Indonesian as the language of all state educational institutions paradoxically gave the young, post-invasion generation of East Timorese a second lingua franca - one that gave them opportunities for intellectual access to Jakarta's colonial project…" (p. 175). He parallels this closely with the Dutch-language immersion to Indonesia itself, and its awakening of a "Dutch-language nationalist movement against Dutch colonialism" (p 175). Leaders in the East Timorese nationalism movement are quite familiar with Jakarta's policies and civic affairs because of the wide-spread colonialism, but to different effect.

Or consider a comparison of Puerto Rico and Guam. In 2000, about 43% of Chamorros lived within the 50 U.S. States (Untalan, n.d.). In 2002, the percentage of Puerto Ricans residing there was nearly the same, approximately 46% (Ramirez, 2002). The people of Guam are undeniably patriotic to the United States and proudly consider themselves American (Sanchez, 1987), yet Enriquez (2005) describes the relationship between Puerto Rico and the mainland as "schizophrenic at best," citing a poll in which "62% [of Puerto Ricans] considered Puerto Rico, rather than the U.S., their nation" (p. 54). There's no doubt many Chamorros will cling to their ancestry and ethnicity. Yet identifying their home as "Guam, U.S.A." or "Where America's Day Begins" sets a clear alignment with the United States and embodies a desire to fit in with the mainland population and its political scene.

Guam's Political Scene

However, the political scene on Guam vibrates at a more frenetic rate than in the United States because the bounds and limitations are much more constrained. One consideration here is that the island is smaller than any U.S. state and many U.S. counties. During election season, the island feels inundated with campaign signs simply because there is a greater density of them. Shuster (2004) points out that, because the island is so small, it seems that "one [can] hardly escape the impact of [a] campaign" (p. 27) as signs, posters and stickers of campaign logos are posted on private residences, vehicles, public land - indeed, nearly everywhere on the island. This saturation is compounded with catchy theme songs that are played constantly. In addition, the island's known hospitality is extended at rallies or pocket meetings with open tables of barbecue food and drinks. It is this type of dynamism that attracts undecided voters and even pulls voters from one side to the other.

Moreover, the localized styles and behaviors of politicians make politics itself more endearing to the people. Politicians of Guam are still People of Guam, and this result in a government that functions with hands-on methods. During a recent debate, one gubernatorial

candidate cited instances where, as a former governor, he personally led efforts after natural disasters to clean up damaged neighborhoods and homes. His followers believe that these actions crystallize the purpose of government, meeting the needs of the people. Instances like this show that the government can be dynamic, responding to issues readily. They also show that Guam's government still has a close-knit nature with the people, and that politics in general and the importance of understanding one's government is critical to many.

CONCLUSION

In fact, Guam residents' interest in politics may be primordial. Even before the island came under foreign power in the 16th and 17th centuries, the Chamorro people lived and worked together in villages. According to Blaz (1994), these ancient people counted on each other to formulate and put forth opinions when the need for change arose or an important decision was imminent. Each member of the village could share an opinion, and each was valuable. Strongly connected to this sentiment is the practice of *Inafa'maolek*, in which all members of a group work and share together harmoniously. Cunningham's (1997) interpretation of this value in ancient Chamorro life is "interdependence," "cooperation within the group," or "group decisions by consensus" (p. 29). This tradition continues to the present day and offers another platform to understand guiding documents describing how a society should function (such as the Constitution).

This raises the question of whether a Guam Constitution should be formalized, to establish on a local level relationships and authority within the territorial government. By the authority of Article IV of the U.S. Constitution, Congress has the right to govern Guam as best as it sees fit. Therefore, federal oversight on Guam is strong and permeates many levels of daily governmental operations (e.g. the size of legislature and the term limits of politicians). McNinch-Su (2011) suggests that the development and approval of a Guam Constitution would benefit the territory. In the short term, a Guam Constitution might establish greater self-governance, and in the long-term give the territory better leverage with the federal government. It might increase Guam's political maturity. Residents may remember past local efforts to create such a document. Although two Constitutional Conventions were held in the 1960s and 1970s, they failed to produce a document that was accepted by federal authorities and the people of Guam (Tenorio & Viernes, n.d.).

Perhaps as these survey results become better known throughout the island's population, Guam residents may feel more inclined to consider the implications of a local Constitution. But in the meantime, the students were pleased to see that Guam did comparatively well among the 50 states with this survey. More importantly, they found that Guam residents - no matter how deep their knowledge or familiarity of the Constitution - were eager to participate, revealing a keen interest in the intents and meanings of a document signed half a world away, 228 years ago.

ACKNOWLEDGMENT

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RESISTANCE OR ACQUIESCENCE: STUDENT PERCEPTION OF SOFTWARE SURVEILLANCE DURING A TEAM-BASED SIMULATION

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ABSTRACT

The use of software surveillance and monitoring systems in industry and academia is having an increasing impact on the privacy of users. While managers and administrators may appreciate the utility and security provided by these systems, the impact on end-user perception and behavior is unclear. It is uncertain if user tolerance of surveillance might be influenced by a general acceptance of technology. Furthermore, it is unclear to what extent attitudes impact behavioral response. This pilot study focused on capturing and deciphering participant reaction to surveillance software in the context of an undergraduate course during a team-based Enterprise Resource Planning (ERP) simulation. Responses collected through a post-completion open-ended survey were correlated with user behavior during the experience. Results revealed that the software had a positive impact on dissuading deviant behavior and that the majority of the students did not view the surveillance software as intrusive. Use of surveillance systems monitor and thereby encourage students' ethical behavior in an online educational setting. Encouraging students to act ethically is important while they are in school; doing so sets a pattern that will benefit them in their future careers. Preliminary findings suggest surveillance systems may be used effectively and unobtrusively in a computer-based lab with Millennials.

INTRODUCTION

Individuals in the 21st century are surrounded by technology in all facets of their lives; in their homes, schools, and places of employment. With the surging popularity of technology over the last two decades, surveillance systems have emerged that enable monitoring and tracking of on-line behavior. Surveillance is viewed as watching or observing a participant in an effort to keep track of their progress with the intention of supervising and guiding their behavior (Lyon, 2007). This trend has been on the rise over the course of the last decade (Scherer, 2013). The combination of computer and communications technologies and their entry into the market has produced the possibility for individuals to not only be the object of surveillance, but its subject as well (Berkko, 2009, p. 63). Reliance on technologies has placed users in a constant state of observance (Ahituv, Bach, Birnhack, Soffer, & Luoto, 2014). Tech savvy students in universities across the globe today will transition into the workplace tomorrow. As this transition occurs, an embedded code of ethics should accompany them. Exposing students to performance under surveillance while engaging with enterprise systems will help encourage, and foster, ethical behavior which will set them up for long-term professional success.

Recording and capturing data enables observers, in a variety of settings, to gain insight regarding different phenomenon. Therefore, the potential benefits which could be realized from

collecting the computer activity of users is far reaching. In the workplace, surveillance popularity has increased (Introna, 2000). In some instances, surveillance systems have been known to create anxiety and suspicion of those under study (Vorvoreanu & Botan, 2001) and had adverse effects on productivity (Douthitt & Aiello, 2001; Stanton & Barnes-Farrell, 1996). In other more recent investigations, individuals uninformed of the monitoring protocol displayed a greater degree of self-regulation when they were unaware their on-line activity was under surveillance (Dawson, Burnett, & McArdle, 2005). Employees' attitudes remained high and they appeared more productive when they assumed their work was being self-managed. There remains a level of uncertainty regarding the impact surveillance has on user attitude and as a result efficiency in the workplace.

There are few studies to date that evaluate the impact surveillance has in an academic setting, especially on user attitude and the perceived impact on behavior in a laboratory setting. This study investigated the impact of surveillance systems used in the laboratory of an undergraduate course offered in the supply chain management technology program at a major Midwestern university. Exploring this phenomenon in the context of higher education is important to understand the perception of surveillance on Millennials. Millennial learners refer to individuals born between 1980 and 2000 who have regularly experienced the pervasiveness of technology throughout their lives. Gaining insight regarding the use of survaillance with this user group is important since these individuals are migrating into the workforce. Investigating the reasons behind their tolerance, or intolerance enables their voice to be heard. This is an aspect of surveillance often overlooked (Vorvoreanu& Botan, 2001). Understanding the impact of technological tools in an academic setting can shed light on acceptance in a corporate setting (de Pablos & de Pablos, 2007).

The surveillance software was used to monitor student behavior during a team based Enterprise Resource Planning (ERP) simulation that uses industry specific software. With the simulation mimicking scenarios students will encounter in the workplace, it afforded a relevant forum to observe and investigate the impact surveillance. This topic is of special interest to business curriculum because most of the students will graduate and assume corporate level positions, many of which will be subject to electronic surveillance. The case study examined students' reactions, or lack thereof, to surveillance systems used while students were engaged in computer activity and provided insight into the factors which influenced their viewpoints. Finally, it provided awareness of how surveillance systems can be incorporated into a computer laboratory setting effectively and unobtrusively, affording educators an opportunity to collect rich data sets.

BACKGROUND

Over the course of the last two decades technology has become more prevalent in society with a vast array of innovative technologies flooding the market. These innovative products, including electronic surveillance mechanisms, possess distinctive characteristics that generate diverse cultural effects (Botan, 1996). Because surveillance software is a new technological medium, its effect on user behavior is uncertain. Within a corporate environment, surveillance apparatuses are used for a variety of reasons, as outlined in the table below:

Internet activity	66%
Tracked content, keystrokes, and time spent at the keyboard	45%
Store and review computer files	43%
Monitor the blogosphere to see what is being written about the company	12%
Monitor social networking sites	10%

Note. Adapted from American Management Association,
2007 Electronic monitoring & surveillance survey

As a condition of employment, employees are expected to accept the monitoring of computer activity as the norm. It is commonplace for their on-line activity to be captured and assessed according to employer needs. Stambaugh, Tipgos, Carpenter, and Smith (2012) suggest numerous methods have been used to capture and analyze user data in an effort to identify fraudulent behavior. Vorvoreanu & Botan (2001) looked at the pervasiveness and uses of electronic surveillance systems in industry, and suggested that the negative connotations of stress and distrust can be associated with their use. Chalykoff and Kochan's (1989) on the other hand revealed perception towards surveillance systems often depend on how the data is collected and if it is used to facilitate employee feedback. Moran and Nakata's (2010) comprehensive list included the terms context, justification, trust, and awareness suggesting that not all employees viewed the surveillance in a negative light.

The pervasiveness of technology and empowerment of students to use it in a learning environment comes with the same scrutiny as those in the workplace. Educators are curious by nature. Like employers, they want to understand if students are using computers effectively, how student behavior is affected, and the impact innovative techniques have on learning. Unfortunately, educators do not always have access to student data which could reveal common patterns and trends. Surveillance software offers a mechanism to fill this void. Capturing on-line activity could potentially minimize distractions while providing educators an opportunity to collect rich datasets.

From an early age students are conditioned to having their daily activity monitored to ensure adherence to school policies. Educators are constantly analyzing student behavior in relation to expectations, while fostering trust and encouraging engagement. With the influx of technology and surveillance software, educators are now also able to capture student computer behavior. To date, there have been few studies that investigate the impact of electronic-surveillance systems in an academic setting. This is especially true in lab settings where students are provided an opportunity to interact with industry specific software. One study performed at Queensland University of Technology, within an undergraduate department of Faculty of Education, revealed that when under surveillance students adapt their on-line performance. They stated that their browsing activities were only slightly modified compared to their writing (on discussion forums), which was revised significantly (Dawson, Burnett, & McArdle, 2005). While the monitoring system impacted their actions, it did not appear to have an adverse impact on trust, attitude or effort in the form of participation.

Meyrowitz's (2009) proposed that individuals' tolerance of surveillance systems and their level of familiarity with being watched could be a result of living in a television era in which listening to and watching others is considered the norm. This is especially true of Millennials who have grown up watching reality television and using social media to interact with peers. These experiences may instill a subconscious level of open-mindedness in response to living in the 21st century. Medium acceptance is a result of technology infusion into the many aspects of

their lives. The "medium theory" is central to this study, with the researchers' intent on ascertaining students' reaction to surveillance software. Croteau and Hoynes (2003) explain that the 'medium theory', as referred to by Joshua Meyrowitz, emphasized the importance of understanding the technological aspects of the media, the medium itself, in deciphering the social response. This research is predominantly interested in understanding students' reaction, their social response, to the use of surveillance software in the context of a lab environment.

THE STUDY

This pilot study sought to evaluate student perception associated with electronic-surveillance in a lab-based team activity. In addition to tracking student computer engagement and keystrokes, researchers gathered student opinion associated with the experience by soliciting feedback with the use of a survey instrument containing open-ended questions. The researchers used a grounded theory approach to identify themes and patterns in user responses.

The Simulation

The simulation is offered in a production planning course within an Industrial Technology program at a large Midwestern university. Students often enter the course with minimal working knowledge of ERP systems. The course curriculum was designed to foster student awareness of enterprise systems and its relevance to course concepts. ERPsimTM, an ERP training simulation developed by faculty members at HEC Montreal has been included in the laboratory section of the course allowing students an opportunity to see how textbook concepts and knowledge intersect with enterprise systems. ERP technology started to rise in popularity in the 1990's (Olhager & Selldin, 2003). These integrated business systems allow global organizations to achieve operational efficiency by enabling the integration of data amongst functional units, and externally, amongst supply chain members. In today's marketplace, enterprise systems are used within more than 90 percent of manufacturers' facilities (Castellina & Prouty, 2012). Training students to use ERP systems is a critical component of organizational success in that it enables users to develop foundational skills and prepares them to use the integrated system effectively (Coulson, Olfman, Shayo, & Rohm, 2003).

ERPsimTM is a participatory simulation experience which uses the SAP on premise solution as its basis (Léger, Robert, Babin, Pellerin, & Wagner, 2007). In lieu of teaching solely transactional knowledge at an individual level, higher level enterprise and inter-departmental knowledge is emphasized through the use of a competitive team-based approach. In groups comprised of 3 to 5 members, students manage the customer order to cash cycle of a distribution, manufacturing, or logistics organization. In the traditional setting, students typically experience a great deal of freedom when participating in the team based activity because it is difficult for an instructor to monitor the computer behavior of all students during the simulation. Students work autonomously to accomplish their assigned tasks. This research continuous to foster independence during the simulation yet employs a mechanism to observe student performance.

Research Objective

This current research was exploratory and the study sought to understand the impact of using electronic-surveillance in an educational setting. The research questions seeking to be answered in the investigation follow:

1. What were student perceptions, regarding performance, associated with having their on-line activity monitored?
2. To what extent did having on-line activity monitored impact student behavior?

Methodology

A case study approach was used to conduct this research. Case study methodology is defined by Yin (1984) as ''an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly defined'' (p. 18). Within the context of the simulation, it is difficult to understand if user familiarity and acceptance with technological devices and innovative software overshadowed the intrusion of surveillance. Therefore, employing this methodology enabled the authors to focus on "several individuals, engaged in an activity or event" (Creswell, 2007, p. 74) to gain clarity.

DESIGN

Participants and Context

Nine students, eight seniors and one junior, all seeking an undergraduate degree within an engineering technology program were members of the team under review. Team composition was male dominated with only two females included in the study, which is representative of the college gender ratio. In a study of Certified Public Accountants, Ariai, Abdolmohammadi, and Smith (2015) found that gender did not play a role in value preference. Seven of the nine members were from the Industrial Technology department, with only two seeking degrees of a different nature. The participants were randomly placed on three to four member teams. Participation in the simulation was not optional in that it served as a course requirement.

Students engaged in the simulation as part of a production planning course. This selection was ideal because a computer based recitation is included as a component of the course. Each student participating in the simulation had access to an individual computer with internet connectivity enabling access to the surveillance software. Each machine had access to the SAP ERP software, a critical component of the simulation. The rounds of the simulation were controlled by the course instructor. Students were able to monitor the passing of time and their performance by viewing data on the instructor controlled overhead projector. Prior to engaging in the simulation, students watched a series of videos outlining the game strategies and objectives to ensure adequate preparation.

A surveillance monitoring system, Envigilator, was used to track team member participation throughout the study. Envigilator is a web-based proctoring and computer monitoring system that captures and records student computer activity (Delmar Information Technologies, LLC, 2011). The surveillance system was developed by a faculty member at the participating institution, and has been used successfully in previous courses within the college during assessments. The functionality provides instructors with the ability to capture a new image each time participants navigate to a new screen. Used within the context of the simulation, researchers were provided insight into student involvement and individual contribution during the team-based event. In essence, it enabled the ability to monitor student behavior in a discreet fashion.

Procedures

Teams of 3-4 students participated in a competitive ERP simulation which mimicked the market conditions of a bottled water distribution company during weeks twelve through fifteen (of a sixteen week semester). Each team strategically assessed the market conditions by reviewing system generated reports, setting prices, managing marketing expenditures, forecasting sales, and procuring goods by leveraging the ERP system. The goal is for team members to execute transactions in a timely and efficient manner. Teams were free to delegate responsibility amongst members however they chose. Each student had access to a designated lab computer. Students were required to respond to market volatility by deciding on the appropriate amount to invest in marketing expenses, how to best price products, the ideal product composition and more (Baton Simulations, 2011). Students were given a job aid which contained a high level overview of transaction codes, business process flow diagrams, reporting capabilities and pertinent information relevant to the game prior to the commencement of the event.

The primary researcher explained the software's purpose while the students initiated the software. Students were also provided an on-line document containing instructions on how to launch the surveillance software and a URL directing students to the surveillance software web-site. In addition to the description contained within the document, when students accessed the site itself, a document was launched which contained a formal explanation of why the technology was being used. Researchers informed students that instructors could obtain a better understanding of participation strategies by analyzing participant screen movement and navigation.

A watermark was displayed on students' computer monitors once they launched the surveillance software, making it easy for the researchers to confirm that their screen activity was being captured. Then students were advised to sign on to the ERP software and instructed to play the distribution game which was comprised of a series of three fifteen minute rounds. Their movement was independently recorded containing data identifiers such as student name and start/finish times, making it easy for the researchers to decipher the level of student participation.

After the study, data related to student perception associated with the impact of a surveillance mechanism was collected through the use of a survey instrument containing a series of open-ended questions. Questions focused on the impact of the surveillance software on attitudes and behavior during game play. To provoke response elaboration, each question was followed by the wording "Why/Why not – briefly explain" or "Briefly elaborate". The researchers also held an informal focus group at the start of the following week's lab session which lasted approximately 10 minutes. Students' were asked the same open ended questions allowing them to elicit their opinions and provided an opportunity for them to expand upon or substantiate their previous week's responses. The focus group was incorporated to foster discussion amongst participants. Field notes were collected by the researchers during this timeframe.

RESULTS

Themes

As a certified SAP ERP Simulation trainer, the primary researcher had no relationship to the student participants in the study. In an impartial role, she was brought in to assist with the facilitation of the distribution game, administer the post-simulation questionnaire, and direct the

focus group. Only the primary researcher had access to the original student data. Their names were removed and student data assigned unique values or codes for reference in this document (Table 1).

Table 1 SURVEILLANCE EFFECT ON STUDENT PERCEPTION Participator Identification			
Identifier	**Rank**	**Major**	**Gender**
A	Senior	Industrial Technology	Male
B	Junior	Industrial Technology	Male
C	Senior	Industrial Technology	Male
D	Senior	Organizational Leadership & Supervision	Male
E	Senior	Industrial Technology	Female
F	Senior	Industrial Technology	Male
G	Senior	Industrial Technology	Male
H	Senior	Industrial Technology	Male
I	Senior	Industrial Technology	Male

Multiple collection techniques were used to validate and triangulate the data. Student input was elicited from multiple data sources to include questionnaire responses, focus group responses recorded in researchers' field notes, and screen recordings. The data comprised of students' perceptions were synthesized utilizing an on-line version of Van Manen's (1990) analysis method. Instead of manually collecting, transcribing, and coding the data in an effort to identify themes, survey data was collected and analyzed electronically. Questionnaires were designed and administered using Qualtrics, an on-line survey generator. Data was downloaded by the primary researcher into a spreadsheet application and responses from the following week's focus group meeting were added manually. Of the original five questions included on the survey instrument, researchers determined only three to be valid. Two of the questions prompted students to infer emotions associated with game play as opposed to the surveillance itself. Once the data had been consolidated and the two questions removed, a second researcher was brought in to provide inter-rater reliability.

The data was reviewed by using a sorting and resorting technique. Like responses were categorized and then as similar verses and phrases were detected, they were highlighted using a color-coding schematic until consistent groupings themes emerged. The entire process was repeated independently by both researchers and the results used as a basis for comparison. For items of discrepancy, the researchers discussed until a consensus was achieved. Findings were modified accordingly to capture any new themes, trends or patterns that developed. The final themes are listed in Table 2 with student response by category summarized in Table 3. With regards to validity and truth, following the guidelines recommended by Creswell (2007), "the researchers took utmost care to present the findings as accurately as possible, establishing a level of confidence related to observations, interpretations and conclusions" (p. 204).

Table 2
SURVEILLANCE EFFECT ON STUDENT PERCEPTION
Themes: Response to Surveillance

Theme	Theme Description
Compliance	Willingness to follow a request or a demand.
Oblivion	Demonstrates unaware of or no concern about what is happening around oneself.
Ignorance	Apparent lack of knowledge or information.
Disregard	The ability to pay no attention to; ignore
Self-Motivation	The initiative to undertake or continue a task without prodding or supervision.

Table 3
SURVEILLANCE EFFECT ON STUDENT PERCEPTION
Student Responses by Category

Identifier	Compliance	Oblivious	Ignorance	Disregard	Self-Motivation
A		X		X	X
B		X		X	
C	X		X	X	
D	X				X
E		X	X	X	
F			X		
G	X	X	X		
H	X			X	X
I	X			X	

Compliance

Of total responses, five of the nine students indicated that in some capacity the surveillance software had an effect on altering student behavior. However, of importance to note is the fact that only one of the nine students affirmed that compliance was the outcome of being surveyed in all instances. Other respondents had less cohesive responses across the board. Comments suggesting that screen monitoring impacted student behavior ranged from "No one on my team was active online…everyone played their role well (Student G)" to "It increased participation and, I stayed on task and avoided on-line browsing (Student H)." Students volunteered that the surveillance mechanism "Increased behavior because they were more focused on the SAP activity and ensured everybody put effort in (Student I)". One response suggested, "It helps students to stay on task with the lab activities (Student C)." Though not consistent across the board, there was some suggestion that the surveillance system was perceived as a catalyst for equalized participation (Student C, D, and I).

Oblivion

Several of the students displayed an element of unawareness, unconcern, or complete oblivion about having their computer activity monitored (4 of 9) and therefore their responses did not indicate an impact to behavior. Comments consistently revealed that once students became engaged in the simulation, they rarely thought of the surveillance software running in the background. "I completely forgot about Envigilator when I was using SAP (Student G)" and "I did not notice it at all, it was not on the forefront of my mind (Student E)." This group of students agreed it had a minimal effect on their overall performance commenting "No one

stopped and noticed that it (Envigilator) was running (Student B)," "No because it wasn't intrusive into our game play (Student E), and "No one really noticed that they were being surveyed (Student A)." During the focus group, one student summed it up nicely by offering the slogan, "Out of sight, out of mind (Student G)."

Ignorance

Though students were informed both orally and through written instructions, some students appeared to have no idea of Envigilator's capability volunteering, "I was unaware that I was being watched (Student F)," or "I don't think my group members really knew it (Envigilator) was going on in the background (Student G)." Responses indicate that students may have tuned out during the introductory phase of the activity or merely paid little attention to the software because the unobtrusive nature. Unsettling is that students' rote behavior enabled acting without inquisition and therefore ignorantly regarding the purpose of Envigilator as demonstrated by the following statements: "I didn't know that I was being monitored (Student C)," "We didn't know we were being watched, we were just told to launch the program and go with it (Student E)," and "I think if we were aware that we were being watched we would be somewhat scared (Student F)." During the following week's focus group, additional insight was revealed when one student volunteered, "I came in late. I had no idea what Envigilator was. I just wanted to catch up with everyone else (Student D)." Only one out of all nine students expressed any concern with the concept of surveillance in general (Student F), though he expressed lack of knowledge or information regarding the purpose of Envigilator.

Disregard

The most prevalent theme that emerged during the study was "disregard", with students being able to pay little attention to or completely ignore the surveillance software. Comments ranged from "I don't think Envigilator played any part in helping students to participate (Student B)" to "I do not believe Envigilator impacted performance, due to our focus…(Student A)." Overall the students were able to disregard the software due to game engagement reflecting, "I honestly did not even think about the fact that there was the surveillance software…the game was too fun and exciting for me to care (Student A)" and "It had no impact on my performance because of the brevity of the simulation (Student C)." "Game brevity (Student H)" was an echoed response.

Self-Motivated

The final theme to emerge was that of self-motivation, with 3 of the 9 students making reference to individual commitment. Based on recorded comments, it was obvious that they believed personal conviction contributed to engaged behavior. Student D commented, "The surveillance system had no impact on my decision making…I was planning to stay on track." Student A added, "We were all focused on the same goal and being monitored was a non-issue…"I do not believe Envigilator kept anyone from doing what they were supposed to be doing." Student H emphasized the importance of team engagement commenting, "All of your attention needed to be focused on the game." Be it learning or team commitment, the experience itself looked to positively impact these students level of participation.

Surveillance Software Count

A second phase of analysis was the review the surveillance software screen recordings, captured at an individual student level. These recordings were inclusive of all on-line activity performed by each student during the lab timeframe. Analysis of the data enabled insight into the degree to which stayed on task during the simulation as well as and an awareness of any deviant behavior that occurred during the lab assignment. Of greatest difficulty was determining what impact, if any, team member contribution and competitiveness had on student's perception of being observed.

Analysis of the surveillance software screen recordings (Table 4) resulted in the summarization of the amount of time students were logged into the lab computer (column e). More importantly however, was the identification of the amount of time students were actually signed into engaged in playing the SAP simulation (column f). These numbers are relevant in establishing baseline data associated with how much time students should have allocated to the lab activity. The analysis also revealed how much time students engaged in deviant behavior (column g). Deviant behavior is defined as students participation in any on-line activity outside of the tasks required to perform the lab activity (including pre/post work). Of those participating, 6 of the 9 participants stayed completely on task, from the time they entered until the time they exited the lab (Table 4 - Individual Identifiers B, C, D, G, I). Of the remaining 4 students, 2 participated in deviant behavior prior to the execution of the simulation, and the remaining 2 participated in deviant on-line behavior after the simulation was already in process. Though not ideal, students confirmed during the focus group that those surfing the web (Individual Identifier – F) or looking at e-mail (Individual Identifier – A) prior to the simulation were passing time until other classmates completed the steps necessary to engage in the game. The remaining 2 students (Individual Identifiers – E & H) however, clearly engaged in deviant behavior after the game had commenced. Student E spent less than a minute checking e-mail, while student H spent a total of 17 minutes (22%) of on-line playing time engaged in deviant behavior. Interestingly enough, when asked to assess the intrusiveness of Envigilator, it was student H that volunteered, "I wasn't bothered by Envigilator because I know it wouldn't affect my participation; I knew I would stay on task."

The surveillance software revealed that the majority of students (7 of 9) stayed on task during the ERPsimTM activity. Students remained engaged and participated throughout. While 2 individuals chose to partake in on-line deviant activity during the simulation, Student E only spent 17 seconds away from the game (.36% of playing time). Therefore it can be concluded that only 1 of the 10 spent any substantial amount of time disregarding activity guidelines.

Individual Identifier (a)	Envigilator Log-On Time (b)	SAP Log-on Time (c)	SAP Log-Off Time (d)	Elapsed Time – Envigilator (e)	Elapsed Time – SAP (f)	Deviant Time (g)	Deviant Behavior (h)	Deviant (*) Timeframe (i)	% Deviant During Simulation (j)
A	11:35 AM	11:51 AM	1:10 PM	95 min.	79 min.	16 min.	e-mail	Before	n/a
B	11:43 AM	11:51 AM	1:08 PM	85 min.	77 min.				
C	11:37 AM	11:51 AM	1:10 PM	93 min.	79 min.				
D	12:32 PM	12:33 PM	1:10 PM	38 min.	37 min.				
E	11:38 AM	11:51 AM	1:09 PM	91 min.	78 min.	17 sec.	e-mail	During	0.36%
F	11:35 AM	11:51 AM	1:09 PM	94 min.	78 min.	3 min.	nba.com	Before	n/a
G	11:36 AM	11:51 AM	1:10 PM	94 min.	79 min.				
H	11:40 AM	11:51 AM	1:10 PM	90 min.	79 min.	17 min.	e-mail	During	22%
I	11:17 AM	11:49 AM	1:08 PM	111 min.	79 min.				

Table 4
SURVEILLANCE EFFECT ON STUDENT PERCEPTION
Envigilator – Individual/Team Data

(*) – Before or during simulation

DISCUSSION

Students demonstrated a low level of resistance to the surveillance software used to monitor their computer behavior during the lab activity. Their reflections demonstrated the impact of the surveillance software was evaluated holistically in terms of the lab experience, factoring in all aspects of technology. McLuhan (1978) identifies the "phenomenology of media as a systemic strategy of observation referred to as a figure-ground approach" (p.92) which takes into consideration both the primary and secondary components of the study. The use of computers appears to be second nature to most students. In their daily endeavors, they are used not only for educational purposes but also as a means of accomplishing a variety of personal tasks, including communication. Software could be viewed as transparent when launched on widely accepted technological devices; the personal computer.

The findings provided evidence that the participants in the study did not experience adverse effects as a result of having their lab activity monitored. Many of the students' demonstrated an overriding feeling of disinterest or unawareness. Only one student (Student F) made comments to indicate that they would have preferred not to have had their activity monitored. Remarks suggested a degree of ignorance on the part of the students surrounding the use of the surveillance software. The majority of explanations analyzed supported the notion that because the surveillance software resided on familiar medium, lab personal computers, the idea of surveillance was readily accepted. Though students' engrossment in a stimulating activity may have fostered a degree of self-regulation, comments suggest that regardless of the level of engagement, the software was not viewed as intrusive. In line with the pluralist view of technology, students' neutral reaction was shaped by the minimalistic approach used by their instructor. Since students did not feel exploited by the technology, but rather viewed it as a means to an end, their opinions remained unbiased (Weerakkody, 2008). Potts (2008) advises:

As technology becomes more complex, attention to the intrinsic characteristics of specific technologies will be needed. This does not call for a reductionist form of medium theory, but

rather for a theoretical model sensitive both to the social context of new media technologies and to the properties of those technologies themselves (par. 42).

A second observation was that with the more than half of the students, their comments suggest that the use of surveillance software had a positive impact on their performance acquiescence (5 of the 9 students), Surveillance software screen recordings supported compliancy as well. As students knew their activity was being monitored with the use of observation protocol, it may have provided the incentive needed for all members to participate. The teaching objective was to not only enhance students' understanding of course concepts, but to also foster ethical behavior. As Smith, Smith, and Mulig (2005) suggest, providing students with a moral foundation that exposes them to an ethical framework in the classroom will enhance their futuristic decision making skills (p. 154). Of the participants in the study, only one (student H) deviated from the game for any significant period of time, going on-line to check e-mail. This same student suggested that operating under surveillance encouraged staying on task and volunteered that the software fostered team participation. Student H's comments and behavior were somewhat contradicting. Seven of the remaining students under investigation demonstrated no deviant behavior, with their captured screen movement confirming consecutive participation in the simulation. Based on student comments, it questions if a greater degree of divergent behavior would have occurred in the absence of the surveillance mechanism.

In conclusion, most participants of the study appeared to be focused, on-task, and equally engaged throughout the entire lab session as indicated by feedback and screen recordings. Their lack of resistance could be attributed to a variety of factors: their level of comfort with the technology employed, commitment to team members, interest in the lab activity itself, or simply because they inherently want to avoid unethical behavior. Students' acceptance could also be credited to the fact that they themselves participate in watching others through different venues to include social media software or television programs (Meyrowitz, 2009). The research suggests that using surveillance software in computer based lab sections of business courses, that incorporate ERP simulations or equally engaging activities, would not be viewed as intrusive by the students. The software appeared to have a positive effect, keeping all but one of the students on task throughout the activity. These impacts are important in an educational setting in which data is used to assess student learning outcomes. This method of data collection will enable instructors to use the information gathered to enhance curriculum and teach more effectively.

Limitations

Because this was a pilot case-study, an obvious limitation was the scope and sample size. Data was collected from one lab section of an undergraduate production planning course which was limited to 9 students. Though the sample size was small, a study conducted by Miller, Smith and Smith (2013) concerning the usefulness of case studies was successfully conducted with 10 students. Additionally, because the pilot study was limited to one lab section, there is no cross comparison to students from other lab sections. The teaching style of the lab instructor could have had a bearing on test results. Palocsay and Stevens (2008) remind us that instructor characteristics and teaching style can have an impact on student performance. Repeating the investigation with a higher number of participants may be beneficial in validating findings to ascertain if the trends identified are repeatable amongst students with similar backgrounds within the college, regardless of lab instructor.

Finally, while students' comments and screen recordings support student engagement; the primary researcher did observe that the majority of students had their cell phones close at hand.

Though no direct observations were made of students using their phones during the lab session, it would be interesting to see if deviant behavior increased if cell phones were confiscated. Finally, it would be interesting to obtain student feedback by expanding the research instrument to contain questions that inquired if deviant behavior had migrated to phone usage.

Implications

Research by Kim, Choi, Han & So, 2012 revealed that "educational professionals are being urged to better understand the complexities of teaching and learning with technology; and to develop systematic and creative thinking skills to grow innovative ideas" (p.967). If monitoring systems become commonplace, much insight could be gained from the collection and analysis of data collected in a lab setting. Using the recordings with students to enforce both effective and ineffective collaborative techniques could prove beneficial in preparing them to enter the 21st century workforce.

Future Studies

Because of the exploratory nature of this study, it would be beneficial to replicate with a larger student population. Replication of findings with a larger group would provide the credence that this study may lack.

Since this study was predominantly interested in students' perception, there was no formal assessment of the impact of surveillance on fostering student knowledge. In future studies, it would be interesting to see if the use of surveillance systems influenced cognition by performing a comparative study of two distinct groups, one under surveillance and the other not.

Another variation of the study that would be interesting to investigate would be comparing the impact of surveillance on a group performing an individual lab assignment compared to those engaged in a team based activity. Investigating if student participation and perception of the surveillance software changed when students engage in a self-directed lab activity could be insightful. In this initial study students appeared unaffected by the use of surveillance. Understanding the impact a lab activity has on student awareness if void of a competitive component may be insightful. It would be interesting to investigate if students would react in a similar manner if they did not have the incentive of the team-based ERP simulation as a motivator. Multiple variations of this study, in an extended fashion, are needed to shed additional light on findings.

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ATTITUDES TOWARD ETHICAL SENSITIVITY: IMPLICATIONS RELATED TO GENDER IDENTITY AND PERSONALITY

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ABSTRACT

Numerous studies have examined the role of age, gender and area of study in shaping ethical sensitivity. Literature review reveals that one important determinant of ethical behavior, personality traits, has received limited attention. In this paper, the authors focus on the relationship between personality traits and ethical sensitivity. The study examines the relationship between perceived gender identity, the three dimensions of the interpersonal-orientation personality scale (CAD), and the ethical sensitivity scale (ESS).

Data analysis, based on a sample of 683 observations, shows that self-perceived gender identity is positively related to ethical sensitivity. Compliance is positively related, whereas aggressiveness is negatively related, to ethical sensitivity. The relationship between the detached dimension of CAD and ethical sensitivity is not statistically significant. Consistent with the literature that argued that there is a link between personality traits and workplace behavior, the authors suggest that ethics- orientation programs need to account for differences in personality characteristics implied by the CAD interpersonal orientation scale.

Keywords: ethics, ethical sensitivity, gender identity, personality traits

INTRODUCTION

News reports document questionable behaviors of business executives in all areas of corporate life. Household names such as AIG, Siemens, and WorldCom became synonyms with fraud and deception. The recent financial crisis, the collapse of Wall Street icons, and ethical lapses at the highest executive levels, and the outcry against these developments, suggest that business ethics will continue to get the attention of scholars, the press, and business professionals.

Business Ethics has been defined as "the moral principles and standards that guide behavior in the world of business" (Ferrell & Fraedrich, 1991, p. 5). A number of authors have investigated the topic from different perspectives and have examined the effects of different variables on ethical behavior. The published studies reveal findings that suggest that ethical behavior is influenced by a variety of factors, both organizational and individual. Organizational factors relate to the circumstances in which the decisions must be made. This includes such factors as organizational culture, the presence or absence of codes of ethics, ethical climate, performance pressures, alternative reward systems and expectations (Robertson & Rymon, 2001; Sims & Keon, 1999). Individual factors characterize the individual making the decision (Ford & Richardson, 1994). Individual factors include demographic characteristics such as sex (Akaah, 1989; Hadjicharalambous & Walsh, 2013), age, occupation, education (Merritt, 1991), race (Tsalikis & Nwachukwu, 1988: Whipple, T. & D. Swords, 1992), and psychological

characteristics such as cognitive moral development, Machiavellianism, locus of control and need for cognition (O'Fallon & Butterfield, 2005).

The purpose of this study is to contribute to the understanding of the impact of personality characteristics on business ethics through an investigation into the effects of gender and three key personality traits on ethical sensitivity. The personality traits we explore include compliance, aggressiveness, and detachedness. The remainder of this paper is organized into four sections. The next section offers a literature review and provides the background for the hypotheses based on the conceptual framework presented in Figure 1. The methodology, research design, and data analysis follow. The paper concludes with a discussion and suggestions for future research.

LITERATURE REVIEW AND HYPOTHESES

A review of the empirical ethical decision-making literature (O'Fallon & Butterfield, 2005) concluded that the majority of the studies in ethical decision-making did not include any theory development and lacked formal hypotheses. The majority of empirical studies have examined the role of age, gender, academic major, and religion on ethical behavior. Their review, based on 174 articles, found that the role of personality traits in determining ethical behavior received limited attention.

This study is a component of a larger study which examined the effects of age, culture, area of study, race, ethnicity, gender, and personality traits on ethical behavior.
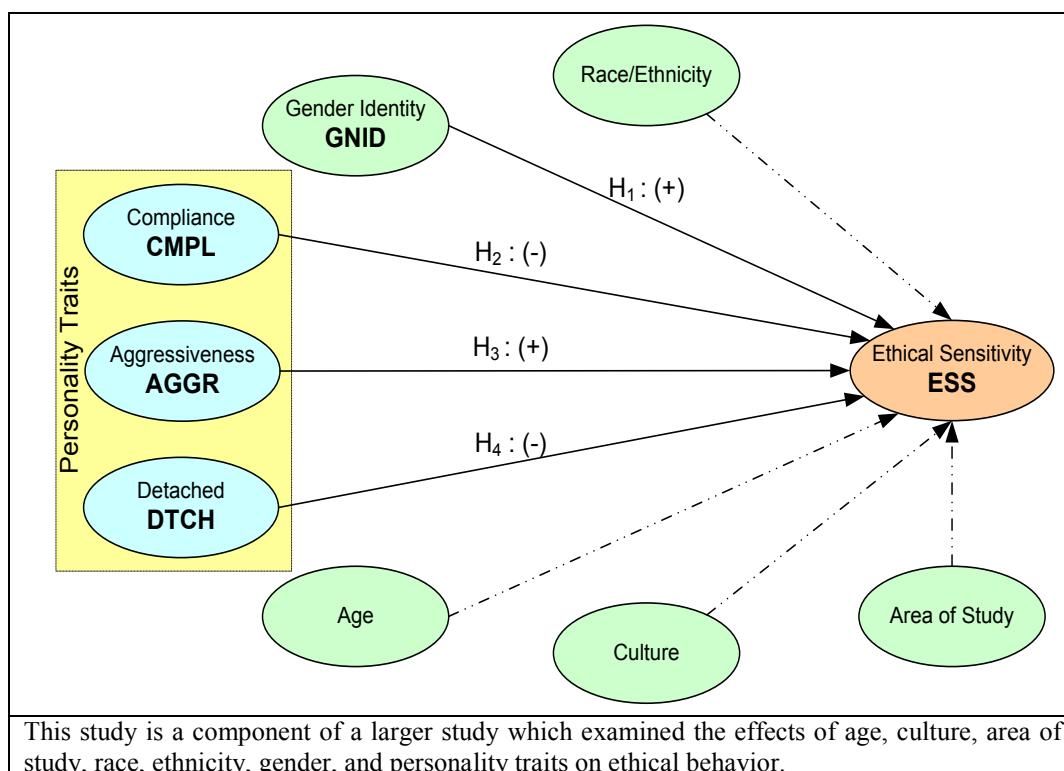
Figure 1: The Conceptual Framework

Recently, additional studies reported findings that examine elements of personality and its impact on ethical sensitivity and ethical decision-making. These elements include Machiavellian traits, locus of control, mindfulness, self control and the Big Five personality

traits: extroversion, agreeableness, conscientiousness, emotional stability, and openness to experience (Craft, 2012). Following this stream of research, the present study focuses on the relationship between ethical sensitivity and three personality traits: compliance, aggressiveness and detachment (CAD). Another variable considered by the study is the role of gender identity. This section identifies gaps in the literature and provides a framework for the present study, leading to testable hypotheses, first about gender, and second about the interpersonal orientation CAD personality scale.

Gender Identity

The role of gender on ethical behavior has been studied extensively. Review of the literature shows somewhat mixed results. In their meta analysis based on 47 empirical studies, Borkowski and Ugras (1998) found that results about the effects of gender on ethical behavior are inconclusive. A total of 23 studies showed that there are significant differences in ethical behavior between male and female, 16 studies found no differences, while eight studies reported mixed results. Seven of the 14 studies examined by Ford and Richardson (1994) found no relationship between ethical behavior and gender, whereas seven others concluded that females behave more ethically than their male counterparts. In their review, Loe, Ferrell and Mansfield (2000) considered 21 studies, with nine studies reporting that there are no significant differences between male and females and 12 studies concluding that females are more ethical than males.

Another comprehensive review study (O'Fallon & Butterfield, 2005) concluded that research on the relationship between gender and ethical sensitivity produced consistent results. As stated by O'Fallon and Butterfield (2005, p 379): "There are often no differences found between males and females, but when differences are found, females are more ethical than males."

This trend of mixed results found in previous studies on the impact of gender on ethical sensitivity and decision making continued in more recent studies (Craft, 2012). For example, females were found to be more ethical than men (Bampton & Maclagan, 2009; Elango et al., 2010; Krambia-Kapardis & Zopiatis, 2008). This is consistent with Hartman, Fok, and Zee (2009), who found that male and females evaluated ethically related decisions differently. Compared to females, males were more willing to involve in unethical behavior. In other studies, males were found to have more consistent behavior when dealing with ethical decision making (Hopkins et al., 2008). Finally, in other cases no significant relationship was found between gender and ethical sensitivity (Chang & Leung, 2006; Sweeney & Costello, 2009; Zgheib, 2005). The mixed results produced by studies focusing on the relationship between gender and ethical sensitivity can be eliminated by replacing biological gender with gender identity based on gender stereotypes (Stern, Barak & Gould, 1987).

Gender identity has been defined as the self-perception of how one views one's own gender (Stern, Barak & Gould, 1987). A person high in the gender identity scale of femininity would have a self-perception adhering to feminine gender stereotypes, whereas a person high in the gender identity of masculinity would have a self-perception adhering to masculine gender stereotypes. Gender stereotypes (e.g., women are warm and nurturing, and men are competitive and independent) are pervasive in our society (Broverman et al., 1972; Spence and Helmreich, 1978). Because the feminine stereotype includes nurturing and a community focus (Fischer & Arnold, 1994; Spence & Helmreich, 1978), it could be inferred that someone high in femininity also tends to be high in ethical sensitivity. On the contrary, it can be inferred that someone high in masculinity usually includes aggression and independence (Broverman et al., 1972).

Therefore, compared to individuals with a self-perceived masculine gender identity, individuals with a self-perceived feminine gender identity will be less willing to engage in unethical behavior. Therefore it is hypothesized that:

> *H1:   Self-perceived feminine gender identity is positively related to ethical sensitivity.*

The framework proposed by Hunt and Vitell (1986, 1993) is a widely accepted theory for understanding ethical decision-making. The key elements in explaining ethical judgments are individual moral philosophy, individual value systems, and personal characteristics. These characteristics include the 10 values organized across two dimensions: self-enhancement vs. self-transcendence, and openness to change vs. conservation, defined by Schwartz (1992) and Schwartz and Sagiv (1995). Schwartz's (1992) Value Theory (Figure 2) provides a framework for assessing the relationship between interpersonal orientation (CAD) traits and ethical sensitivity. Exhibit 1 presents a brief definition of Schwartz's (1992) values.

Adapted from Schwartz and Sagiv (1992)
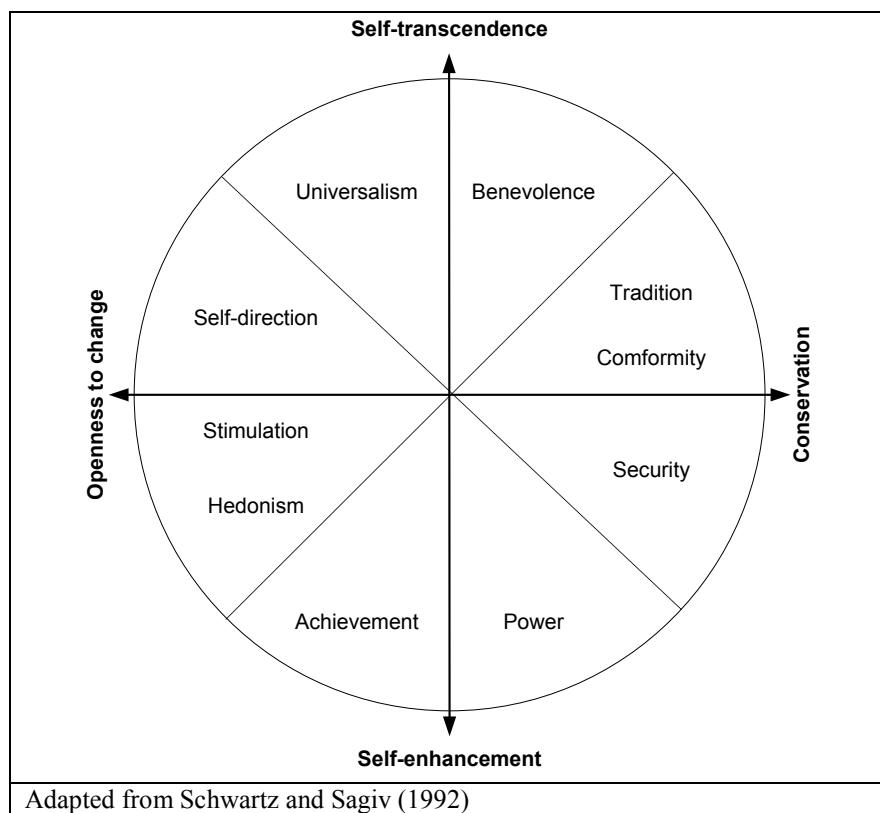
Figure 2: Relations among Ten Motivational Values

Interpersonal Orientation: Compliant, Aggressive, Detached

Individual interpersonal orientations are classified as "compliant," "aggressive," or "detached" (CAD) based on Karen Horney's (1945) neo-Freudian tripartite theory of personality (Cohen, 1967). "Compliant" individuals are defined as those who move towards others (Cohen, 1967). Compliance personality is similar to the agreeableness dimension of the "Big Five" dimensions of personality (McCrae & Costa, 2003). Individuals high in compliance have less

motivation for self-enhancement, and therefore will evaluate questionable practices as unethical. On the other hand, individuals high in self-enhancement, motivated by power and achievement, will be more likely to evaluate questionable practices as ethical. Thus, it is hypothesized that:

H2: *Compliance is positively related to ethical sensitivity.*

Exhibit 1 SCHWARTZ'S (1992) TEN VALUES	
Value	**Description**
Universalism	Concern for social justice, the environment and welfare of all people
Benevolence	Preservation and enhancement of the welfare of people
Tradition	Respect for customs and cultural and religious traditions
Conformity	Restraint of actions likely to upset/harm others, follow societal norms
Security	Safety, and stability of society, family security, national security
Power	Status and prestige, control or dominance over others
Achievement	Personal success, demonstrating competence
Hedonism	Pleasure and sensuous gratification for oneself, enjoying life
Simulation	Excitement, novelty, and challenge in life
Self-direction	Independent thought and action, choosing own goals, exploring

"Aggressive" individuals are individuals who move against others, have a strong desire to excel, have a high need for achievement, and seek admiration and prestige (Cohen, 1967). Aggressive individuals motivated for personal gain, status, or self-esteem are less likely to help others during pro-social activities (Reykowski, 1982). Further, individuals who seek status are more likely to be low in social responsibility (Antil, 1984). Contrary to compliant individuals, aggressive individuals score high in self-enhancement. Self-enhancement values like power, achievement, dominance over people and personal success are values that are more likely to be associated with unethical practices, because these values focus primarily on personal interests, with no respect for others. Aggressive individuals are more likely to evaluate ethically questionable practices as appropriate. Therefore it is hypothesized that:

H3: *Aggressiveness is negatively related to ethical sensitivity.*

The third interpersonal orientation focuses on detachedness. "Detached" individuals are those who move away from others and want to put emotional distance between themselves and other people. Since detached individuals are less concerned with others, it is expected that these individuals are less concerned about the opinions of others. Ethical behavior is influenced by the strength of an existing relationship. The strength of the relationship depends on the closeness, reciprocity, emotional intensity and intimacy among people involved in that relationship (Granovetter, 1973). The cost of acting unethically on a weak relationship is minimum. On the other hand, the cost of unethical behavior -- damaging a strong relationship -- is much higher than in the case of a weak one (Brass et al., 1998). Being more detached would also imply being high in alienation. It is reasonable to assume that alienated, detached individuals do not care much about strong relationships and other's opinions, therefore they have a higher chance of acting unethically. In addition, based on the Schwartz (1994) Motivational Value model, "detached" individuals move away from conservation values of tradition and conformity, and towards openness-to-change values like self-direction, stimulation and hedonism. Conservation values are likely to be congruent with ethical disposition, because unethical individuals engage in

breaking rules and violating norms and regulations. Conversely, openness-to-change values are more likely to be compatible with an unethical inclination, since unethical practices make it possible to experience self direction and stimulation (Steenhaut & Van Kenhoven, 2006). This reasoning suggests that when individuals put more emphasis on openness and change, they will be more likely to evaluate ethically questionable practices as appropriate. Consequently, individuals who have a more detached interpersonal orientation would be less likely to exhibit ethical sensitivity. Thus it is hypothesized that:

> H4:   *Detachment is negatively related to ethical sensitivity.*

METHODOLOGY

This study is a component of a larger study, which examined the effects of gender, ethnicity/race, area of study, and personality traits on ethical behavior (Figure 1). Participants were asked to evaluate 30 ethically related alternative decision-making scenarios. Data was collected by the first author using a self-administered questionnaire answered by students attending a comprehensive college in the Northeast region of the United States. The cluster sampling technique was utilized to select classes to be included in the sample. In some classes, students were given enough time to complete the surveys during class time. In other cases, students were instructed to complete the questionnaire at their convenience and return it at the following class meeting. In both cases, participation was optional. No credit or other incentive was given to participants for completing the survey.

Table 1 SAMPLE PROFILE					
Variable	**Frequency***	**Percent**	**Variable**	**Frequency***	**Percent**
School			**Gender**		
Liberal Arts	186	27.8%	Male	306	45.6%
Business	362	54.0%	Female	365	54.4%
Education	122	18.2%	Total	671	100.0%
Total	683	100.0%	**Employment**		
Race/Ethnicity			Full time	183	27.4%
African American	168	25.6%	Part time	289	43.2%
Asian	92	14.0%	Not at all	197	29.4%
Caucasian	233	35.6%	Total	669	100.0%
Hispanic	112	17.1%	**Family Income**		
Other	50	7.6%	Less than $ 20,000	81	13.1%
Total	655	100.0%	$ 20,001 - $ 40,000	133	21.5%
GPA			$ 40,001 - $ 60,000	111	18.0%
Below 2.50	25	3.9%	$ 60,001 - $ 80,000	104	16.8%
2.51 - 299	160	24.8%	$ 80,001 - $ 100,000	79	12.8%
3.00 - 3.49	275	42.6%	More than $ 100,000	110	17.8%
3.50 or above	185	28.7%	T**o**tal	618	100.0%
Total	645	100.0%	* Totals are different due to missing data		

Analysis showed no significant differences between those who completed the questionnaire in class and those who completed it outside the class. The overall response rate was 75.4%, yielding a total sample size of 692. Nine questionnaires were excluded from the analysis because of extensive missing data. The final sample size was 683. Table 1 presents the

profile of the sample in terms of ethnicity/race, gender, family income, school attended, GPA, and employment status. The average age of the participants is 23.9 years.

Measures

Ethical Sensitivity Scale (ESS)

Ethical Sensitivity (ESS) was measured using the 30 items of ethically related decision-making statements/scenarios developed by Stevens et al. (1993). These scenarios include ethical dilemmas about: (a) using company resources for personal gain, (b) relationships with co-workers, (c) personal job performance, (d) company policies, and (e) giving gift to obtain/provide preferential treatment.

Exhibit 2 ETHICALLY RELATED DECISION MAKING SCENARIOS/VIGNETTES	
1.	Using Company services for personal use.
2.	Padding an expense account up to 10%.
3.	Padding an expense account in excess of 10%.
4.	Giving gifts/favors in exchange of preferential treatment.
5.	Taking longer than necessary to do a job.
6.	Taking care of personal business on company time.
7.	Divulging confidential company information.
8.	Concealing one's work errors.
9.	Passing blame for work errors to an innocent co-worker.
10.	Claiming credit for someone else's work.
11.	Falsifying time/quality reports.
12.	Calling in sick to take a day off.
13.	Authorizing a subordinate to violate company rules or policies.
14.	Using company materials and supplies for personal use.
15.	Accepting gifts/favors in exchange for preferential treatment.
16.	Taking extra personal time (long lunches, late arrivals).
17.	Not reporting others' violation of company rules and policies.
18.	Not hiring a prospective employee because of his sexual preference.
19.	Dropping medical coverage for people that have high medical bills.
20.	Borrowing $50 from petty cash until pay day.
21.	Betting on sports events during office hours.
22.	Having job interview with competitors to obtain inside information.
23.	Dating the boss (both are single).
24.	Smoking in no smoking areas.
25.	Making copies of company software for personal use.
26.	Having a receptionist tell a caller that someone is not in when they are.
27.	Inflating job experience in a resume.
28.	Not reporting to authorities company violations of the law.
29.	Setting not real sales goals to get greater sales effort from sales people.
30.	Quoting an optimistic/unrealistic shipping date to a buyer to get a sale.

The base for the ESS scale was originally developed by Ruch and Newstrom (1975). Stevens et al. (1993) added additional items based on judgments of business faculty. As Stevens

and his co-authors noted, the construct validity of the ethical sensitivity scale is based heavily on these judgments. Each item/statement in Exhibit 2 scores 1 = Very Unethical to 5 = Not at all Unethical. Thus the lower the score on the ESS scale, the higher the ethical sensitivity. The internal consistency reliability index for the 30-item ESS scale is α =0.91 (Table 3).

Self-perceived Gender Identity (GNID)

Self-perceived gender identity was measured using the Sexual Identity Scale (Stern et al. 1987). Each of the four items included in the scale are scored on a range of 1 = Very Masculine to 5 = Very Feminine. The scale was found to be unidimensional (Stern et al., 1987). The reliability coefficient α is .75 for women, .84 for men and .93 for the total sample. These reliabilities are comparable to the reliabilities calculated by Stern, Barak and Gould (1987), who reported coefficient α = .85 for women, α=.87 for men, and α=.96 for the total sample.

Interpersonal Orientation Personality Traits (CAD)

Interpersonal orientation personality traits of being compliant, aggressive and detached were measured using the CAD scale developed by Cohen (1967). The original 35 items developed by Cohen (1967) were used for the purpose of this study (Appendix 1, Exhibit 3). Each item scores 1 = Extremely Desirable to 5 = Extremely Undesirable. Thus, lower scores mean higher compliance, aggressiveness or detachment. Factor analysis with varimax rotation resulted in a three-factor solution.

The three dimensions -- compliant, aggressive and detached -- were clearly identified. This solution is fully comparable with the solution from the scale developed by Cohen (1967). Summed scores of 7, 10 and 9 items were calculated to formulate an overall index of compliant, aggressive and detached respectively. Nine out the 35 original items were not considered for the analysis based on the factor loadings and internal consistency of each factor. Reliability coefficients are .69, .76, and .61 for the compliant, aggressive and detached scales respectively. While the magnitude of the estimated reliability indices is not very high, it is noted that it is equal to or greater than reliability coefficients reported in previous studies. Ryan and Becherer (1976) reported internal consistency reliability estimates as .72 for compliant, .68 for aggressive, and .51 for detached. Tyagi (1983) reported reliability estimates of .72, .62 and .63, while Noerager (1979) reported coefficient α estimates of .60, .36 and .43. Table 2 presents the reliabilities in terms of Cronbach's alpha and statistics for the scales used in the study.

Table 2 MULTI-ITEM SCALE RELIABILITY ASSESSMENT AND DESCRIPTIVE STATISTICS					
Scale Definition	Number of items	alpha α	Mean	Standard Deviation	Median
ESS	30	.91	117.75	15.32	119
GNID	4	.93	11.74	4.40	11
CMPL	9	.63	32.98	4.06	33
AGGR	13	.76	41.65	6.65	41
DTCH	8	.63	23.11	4.79	23

DATA ANALYSIS

The dependent variable ESS was computed by summing the individual scores of the 30 items describing ethical scenarios. Table 3 presents correlations and descriptive statistics among variables used in testing the hypotheses. Correlations between ESS and each of the four variables used in the hypotheses are significant and in the hypothesized direction.

Given that hypotheses were expressed as relationships between continuous variables, SPSS regression analysis was used for hypothesis testing. The overall model is significant (F=36.67, p=0.00). Coefficient estimates, t-values and corresponding p-values are presented in Table 4.

Hypothesis one (H1) states that self-perceived feminine gender identity is positively related to ethical sensitivity. It is important to note that lower scores in the GNID scale denote masculine characteristics, whereas higher scores denote feminine characteristics. On the other hand, lower scores in the ethical sensitivity scale (ESS) denote higher levels of ethical sensitivity. The correlation between GNID and ESS is negative (r= -.125, p=.002). That means that individuals with feminine characteristics are more likely to evaluate unethical and questionable practices as unethical, providing support for the hypothesis. Regression results confirm that conclusion. The standardized coefficient (b_1 = -.01, t=-2.32, p=0.00) is significant, therefore hypothesis 1 is supported.

Table 3					
CORRELATION COEFFICIENTS					
	GNID	**CMPL**	**AGGR**	**DTCH**	**ESS**
N	683	678	666	674	651
median	12	16	30	28	64
mean	12.03	15.97	30.01	27.33	64.83
st.dev.	5.11	4.27	6.67	4.84	20.68
GNID	1				
CMPL	-.125** (.001)	1			
AGGR	.337** (.000)	-.018 (.650)	1		
DTCH	.131** (.001)	-.065 (.095)	.283** (.000)	1	
ESS	-.219** (.000)	.283** (.000)	-.322** (.000)	-.125** (.002)	1
p-values in parenthesis .					
* Correlation is significant at the 0.05 level. ** Correlation is significant at the 0.01 level.					

Turning to the relationship between the CAD interpersonal orientation scale and ethical sensitivity, hypothesis two (H2) posits a positive relationship between compliance and ESS. This hypothesis is supported. The standardized coefficient for compliance (b_2 = .26, t=7.19, p=0.00) is significant.

Table 4					
REGRESSION RESULTS					
	Unstandardized Coefficients		**Standardized Coefficients**		
	B	**Std. Error**	**Beta**	**t-value**	**p-value**
Constant	77.62	5.92		13.12	.000
GNID	-0.38	0.15	b_1=-0.10	-2.47	.014
CMPL	1.29	0.18	b_2= 0.26	7.19	.000
AGGR	-0.86	0.12	b_3=-0.28	-7.04	.000
DTCH	-0.11	0.16	b_4=-0.03	-0.66	.509

Hypothesis three (H3) depicts a negative relationship between aggressiveness and ESS. As expected, hypothesis 3 is supported. The standardized coefficient (b3 = -.28, t=-7.04, p=0.00) is significant, denoting that as the aggressiveness increases, the ethical sensitivity decreases.

Finally, hypothesis four (H4) assumes that detachment is negatively related to ethical sensitivity. Although the correlation(r=-.125, p=.002) between detached and ESS suggests a significant relationship, the regression results reveal that although the relationship is in the hypothesized direction, it is not significant (b$_4$ = -.03, t=-.66, p=.509).

To shed additional light and explain the failure to support hypothesis 4, we performed an analysis of variance to examine possible interaction effects among the independent variables: gender identity (GNID), aggressiveness (AGGR), compliance (CMPL) and detachment (DTCH). Two groups were formulated using the median of each of the independent variables as the cutting point. Individuals with summed scores below the median were part of the first group, while individuals with summed scores above the median were part of the second group. Table 5 presents the SPSS ANOVA results. The overall model is significant (F = 5.71, p = 0.00). The ANOVA analysis confirmed the regression results. Gender identity, compliance and aggressiveness are significant. Detachment is not significant (F=1.01, p=.32). In addition, there are two interactions effects (GNID*CMPL, F= 4.91, p = 0.03) and (CPML*AGGR, F= 3.12, p = 0.08).

Table 5					
UNIVARIATE ANALYSIS OF VARIANCE: BETWEEN-SUBJECTS EFFECTS					
Source	**Type III Sum of Squares**	**Degrees of freedom**	**Mean Square**	**F value**	**Sig. p-value**
Corrected Model	32760.865	15	2184.06	5.71	0.00
Intercept	2237474.89	1	2237474.89	5845.62	0.00
GNID	3527.67	1	3527.67	9.22	0.00
CMPL	8295.24	1	8295.24	21.67	0.00
AGGR	8265.16	1	8265.16	21.59	0.00
DTCH	385.93	1	385.93	1.01	0.32
GNID*CMPL	139.45	1	139.45	0.36	0.55
GNID*AGGR	1881.03	1	1881.03	4.91	0.03
GNID*DTCH	310.77	1	310.77	0.81	0.37
CMPL*AGGR	1192.14	1	1192.14	3.12	0.08
CMPL*DTCH	548.79	1	548.79	1.43	0.23
AGGR*DTCH	0.06	1	0.06	0.00	0.99
GNID*COM*AGG	14.39	1	14.39	0.04	0.85
GNID*CM*DTCH	11.68	1	11.68	0.03	0.86
GNID*AGGR*DTCH	55.35	1	55.35	0.15	0.70
CMPL*AGGR*DTCH	268.66	1	268.66	0.70	0.40
GNID*CMPL*AGGR*DTCH	3.30	1	3.30	0.01	0.93
Error	226594.34	592	382.76		
Total	2832447.00	608			
Corrected Total	259355.21	607			

CONCLUSION

This paper contributes to the stream of research that examines individual factors influencing ethical sensitivity and ethical behavior. The relationship between gender identity and

ethical sensitivity demonstrates significant differences between individuals high in masculine characteristics and individuals high in feminine characteristics. These results are consistent with previous research that found support for the gender socialization approach. The foundation of the gender socialization approach is that gender differences create different values and traits, causing individuals to develop different work-related interest decision and practices (Ameen et al., 1996). Compared to individuals high in feminine characteristics, those high in masculine characteristics seek success and are more likely to break the rules, given their lower levels of ethical sensitivity.

Important factors for differences in ethical judgment are the individual's personal characteristics and personal values (Hunt & Vitell, 1993). As with previous studies that examine elements of personality and its impact on ethical sensitivity and ethical decision-making (Craft, 2012), this study draws on Schwartz's (1992) Value Theory and examines the relationship between ethical sensitivity and three personality traits. We found that compliance is positively related to ethical sensitivity, whereas aggressiveness is negatively related to ethical sensitivity. Contrary to the hypothesis, detachment is not related to ethical sensitivity. While additional research might be necessary to further examine this relationship, it can be speculated that being detached does not necessarily mean being unethical. Generally, the behavior of detached individuals is not driven by external codes and societal norms. However, this does not prohibit detached individuals from developing ethical moral philosophy and internal codes and standards based on their own system of values, and not on society's. As noted by Steenhaut and van Kenhove (2006, p149), Hunt and Vitell (1993) emphasized the unquestionable impact of an individual's value system in the decision process.

Human resources managers, as well as officers responsible for developing ethics programs, should consider these findings. Understanding the influence of unethical attitudes and behavior might help human resources managers (a) to effectively identify what triggers unethical behavior and (b) to develop training programs aiming to increase ethical awareness and ethical sensitivity. Ethics development and ethics orientation programs need to account for differences in both gender identity and personality characteristics implied by the CAD interpersonal orientation scale. This is consistent with Hogan and Holland (2003), who argued that there is a link between personality traits and workplace behavior.

The relationship between gender identity and ethical sensitivity suggests that one way to increase ethical decision making is to increase the number of female decision makers. Decision makers high in feminine characteristics will be less likely to be involved in unethical behavior.

In conclusion, the present study focused on the relationship between ethical sensitivity and personality characteristics. The use of student subjects limits the generalizability of the results. Future research should examine the relationship between gender identity and CAD personality traits, and ethical sensitivity, in populations other than students, and preferably among individuals responsible for making business decisions. Finally, although participation in this study was optional and no credit or other incentive was given to participants for completing the survey, a limitation of the study is that answering questions about the scenarios presented in Exhibit 2 measures intentions rather than actual behavior.

APPENDIX I

	Exhibit 3 THE CAD SCALE*
1.	Being free of emotional ties with others is...
2.	Giving comfort to those in need of friends is...
3.	The knowledge that most people would be fond of me at all times would be...
4.	Refusing to give in to others in an argument seems...
5.	Enjoying a good movie by myself is…
6.	Paying attention to what others think of me is...
7.	Owning an item before most of my friends is...
8.	Knowing others are somewhat envious of me is...
9.	Feeling that I like everyone I know would be...
10.	To be able to work hard while others have fun is...
11.	Using pull to get ahead is...
12.	Having enough money or power to impress people is...
13.	Basing my life on duty to others is…
14.	To be able to work under pressure is...
15.	Living alone in a cabin in the woods or mountains would be...
16.	Pushing/Challenging those who insult my honor is...
17.	Giving aid to the poor and under-privileged is…
18.	Standing in the way of people who are too sure of themselves is...
19.	Being free of social obligations is...
20.	Having something good to say about everyone is...
21.	Telling a waiter when you have received inferior food is...
22.	Planning to get along without others is...
23.	Being able to spot and exploit weaknesses in others is...
24.	Having a strong desire to surpass others' achievements seems...
25.	Sharing my personal feelings with others would be...
26.	Having the ability to blame others for their mistakes is...
27.	Avoiding situations where others can influence me is...
28.	Wanting to repay others' thoughtless actions with friendship is...
29.	Having to compete with others for various rewards is...
30.	Having others pay very little attention to me and my life would be...
31.	Defending my rights with force would be...
32.	Putting myself out to be considerate to others' feelings is...
33.	Correcting people who express an ignorant belief is...
34.	Working alone would be...
35.	Being fair to people who do things that I consider wrong seems...
*Each item scores 1 = Extremely Desirable to 5 = Extremely	

ENDNOTES

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IMPACT OF ETHICS ENVIRONMENT AND ORGANIZATIONAL TRUST ON EMPLOYEE ENGAGEMENT

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ABSTRACT

Employee engagement has become a highly researched topic of late due to the belief that higher engagement translates into higher performance. To help with understanding of employee engagement, this study looks at antecedents to this engagement including ethical environment and organizational trust. This is the first empirical research effort to combine measures of Ethical Environment (EE), Organizational Trust – Human Resource Management Practices (OT-HRM), Organizational Trust – Communication (OT-C), Organizational Trust – Values and Moral Principles (OT-VM), and Employee Engagement in a comprehensive model. This research will break new ground in studying the impact of trust as a mediator of an ethical environment and employee engagement. The most significant finding is that organizational trust fully mediates the relationship between an ethical environment and employee engagement. This significant positive relationship indicates employees' and managers' perception of how ethical or unethical an organizations environment is, directly correlates to their trust or mistrust in the organization. In addition, we show that this trust or mistrust is positively and significantly related to whether employees and managers are engaged or disengaged with the organization for which they work. This adds powerful understanding to the ethical environment – employee engagement relationship.

INTRODUCTION

Does being ethical pay? Most firms are in business to make money, but in today's society reports of unethical or illegal behavior abound (Alleyne & Elson, 2013). Those guilty of unethical behavior may do so in hopes of getting ahead, but does it work? Are firms that try to do the right thing lagging behind or actually building their worth? During a small lunch meeting, Ron LeMay, former COO of Sprint and managing director of Open Air Equity Partners, was asked if ethics pays. Without hesitation, Mr. LeMay stated that ethical behavior is imperative! He believes that due to today's technology, unethical and illegal behavior is a very risky venture and will have a high cost for both individuals and organizations (LeMay, personal communication 2012). Others would agree. Regarding the current lack of ethical behavior, Bishop (2013) stated, "Although our country has experienced such failures in the past, the advent of technology and the interconnectivity associated with globalization have provided a platform from which the world can view these debacles at the same time citizens are affected" (637). This dialog led to the current research.

In light of several decades of numerous ethical and legal scandals, it is "apparent that "bad ethics" can lead to catastrophic outcomes and reinforced arguments that "good ethics" is also "good business"" (Prottas, 2013, p.51). Current research does appear to indicate that employee engagement is significantly related to employee performance (Anitha 2014; Dalal, Baysinger, Brummel, & LeBreton 2012; Medlin & Green 2009). This study seeks to examine the antecedents to employee engagement, specifically ethical environment and trust. Amine, Chakor, and Alaoui (2012) offered an interesting framework positing that an ethical climate affects productivity through four mediating variables: "communication, organizational trust, job satisfaction, and organizational commitment" (p. 68). This research began in order to empirically test a similar framework that includes employee engagement and the relationship of the ethical environment and employee engagement with trust being a mediator of the relationship. This study is the result of that research.

This is the first empirical research effort to combine measures of Ethical Environment (EE), Organizational Trust – Human Resource Management Practices (OT-HRM), Organizational Trust – Communication (OT-C), Organizational Trust – Values and Moral Principles (OT-VM), and Employee Engagement in a comprehensive model. Currently, most related research is either theoretical or anecdotal. Many people believe operating ethically builds trust and leads to higher personal and organizational performance, but little empirical research has been conducted to prove or disprove this theory. While much research has been completed on some of the variables used, this research will break new ground in studying the impact of trust as a mediator of an ethical environment and employee engagement.

LITERATURE REVIEW

This study uses both stakeholder theory and social exchange theory concepts to examine the effects of an ethical environment on employee trust and employee engagement.

Ethics Environment

To understand an ethics environment, one must first look at ethics. McDaniel (1997), the author of the ethics environment instrument used in this study, understood ethics to "examine one's moral life and contributes to an understanding of what ought to be done" (904). The environment, then, is "the social system…and organization in which [industry] takes place" (McDaniel 1997, 905). She concludes that "it is important to obtain an opinion about the organization and its constituent features that frame ethical practice as well as the process contributing to the practice" of the industry being evaluated (McDaniel 1997, 905). Further support is provided by Vitell and Singhapakdi (2008) who wrote, "we would expect the institutionalization of ethics by organizations to have a positive impact on marketing professionals – not only in terms of higher moral standards but also in terms of higher job satisfaction, organizational commitment, and esprit de corps" (344). Kaptein (2010) studied specific virtues they felt identified an ethical culture. Many of the virtues they propose are studied within the McDaniel (1997) survey instrument used in the current study.

Ardichvili, Mitchell, and Jondle (2009) cited Trevino, (1990) and others when discussing the characteristics of an ethical business culture. In their research, ethical cultures foster an environment of shared values, employees "go beyond the minimum to explore and implement ethical decisions" (445), and ethical values of fairness and justice are modeled throughout the

organization daily (Ardichvili, et al. 2009). Jondle, Ardichvili and Mitchell (2014) point out that "ethical business cultures are:…based on an alignment between formal structures, processes, policies, training and development programs, consistent value-based ethical behavior of top leadership, informal recognition of heroes, stories, and the use of rituals, metaphors and language that inspire organizational members to behave in a manner consistent with high ethical standards" (30). Smith, Gruben, Johnson and Smith, Jr. (2013) found on a multinational scale, a more ethical culture (lower corruption) led to better performance (lower unemployment). Several authors have found ethical/unethical behavior within the corporate culture and leadership to have a significant impact on employee ethical behavior (Douglas, Davidson & Schwartz 2001; Smith 2003; Tervo, Smith & Pitman 2013). And though a host of authors identify the importance of an ethical environment (Baglini 2001; Bobek, Hageman, & Radtke 2010; Choudhary, 2013; Cole, Schaninger, Jr., & Harris 2002; Keller, Smith, & Smith 2007; Martin & Cullen 2006; Trevino 1990; Trevino & Weaver 2001), much research is still needed to study the details of an ethical environment and the outcomes it may produce.

Organizational Trust

Audi (2008) states that "Without trust, business as we know it is impossible" (97). Integrating previous research from various disciplines, Mayer, Davis, and Shoorman (1995) developed a definition of trust which is "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trust or, irrespective of the ability to monitor or control that other party" (712). Cummings and Bromiley (1996) define organizational trust "as an individual's belief that others (individual or group) will make a good faith effort to keep commitments, be honest, and not take advantage of another." (303). Organizational trust is reflected by the degree to which employees trust in their organization and its leaders (Kim & Mauborgne 1998). Cohen and Dienhart (2013) understand "trust [as] a form of strategic behavior or rational economic decision making in situations that involve risk and vulnerability" (1).

Other authors see trust as multi-dimensional and seek an understanding of both interpersonal and impersonal trust (Zaheer, McEvily, & Perrone 1998; Vanhala, Puumalainen, & Blomqvist 2011). Greenwood & Van Buren, III (2010) proposed that organizational trustworthiness includes "behaviors of predictability, benevolence, and integrity" and should be studied further (435). Cohen and Dienhart (2013) felt strongly that "distinguishing between the moral and the epistemological conceptions of trust requires more precision than found in everyday use. And this is essential because – by reducing trust to confidence – the epistemological approach obscures the moral nature of trust and also the presence of substantive obligation in trust relationships, rather than mere expectations or beliefs held by the trusting party" (9). Vanhala et al. (2011) see "a need for complementary forms of organizational trust [and] believed that the impersonal element of organizational trust is a useful concept and should be incorporated into the measures" (485). This study uses their scale that incorporates both impersonal and interpersonal elements of trust. Vanhala et al., (2011) also recommend research that would "test the causal relationships between impersonal trust and other organizational parameters" (506). This study tests this empirically as well.

Employee Engagement

A relatively new concept, employee engagement has become a significant topic in human resource management research and literature in recent years. According to Lockwood (2007), employee engagement is "the extent to which employees commit to something or someone in the organization, those who are loyal and productive" (2). Kahn (1990) developed the term *personal engagement* as "the harnessing of organization members selves to their work roles" and explained that "in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (694). Building upon that definition, Sahoo and Mishra (2012) define employee engagement as "the level to which employees are fully involved in and committed to their work, careful about their organization and colleagues, and are willing to extend themselves and go the extra mile for their company to ensure its success" (95). It is the degree of commitment towards the job which an employee performs and is reflected in how long he or she remains with the organization as a result of their commitment (Mahendru & Sharma 2006). An organization's performance and success is closely related to that organization's ability to effectively manage employee engagement, and several advantages of engaged employees include profitability, more motivated employees and higher levels of performance, and an increase in employees' trust in the organization (Sahoo & Mishra 2012).

THEORETICAL MODEL

The proposed theoretical model is displayed in Figure 1. The model illustrates the theorized relationships among the study constructs: ethics environment, organizational trust, and employee engagement. Ethics environment is hypothesized as directly impacting employee engagement as well as indirectly impacting engagement through organizational trust.
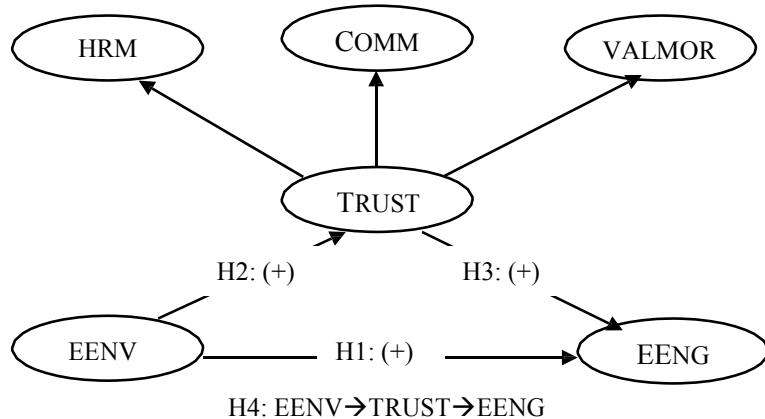

Legend:
COMM   Trust – Communication
HRM   Trust – HRM Practices
VALMOR   Trust – Values and Moral Principles
EENG   Employee Engagement
EENV   Ethics Environment

Figure 1: Theoretical model with hypotheses

HYPOTHESES

Ethics Environment and Employee Engagement

Den Hartog and Belschak (2012) conducted two studies in which they surveyed employees and supervisors. Employees rated their supervisor's ethical behavior along with their own level of work performance, while supervisors reported the employees' work behavior. Results indicated that "ethical leadership was significantly related to both employee initiative and counterproductive work behavior and that these relationships were mediated by work engagement" (Den Hartog & Belschak 2012, 43). Employees who perceived their leaders to be more ethical had more engagement and less counter productivity. Much study of ethical leadership and its' outcome on human resource management has been completed recently (Demirtas 2015; Den Hertoz & Belschak 2012; He, Zhu & Zhang 2014; Sharif & Scandura 2014).

> H1:   Ethics environment directly and positively affects employee engagement.

Ethics Environment and Trust

Castaldo, Premazzi and Zerbini (2010) cited several authors when stating: Trust is even more crucial when addressing ethical issues in business, because it provides the cultural basis and the "glue" that promote ethical behavior, and discourages deviation from ethical norms (e.g., Brien, 1998; Small & Mallon, 2007; Svensson, 2001; Vigoda-Gadot, 2007; White, 1998). Accordingly, scholars have recently begun to unpack the link between trust and ethics by exploring several domains, ranging from human resource management and job relationships" intra-organizational dimension (e.g., Pucetaite & Lamsa, 2008) to marketing management and market relationships" inter-organizational dimension (e.g., Choi et al., 2007; Gustafsson, 2005)." (657). At Rutgers Business School"s First Annual Ethical Leadership Conference in 2010, Keith T. Darcy "discussed the role of ethical leadership, the need for strong ethical culture, the importance of trust and the ethical challenges facing our future leaders" (198). Cohen and Dienhart (2013) suggested future research should be carried out to determine "the way that culture affects trust relationship" (12). Previous studies have examined the theoretical relationship between an ethical environment and trust (Caldwell, Hayes, Karri, & Bernal 2008; Castaldo, Premazzi, & Zerbini 2010). These and others suggest ethics is important to trust but little empirical work exists.

> H2:   Ethics environment directly and positively affects organizational trust.

Trust and Employee Engagement

Mone, Eisinger, Guggenheim, Price, and Stine (2011) cited that Mone and London (2009) "found that having a manager employees can trust is a primary driver of engagement" and recommended further study on this relationship (209). "A high level of employee engagement reflects a greater trust and loyal relationship between the individual and the organization. This suggests the building up of higher degree of commitment by the employee towards their employing organization" (Biswas & Bhatnagar 2013, 27). Lin (2010) surveyed 428 employees from 20 large firms in northern Taiwan to test several hypotheses related to corporate

citizenship, organizational trust and work engagement. The data were analyzed using a two-step structural equation modeling approach and resulted in seven of nine hypotheses being supported. Two relevant hypotheses were developed based on the premise that:

> …employees' perceptions about their firm"s ethics and social responsiveness play a significant role in motivating employees to engage with their work and foster their organizational trust. When employees perceive that their firm conducts business in accordance with morality and ethics beyond the basic legal requirements, they are positively stimulated by the firm and its assigned work, leading to a positive relationship between ethical citizenship and work engagement. (Lin, 2010, p.521)

In Lin's study, the data analysis resulted in an unexpected insignificant relationship between perceived ethical citizenship and work engagement, therefore not supporting the hypotheses that perceived ethical citizenship is positively related to work engagement. However, the hypothesis that perceived ethical citizenship is positively related to organizational trust was supported (Lin 2010). Additional result from this study found that "perceived corporate citizenship affects work engagement directly and indirectly via the mediation of organizational trust" (Lin 2010, 525). The literature suggests that employees who have developed a high level of trust are more likely to be engaged in their work and studies have found that employees will go above and beyond their normal job duties if they trust the organization (Dirks & Ferrin 2000) or if they believe the organization cares about them (Eisenberger, Armeli, Rexwinkel, Lynch & Rhoades 2001). Higher levels of trust are expected to result in more positive attitudes, higher levels of cooperation and other forms of workplace behavior, and superior levels of performance (Dirks & Ferrin 2001).

> H3: *Organizational trust directly and positively affects employee engagement.*

Ethics Environment, Trust, and Employee Engagement

In Otken and Cenkei (2012) "partial support was found for the moderating effect of trust in leader on the relationship between PL and ethical climate." (525). Literature supports that "ethical leaders inspire high levels of commitment and trust and foster desirable behaviors among followers (Brown et al. 2005; Den Hartog & De Hoogh 2009; Kalshoven et al. 2011; Piccolo et al. 2010)" (Den Hartog & Belschak 2012, 35).

> H4: *Ethics environment indirectly affects employee engagement through organizational trust.*

METHODOLOGY

Sampling Process

Using data from a national sample of approximately 375 employees and managers, a structural equation modeling methodology was used to assess the impact of EE, OT-HRM, OT-C, and OT-VM on EmpEng. Participants included managers and employees of private (non-governmental) organizations with email availability. Any age, sex, or race were eligible for participation. A random survey was conducted among managers and employees of private (non-governmental) organizations using Surveymonkey.com. Survey Monkey assisted in determining participants using their database, and emails were sent to prospective participants who completed them by clicking a link provided in the email. Of the participants, 66 percent were full-time

employees and 33 percent were part-time employees. Sixty-seven percent of the respondents were female. Sixty percent were hourly workers, 31 percent were salaried, and about eight percent were paid on commission. Table 1 indicates the demographics of the respondents.

Table 1 SAMPLE DEMOGRAPHICS SUMMARY	
Male – 32.7%	121
Female – 67.3%	249
Full time – 66.5%	250
Part time – 33.5%	126
Hourly – 60.4%	227
Salaried – 31.4%	118
Commission – 8.2%	31
Industry Category:	
Agriculture, Forestry, Fishing – 0.8%	3
Mining – 0.2%	1
Retail Trade – 14.7%	55
Construction – 5.9%	22
Finance, Insurance, Real Estate – 6.7%	25
Manufacturing – 7.8%	29
Local, State, or Federal Government – 1.9%	7
Trsp., Com., Elec., Gas, & San. Serv. – 5.6%	21
Lodging, Personal, & Business Serv. – 12.9%	48
Wholesale Trade – 2.7%	10
Healthcare – 20.9%	78
Education – 10.2%	38
Technology – 4.3%	16
Other – 5.4%	20
Mean (St. Dev.)Years in Current Position	7.79(8.22)

Measurement Scales

Measurement scales for all study constructs are currently available from the related literature. The scales are presented in the survey displayed in the appendix. The scales used in this study were validated in previous research. The scales were incorporated into an on-line survey form and administered by an on-line data collection service. The measurement scales were assessed fully for unidimensionality, reliability, and validity. The measurement model and structural models were assessed using a structural equation methodology.

The employee engagement scale consisted of a previously validated scale by Buckingham and Coffman (1999). The scale included twelve items measured on a seven point Likert scale where one indicated strongly disagree and seven indicated strongly agree.

Organizational Trust was assessed using the scales created by Vanhala et al. (2011). This scale has three sub-scales: Trust – HRM Practices which included five items measured on a seven point Likert scale as above; Trust – Communication which included seven items measured

on a seven point Likert scale as above; and Trust – Values and Moral Principles which included four items measured on a seven point Likert scale as above.

Charlotte McDaniel (1997) developed the ethical environment scale and has validated it in her research. This scale included twenty items measured on a seven point Likert scale as above. Interestingly, McDaniel (1997) developed the scale for use in a healthcare environment and twenty percent of our respondents indicated they work in some area of healthcare. The scale proved valid and reliable in this and other industries.

Statistical Analysis

A partial least squares (PLS) structural equation modeling (SEM) statistical methodology is used to assess the relationships in the model. PLS/SEM is selected because the model tested includes a second-order construct and because the focus is on hypothesis testing and prediction rather than theory development (Hair, Ringle, & Sarstedt 2011). The general process recommended by Wetzels, Odekerken-Schroder, and van Oppen (2009) for PLS models with second-order constructs is followed. Specifically, SmartPLS 2.0 software developed by Ringle, Wende, and Will (http://SmartPLS.de) is used to conduct the PLS analysis.

RESULTS

Measurement Scale Validity and Reliability

Because the measurement scales were previously developed (Buckingham & Coffman 1999; McDaniel 1997; Vanhala et al. 2011), the scales are assumed to exhibit sufficient content validity. Convergent validity is assessed by reviewing the standardized loadings for each of the first order constructs with loadings greater than .70 indicating sufficient convergent validity (Chaing, Kocabasoglu-Hillmer, & Suresh 2012). It was necessary to remove several items from the employee engagement and ethics environment scales to achieve sufficient convergent validity. The remaining standardized factor loadings are displayed in Table 2 with all exceeding the .70.

To assess for discriminant validity, the square root of the average variance extracted value for each construct is compared to the correlations with other constructs with square root values greater than the correlations signifying sufficient discriminant validity (Wetzels et al. 2009). Square root of average variance extracted values and construct correlations are displayed in Table 3. The square root values for each of the constructs exceeds correlations with other constructs.

Scale reliability is assessed based on Cronbach's alpha, composite reliability, and average variance extracted values (see Table 2). All alpha, composite reliability, and average variance extracted values exceed the respective minimums of .70, .70, and .50 recommended by Garver and Mentzer (1999) indicating that the measurement scales exhibit sufficient reliability.

Construct/Measures	Loading	CA	CR	AVE
Table 2 **PSYCHOMETRIC PROPERTIES OF FIRST-ORDER CONSTRUCTS** **(CA - Cronbach's Alpha, CR - Composite Reliability, AVE – Average Variance Extracted,** R^2 **– Coefficient of Determination)**				
Employee Engagement		.930	.942	.672
EE4	.846			
EE5	.842			
EE6	.869			
EE7	.830			
EE8	.830			
EE9	.701			
EE11	.786			
EE12	.842			
Trust – HRM Practices		.917	.938	.751
HRM1				
HRM2				
HRM3				
HRM4				
HRM5				
Trust - Communication		.967	.972	.833
COM1	.898			
COM2	.932			
COM3	.937			
COM4	.925			
COM5	.921			
COM6	.917			
COM7	.857			
Trust – Values and Moral Principles		.906	.935	.781
VAL1	.880			
VAL2	.921			
VAL3	.885			
VAL4	.847			
Ethics Environment		.955	.962	.716
EENV1	.865			
EENV3	.881			
EENV4	.841			
EENV7	.785			
EENV8	.869			
EENV9	.927			
EENV10	.903			
EENV13	.849			
EENV14	.766			
EENV15	.758			

Table 3
RELIABILITY SCORES AND CORRELATIONS AMONG FIRST- ORDER LATENT CONSTRUCTS
(square root of AVE in bold on diagonal)
COMM: Trust – Communication; HRM: Trust – HRM Practices; VALMOR: Trust – Values and Moral Principles; EENG: Employee Engagement; EENV: Ethics Environment

	CA	CR	AVE	COMM	EENG	EENV	HRM	VALMOR
COMM	.97	.97	.83	**.91**				
EENG	.93	.94	.67	.71	**.82**			
EENV	.94	.96	.66	.82	.72	**.81**		
HRM	.92	.94	.75	.76	.77	.75	**.87**	
VALMOR	.91	.93	.78	.79	.79	.67	.70	**.88**

Common Method Bias

Lindell and Brandt (2000) recommend that the smallest correlation among the variables be used as a proxy for common method variation. The data collection for this study included a measurement scale for organizational performance that is not included in this study. The smallest correlation among all of the variables in the larger dataset is .28 between organizational performance and ethics environment. The smallest correlation among the relationships specified in the structural model is .67 for values and moral principles and ethics environment. Substituting these correlations into the formulas provided by Malhotra, Patil, and Kim (2007), the computed z-score is 10.09 indicating significant at the .01 level. Adjusting for common method variance using the smallest correlation (.28) from the dataset, the smallest correlation among the hypothesized relationships (.67) remains significantly different from zero at the .01 level. Based on the results of the proxy test, problems associated with common method bias are not considered significant (Lindell & Whitney 2001).

Structural Model Assessment

Structural model results are presented in Figure 2. Hair et al. (2011) recommend that all PLS-SEM evaluations rely on resampling techniques such as bootstrapping to generate the significance levels of the standardized coefficients. The bootstrapping technique generates a large number of samples from the observed sample and generates a bootstrap distribution that approximates the sampling distribution for each of the path coefficients within the structural model (Henseler, Ringle, & Sinkovics 2009). These distributions provide information necessary to assess the significance of each of the path coefficients within the structural model (Henseler et al. 2009). As Hair, Sarstedt, Ringle and Mena (2012) recommend for the bootstrapping procedure, the minimum number of samples for the bootstrapping procedure was set at 5,000 with the number of observations set to 375.

Hypothesis 1 (EENV→EENG) is not supported with a non-significant standardized coefficient of .096. The standardized coefficient of .890 for hypothesis 2 (EENV→TRUST) is positive and significant at the .01 level. The standardized coefficient of .696 for hypothesis 3 (TRUST→EENG) is positive and significant at the .01 level. Hypothesis 4 is designed to assess the mediating impact of organizational trust on the relationship between ethics environment and

employee engagement. It is important to establish a positive, significant relationship between ethics environment and employee engagement without the mediating variable (organizational trust) in the model (Baron and Kenny 1986). In this case, the standardized coefficient between ethics environment and employee engagement is .75 establishes the positive significant relationship prior to the test for mediation. Introducing organization trust into the structural model reduces the positive, significant coefficient of .75 to a non-significant coefficient of .096. The standardized coefficients (.890 and .696) along the hypothesis 4 path (EENV→TRUST→EENG) are both positive and significant at the .01 level indicating an indirect effect (Kline 2011) of ethics environment on employee engagement through organizational trust. The indirect effect computed as .619 (.890x.696) is significant at the .01 level based on a Söbel test. Organizational trust fully mediates the relationship between ethics environment and employee engagement. An ethics environment leads to organizational trust which results in enhanced employee engagement.
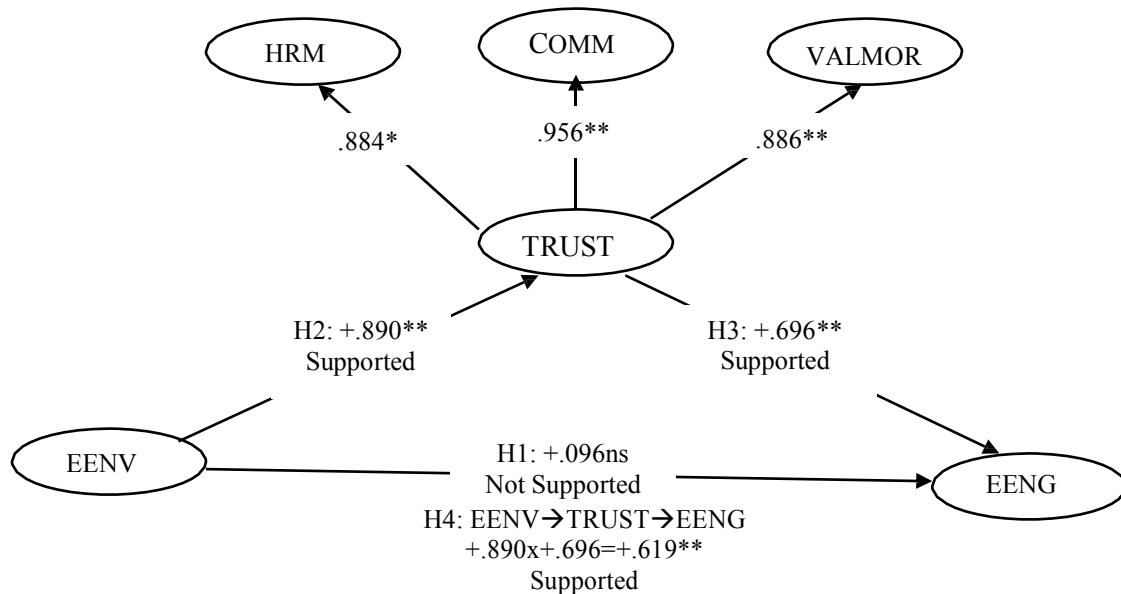

Figure 2: **PLS STRUCTURAL MODEL RESULTS**
(** **significant at the .01 level, ns non-significant)**
COMM: Trust – Communication; HRM: Trust – HRM Practices; VALMOR: Trust – Values and Moral Principles; EENG: Employee Engagement; EENV: Ethics Environment

CONCLUSIONS

Discussion of the Findings

Some research has suggested that when an organization creates an ethical environment it may lead to higher employee engagement (Demirtas 2015; Den Hartog & Belschak 2012; Lin 2010; Sharif & Scandura 2014). While this study does support a correlation between the two variables, it also shows this only represents a limited understanding of the relationship. To

further explain this relationship, data was collected to examine these variables using organizational trust as a mediator of the two. As Baron and Kenny (1986) explain, a mediator "accounts for the relation between the predictor and the criterion… [and] explain[s] how external physical events take on internal psychological significance" (1176). This clearly enlightens this particular study, as the internal psychological variable, organizational trust, noticeably affects the more physical relationship between an ethical environment and employee engagement.

Having an ethical environment is an antecedent to organization trust. This significant positive relationship indicates employees and managers perception of how ethical or unethical an organizations environment is, directly correlates to their trust or mistrust in the organization. In addition, we show that this trust or mistrust is positively and significantly related to whether employees and managers are engaged or disengaged with the organization for which they work. This adds powerful understanding to the ethical environment – employee engagement relationship.

Limitations of the Study

While this study is a significant expansion of previous literature, there are several substantial limitations. The study is cross-sectional instead of longitudinal. While longitudinal data is helpful, a momentary look at the relationships we need to understand is certainly a beginning point.

Some would insist that examining an employee's perception of an ethical environment is a limitation. Behavior is often determined by ones' perception of a situation. Also, organizational trust is a perception leading to the behaviors of engagement and performance. Therefore, in this research, studying the perception of organizational trust of both employees and managers is very important. The use of reverse scaled questions and questions regarding others behaviors have been found to give greater reliability for these variables.

A limitation in any study of human perception is the concern of social desirability bias. Those completing the surveys may believe that there is a correct or more right answer. While this is a legitimate concern, using online surveys and assuring respondents of their anonymity and confidentiality decreases the likelihood of this limitation. In spite of recent allegations that all online activities are traceable, most people still feel anonymous behind the computer screen.

Another possible limitation of this study was the length of questionnaire. Due to the extent of information being sought, the online survey averaged about fifteen to twenty minutes to complete. Again, reverse scaled questions were included to help identify any issue. There appeared to be no serious problem with the length of the questionnaire and only a minimum of respondents who started the survey did not complete it.

Future Research

Future research should extend this study to determine how this relationship affects organizational and employee performance. Other antecedents of performance, specifically organizational communication, job satisfaction and work optimism, should be examined as correlated to an ethical environment and organizational trust.

The research on employee engagement is relatively infantile. Longitudinal study of employee engagement and trust should be undertaken in addition to the examination of these variables on performance. If organizational trust wanes over time, does correlated employee

engagement decrease? The study should be extended to include individual performance in the empirical research.

Theoretical and managerial implications

Theoretically, this study expands the current research on employee engagement to include organizational trust as a mediator of the relationship of an ethical environment. While more empirical research is needed, it is a significant determination. Researchers and managers alike have indicated a logical and empirical relationship between an ethical environment and employee engagement, but this research shows a great need for building organizational trust in employees.

Management practitioners are provided with information necessary to determine organizational conditions under which organizational outcomes are most likely to be successful and the impact of organizational outcomes on both the employee and organization's performance. Specifically, this study indicates that while managers focus on building an ethical environment, they can only do so by building employees' organizational trust. Employees are more engaged when they perceive that the environment is ethical and this is dependent on their trust in the organization in which they work.

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APPENDIX
Measurement Scales

Employee Engagement (Buckingham and Coffman, 1999) *Please indicate the extent to which you agree or disagree with each statement as it relates to your workplace (1= strongly disagree, 7 = strongly agree).*
1.   I know what is expected of me at work.
2.   I have the materials and equipment I need to do my work.
3.   At work, I have the opportunity to do what I do best every day.
4.   In the last seven days, I have received recognition or praise for doing good work.
5.   My supervisor, or someone at work, cares about me as a person.
6.   There is someone at work who encourages my development.
7.   At work, my opinions seem to count.
8.   The mission/purpose of my organization makes me feel my job is important.
9.   My co-workers are doing quality work.
10. I have a best friend at work.
11. In the last six months, someone at work has talked to me about my progress.
12. This past year, I have had opportunities at work to learn and grow.
Trust - HRM Practices (Vanhala et al., 2011) *Please indicate the extent to which you agree or disagree with each statement as it relates to your workplace (1= strongly disagree, 7 = strongly agree).*
1.   I receive a fair salary in comparison with other employees in our organization who do the same work.
2.   The people rewarded for the success of our organization are those who deserve to be rewarded.
3.   My employer offers me opportunities to educate myself and develop myself in my profession.
4.   Skilled employees have the possibility of taking up more responsible positions.
5.   My employer has kept promises made with regard to my career.
Trust – Communication (Vanhala et al., 2011) *Please indicate the extent to which you agree or disagree with each statement as it relates to your workplace (1= strongly disagree, 7 = strongly agree).*
1.   I receive sufficient information on the state of the organization.
2.   I receive information on changes in the organization that are important to me.
3.   The information that is distributed in our organization is valid.
4.   The information that is distributed in our organization is up-to-date.
5.   The information that is distributed in our organization can be trusted.
6.   Information on matters important to me is communicated openly in our organization.
7.   Our organization"s internal communication functions well.
Trust - Values and Moral Principles (Vanhala et al., 2011) *Please indicate the extent to which you agree or disagree with each statement as it relates to your workplace (1= strongly disagree, 7 = strongly agree).*
1.   I accept the prevailing values in our organization.
2.   In my opinion, our organization functions ethically.
3.   I do not have to compromise my ethical principles in order to succeed in this organization.
4.   Top management has made it clear that unethical action is not tolerated in our organization.
Ethics Environment (McDaniel, 1997) *Please indicate the extent to which you agree or disagree with each statement as it relates to your workplace (1= strongly disagree, 7 = strongly agree).*
1.   The administration of this organization is concerned with ethical practice.
2.   Although I know that costs are a concern, most of the time I think the administration of this facility is more concerned with making money than with ethical care.

3. Administrators at all levels of this organization work to build shared ethical practices.
4. Personnel decisions in this organization reflect ethical considerations.
5. Administration provides their employees with ethics guidance as needed.
6. Ethics accountability is not rewarded in this organization.
7. When ethics violations occur, this organization has procedures to identify and to deal with them.
8. The organizational culture of this institution is ethical.
9. If I were to have an ethical concern, I know it would be supported in this organization.
10. Communication about ethical concerns in this organization is open between employees and administration.
11. Procedures and policies for employees in this organization do not support ethical practice.
12. Sometimes I think this organization has different goals than mine, especially regarding ethical practice.
13. Personnel policies in my work unit are consistent with what I would call ethical.
14. When I need it, there are opportunities for employees to engage in ethical deliberations in my unit.
15. If I reported one of my fellow unit employees for an ethics violation, my immediate supervisor would support me.
16. IN my opinion, employees" concerns about ethics issues are not "heard" in my work.
17. If I reported a colleague for an ethics violation, there would be retaliation against me.
18. Employees are unsure where we stand on ethics dilemmas that we encounter in our work.
19. There is an ethics committee in this organization available to me if I need it.
20. I am involved in deliberations addressing ethics concerns at my work.

TWO ISSUES TO CONSIDER IN DIGITAL PIRACY RESEARCH: THE USE OF LIKERT-LIKE QUESTIONS AND THE THEORY OF REASONED ACTION IN BEHAVIORAL SURVEYS

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ABSTRACT

In this paper, I discuss two related characteristics of research on digital piracy: 1) the use of Likert-like questions to measure digital piracy and 2) the preferred method in piracy research of surveys based on theories that relate piracy behavior to consumer attitude and social norms. I suggest that further research developing behavioral models that are tested using surveys will not provide useful information, and that future research should be experimental and test how piracy behavior can be modified.

I also find that a model that uses a construct based on the aggregation of Likert-like survey questions is much more powerful than the same model using continuous identifiers of the amount of software piracy performed by consumers. This suggests that results found in prior research overstate the relationship between their independent variables and the construct of digital piracy.

Furthermore, I ask about the value prior research findings. No one would be surprised that attitude and social norms regarding piracy would be associated with intent to pirate. Future research should ask more insightful questions, such as whether or how attitudes can be changed.

DIGITAL PIRACY

One effect of the advent of the information economy is the ease with which consumers can access digital products without purchase. People are able to borrow product media for copying or download digital products without paying a licensing fee. This has undoubtedly hurt producers of digital products. The Business Software Alliance estimates that piracy cost the software industry $59 billion in 2010 (BSA, 2011). The Recording Industry Association of America estimates that music sales dropped 53 percent from 1999 to 2010 (RIAA, 2011). Some have asserted that piracy of digital products has the potential to completely restructure their industries (Dvorak, 2003).

The impact of digital piracy has motivated intense academic research. Some of this research has been economic (Shin, Gopal, Sanders, & Whinston, 2004) or demographic (Sims, Cheng, & Teegen, 1996), but much of it has been behavioral and rooted in the study of ethics. Although occasionally a paper may be based on another paradigm such as moral development (Logsdon, Thompson, & Reid, 1994), by far the most papers are based on the Theory of Reasoned Action (TRA) (Christensen & Eining, 1991) or its child, the Theory of Planned Behavior (TPB) (Cronan & Al-Rafee, 2008). These papers support the application of the theories, finding that attitudes toward digital piracy and social norms perceived toward piracy are associated with the intent to pirate or piracy behavior. This research has been conducted through administration of surveys that are analyzed using either regression or path analysis. The variables, both independent and dependent, are latent factors or variables constructed from multiple questions on the surveys. In this paper, I evaluate what I believe to be the state of research in digital piracy based on TRA

using surveys constructed with latent variables. I will make several propositions regarding what I believe to be the state of research, and I will test one propositions.

THE USE OF THE THEORY OF REASONED ACTION THE THEORY OF PLANNED BEHAVIOR

TRA states that people's intent to embark upon some action is a function of their attitude and of social norms (Ajzen, 1991). Theoretically, attitude is the interaction of how important an outcome of the behavior is and how likely that outcome is perceived to be. In practice in digital piracy research, attitude may be a measure of people's opinions about the morality of the behavior, expected benefits, or perceptions of fairness. Social norms is the interaction of what people perceive to be the attitudes of other people toward the behavior and how important those attitudes are. In research it is usually tested as opinions about the attitudes of other people.

I have written a couple of papers myself using this model, finding that social norms only has an effect when norms from peers are queried but not norms from authority figures (Woolley & Eining, 2006), that attitude and social norms are correlated to each other, and that attitudes toward music piracy are more favorable than attitudes toward software piracy (Woolley, 2010).

Upon reflection, however, I cannot help but ask, "So what?" Indeed, I believe it is time for a new research paradigm to dominate research on digital piracy.

Proposition 1: Future research on digital piracy should not be based on determining the fit of the Theory of Reasoned Action or similar theories to piracy behavior.

The motivation for most for the research into digital piracy is that piracy is expensive, and understanding the behavioral antecedents to piracy will inform the development of strategies to combat or ameliorate piracy. Several quotes from applicable research are shown:

The success of any strategy to combat [piracy], however, depends upon how well we understand processes that underlie the acts of software piracy (Bhal & Leekha, 2008).

... a deeper understanding of the reasons of piracy behavior can help develop more effective preventative measures ... (Jyh-Shen, Ghien-yi, & Hsin-hui, 2005).

A more effective approach to curtailing software piracy may be to gain a fuller understanding of how the roots of that behavior ... are formed ... (Goles et al., 2008).

All of the quotes are from the paper introductions and motivate the research. However, none of the papers state how their findings can be used in developing strategies to combat piracy.

Although the research has advanced our understanding of piracy, the main finding, that people's attitudes toward piracy determines whether they pirate, is not very insightful or helpful, thus explaining the lack of useful recommendations to the practice of limiting piracy.

To be useful, I think that piracy research should go in new directions. One direction would be to experimentally test how interventions can change piracy behavior. By changing the research method from survey development and gathering to controlled experiments, specific factors can be manipulated to test their effects and determine what interventions are effective. Other methods, such as archival, may also provide useful information. The research on digital piracy is mature and ready to progress.

USE OF LIKERT -LIKE QUESTIONS TO MEASURE PIRACY

Research on piracy is usually conducted using surveys consisting of questions with answers given by selection a number on a five or seven point scale indicating the extent of the answer. For example, an item may state "I have copied software in the past" with end points labeled as very infrequently to very frequently (Goles et al., 2008). Sets of questions describe a latent variable, such as piracy behavior, attitude, or social norms. Questions are usually assigned to a latent variable on the basis of factor analysis and the model is tested using regression or path analysis. This method has the advantage of being relatively inexpensive to gather data while allowing powerful analysis in linking factors. However, it also has some weaknesses.

Likert scales can result in overuse of the endpoints of a scale, leading to scores that are biased high or low (Rocereto, Puzakova, Anderson, & Hyokjin, 2011) but respondents tend to use a midpoint when unsure of an answer or to indicate that a question does not apply (Kulas, Stachowski, & Haynes, 2008). Using different endpoints beginning with 0 or using 0 as a midpoint obtain different answers (Hartley & Betts, 2010). Reverse-scaled questions often exhibit unexpected relationships to their paired questions (Swain, Weathers, & Niedrich, 2008).

Respondents may be biased toward a certain side of the response scale without attending to the wording of the questions (Nicholls, Orr, Okubo, & Loftus, 2006). Likert scales may be too coarse when examining continuous data (Russell & Bobko, 1992). Respondents may have difficulty deciding on what their answers mean on a Likert scale measuring their extent of piracy.

For example, what does it mean to say that you have pirated software or music frequently in the past? Does it mean multiple-times daily for years, or does it mean several items over the past few months?

Because the measures of the dependent variable and the independent variables are on the same scale, their correlation may be overstated as measured as opposed to the actual correlation of the underlying factors. A person answering six or seven on attitude questions on a seven-point scale may easily decide that the extent of their piracy measures a six or seven on the scale, whereas to another student the first student's extent of piracy may be much lower.

Proposition 2: Attitude and Social Norms will be more predictive of Piracy behavior when piracy is measured using Likert-scale items than when Piracy is measured by continuous variables measuring the actual extent of piracy.

TEST OF A CONTINOUS DEPENDENT VARIABLE VERSUS A LIKERT DEPENDENT VARIABLE

Students in a sophomore level university class were given a survey with questions measuring attitude, social norms, and piracy regarding music. The survey was approved by the university human subjects committee. Of the seventy-seven participants, 53 percent were male and 70 percent were business majors. Almost all of the participants indicated that they have portable music players, and 95 percent indicated that some of their owned music was pirated.

In the survey, the participants were presented a scenario in which they could download music without paying for it. They then completed Likert-like questions about whether they would download the music and their attitudes and perception of social norms toward music piracy. In addition to completing Likert-like questions, the participants also indicated how many titles they had obtained from different sources. The extent of piracy was measured by the log of the total count of pirated songs they owned and by the percentage of their owned songs that were pirated.

The questions were evaluated with principal components and assigned to four different components that had an Eigenvalue of greater than 1. All of the questions had a loading of at least .697 on their components, and the Chronbach Alpha score of each component was greater than .80, indicating high validity within the components. Three of the components measured aspects of participants' attitudes toward piracy: Morality measured participants' opinions about whether piracy was wrong or not; Punishment measured participants' perceptions of possible negative consequences of pirating; and Benefit measured participants' perceptions of whether piracy is advantageous. Social Norms was measured as the perceived attitudes of participants' peers, and Piracy was measured by whether the respondents would download the music if faced in the scenario.

Proposition 2 was tested using Morality, Punishment, Benefit, and Social Norms as independent variables predicting three different measures of piracy: 1) the component measured with Likert-like questions, 2) the count of pirated songs that students stated that they owned, and 3) the percentage of their complete music collection that had been pirated. Gender, age, and major were included as controls. The results are shown in Table 1. Non-significant variables are left blank.

Table 1
COMPARISON OF MODELS PREDICTIN MUSIC PIRACY
Standardized Regression Coefficients

Independent Variable	Morality	Punishment	Benefit	Social Norms	Gender	R^2
Likert Measure of Piracy	-.327	-.161	-.357	-.339		.677
Number of Songs Pirated			-.257		-.195	.069
Percent of Songs Pirated			-.383		-.237	.163
Non-significant coefficients are left blank. Dependent variables are coded so that larger values are indicative of an aversion to piracy						

The model created based on Likert-like questions appears to be much more powerful than the models based on the actual extent of piracy. However, I think that the model based on the Likert-like questions does not really ask about the extent of piracy, but is just another measure of attitude. The model also misses the effects of gender: males and females may interpret the Likert-like questions differently. The results show that attitude and social norms are not in fact very powerful in measuring the actual extent of piracy.

CONCLUSION

I have proposed that research of digital piracy has reached a point where it must change direction to provide useful information. Current research based on models predicting the intent to pirate is not able to suggest or evaluate specific recommendations based on their research, and the research method probably overstates the ability of existing models to explain piracy behavior. If research is to find ways to have people voluntarily cease or at least lower their pirating, a new research methodology, possibly experimental or archival, must be used to evaluate strategies.

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