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Selection process

The December 2016 issue of the *International Journal of Interdisciplinary Research (IJIR)* has been the result of a rigorous process in two stages:

- Stage 1: all papers that were submitted to the 2016 IABD conference went through blind reviews, and high quality papers were recommended for presentation at the conference.

- Stage 2: approximately ten percent of the articles which were presented at the conference and one invited manuscripts (originally reviewed by the Chief Editor) were selected for possible publication in *IJIR*, and the respective authors were contacted and asked to resubmit their papers for a second round of reviews. These manuscripts went through a rigorous blind-review process by the editorial board members. In the end, four articles were recommended for publication in the December issue of *IJIR*.

IJIR is listed in *Cabell's* Directory of peer-reviewed publications. The Editorial Board members are committed to maintaining high standards of quality in all manuscripts published in *International Journal of Interdisciplinary Research*.

Ahmad Tootoonchi, Chief Editor

STUDENTS' PERFORMANCE IN FLIPPED AND TRADITIONAL CLASSROOM SETTINGS: A COMPARATIVE STUDY

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ABSTRACT

This study compared the learning outcomes for undergraduate students taking an introductory managerial accounting course in a flipped class (N = 77) and students who took the same course in a traditional class (N = 78). Student learning outcomes were measured using scores from twelve weekly online assignments, midterm and final examinations held on campus, and overall course performance. The results showed that students registered in the flipped class were not as successful as students enrolled in the traditional class. The findings suggest that Flipped-class pedagogy is not merely a change in the delivery mode. To be successful, it needs intense preparation. The heart of the Flipped Classroom is student engagement, including his/her realization of the responsibility for self-learning. No pedagogical approach, of course, fits all students alike. Students should not, therefore, be in any doubt about what to expect before registering for the class. Since the acquisition of critical reasoning skills is not a single-step process, but is a continuum, future researchers need to focus on senior students with exposure to this pedagogical approach from the beginning of their university studies.

INTRODUCTION

The university is often considered a place for the acquisition of knowledge. It is true that knowledge is a prerequisite for learning. But, knowledge acquired by rote memory, knowledge that is specific to a situation, or that which one cannot generalize is no learning, since it is short-lived and tends to be forgotten as soon as the purpose in view, e.g., an examination, is over. Therefore, it is claimed that a mere passive transmission of knowledge from the instructor to students, for example, in a traditional lecture form, adds little, if any, to students' learning process (Coates, 2006; Barkley, 2010). That defeats the very objective of a university, which is the development of intellectual competence "capable of being applied in any field whatsoever" (Flexner, 1930). The capability to apply knowledge open-mindedly to novel situations being crucial to learning (Pluta, Richards, & Mutnick, 2013), it must involve "reflective abstraction." The student must initiate the activity himself and exert reflective thought in the understanding of the subject matter (Ginsburg & Opper, 1979).

The phenomenal advancement in information technology has led to an exponential growth of information available in every field of study over the last few decades. Unfortunately, there has been little change in the way knowledge is imparted to students and in-class lectures continue to be the medium of instruction (Prober & Heath, 2012). There has been concern over the years that the current structure of education caters only to lower levels of learning, as postulated in Bloom's taxonomy (2001). That fails to instill critical thinking skills essential to prepare better students for the 21st century (Accounting Education Change Commission, 1990; Albrecht & Sack, 2000; Christensen & Eyring, 2011). Perhaps, partly because of inertia, the ease in covering the ever-increasing course content and a lack of proper evidence of proficiency of any alternative mode of delivery, the traditional venerable method of the in-class lecture has held sway.

A recent innovative approach to teaching is the Flipped or the Inverted classroom setting. It reverses the general order in which instruction is handled, that is, a professor-led lecture in class, followed by the assignment of exercises, problems, essays, etc. to a student as homework. In the Flipped classroom setting, students are furnished with multimedia lectures recorded out of class and studied by them independently at their pace as homework. Students are expected to come to class prepared, equipped with the course content. The Flipped model thus frees in-class time for the professor to engage in those instructional activities requiring students to practice higher-order thinking skills of application, analysis, synthesis and evaluation of Bloom's revised taxonomy (Anderson & Krathwohl, 2001). As defined by the Flipped Learning Network (2014), "Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter." This pedagogical approach changes the class environment dramatically from the passive teacher-centered ("sage on the stage") to the student or learner-centered, where the student plays an active role throughout in his/her quest for knowledge, and the instructor acts only as a "guide on the side" (King, 1993). Active learning activities involve in-class problem solving, case studies, "clicker" questions, collaborative group work, etc., resulting in a dynamic learning environment.

The concept of the Flipped or Inverted classroom is indeed promising in the quest for a methodology to produce better-educated individuals equipped with advanced analytical and diagnostic skills to face the challenges posed by the global economy. Research on the effectiveness of this novel approach to teaching in the higher institutes of learning is limited (Pierce & Fox, 2012; Asef-Vaziri, 2015; Gilboy, Heinerichs, & Pazzaglia, 2015; Chen, Wang, Kinshuk, & Chen, 2014). Bishop and Verleger (2013) suggest that "additional research is needed to examine the influence of flipped classroom instruction on objective learning outcomes." The purpose of this study was to contribute to this field of research by comparing students' performance in an accounting course in flipped and traditional classroom settings.

The rest of the paper is organized as follows. Section one provides a brief review of the literature. Section two discusses the theoretical underpinnings of the concept of cognitive development. Section three describes the methodology, i.e., research design, measures of student learning, hypotheses, and data collection. Section four provides the analysis and results. Finally, Section five presents a discussion, conclusion, and limitations of the study.

LITERATURE REVIEW

Academia has over the years used various methods to involve students actively in the learning process. (Kasl, Marsick, & Dechant, 1997; Novak, 1999; Lage, Platt, & Treglia, 2000; Crouch & Mazur, 2001). The Flipped classroom has become a buzzword in the media over the last decade and a half. The lure of this new educational model should be inescapable to both students and teachers: It affords students freedom and responsibility to acquire knowledge at their pace, thus motivating them to be active participants in the learning process, whereas instructors, cognizant of students' difficulties based on their in-class performance, can make better use of class time by judiciously selecting activities catering to students' higher-level learning skills.

Most studies focusing on the flipped-classroom experience show that attitudes and perceptions of a majority of students were consistently positive. Some concerns, expressed only by a significant minority, related to the need for more support from teachers, their non-availability to answer questions during the traditional component of the model and the possibility of some students being unprepared during the face-to-face activities in class (Gilboy et al., 2014; Kim, Kim, Khera, & Getman, 2014; Mok, (2014). In their scoping review, O'Flaherty and Phillips (2015) identified three research studies that focused on educational outcomes of using the model: One of nursing students reported improved learning outcomes, whereas, in the other studies of pharmacy and mechanical engineering students, the results were unchanged and equal or better, respectively (Missidine, Fountain, Summers, & Gosselin, 2013; McLaughlin et al., 2014; Mason et al. 2013, as cited in O'Flaherty & Phillips, 2015). Pierce and Fox (2012) used a flipped classroom model in their study of a renal pharmacotherapy topic module and concluded that "students' performance in the final examination significantly improved compared to the performance of students the previous year who completed the same module in a traditional classroom setting." When Albert and Beatty (2014) redesigned an Introduction to Managerial Course based on the flipped class model, they found that students performed better than those taught earlier by the same instructor in a traditional lecture class setting using the same text and tests. They also discussed four other comparative research studies focusing on the business, pharmacy, and electrical engineering students. The results showed that while the use of the flipped-classroom approach made no difference to the business students' performance, pharmacy and electrical engineering students benefited by scoring significantly higher on the exams.

Haughton and Kelly (2014) conducted a comparative study of approximately 600 students in an Introductory Business Statistics course taught in 22 sections at Suffolk University in Boston in one of the two learning environments and concluded that there were no significant differences in the performance of students in the two environments. They opined that "It is possible to argue that shortly the flipped format may outperform the traditional form as faculty gain experience in this type of environment, and as further technological advances improve mode efficiency." Herreid and Schiller (2013) described a course redesign project for a college- preparatory chemistry course using the flipped model and a comparison of the exam scores of students attending the flipped and traditional lecture classes. The results of the study showed that students attending the flipped classes were overall more successful scoring higher on the final exam (Ruddick, 2012, as cited in Herreid & Schiller, 2013).

Estes, Ingram, and Liu (2014) reported on a number of research studies of the flipped classroom: Deslauriers et al. (2011) used the flipped classroom model in a large physics class and "found that students in the flipped course scored more than twice as well as students in the control group in multiple-choice test measuring comprehension of the content in the final week. The students also enjoyed the flipped experiment: 90% agreed that they enjoyed the interactive learning methods". In another study, Berrett (2012) implemented the flipped classroom approach in an introductory calculus course and found that as compared to students in the traditional class setting, those in the flipped class "were able to make gains twice the rate." Similarly, Lizer and Wesner (2013) as cited in Estes et al. (2014) reported improved performance of students attending a flipped pharmacy course class.

It is interesting to note that though overall findings of the studies on learning outcomes of students attending the Flipped classes over those attending the traditional lectures were mixed, the learning theory of cognitive development fully supports the Flipped-class pedagogical approach.

THEORY OF COGNITIVE DEVELOPMENT

Inhelder and Piaget (1958) explained the intellectual growth in human beings as a developmental process occurring in stages. From childhood to adolescence, in an individual's life, there are four levels of growth, viz., sensory-motor, pre-operational, concrete operational and formal operational. The later levels display a more sophisticated and efficient pattern of thought and reasoning. The last two are relevant to students' readiness for undergraduate study. Formal operational thought, the highest level attainable by human beings, is characterized by the abilities to reason abstractly.

Piaget's research evidence shows that formal operational skills are not universal and that many adolescents fail to acquire the formal-operational thought (Ginsburg & Opper, 1979). The transition between the concrete operational and formal operational stages is not an abrupt or a single-step change but is a continuum. A fundamental idea underlying Piaget's work is that of mental structures. From infancy to adulthood, intellectual development is explained by the construction and reconstruction of mental structures within the brain. This process of constructing new mental structures is called equilibration or self-regulation.

The developmental process primarily involves three steps, viz., assimilation, cognitive conflict, and accommodation. Assimilation occurs when the individual confronts an unfamiliar problem situation and tries to solve it with the help of existing reasoning patterns. When the attempt fails, and he/she realizes the inadequacy of the reasoning pattern used, it results in "disequilibrium, cognitive conflict," or "contradiction," and the next phase, i.e., accommodation, takes place. Now the individual makes an effort to alter his/her reasoning pattern to deal with the problem situation adequately, that is, the individual accommodates to the new situation, or self-regulates, and acquires new mental structures (Lawson & Benner, 1976). According to Piaget (1964), this process of equilibration or self-regulation is a "fundamental factor in development." However, Furth (1977) cautions that in the equilibration process, assimilation could be followed directly by

accommodation. In that case, the individual will retain his/her current state of equilibrium without further accretion to mental development.

It is noteworthy that "cognitive conflict," which is said to be fundamental in mental development, is deliberately built into the schema underlying the flipped class model: Students are expected to experience it while assimilating the contents of video lectures at home and if not, they may find it almost impossible to escape while facing carefully planned active-learning activities in class.

METHODOLOGY

Research Design

A quasi-experimental research design was applied to students registered into two sections of an introductory managerial accounting course for an undergraduate business degree taught by one instructor during a single semester. One section (93 students) was prepared using the flipped class model, where students were asked to perform certain activities at their pace at home before coming to the class, such as watching lecture videos, PowerPoint presentations provided for the purpose and studying relevant portions of the text. They were also required to complete weekly assignments consisting of true/false statements, multiple choice and problem-solving questions, which involved calculations, analysis, or short answers. In class, students were involved in collaborative work and concept engagement, including exercises, brief cases, and problems to illustrate concepts and principles of the subject matter. In the regular class section (102 students), the instructor explained concepts and principles of the subject matter in lecture form, including PowerPoint presentations and some exercises/problems in class. After that, students were asked to complete the weekly assignment before the due date.

This study used the method of self-selection by students in each section. It was assumed that students would enroll in a section offering the teaching mode that they thought would best maximize their performance and access to content. This self-selection was not expected to affect the robustness of the study because students were all from the same school and taking a core course required of all undergraduate business major students. Therefore, the students' profiles will be comparable in both teaching modes. The vast majority of prior studies also employed, self selection. To achieve a high degree of internal validity and as close a comparison as possible between the flipped-class and traditional class models, the same instructor taught the two sections, eliminating differences in such confounding factors as grading standards and instructor teaching style across sections. Furthermore, efforts were made to ensure that students in the two learning environments had access to the same textbook and supplementary learning aids, such as assignment solutions, PowerPoint slides, and solutions to previous examinations.

Measures of Student Learning

Student performance was compared using four different measures of learning, consisting of twelve weekly assignments, midterm, a final examination (held on campus), and total marks in the course. Students in both the flipped class and traditional class were required to register at WileyPlus Course Management Systems to perform the twelve weekly assignments.

The twelve weekly assignments corresponded to the twelve chapters required for the course and consisted of true/false statements, multiple choice and problem-solving questions involving calculations, analysis, or short answers. Each assignment was graded on 100 marks with two attempts for each question. These twelve weekly assignments carried 10% of the total marks in the course. After the due date for each assignment, students were able to review the solutions and link to the textbook. These weekly assignments were essential in maintaining student activity while providing learners with timely, meaningful feedback and assessment. These tasks created an element of motivation and an educational design that promoted a more active, collaborative, and participatory form of learning.

Statement of Hypotheses

The null hypotheses for this study were:

1. Ho: There was no statistically significant difference in students' performance between the flipped section and the traditional section in the twelve weekly assignments.
2. Ho: There was no statistically significant difference in students' performance between the flipped section and the traditional section on the midterm examination.
3. Ho: There was no statistically significant difference in students' performance between the flipped section and the traditional section in the final examination.
4. Ho: There was no statistically significant difference in the students' overall performance between the flipped section and the traditional section based on total marks.

Data Collection Procedures

There were 93 students enrolled in the flipped class section and 102 registered in the traditional section. The results presented below included data only from students who completed all requirements for the course. In the flipped class section, 16 students either withdrew from the course or deferred the final examination for personal reasons, leaving 77 students who completed the course and received a final grade. It was equal to 83% retention rate. In the traditional section, 24 students either withdrew from the course or deferred the final examination, leaving 78 students who completed the course and received a final grade. It was equal to 76% retention rate, which was comparable to the typical retention rate found in traditional classroom settings in previous semesters.

STATISTICAL ANALYSIS AND RESULTS

For each hypothesis, an independent samples t-test comparing the respective variables of the two teaching modes was used to test the hypothesis—this method was employed by a majority of prior research studies in comparing the effectiveness of the traditional classroom with that of the flipped class delivery. This test is appropriate because the independent or grouping variable is nominal (approach = flipped vs. traditional) and the dependent variable in each case is ratio scale. Summary performance measures for students in both the flipped and traditional sections are presented in Table 1.

TABLE 1: SUMMARY STATISTICS AND T-TESTS OF STUDENTS' PERFORMANCE

Section	Number of Students	Mean Score	Standard Deviation	Standard Error of the Mean	F-Value	Significance Level
PANEL A: Students' Performances in 12 Weekly Assignments						
Traditional	78	84.05	14.79	1.68	1.79	0.182
Flipped	77	77.45	17.20	1.96		
PANEL B: Students' Performances in the Midterm Examination						
Traditional	78	50.37	15.65	1.77	1.40	0.239
Flipped	77	43.81	17.45	1.99		
PANEL C: Students' Performances in the Final Examination						
Traditional	78	73.97	15.61	1.77	5.25	.023
Flipped	77	66.91	19.99	2.28		
PANEL D: Students' Overall Performance in the Course						
Traditional	78	67.90	12.81	1.45	6.83	.010
Flipped	77	61.05	16.70	1.90		

The average scores on weekly assignments reported in Table 1, (Panel A) correspond to the number of points awarded out of 100%. These figures were used to test whether the mean scores on the twelve weekly assignments differed between the flipped and traditional sections. The results indicate that the average score on weekly assignments in the flipped section (77.45%) was not significantly lower than that in the traditional section (84.05) at F-Value 1.79, which measured the difference between flipped and traditional variances at the 0.182 significance level. The higher scores found in the traditional section may be the result of understanding the subject matter from the instructor before the due date, whereas the flipped section was required to complete the assignment before coming to class. These findings support the first null hypothesis.

The results of the midterm examination, presented in Panel B of Table 1, indicate that the average performance of students in the flipped sections was not significantly different from that of students in the traditional section at F-Value 1.40, which indicated that variances between flipped and traditional sections were not different at the 0.239 significance level. However, students in the flipped section achieved a lower average score (43.81%) on this midterm examination than those in the traditional section (50.37%). The low performance of students in the flipped section on the twelve weekly assignments did carry through to the midterm examination. This low performance of students in the flipped section could be because of the constraints on the flipped class requiring students to learn the subject matter on their own and to complete the weekly assignment before coming to the class. The results presented in Panel B support the second null hypothesis.

The students' performance on the final examination, Table 1 (Panel C), were statistically different at F-value 5.25, which indicated that variances between the flipped and traditional sections were different at the 0.023 significance level. These results indicate that students in the flipped section performed significantly lower than those in the traditional section. The low performance of students in the flipped section (66.91% VS 73.97%) is consistent with their lower performance on the twelve weekly assignments and midterm examination. It seems that they did not avail themselves of the opportunity to learn independently and from their experience with the weekly assignments and the midterm examination. These results do not support the third null hypothesis.

Given that student in the flipped sections achieved lower scores, on average, than students in the traditional section across all three components of the course, Table 1 (Panel D), accordingly demonstrates that students in the flipped section underperformed (61.05%) hose in the traditional section (67.90%). This difference in scores was statistically significant at F-Value 6.83, which indicates that variances between the flipped and traditional sections were different at the conventional level of significance at 0.010. This significant difference in the mean total marks was not surprising because the results of the final examination, worth 60% of the total, were significantly different between the flipped and traditional sections. Hence, these results do not support the null hypothesis of Students' Overall Performance in the Course.

DISCUSSION

The findings of the study contrary to the theoretical evidence in support of the flipped class model are indeed surprising. But, one should not interpret these as a negation of the model itself. Education at all levels has taken different approaches over the years to address successfully the changing needs of students, and to incorporate the evolution of technology over the years. A major objective of the "Flipped Learning" pedagogical approach is to stimulate a behavioral response from students in a dynamic classroom environment, allowing them to engage fully in their learning and enhancing their cognitive abilities. Students are expected to listen to the lectures on their own time (time which traditionally would have been used for homework) and use the classroom time for the problem- solving and fundamental concept development lending

itself to improvement in their critical thinking skills, clarification of any confusion and a more in-depth understanding of the course material.

Though the overall idea is simple, it is crucial to underline a few key determinants of success of such an approach. The heart of the Flipped model is in somehow engaging and motivating students to take on the responsibility for learning. The results thus could be explained by the seeming lack of enthusiasm. Primarily, the student needs to be enthused to become an active participant in learning and thus it is imperative that quality and diligence be put in the design and delivery of course materials. The educator needs to provide adequate guidance and a structured layout. This is accomplished by providing thorough explanations of the material in the online lectures exploring the topics from different angles and at different levels of difficulty. It needs to be supplemented by problem-solving activities in class challenging their critical-thinking skills and allowing them to express and identify their areas of concern.

This study was conducted on first-year undergraduate students taking one of the core courses in introductory managerial accounting. The students had no previous experience of a Flipped class. Their failure to avail themselves of the opportunity of self-learning offered by the Flipped class could be attributed partly to their immaturity as well as a lack of proper communication of what was expected of them in a Flipped class.

Also, according to Piaget's theory of cognitive development, discussed earlier, accretion to mental development, or acquisition of critical reasoning skills should not be viewed as a single-step change, but as a continuum. The results of this study are thus revealing and would hopefully encourage future researchers to focus on senior students at the undergraduate level or graduate level who have had experience with the Flipped model from the beginning of their university studies.

The Flipped Class pedagogy thus involves much more than a change in the delivery mode. Its successful implementation requires the instructor to focus on encouraging students to interact with each other and with the instructor to develop an active learning environment. It is important that the instructor quickly adapts from a teaching role to that of a coach and facilitator. The instructor's role will naturally continue to shift over time. It will move from one of a facilitator encouraging student-faculty interactions and promoting cooperation among students to one of a motivator supporting active learning, emphasizing time management through assessment, and prompt feedback.

CONCLUSION

In just over a decade, flipped learning has become a buzzword in higher education. However, educators continue to face challenges as they strive to apply this great learning technique. A primary focus of educators involved in flipped instruction is the learning outcome. This study compared the learning outcomes of students in flipped and traditional classroom settings. Four different learning outcomes were designed to better assess and demonstrate the effectiveness of the two types of course delivery in an introductory managerial accounting course. Students were

required to complete twelve weekly flipped assignments, a midterm and a final examination held on campus. The results of this study showed that students registered in the flipped section were not as successful as students enrolled in the traditional section.

These findings are revealing: Flipped-class pedagogy is not merely a change in the delivery mode. To be successful, it needs intense preparation. The heart of the Flipped classroom is student engagement, including his/her realization of responsibility for self-learning. No pedagogy, of course, fits all students alike. Students should not, therefore, be left in any doubt about what is expected from them before registering for the class. Since the acquisition of critical reasoning skills is not a single-step process, but is a continuum, future research needs to focus on senior undergraduate and graduate students, who have been exposed to this pedagogical approach from the beginning of their university studies.

LIMITATIONS OF THE STUDY

The study had some limitations: It was conducted at a single university and for a single course taught by one instructor. Furthermore, data were collected for only one semester, and the assignment of students to each group was not random, as the students had the choice of enrolling in any group. Although the results of this study are informative, the study does not promote one medium of delivery (flipped or traditional) over another, nor does it attempt to measure the effect of teacher/student and student/student interaction on learning outcomes.

This study concentrated on the form of delivery as the primary factor influencing student performance in the course. Nevertheless, other factors such as previous flipped course experience, proficiency with a particular classroom web page (WileyPlus), work experience, and other student demographics could have influenced the results. The study, however, did benefit from internal validity resulting from one instructor teaching all flipped and traditional sections. This allowed for differentiation in factors such as institutional milieu, grading standards, and instructor teaching style, to be eliminated. Regardless, further research needs to be conducted to provide information to support the robustness and reliability of this study's findings. A question that should be addressed in future research is whether flipped formats applied to upper-level courses of various degree programs will result in better learning outcomes. One thing is sure: As future studies elaborate on the effectiveness of flipped learning, educators will continue to face challenges in their effort to embrace new teaching protocols and methodologies.

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APPENDIX

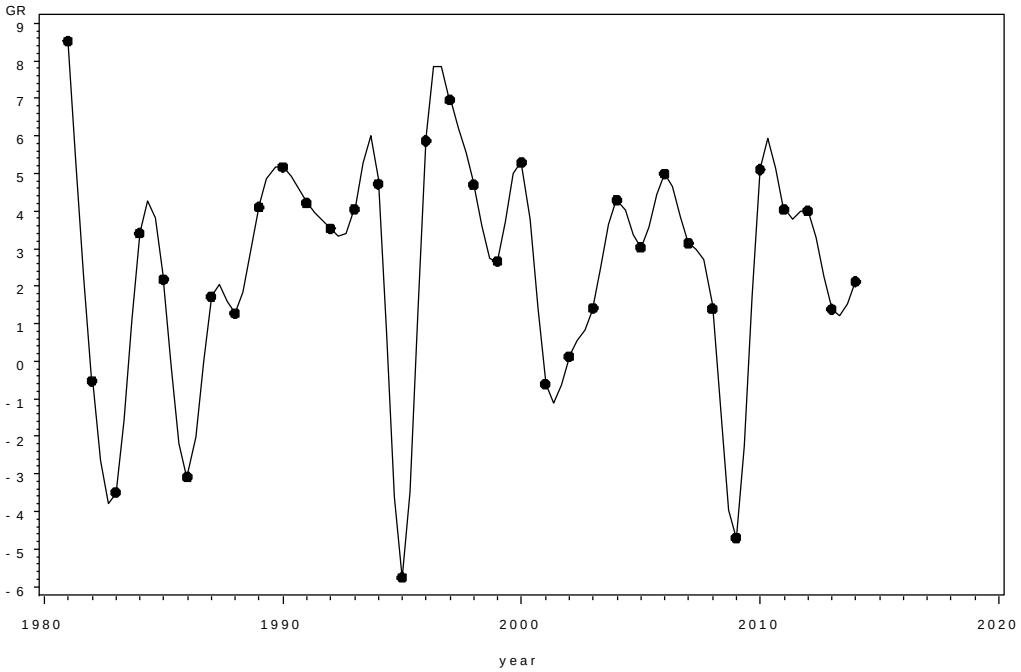


FIGURE 1: PLOT OF GROWTH RATE (GR) OVER YEARS

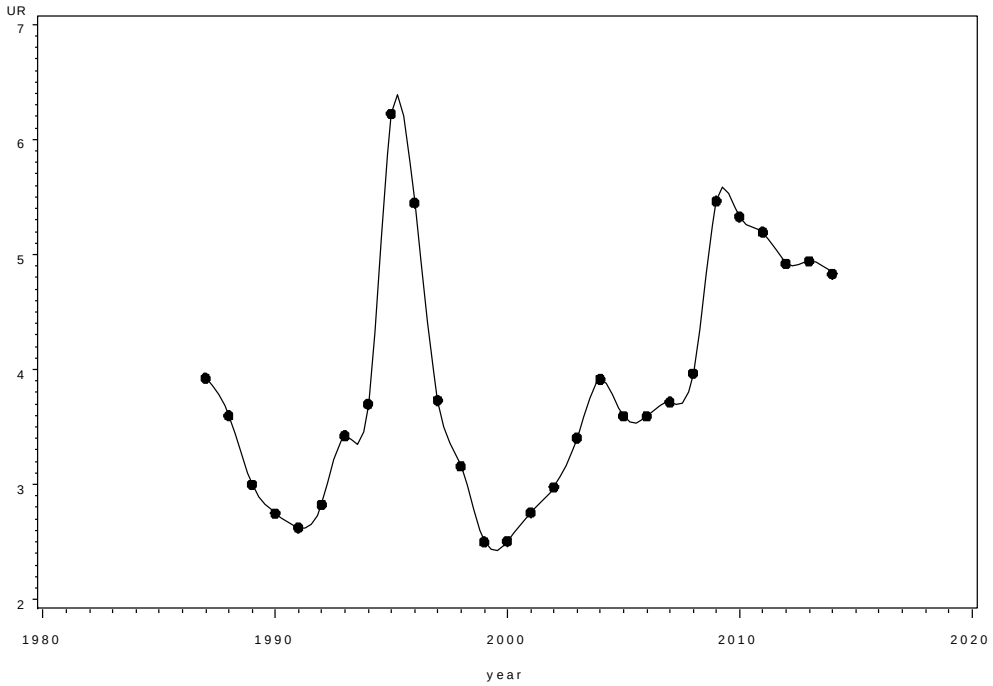


FIGURE 2: PLOT OF UNEMPLOYMENT RATE (UR) OVER YEARS

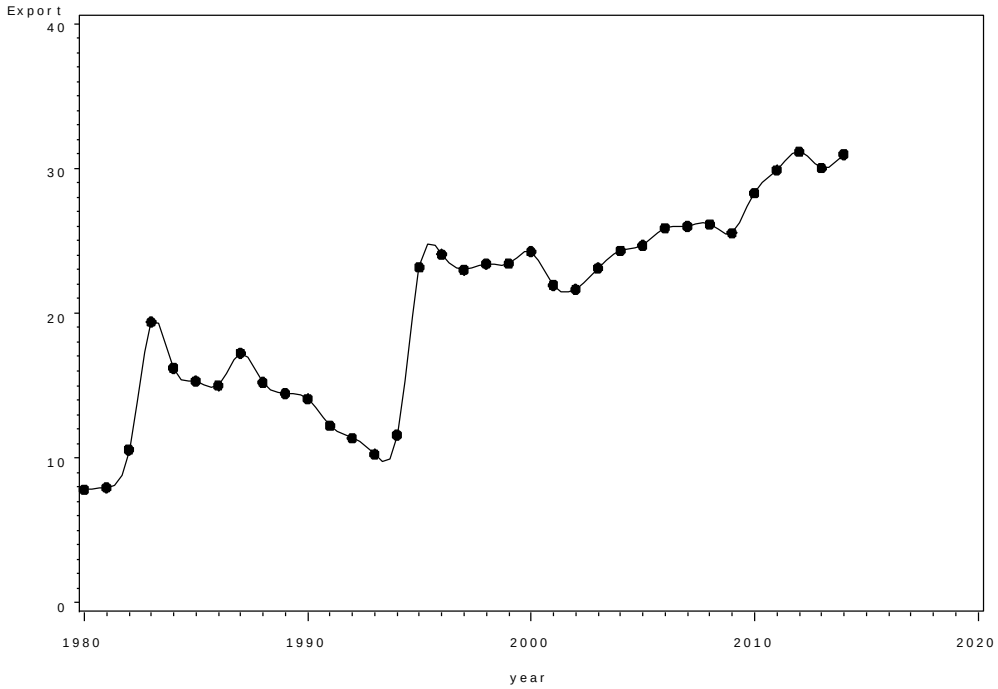


FIGURE 3: PLOT OF TOTAL EXPORT OVER YEARS

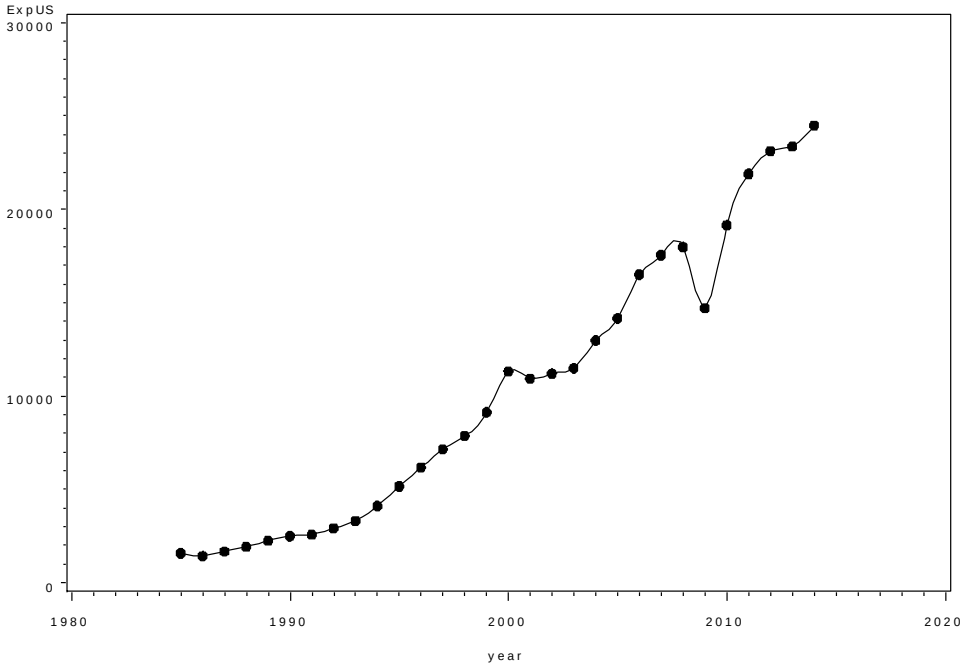


FIGURE 4: PLOT OF EXPORT TO THE US (EXPUS) OVER YEARS

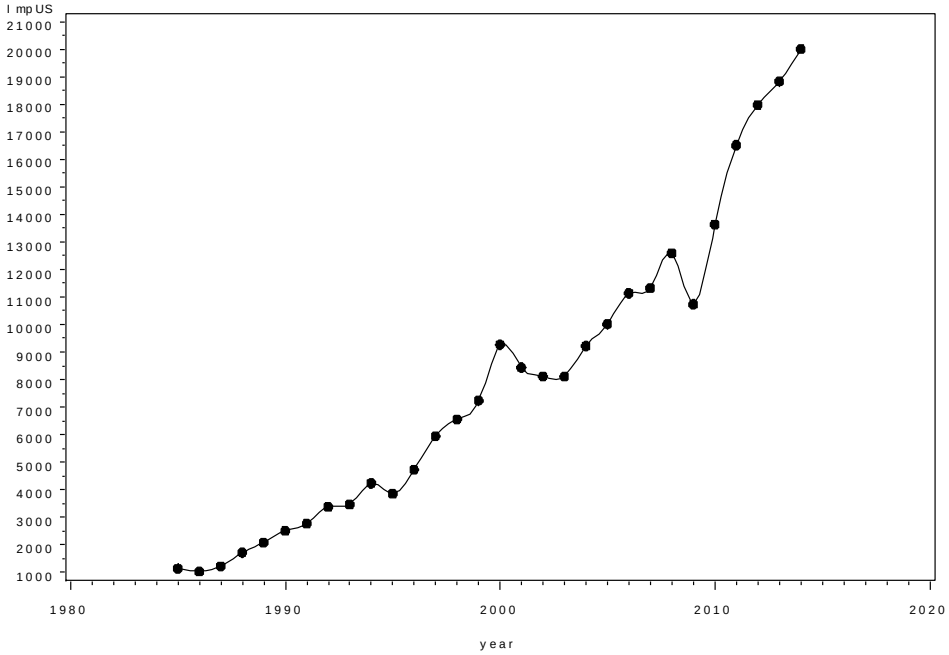


FIGURE 5: PLOT OF IMPORT FROM THE US (IMPUS) OVER YEARS

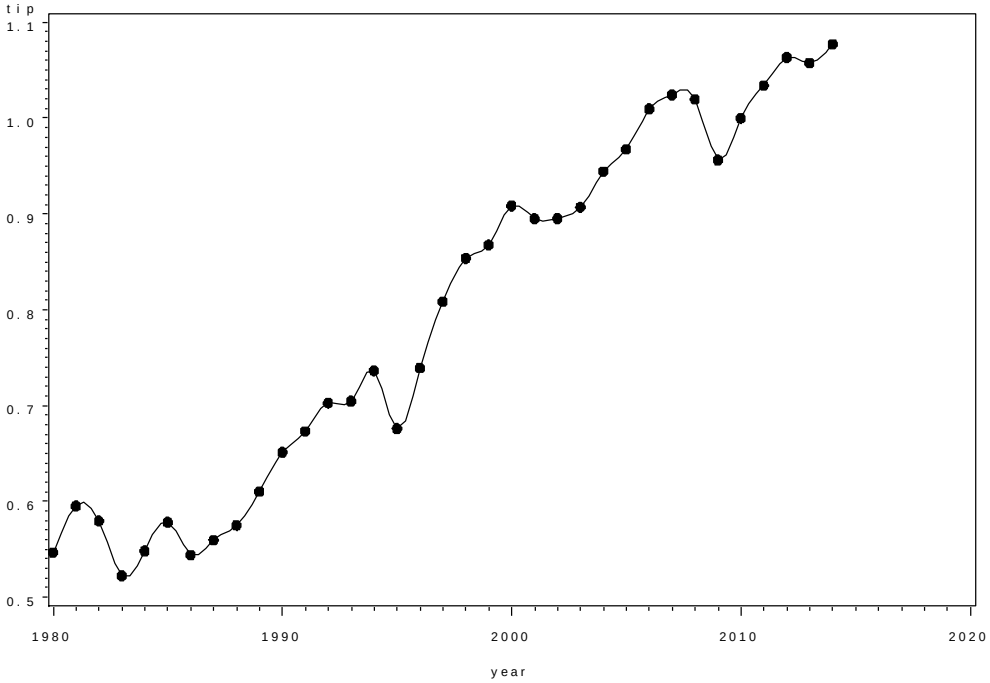
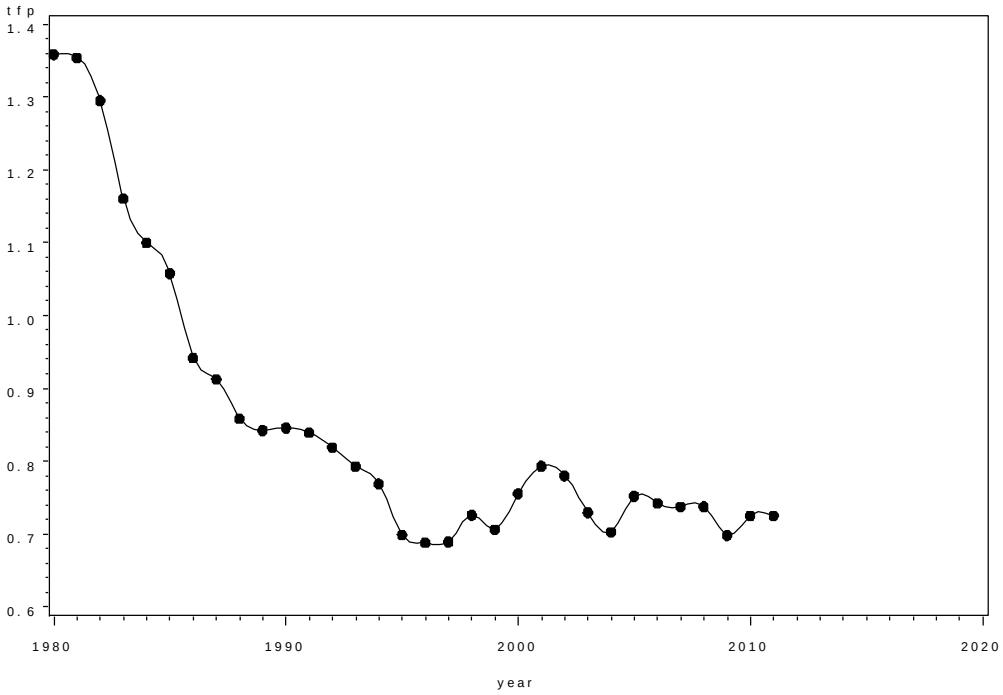


FIGURE 6: PLOT OF TOTAL INDUSTRY PRODUCTION (TIP) OVER YEARS



FIGURES 7: PLOT OF TOTAL FACTOR PRODUCTIVITY (TFP) OVER YEARS

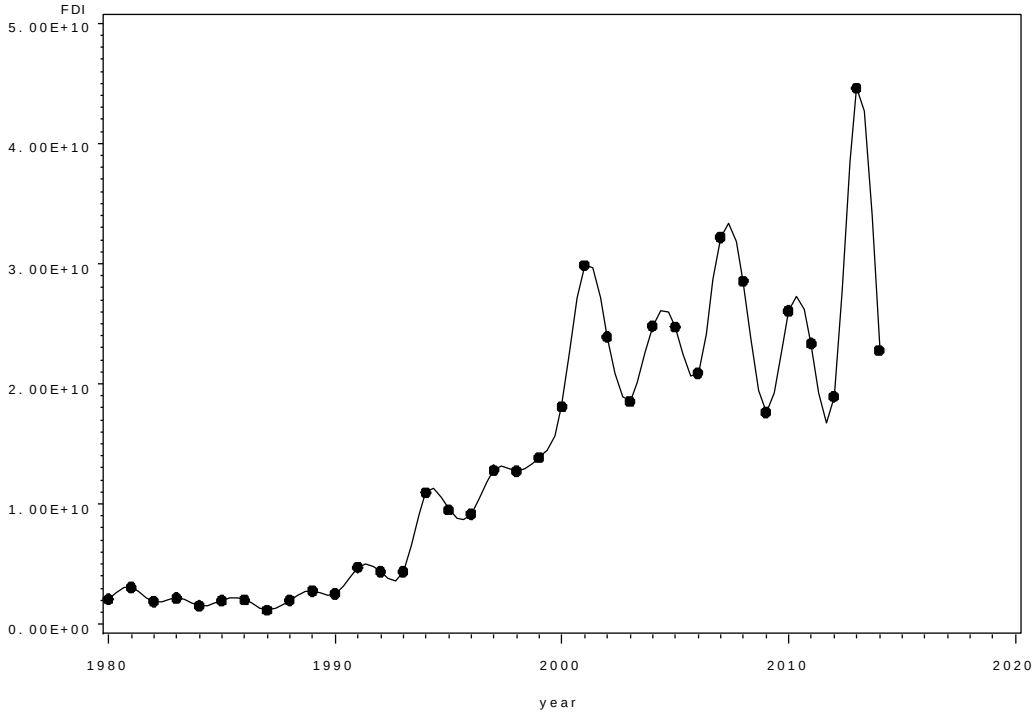


FIGURE 8: PLOT OF FOREIGN DIRECT INVESTMENT (FDI) OVER YEAR

EXAMINING JOB SATISFACTION AND JOB PERFORMANCE FROM ANOTHER THEORETICAL PERSPECTIVE: EFFICIENCY WAGE THEORY

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ABSTRACT

Our work borrows broadly from the efficiency wage theory of economics. The intent of this approach is to provide a unique method of answering this quandary. Although psychologists often criticized economists for ignoring important variables and simplifying individual goals (Lewin, 1996), major achievements have often come from the application of careful and specific interdisciplinary efforts, e.g., Vernon, 1991. By bringing in efficiency wage theory, our goal is to propose a fresh perspective that explains the job satisfaction and job performance causal relationship. Three sections are discussed: Section one, we briefly review the prior investigations of the job satisfaction and job performance relationship, and discuss the associated theoretical limitations that could be complimented by our perspective. Section two, we develop propositions regarding the job satisfaction and job performance relationship based on efficiency wage theory. Finally, we discuss the implications and propose future research directions/implications.

INTRODUCTION

The study of the relationship between job satisfaction and job performance has received an exhaustive amount of attention from industrial-organizational psychologists (Iaffaldano & Muchinsky, 1985; Judge, Thoresen, Bono, & Patton, 2001), probably since Hawthorne studies (Roethlisberger & Dickson, 1939), and yet researchers have not reached a definitive consensus on whether job satisfaction does or does not influence job performance (Judge et al., 2001). In the numerous attempts to explore the job satisfaction-job performance relationship, the lack of empirical investigations is highly noteworthy. At least 312 studies investigated this relationship (c.f. Judge et al., 2001) and the number is still growing. However, whether job satisfaction could lead to higher job performance has been controversial since more than four decades ago, e.g., Locke (1969) and remains inconclusive (Judge et al., 2001). Given the large number of empirical studies with very few theoretical conclusions, we believe that a conceptual analysis could provide a more complete theoretical explanation to the job satisfaction – job performance relationship.

Our work borrows broadly from the efficiency wage theory of economics. The intent of this approach is to provide a unique method of answering this quandary. Although psychologists often criticized economists for ignoring important variables and simplifying individual goals (Lewin, 1996), major achievements have often come from the application of careful and specific interdisciplinary efforts, e.g., Vernon (1991). By bringing in efficiency wage theory, our goal is to propose a fresh perspective that explains the job satisfaction and job performance causal relationship.

Further, by applying efficiency wage theory to explain the job satisfaction- job performance relationship is to address one important practical implication of investigating this relationship; whether intervention to improve employee satisfaction pays off (Harter, Schmidt, & Hayes, 2002). Improving employee satisfaction requires time, energy, and financial resources, and should be viewed as investment, instead of cost. In this sense, although efficiency wage theory is limited to studying pay; efficiency wage theory shares the same goal of studying the optimal investment, i.e., improving employee satisfaction in order to maximize the profits gained from such investments.

Our work includes three sections. Section one, we briefly review the prior investigations of the job satisfaction - job performance relationship, and discuss the associated theoretical limitations that could be complimented by our perspective. Section two, we develop propositions regarding the job satisfaction - job performance relationship based on efficiency wage theory. Finally, we discuss the implications and propose future research directions/implications.

LITERATURE REVIEW

The Relationship between Job Satisfaction and Job Performance

Judge et al. (2001) exhaustively summarized the research on the job satisfaction – job performance relationship using seven models: job satisfaction leads to better job performance (Model 1); job satisfaction is caused by higher job performance (Model 2); job satisfaction and job performance are related reciprocally (Model 3); a third unmeasured variable, e.g., role ambiguity (Brown & Peterson, 1994) can influence job satisfaction and job performance in the same direction (Model 4); other variables which will be outlined later, moderate the job satisfaction-job performance relationship (Model 5); job satisfaction is not related to job performance (Model 6); and lastly job satisfaction and job performance should be conceptualized differently (Model 7). Results of their meta-analysis estimated the true mean correlation between job satisfaction and job performance to be .30, while rejecting Model 6, they found that Model 1, 2, 3, and 4 received weaker support. Since job satisfaction and job performance are relatively well established concepts, research has increasingly focused on Model 5 rather than Model 7 to search for the meaningful job satisfaction – job performance relationship by understanding the moderating variables (Wright, Cropanzano, & Bonett, 2007). As we will show, our work echoes such movement by applying efficiency wage theory and proposing moderators such as task characteristics can influence the relationship between job satisfaction and job performance.

However, different from the review by Judge et al. (2001), in which Model 5 did not specify the direction of the relationship between job satisfaction and job performance. This work focuses on the impact of moderators as they influence how much job satisfaction leads to job performance changes. We believe that certain circumstances impact job satisfaction which may lead to job performance instead of the opposite direction is the most practically important piece missing in the job satisfaction- job performance research. Although efficiency wage theory strictly focuses on pay per se; pay is the primary reason we want to apply the theory. A theory whose main thesis states that profit-maximizing employers are willing to pay extra to employees, i.e., paying over the market clearing level, and to enhance employee utilities gained from job.

Another distinct premise of this work is assumption that most current management practices which seek to enhance employee satisfaction impose costs on employers, regardless of whether the investment is financial or energy and time related. Such management practices include high performance work practices and management practices reinforcing certain types of organizational culture and leadership styles that give employees more autonomy and participation in decisions. Consistent with efficiency wage theory, we view the costs of implementing these practices as employers' investments will result in a greater financial return.

Prior Theories on Why Satisfied Employees Perform Better

To analyze the statement of that happy employees work better, the antecedent of this behavioral component of job attitudes, the prior research mainly draws from two main theoretical arguments. Each theoretical argument is related to the other two components of job attitude: one related to the cognitive component based on cognitive dissonance theory and the other is related to the affective component arguing that affections do influence some major factors of job performance. Both arguments are rooted in industrial psychology theories.

Cognitive dissonance theory argues that individuals try to reduce the psychological discomfort that is generated by the inconsistency between attitudes and behaviors (Elliot & Devine, 1994; Festinger, 1957). Following this logic, attitudes toward the job should influence job behaviors, including job performance. Schleicher, Watt, and Greguras (2004) found that for individuals higher in affective-cognitive consistency, which implies individuals' higher tendency to act in accord with their attitudes, the relationship between job satisfaction and job performance is stronger which supports the cognitive dissonance theory.

Cognitive dissonance theory provides important insights towards understanding the possible mechanisms of how job satisfaction could increase job performance. However, this theory would be complimented by the use of the efficiency wage theory in the following ways. First, in addition to the argument of behaviors being consistent with attitudes, cognitive dissonance theory also suggests that individuals could change perceptions and attitudes to justify their behaviors (Festinger, 1957); instead of changing behaviors, as several empirical studies have suggested (Campbell & Pritchard, 1983; Kanfer, 1990). By contrast, efficiency wage theory examines how employees adjust their behaviors according to the expected utilities gained from different behaviors, e.g., work or shirk. Second, cognitive dissonance theory explains why

dissatisfied individuals work less efficiently, but it does not explain why satisfied employees are better motivated to work. Following that same logic, we can now question the equation of "satisfiers" with "motivators" (Herzberg, 1986), we now know "satisfiers" and "motivators" represent different phenomena (Adams, 1965; Maslow, 1943; Schwab & Cummings, 1970). Efficiency wage theory on the other hand provides an explanation as to why satisfied employees work harder-without the risk of getting caught shirking work and losing their jobs, satisfied employees are more motivated to work harder to keep the satisfying job.

The second theoretical argument is based on the affective component of job satisfaction (Fisher, 1998). Positive affective reactions to one's job are related to benevolence, generosity, and increased helping behaviors (Isen & Baron, 1991), and thus can enhance organizational citizenship behaviors (Organ, Podsakoff, MacKenzie, & MacKenzie, 2006; Organ & Ryan, 1995). Positive affective reactions also help job performance for emotional labors (Sy, Tram, & O'Hara, 2006). Positive affective reactions to jobs could also lead to expanded energy and intellectual, social, and physical resources available for jobs (Fredrickson, 1998, 2001; Rothbard, 2001). Finally, positive affective reactions are associated with approach oriented behavior, and make people creative (Elliot & Thrash, 2002; Watson, Wiese, Vaidya, & Tellegen, 1999), interact with other people, and pursue new goals (Carver, 2003). In summary, positive affective reactions could lead to some behaviors related to better performance.

The arguments based on affective components of job satisfaction are convincing, and raised important points that are hard to be derived from economic theories. But it is limited in several ways that could be complemented by efficiency wage theory. First, the arguments of positive affect being associated with benevolence and generosity mainly focus on employee helping behaviors and approach oriented behaviors, and thus it is limited to explain emotional labor, e.g., helping customers; organizational citizenship behaviors, e.g., helping coworkers (Organ et al., 2006); and innovative behaviors, while efficiency wage theory, on the other hand, focuses on universal job performance and efforts. Moreover, several studies have found contrary evidence that bad affects could also foster approach oriented behaviors, and positive affect could potentially decrease creativity, (e.g., Hirt, Melton, McDonald, & Harackiewicz, 1996; Martin & Stoner, 1996; Tighe, 1992). Efficiency wage theory explains such phenomenon by arguing that employees put in more effort because of the stress of keeping up their performance to maintain more satisfying jobs and thus causing them be more productive, while with full job security, satisfied employees performance could decrease without the fear of job loss. Researchers also found that whether positive emotions could lead to more helping and innovative behaviors depended on the organizational contexts (George & Zhou, 2002), which is consistent efficiency wage theory as we show in the propositions. Finally, the argument for positive affect expanding energy available for jobs focuses on available psychological resources, rather than motivation to perform. This leaves the question of whether the expanded energy would be utilized towards performance unanswered, which is the same missing piece of cognitive dissonance in explaining satisfied employees work harder.

In conclusion, although providing important insights, the previous theoretical attempts of using cognitive dissonance theory as well as affective component of job satisfaction in explaining how job satisfaction leads to job performance relationship are found to be incomplete. Efficiency

wage theory could largely tackle the theoretical difficulties of these established theoretical arguments.

Satisfaction - Performance Relationship From An Efficiency Wage Perspective

There are two main parts of efficiency wage theory that explains why investing in employee satisfaction enhancing practices could boost job performance by:

1. attracting higher-quality employees and lowering turnover of the employees that employers desire to keep (sorting effect) and
2. inducing effort among current employees (incentive effect) (Akerlof & Yellen, 1986).

Sorting Effect

Efficiency wage theory posits that higher than market wages could attract higher quality employees (Akerlof & Yellen, 1986). Therefore, certain organizations invest more in improving employee satisfaction. Translating this sorting effect of high pay reasoning into the job satisfaction context, we expect that higher levels of employee satisfaction could attract high-quality job applicants and retain best performers. For example, we expect that high performance work practices (Becker & Huselid, 1998), the practices that provide employees training, autonomy, and increase their satisfaction are related to attracting abilities and talents (Macky & Boxall, 2007). By contrast, negative factors, such as unfair management practices and leadership styles, lower employee satisfaction, and thus drive out able employees who have better outside opportunities (Magner, Welker, & Johnson, 1996). Both directions contribute to a positive relationship between employee satisfaction and performance because employee competency and abilities influence performance.

> *Proposition 1*: Employee abilities and competencies partially mediate the positive relationship between job satisfaction and job performance.

A relevant implication from the above proposition is that the explicitness of the job satisfaction level could affect the effectiveness of sorting effect, and thus moderate the strength of the job satisfaction - job performance relationship. Job satisfaction is not as explicit as pay level in attracting capable employees. It is reasonable to argue whether job satisfaction attracts and retain better quality job applicants depends on the publicity and the availability of such information. For example, we expect that titles of "100 best companies to work for in America" could attract more able employees and lower turnover. In support of this argument, Fulmer, Gerhart, and Scott (2003) found that the companies included in the 100 Best indeed exhibit stable levels of positive job satisfaction and exhibit better organizational performance. Moreover, some empirical evidence shows that the title of "best companies to work for" did attract more job applications (*World's Best Employer, SAS,* 2009). But these companies are usually large companies. For

small businesses that are hard for job candidates to verify job environment, the attraction effect of high job satisfaction diminishes. However, realistic job preview as a device used in early stages of employee selection to provide information on both positive and negative aspects of the job (Wanous, 1973), could help strengthen the sorting effect of job satisfaction.

> *Proposition 2a*: Availability of information regarding management practices enhancing incumbent employees' job satisfaction moderates the relationship between job satisfaction and job performance. Specifically, when such information is available, the relationship is stronger. When the information is not explicit, the relationship is weaker.
>
> *Proposition 2b*: Organization size moderates the relationship between job satisfaction and job performance, such that when organization is large, the relationship is stronger.
>
> *Proposition 2c*: Realistic job preview moderates the relationship between job satisfaction and job performance, such that when there is realistic job preview, the relationship is stronger.

Besides attraction and retention, the sorting effects also occur in new employee socialization process: employees usually choose whether to leave or stay in their early tenure, when they come to learn about their work environment. Norris and Niebuhr (1984) found that the job satisfaction and job performance relationship becomes weaker with longer employee tenures within an industrial firm, in support of the role of stronger sorting effects in early tenure.

> *Proposition 2d*: Employee tenure moderates the relationship between job satisfaction and job performance, such that when employee tenure is low, the job satisfaction/job performance relationship is stronger.

Incentive Effect

Efficiency wage theory posits that the combination of two conditions is necessary to motivate employees: (1) paying employees an amount exceeding market clearing level, and (2) catching and firing employees who shirk from work. Without anyone of the two conditions, employees are less motivated and believe they do not have much to lose when shirking job responsibilities resulting in loss of jobs.

When obtaining pay over market-clearing levels, employees will be less likely to shirk from work, because they do not wish to risk losing the wage premium (Akerlof & Yellen, 1986). Translating the reasoning to the job satisfaction context, we expect that employees satisfied with their jobs are less likely to shirk from work. The satisfied employees put more effort into work, so that they could avoid being caught and risking their good jobs. Thus the satisfied employees tend to perform better than those dissatisfied with their jobs.

> *Proposition 3*: High levels of employee effort partially mediate the positive relationship between job satisfaction and job performance.

According to efficiency wage theory, another motivation for employees to put effort in is the risk of losing jobs if they don't perform up to par. Thus, performance evaluation could motivate satisfied employees to work harder. Without performance evaluations, whether formal or informal, it is possible that satisfied employees only enjoy their work environments. This is caused by employees not putting enough effort into their jobs and paying attention to their performance appraisal. Besides job performance, another factor is job security. If employees enjoy full job security, satisfied employees could easily shirk from their jobs without real consequences.

> *Proposition 4a*: The existence and validity of performance evaluation moderate the positive relationship between job satisfaction and job performance. When there is performance evaluation and the performance evaluation system reflects employee performance accurately, the job satisfaction and job performance relationship is stronger. Otherwise, the job satisfaction and job performance relationship is weaker.
>
> *Proposition 4b*: Job security moderates the positive relationship between job satisfaction and job performance, such that when there is full job security, the job satisfaction and job performance relationship is weaker.

DISCUSSION

Research Implication

Perhaps because of its inherently attitudinal nature, much research involving the relationship between job satisfaction and job performance has focused on individual characteristics. But individual-level approach is limited. For practitioners to fully understand the practical meaning of employee job satisfaction, it requires considerations of whether it is profitable to invest in management practices that enhance employee satisfaction. Attempting to integrate both organizational and individual components, we have developed a conceptual framework identifying sorting effects and incentive effects of job satisfaction. We also have discussed how several HR practices (i.e. realistic job preview, publicity of employee satisfaction, performance evaluation, and job security) and organization characteristic (i.e., organization size) interact with job satisfaction in influencing job performance.

Another primary contribution of the present investigation is that it offers a new perspective to disentangle the beneficial impacts of job satisfaction on job performance: namely sorting effects and incentive effects. On the one hand, organizations and managers could attract and retain able and competent employees by enhancing employee job satisfaction. On the other hand, from the incentive perspective, if organizations implement fair performance evaluation methods without full job security and increase employee job satisfaction simultaneously, employees tend to increase their efforts trying to retain the satisfying jobs. This provides a more complete theoretical argument for investing in satisfaction enhancing practices. In summary, such

practices pay off by attracting and retaining better employees and motivating them to devote sufficient effort.

By offering insights into job satisfaction influences employee efforts, the proposed framework also contributes to our understanding of how organizations should complement employee satisfaction enhancing practices with other management practices which tie into the configurational and contingent strategic human resource management (HRM) perspectives. For example, one of our propositions is that realistic job previews helps to strengthen the sorting effect of job satisfaction. This is consistent with the configurational perspective which argues for internal consistency of HR practices (Delery & Doty, 1996). Contingent perspective contends that an organization's HR practices must be consistent with other aspects of the organization. Consistent with this perspective, we propose that large businesses benefit more from investing in satisfaction enhancing HR practices than small businesses do.

A final contribution is that our propositions are relevant to the "black box" problem in strategic HR research (Becker & Huselid, 2006). Our framework suggests that employee satisfaction enhancing management practices attract and retain able employees, and encourage employees to pay sufficient efforts, which partly addresses the "black box" issue.

Practical Implication

An important practical implication from the propositions is that satisfaction enhancing practices and a set of management practices such as realistic job preview, publicity of employee satisfaction survey results, and performance evaluation complement each other. Moreover, the benefits of some of these practices such as publicity of employee satisfaction and realistic job preview are more pronounced to larger organizations, as argued in *Proposition 2b*.

Another practical implication is that while job security could enhance employee satisfaction, we caution against the management practice of providing full job security. According to efficiency wage theory, when employees are not worried about possible job loss, without sufficient intrinsic motivation that is hard to assess in the hiring process and early tenure, they might enjoy the satisfying work environment without putting forth enough effort.

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MOVIE BUZZ & INFORMATION CASCADES

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ABSTRACT

When it comes to predicting the success of Hollywood movies, there's an adage that "Nobody knows anything." Even though big data can inform investment decisions, research has found that there is no formula studios can use to guarantee a movie's success. This is because people don't know whether they'll like a movie until they see it. Hence, the best determinant of success is word-of-mouth and whether viewers recommend a film or not. Since there are very few reliable leading indicators in this business, this article analyzes word-of-mouth, or buzz, as a lagging indicator and its impact on a movie's performance. This article also examines the effects of information cascades, or herd behavior, on movies.

INTRODUCTION

"Nobody knows anything" is a common refrain in the movie business. It's a quote from William Goldman's book, *Adventures in the Screen Trade*, and in some circles has become known as the Goldman Rule. In his book, Goldman argues that no one really knows for certain what's going to work and that, at best, it is based on an educated guess. (Goldman, 1989) Though this assertion has diminished with the rise of predictive analytics firms for the movie industry such as Nash Information Services, LLC, the business of producing movies is not without risk (Fulton, 2016).

For instance, Goldman's assertion was later quantified through a study conducted by Arthur De Vany of the University of California at Irvine and David Walls of the University of Hong Kong (Cassidy, 1997). De Vany and Walls analyzed 300 movies released between May 1985 and January 1986 and found that audiences were attracted to a small number of films. For example, they discovered that 20 percent of the films accounted for 80 percent of the revenue. However, there was no way to determine why audiences were attracted to some films and not to others – not the genre, the cast or the budget. The best predictor they found was how the movie performed the previous week (Cassidy, 1997).

That is, because people won't know if they like a movie until they see it, many rely on the recommendations of others. These recommendations, in turn, can have a positive or negative effect on a film. In fact, De Vany and Walls argued that a hit was generated by what economists call an information cascade. They also argued that an information cascade could kill a film as well (Cassidy, 1997).

Information cascades can occur for a variety of reasons and include decisions people make based on their own private information and/or observing other people's behavior (Easley & Kleinberg, 2010). As a result, we wanted to evaluate the effects of both word-of-mouth and information cascades on movies.

Therefore, we developed two hypotheses. The first was that if word-of-mouth was a primary determinant of movie success then there should be a significant difference in revenue from week to week between high-performing films versus low-performing films. The second hypothesis was that if information cascades could be driven by private information and/or observing other people's behavior then instances where these two conditions conflicted should be evident in the week to week revenue of highly anticipated movies.

To that end, in the fall of 2015, we first analyzed the role of word-of-mouth, or buzz, on both successful and unsuccessful movies over the previous 20 years. Specifically, we wanted to see whether there were any patterns or trends in the revenue reports that would reflect this process. What we found was remarkably consistent.

Then, in a separate study conducted in the spring of 2016, we compared successful movies, or high performers, to movies with the biggest opening weekends. That is, we wanted to know if movies with the biggest opening weekends could live up to their hype and to what extent they were affected by information cascades. These results were revealing as well.

DISCUSSION

Characterizing successful and unsuccessful films in terms of revenue is a challenging task. For example, not everyone defines success the same way. Is success defined as box office performance? If so, how much revenue would be considered a success? Moreover, if revenue is the metric, is it total revenue or is it return on investment? We could go on and on but you get the picture.

In addition, we needed a standard measure; one that could be used to compare apples to apples and oranges to oranges over a significant period of time. Therefore, we decided to use two common standards to assess good and bad movies. These standards are far from perfect but they are better than all the rest.

For good movies, we used those films that were nominated for an Academy Award as Best Picture. While this might seem to be a fairly noncontroversial standard, there have been a number of criticisms about this process. First, the awards are chosen by the Academy of Motion Picture Arts and Sciences, which is comprised of more than 7,000 industry professionals. The nominees are chosen by professionals in each category with the exception of Best Picture, whose nominees are chosen by all academy members. In addition, all members vote for the winners in each category (Garofalo, 2015).

Though there is considerable merit in having film professionals evaluate their peers, the academy came under fire in 2015 for its lack of diversity. The controversy emerged after the Civil Rights movie "Selma" failed to receive any Oscar nominations for its director, Ava DuVernay, or its star, David Oyelowo. Fortunately, steps had started to be taken to increase the ranks of women and minorities in the academy (Olson, 2015). However, according to the Hollywood Diversity Report conducted by the Ralph J. Bunche Center for African American Studies at UCLA, this lack of diversity not only exists behind the camera but in front of it as well (NPR, 2015).

Moreover, the academy's choices are continuously debated for a myriad of others reasons. For instance, six of the seven movies nominated for Best Picture in 2015 faced one form of controversy or another including American Sniper, The Grand Budapest Hotel, The Imitation Game, Selma, The Theory of Everything and Whiplash (Dockterman, 2015).

At the other end of the spectrum are the Razzies, which is short for the Golden Raspberry Awards. These awards were created by copywriter and publicist John Wilson in 1980 to recognize the worst movies and performances every year. They are determined by more than 600 voters in the U.S. and more than a dozen foreign countries. Anyone is eligible to vote and memberships can be purchased online (Feeney, 2015). Though the voting universe isn't distinct in any way such as those of the Academy Awards and the survey results are not scientific, the Razzies garner significant attention and are regularly covered by major media outlets (The Golden Raspberry Awards, 2015).

The financial data for this project was obtained via The Numbers website, which is sponsored by Nash Information Services, LLC. The site was created in 1997 and is now the largest freely available database of movie industry information online (The Numbers, 2015). Box Office Mojo (2015), owned and operated by IMDb, was also consulted for additional movie information. To examine the effects of word-of-mouth, we compared the percentage change in weekend box office revenue for Best Picture and Worst Picture nominees from 1996-2015. This resulted in a sample of over 200 movies from this period. Specifically, we began by looking at the percentage change between a movie's first weekend after its widest release and its second weekend. We referred to this period as a movie's first week and then looked at the movie's percentage change in revenue over the next three weeks.

We used this metric as a proxy for word-of-mouth for primarily two reasons. First, if a movie's success can best be determined by word-of-mouth, then revenue, or sales, is certainly a reasonable measure. Second, this approach supports the Diffusion of Innovations model. Developed by Everett Rogers, this theory states that the diffusion of new products, ideas and services is primarily a social process. Rogers (2003) also argued that diffusion follows a predictable curve as shown in Exhibit 1.

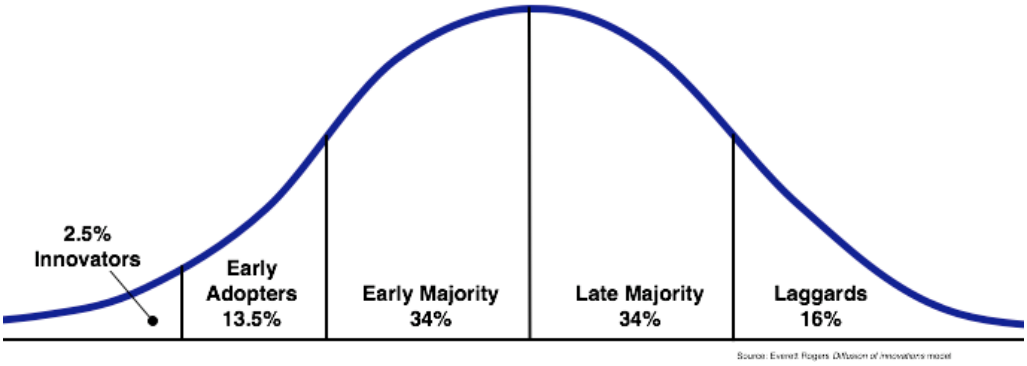

EXHIBIT 1: DIFFUSION CURVE

He characterized innovators and early adopters as opinion leaders since the early majority and others were influenced by their decisions. These opinion leaders could be recognized for their expertise on a single subject or a variety of subjects. In fact, we are all opinion leaders on one subject or another. However, we can also find ourselves at different points on this curve depending on the subject matter. For the purposes of this study, our opinion leaders are the earliest moviegoers as it is their opinions who will influence the behavior of others.

HIGH V. LOW PERFORMERS

We separated our data into two categories: high and low performers. We characterized the high performers as the Oscar-nominated movies and the low performers as the Razzie-nominated movies. We then averaged the revenue change among the movies from week to week over the 20-year period from 1996-2015, although we did remove outliers to prevent them from skewing the results. For example, the movie "New Year's Eve," which was nominated for a Razzie in 2012, saw a 91 percent increase in revenue in its third week because it occurred on December 30, 2011. This was a stark contrast to the declines of 44 percent and 55 percent the film experienced in its first and second weeks. While this spike in revenue was clearly the result of the movie's holiday theme, we did use a statistical method for eliminating all of the outliers regardless of the reasons for which they might have occurred.

As Exhibit 2 indicates, our analysis revealed very consistent findings among each movie category. That is, the average percentage change for Oscar nominees was -24 percent, -26 percent, -25 percent and -21 percent over the first four weeks. By comparison, the average percentage change for Razzie nominees was -54 percent, -56 percent, -53 percent and -54 percent. As a result, the average percentage change between Oscar nominees and Razzie nominees over this time period was -30 percent. As a caveat, this is not a hard and fast rule. For instance, there is some overlap among some of the movies in each category as percentage changes for some Best Picture nominees will hover near percentage changes for some Worst Picture nominees and vice versa. As a result, this analysis isn't meant to serve as a predictor of a movie's success. Rather, it is meant to identify trends among and between these movies. In that sense, it may provide another variable to evaluate a movie's appeal.

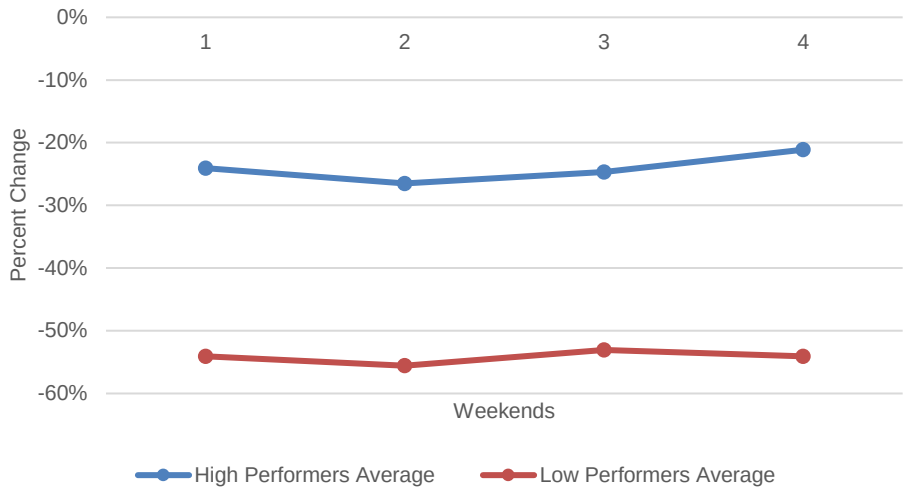

EXHIBIT 2: HIGH V. LOW PERFORMERS

Because our research period encompassed the advent of social media, we also wanted to see whether there was a difference in these results between the pre- and post-social media eras. Part of our challenge was defining not just the beginning of social media but the point at which it started to become ubiquitous. For example, Facebook was preceded by sites such as Friendster and MySpace. However, even though Facebook would eventually become the most popular social networking site, it was founded in 2004 as a site for Harvard students and remained a site for college students for two years (Digital Trends Staff, 2014). It wasn't until September 26, 2006 that Facebook opened its network to everyone (Abram, 2006).

Therefore, because this date was relatively close to the end of 2006, we chose 2007 as the delineation between the pre- and post-social media periods for this study. That is, those movies in our sample from 1996-2006 were considered part of the pre-social media era and those from 2007-2015 were considered part of the post-social media era. We then compared the average percentage change in revenue over a four-week period for both the Best Picture nominees and Worst Picture nominees in each of these periods. As we did with the full data set, we statistically eliminated outliers in these subsets as well.

As you'll see from Exhibit 3, there was some variation between these periods but it wasn't very significant. In fact, the average percentage change between Oscar nominees in the pre-social media period and post-social media period was about 5 percent, and their average percentage change compared to the entire research period was 2-3 percent. The average percentage change between Razzie nominees in the pre-social media period and post-social media period was less than 1 percent. This figure remained the same when comparing the average percentage change of these periods with the larger data set.

Moreover, the average percentage change between Oscar nominees and Razzie nominees in the pre-social media period was 33 percent, while the average percentage change between Oscar nominees and Razzie nominees in the post-social media period was 27 percent. To reiterate, the

average percentage change over the entire 20-year period between these two types of movies was 30 percent.

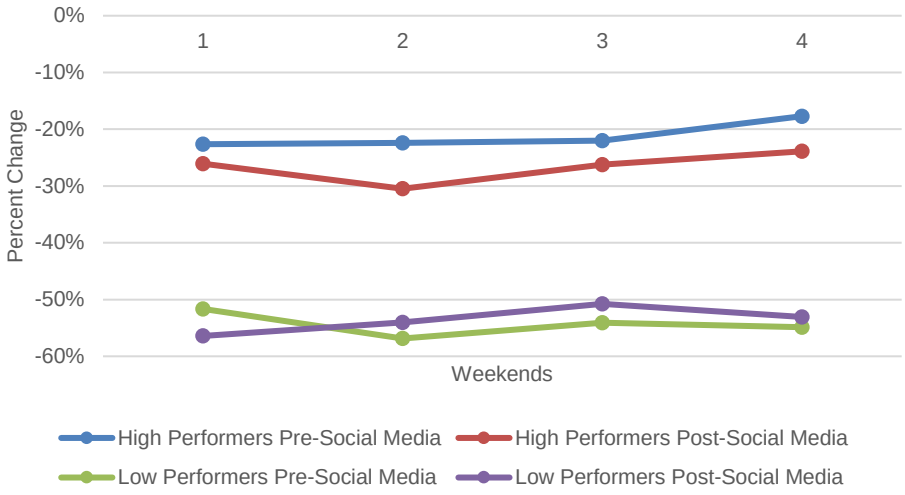

EXHIBIT 3: PRE- V. POST-SOCIAL MEDIA

Most people might have thought that there would be a more dramatic difference between these two periods due to the perceived influence of social media on word-of-mouth marketing. For instance, I routinely ask new students whether they think more word-of-mouth occurs online or offline. As you might suspect, the overwhelmingly majority of students intuitively say online. However, according to research, only 7 percent of word-of-mouth occurs online (Berger, 2013). Once you give this more thought, this makes perfect sense. For instance, most of your discussions about new ideas, products or services are likely made face-to-face among family and friends. Those are the people with whom you're most likely to share information. After all, those are the people you most trust and the people who most trust you.

MOVIE PROFITABILITY

As Edmund Helmer of BoxOfficeQuant.com has found, Oscar winners generate far more revenue than other movies. For instance, the average movie from 2000-2009 generated roughly $19 million domestically compared to $143 million for a Best Picture winner. Not only do these films generate more revenue by virtue of their quality, Helmer (2011) found that the value of an Academy Award itself could boost revenue. As an example, he found that a win for Best Picture could result in an "Oscar bump" of about $14. As an aside, Helmer (2011) also discovered that a Golden Globe win could boost earnings more than an Oscar, even though Academy Award winners earn more at the box office.

However, revenue is one thing and profitability is another. Industry analyst Harold Vogel (2011) states that on average six or seven out of 10 movies are unprofitable and one might break even. Given the unpredictability of the movie business, this is certainly understandable. To shed a little

more light on this issue, we examined the production costs and worldwide revenue for all of the Best Picture and Worst Picture nominees in our sample. We then calculated the gross profit for each movie using these figures. It is important to note that the production budget figures from this data source do not include marketing expenses. As of 2014, these costs could be as much $200 million to market a film internationally according to movie studios. To market a movie in the U.S. alone, the average cost was $4.3 million in 1980. This figure rose to nearly $36 million in 2007, the last year for which this data was available through the Motion Picture Association of America (McClintock, 2014).

Exhibit 4 demonstrates the relationship between the production budgets and gross profits of the Best Picture and Worst Picture nominees. As you'll see, many of the Worst Picture nominees were in the red even before marketing expenses are factored. Conversely, all but two of the Best Picture nominees were in the black. You'll also notice a few outliers among the high performers. They are the Titanic, which won the Oscar for Best Picture in 1998, and Avatar, which was nominated for Best Picture in 2010. The Titanic was produced for $200 million and earned $2.2 billion in worldwide revenue, resulting in a gross profit of $2 billion. Avatar was produced for $425 million and garnered $2.8 billion worldwide for a gross profit of $2.4 billion.

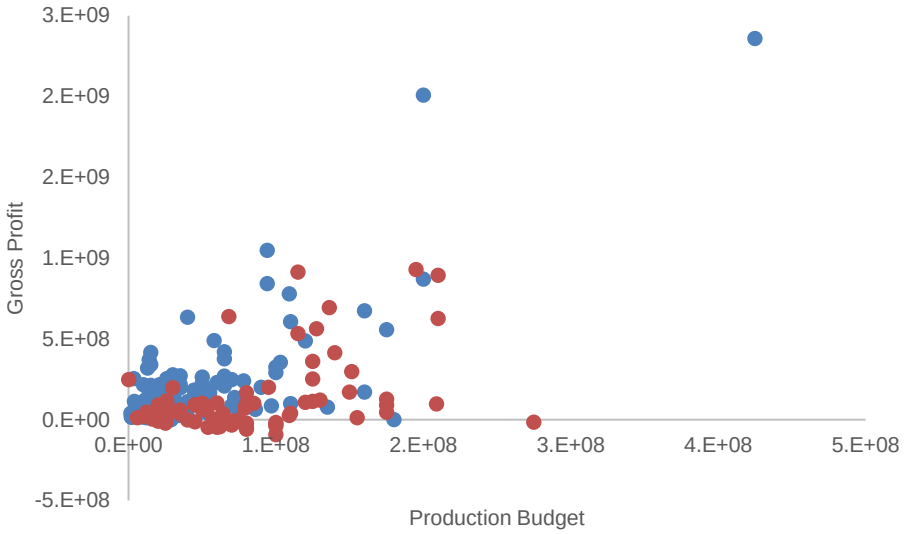

EXHIBIT 4: GROSS PROFIT V. PRODUCTION BUDGET

While these movies realized the most money in terms of gross profit, many others realized a higher return on their investment. That is, this figure represents the percentage gain between a movie's production budget and its gross profit. For example, the return on investment for Titanic and Avatar was 904 percent and 455 percent, respectively. However, there were 18 movies that received returns of more than 1,000 percent and nine that received returns of more than 2,000 percent. The Full Monty even received a return of 7,167 percent. But, by far, the movie that realized the highest return on investment was The Blair Witch Project. This movie was produced for $60,000 and earned gross revenue of $248 million for a return of 413,633 percent.

Not only was this return on investment unusual for a Worst Picture nominee but it was so far beyond any of the others in either category that we couldn't even present this data graphically in any meaningful way. It was literally off the chart. It suffices to say that this movie was an anomaly but, despite its success, it was still outperformed by Paranormal Activity which is the most profitable movie ever made (Avila, 2010; Frankel, 2009). This movie had a production budget of just $15,000 yet earned $194 million, resulting in a return of 1,294,454 percent.

Recent research has found that scary movies might be the most profitable as a genre. Despite the fact that they generate only a small percentage of the overall box office draw, they are extremely profitable because they are relatively inexpensive to make and have strong international appeal. Nevertheless, these movies generally don't have huge revenue-generating potential and are not immune to risk (Hickey, 2015).

BIGGEST OPENING WEEKENDS

There are a number of factors in the pre-release activity of the movies with the biggest opening weekends that contribute to their success. For instance, these movies are not only highly anticipated due to their subject matter but they also tend to attract large audiences due to their significant marketing campaigns and the amount of earned media that they garner.

Moreover, social media is continually providing new ways to serve as a predictive model as demonstrated in its ability to predict changes in the Dow Jones Industrial Average (Keller, 2010). Researchers have even used Wikipedia activity to forecast the first weekend box office revenue of movies (Mestyán, Yasseri, & Kertész, 2013). But what happens in the aftermath of these movies' debut? That is, do these movies continue to attract record audiences?

For this study we analyzed the top 100 movies on each of the biggest opening, second, third and fourth weekends. We then calculated their average percentage change in weekend box office revenue in their first four weeks. We also eliminated the outliers as we previously did with the high and low performers to prevent the data from being skewed. Extremely high performers such as Best Picture nominee Avatar, for example, experienced very little revenue loss in its initial weeks and were removed from the sample.

As shown in Exhibit 5, movies with the biggest opening weekends had an average percentage change of -54 percent, -48 percent, -42 percent and -43 percent. Movies with the biggest second weekends were -45 percent, -47 percent, -39 percent and -41 percent; the biggest third weekends were -41 percent, -38 percent, -38 percent and -38 percent; and the biggest fourth weekends were -36 percent, -35 percent, -31 percent and -38 percent. This resulted in an average percentage change in revenue of -47 percent, -43 percent, -39 percent and -35 percent over this period.

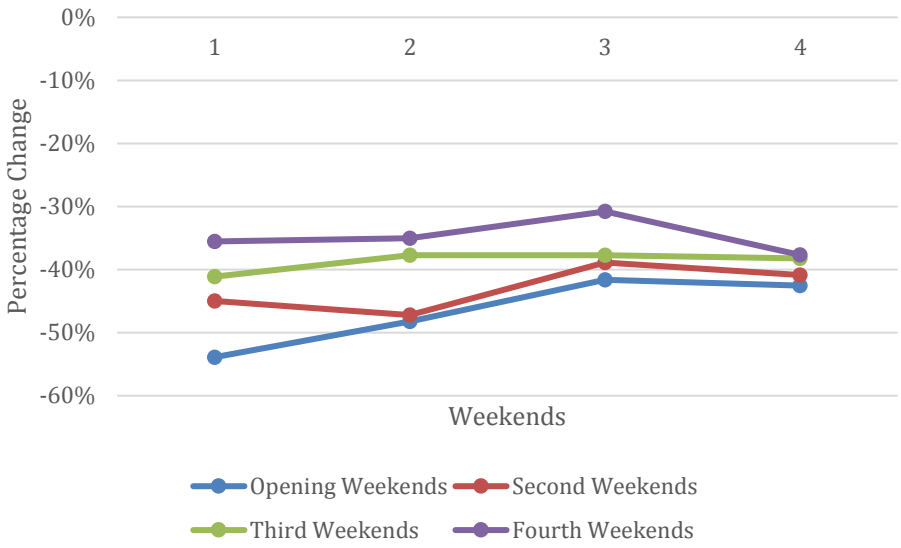

EXHIBIT 5: BIGGEST WEEKENDS

We also analyzed the average of critics and audience reviews of these movies based on ratings from Rotten Tomatoes, the web's leading aggregator of movie and TV reviews from professional critics. The critics rating is based on the published opinions of hundreds of film and television critics and represents the percentage of reviews that are positive. The audience rating is the percentage of positive reviews from Flixster.com and RottenTomatoes.com users (Rotten Tomatoes, 2016).

Hollywood studios are becoming increasingly fixated on these types of scores as they have been shown to be reliable indicators of a movie's performance. These scores are even sometimes promoted in advertisements and shareholder communications (Fritz, 2016).

What we found was an inverse relationship for critics and audience ratings among the movies with the biggest, second, third and fourth weekends. That is, as illustrated in Exhibit 6, as the weekends progressed, the average ratings of both the critics and the audience improved.

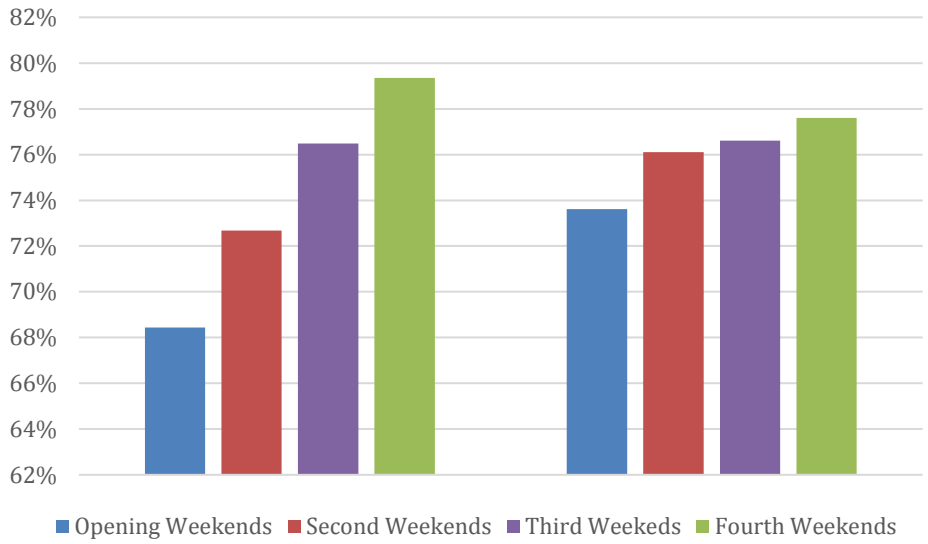

EXHIBIT 6: CRITICS & AUDIENCE RATINGS

This is also consistent with our finding that only 73 movies from the biggest opening weekends were included among the movies from the biggest second weekends, and just 53 among the biggest third weekends and 39 among the biggest fourth weekends. This downward trend, coupled with the upward trend in favorable reviews, suggests that other movies were propelled by positive word-of-mouth from moviegoers.

Further, it sheds light on the effect of certainty on information cascades. That is, though information cascades can be influential, they can also be fragile (Easley & Kleinberg, 2010). As a result, movies provide a good case study on the emergence of certainty in the herding process. Herding is an actual term in behavioral science which can be used interchangeably with information cascades. These conditions occur when our decision-making is influenced by the actions of others. There are innumerable situations in which this happens from deciding which restaurants to patronize to deciding which political candidates to support (Banerjee, 1992).

In addition, herding, or information cascades, can occur when information that we possess conflicts with the information we observe. For example, suppose you had intended to go to restaurant *A* based on your own research. However, when you arrived, you saw that restaurant *A* was empty but restaurant *B* next door was full. As a result, you might choose restaurant *B* if you thought that patrons in that restaurant had tastes similar to yours (Easley & Kleinberg, 2010).

There is a mathematical model for decision-making under conditions of uncertainty. This is done by using Bayes' Rule which provides a formula for determining the probability of various events. Specifically, this formula helps us understand the probability of event A given that event B has occurred.

One of my favorite examples of Bayes' Rule is one offered by David Easley and Jon Kleinberg in their book *Networks, Crowds, and Markets: Reasoning about a Highly Connected World*. This example involves eyewitness testimony of a hit-and-run accident involving a taxi cab. The witness says that the taxi cab was yellow but 80 percent of the taxi cabs in the city are black and

20 percent of the taxi cabs are yellow. Also, let's suppose that eyewitness testimony is imperfect, and that if a taxi is yellow witnesses will identify it as yellow 80 percent of the time and if a taxi is black witnesses will also identify it as black 80 percent of the time.

In this case, the witness has identified the taxi as yellow. So, we need to know the statistical probability that the witness's testimony is accurate. To that end, we refer to the prior probability of event A as Pr [*A*] and the posterior probability of *A* given *B* as Pr [*A* | *B*]. This is determined by using the following formula.

$$\Pr[A \mid B] = \frac{\Pr[A] \cdot \Pr[B \mid A]}{\Pr[B]}$$

For this problem, let's denote *true* as the true color of the taxi, *report* as the reported color of the taxi, *Y* as yellow and *B* as black. Therefore, we want to know the value of Pr [*true* = *Y* | *report* = *Y*], which results in the equation below.

$$\Pr[true = Y \mid report = Y] = \frac{\Pr[true=Y] \cdot \Pr[report=Y \mid true=Y]}{\Pr[report=Y]}$$

We know that Pr [*true* = *Y*] is 0.2 since this is the frequency of yellow taxi cabs and is the probability of the event being true. We also know that Pr [*report* = *Y* | *true* = *Y*] is 0.8 since this is the accuracy of eyewitness testimony.

For the denominator, there are two ways in which an eyewitness can report a taxi as yellow. The first way is for a taxi to actually be yellow and the second is for it to actually be black. The probability of being yellow is represented as follows.

$$\Pr[true = Y] \cdot \Pr[report = Y \mid true = Y] = 0.2 \cdot 0.8 = 0.16$$

And the probability of being black is represented by the formula below.

$$\Pr[true = B] \cdot \Pr[report = Y \mid true = B] = 0.8 \cdot 0.2 = 0.16$$

The probability of a report of yellow is determined by the sum of these probabilities.

$$\begin{aligned} \Pr[report = Y] &= \Pr[true = Y] \cdot \Pr[report = Y \mid true = Y] + \\ &\quad \Pr[true = B] \cdot \Pr[report = Y \mid true = B] \\ &= 0.2 \cdot 0.8 + 0.8 \cdot 0.2 = 0.32 \end{aligned}$$

We can now enter this data into the following equation.

$$\begin{aligned} \Pr[true = Y \mid report = Y] &= \frac{\Pr[true=Y] \cdot \Pr[report=Y \mid true=Y]}{\Pr[report=Y]} \\ &= \frac{0.2 \cdot 0.8}{0.32} \\ &= 0.5 \end{aligned}$$

As a result, we can see that the actual likelihood of the taxi being yellow is equally likely to have been yellow or black.

Simply for illustrative purposes, we can use this same equation to determine the probability that you'll enjoy a highly anticipated movie on its opening weekend. We'd like to emphasize that this is purely hypothetical as we're sure that very few, if any, people would make a decision this way.

However, let's assume that you typically trust the reviews of both critics and those of your family and friends. For our prior probability, we can use the critics' ratings from Rotten Tomatoes for movies with the biggest opening weekends, which is 68 percent.

Next, for our posterior probability, let's assume that about 60 percent of your family and friends enjoyed a particular movie. As a result, you want to know the conditional probability of whether a highly anticipated movie is worth seeing based on this conflicting evidence.

In this example, we will designate *true* as the true outcome of the movie, *report* as the reported outcome of the movie, *F* as favorable and *U* as unfavorable. Hence, we want to know the value of Pr [*true = F | report = F*], or the posterior probability of a favorable outcome of event *A* given *B*. This results in the following equation.

$$\Pr[true = F \mid report = F] = \frac{\Pr[true=F] \cdot \Pr[report=F \mid true=F]}{\Pr[report=F]}$$

First, based on the critics' rating, we know that the prior probability of a favorable outcome, or Pr [*true = F*], is 0.68. In addition, we know that Pr [*report = F | true = F*] is 0.60 as this is the percentage of your family and friends that felt the movie was worth seeing.

Again, there are two ways a movie can be reported as favorable. One is for the movie to actually be favorable and the other is for the movie to actually be unfavorable. Thus, we use the following formula to determine the probability of a movie being favorable.

$$\Pr[true = F] \cdot \Pr[report = F \mid true = F] = 0.68 \cdot 0.60 = 0.408$$

And we use the formula below to represent the probability of a movie being unfavorable.

$$\Pr[true = U] \cdot \Pr[report = F \mid true = U] = 0.32 \cdot 0.40 = 0.128$$

The sum of these probabilities is the probability of a favorable report.

$$\begin{aligned} \Pr[report = F] &= \Pr[true = F] \cdot \Pr[report = F \mid true = F] + \\ &\quad \Pr[true = U] \cdot \Pr[report = F \mid true = U] \\ &= 0.68 \cdot 0.60 + 0.32 \cdot 0.40 = 0.536 \end{aligned}$$

We can now enter this data into the following equation.

$$\Pr[true = F \mid \text{report} = F] = \frac{\Pr[true=F] \cdot \Pr[report=F \mid true=F]}{\Pr[report=F]}$$

$$= \frac{0.68 \cdot 0.60}{0.536}$$

$$= 0.76$$

This means that there is a 76 percent chance that you'll find going to a highly anticipated movie on its opening weekend a favorable experience using these criteria. By the same token, using the critics rating of 79 percent on the Biggest Fourth Weekend, there would be an 85 percent chance that you'd find the movie enjoyable.

CONCLUSION

This research confirmed both of our hypotheses. In regard to our first hypothesis, week to week revenue seemed to be a good proxy for estimating the influence of word-of-mouth as there were clear patterns and trends that emerged in the data. However, despite these patterns and trends, it is important to note that this research is not meant to serve as a model for predicting outcomes. It merely presents an illustration of the role of word-of-mouth and quantifies this relationship in very broad terms. As such, to some degree, this research may provide another metric to evaluate the popular appeal of a movie in addition to the metrics of gross revenue and profitability.

Our second hypothesis was found to be true by comparing highly anticipated movies with high performers to see to what degree their popularity was the result of an information cascade. As we discovered, movies with the biggest opening weekends are driven by both information that people observe publicly and information that people possess privately. However, because this information still consists of uncertainty until people see the movies, some of these movies lose their appeal if they don't live up to expectations. This was evident in the weekly percentage changes in revenue, the critics and audience ratings, and in the diminishing number of movies from the biggest opening weekends in the subsequent weekends we examined.

The value of the initial study was in the greater understanding it promoted relative to the success of movies and the influence of word-of-mouth. The subsequent study enhances that understanding by demonstrating the fragility of information cascades.

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A COMPARISON OF NATIONAL CULTURE AND GOOD COUNTRY INDEX AS PREDICTORS OF OUTCOMES OF EFFECTIVE TOURISM MARKETING

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ABSTRACT

The current research bridges the theoretical underpinnings of reputation management, nation branding, public relations and public diplomacy. Each area of research brings unique perspectives that either directly or indirectly contribute to a tourism economy's return on investment. A positive country brand may positively affect travelers' choices of where to visit and, while visiting, their amount of spending. The purpose of this particular study is to determine how a country's culture influences its tourism expenditures and tourism visitation. The research was designed to determine if the culture of a country can predict/influence the effectiveness of tourism marketing efforts? To operationalize culture, the following two sets of scores were used: Geert Hofstede's Model of National Culture and Simon Anholt's Good Country Index. The dimensions of Hofstede's Model of National Culture are not significant predictors of a nation's ability to attract visitors and visitor spending. However, among the Good Country Index dimensions, four in particular stand out for being significantly correlated with the measures of tourism marketing: Culture; Prosperity and Equality; Planet and Climate; and Health and Wellbeing.

INTRODUCTION

Tourism, more so than most any other industry, is very complex and diversified. It offers both depth and breath for scholars who study in this field. Tourism can be viewed as locational (via city, state, region, country), as industries it represents (e.g., transportation such as air, train, and rental car to cruise lines, meetings, campgrounds, restaurants, lodging, recreation, amusement and entertainment), and as functional (leisure vs. business). Further, it can be viewed as "adjectival," which represents tourism types that have an adjective in front of them (e,g., adventure, agritourism, cultural tourism, culinary tourism, ecotourism, extreme tourism, geotourism, heritage tourism, medical tourism, nautical tourism, poverty tourism). The two broadest forms of adjective tourism are as follows: *niche tourism* (also known as specialty tourism), which focuses on the special interests of particular publics and *conceptual tourism* and includes both the tourism and travel experience and tourism landscapes and economies. The latter focuses more on theoretical and academic concepts of tourism experiences and landscapes

(e.g., domestic vs. global, active vs. passive, inbound vs. outbound, experiential, modern/ postmodern, behavioral).

Further, the robustness of the travel/tourism industry can be represented numerically. In 2004, Fall and Lubbers correlated the amount spent by U.S. states and the return on investment recouped by those states from the travel and tourism sector. Recent statistics demonstrate the impact of tourism revenue across the globe and in the United States. According to the United World Tourism Organization, international tourist arrivals (overnight visitors) increased by 4.3% in 2014, reaching a total 1133 million after topping the 1 billion mark in 2012. International tourism receipts reached $1245 billion worldwide in 2014, up from $1197 billion in 2013 (http://alew.hubpages.com/hub/Adjectival-Tourism), corresponding to an increase of 3.7% in real terms (taking into account exchange rate fluctuations and inflation). Forecasts prepared by UNWTO in January 2015 point to a 3% to 4% growth in international tourist arrivals in 2015. International tourist arrivals (overnight visitors) hit a record 1133 million worldwide in 2014, up from 1087 million in 2013. With 46 million, more tourists travelling the world (+4.3%), 2014 marks the fifth consecutive year of robust growth above the long-term average (+3.3% a year) since the financial crisis of 2009. World tourism accounts for 9% of the GDP (direct, indirect and induced impact), $1.5 trillion in exports, 6% of the world's exports, 1 in 11 jobs, and 1.8 billion international tourists forecasted for 2030.

According to United States Travel Association (USTA), direct spending on leisure travel by domestic and international travelers totaled $621.4 billion in 2013. A total of $2.1 trillion was generated in economic output by domestic and international visitors, which includes $887.9 billion in direct travel expenditures that spurred an additional $1.2 trillion in other industries. A total of $133.9 billion in tax revenue was generated by travel spending for federal, state and local governments while 2.7% percent of the nation's gross domestic product (GDP) can be attributed to travel and tourism. In 2013, U.S. travel exports (travel and passenger fare receipts) totaled $180.7 billion and U.S. travel imports (travel and passenger fare payments) totaled $123.6 billion, creating a trade surplus of $57.1 billion in favor of the U.S. The U.S. received 69.8 million international arrivals in 2013, to include 31.9 million from overseas markets. Direct spending by resident and international travelers in the U.S. averaged $2.4 billion a day, $101.4 million an hour, $1.7 million a minute and $28,154 a second.

This diversified and lucrative industry is very exciting for destination marketing scholars who seek to study "pockets of people" whose behavior affects, and is affected, by the travel/tourism industry. The goal of this research is to illustrate a unique way to examine the locational perspective of travel and tourism and the possible influence of a nation's culture. Thus, the purpose of this particular study is determine how a country's culture influences its tourism marketing.

LITERATURE REVIEW

Nation/Place Branding

Recently, Fullerton and Kendrick (2015) have developed *The Model of Country Concept.* Borrowing heavily on research by Anholt (2007a) and Golan (2013), this model incorporates numerous disciplines, including place branding, mass media, public relations, public policy, political science and diplomacy and attempts to incorporate competing ideas about how nation branding and public diplomacy influence public opinion about nations. In this model, public diplomacy is viewed as both *mediated* and *relational*. Further, it illustrates that a country's image and reputation contribute to both country concept and nation banding. The model can also be viewed via contributions from various "agents," such as a global marketing manager, policy maker, etc. Additionally, drawing from Anholt and Hildreth's "Place Branding Hexagon" (2010) where they identified six points through which countries have contact with those in other nations, the model incorporates the following "integrants": people, brand exports, governance/policy, investment/immigration, tourism/tourism promotion and culture.

The Model of Country Concept (Fullerton & Kendrick, 2015) is built upon a foundation of research from an array of disciplines. However, Golan suggests that mediated public diplomacy is just one element in a broader perspective that he calls "integrated public diplomacy" (2013, p. 1252). The integrated approach encompasses three levels of public diplomacy: the short- to medium-termed mediated public diplomacy, the medium- to long-termed nation branding and country reputation, and the long-termed relational public diplomacy that is based on soft power programs. Golan posits that it is only through the integration of all three of these elements that governments are likely to produce positive long-term engagement outcomes.

Regarding nation branding, Golan, Yang, and Kinsey (2014, p. 421) warn that ineffective nation-branding campaigns may discredit the international standing of a nation - even waste its financial resources. However, effective nation-branding campaigns provide a strong foundation to the third level of the integrated public diplomacy model (relational diplomacy). He explains that many public relations theoretical perspectives guide this third level, ranging from excellence theory (Grunig, 1992), contingency theory (Cancel, Cameron, Sallot, & Mitrook, 1997), to relationship management theory (Ledingham, 2003) and situational theory of publics (Grunig, 1997).

Kaneva (2011) calls for an agenda of communication research that focuses on nation branding. She conducted a literature review of 186 scholarly articles published between 1997 and 2000 that focus on nation branding. Borrowing from Bell (1976), she coded them into three categories: technical-economic, political, and cultural approaches. A technical approach focuses on economic growth, capital accumulation, and efficiency – to include tourism, marketing and management studies. A political approach includes studies that examine the impact of national images on a nation's contribution to international communication and the global system – to include international relations, international communication and public relations. The cultural approach includes media and cultural studies that focus on nation branding within the context of

national and cultural identities. Kaneva acknowledges that her review is heuristic as opposed to a strict classification; therefore, inner coder reliability was not calculated. A total of 106 of the studies were characterized as technical, suggesting that during this time frame, marketing studies seemed most prevalent. Another 66 publications represented a political approach. Here she coded for public diplomacy studies, to include studies on nation branding and its comparisons and contrasts. The cultural approach only warranted 14 studies. She noted that the majority of these studies appear in communication journals and focus on critical/cultural research to include methods of ethnographic observations, political and historical, critical textual and discourse analyses.

Kaneva (2011) concludes that nation branding can also be analyzed as an ideological project, and she also suggests that future research should extend beyond ideological claims to further examine the political economy. Kaneva also posits that nation branding has moved from the realm of merely ideas to actually influencing national policies. Finally, she stresses the importance of conducting more cultural research and points out that national communities are far from homogenous. Their subnational and transnational identifies play a dominant role in nation branding. The current research is designed, in part, to answer Kaneva's call for research that looks at the economic aspects of nation branding.

Country Reputation/Place Branding/Culture

In support of public diplomacy is the understanding of the importance of a country's reputation. This is also a progressive stream of research among a variety of scholars (e.g., Anholt, 2002a, 2002b, 2007a, 2007b; Fombrun, 1996; Kruckeberg & Vujnovic, 2005; Nye, 2004; Passow, Fehlmann, & Grahlow, 2005; Taylor & Kent, 2006). As these researchers suggest, a country's reputation influences the image of a country as a viable travel destination (Anholt, 2007a; Fan, 2010; Szondi, 2010). Anholt (2007a) and Anholt and Hildreth (2010) devised a model that maps out six areas of activity that countries usually undertake to build their place image through: tourism promotion activity, exported products and services, government policy decisions, business audiences, people in the country themselves, and cultural exchange and activities.

As many public relations and communication scholars have indicated (e.g., Fullerton & Kendrick, 2015; Kavena, 2011; L'Etang et. al, 2007), culture is an important element to developing a country's reputation and strengthening its brand. Travel/tourism scholars agree. Anholt (2007a) refers to "competitive identity" and explains that when people, brands, policy, investment, tourism and culture all work together to coordinate efforts to build and maintain their nationally identity, then competitive identity can be achieved (p. 26). Said another way, when all these constituents work collaboratively to strategically develop their country's reputation, at home and abroad as well as internally and externally, then competitive identify is feasible.

Anholt (2008) also explains that three conditions must be met for competitive identity to succeed: strategy, substance, and symbolic actions. Strategy is defined as "knowing what a nation is and where it stands today; knowing where it wants to get to; and knowing how it is going to get there" (Anholt, 2008, p. 3). Substance represents the "effective execution of the

strategy – in the form of new economic, political, social, cultural and educational activity" (p. 3) and symbolic actions represent the components that have intrinsic communication power such as legislation, reforms, investments, or policies that are newsworthy, memorable, even suggestive (p. 3). He adds, "strategy without substance is spin." Even worse, he states that strategy with symbolic actions, but that lacks substance, is no more than "authentic propaganda, a deliberate and schemed manipulation of public opinion designed to make people believe something different from reality," (p. 4).

With regard to tourism and competitive identity, Anholt (2007a) advocates that global audiences view destination marketing organizations (DMOs) as legitimate country representatives. He states, "the fact that product on offer is, explicitly, or implicitly, a holiday in the country, is of secondary importance: what counts is that the messages are able to give people new information, and most importantly new images, about the country. They can tell people what the place looks like, what sort of people live there, what sorts of things those people do and make, the climate, the food, the culture and the history of the country" (p. 88). He further explains that DMOs are well positioned to enable foreign audiences to have a "vicarious visit." That vicarious visit, often times, comes in the form of perusing a destination's website and other marketing communication vehicles. The current study seeks to determine how showcasing a country's *culture* affects its tourism.

Purpose of the Study

As noted in the previous literature, a nation's branding activities through their marketing efforts may influence tourism. Said another way, a positive country brand can positively affect travelers' choice to visit and, while visiting, spend money (AKA: the multiplier effect). Additionally, the literature review noted that a nation's culture can greatly influence their reputation and positively or negatively affect their brand and ultimately tourism (e.g., Anholt 2007a; Fullerton & Kendrick, 2015; L'Etang et al., 2007). Finally, Kavena (2011) calls for research to move from ideological to the practical study of the influence of brand on economic factors. Thus, the purpose of this particular study is to determine how a country's culture predicts/influences its tourism spending and tourism visitation. The following research question is being addressed.

RQ: How does the culture of a country predict/influence the effectiveness of tourism marketing efforts?

METHOD

Operationalization of Variables

This study employs a secondary data analysis. The goal of the research is to determine if measures of an individual nation's culture can predict success of their marketing efforts.

Independent/Predictor Measures

To operationalize culture, the following two sets of scores were used: Geert Hofstede's Model of National Culture (Hofstede, Hofstede, & Minkov, 2010; Hofstede, 2001) (http://geert-hofstede.com/countries.html) and Simon Anholt's Good Country Index (http://www.goodcountry.org/index_intro).

The Model of National Culture (see figure 1 at the end of the paper) consists of six dimensions (Hofstede, Hofstede, & Minkov, 2010; Hofstede, 2001). The following description is taken from the website:

> The scale runs from 0 - 100 with 50 as a midlevel. The rule of thumb is that if a score is under 50 the culture scores relatively LOW on that scale and if any score is over 50 the culture scores HIGH on that scale. In the case of IDV - the LOW side (under 50) is considered "Collectivist" and above 50 considered "Individualist". A country with a score of 43 would be collectivist but less collectivist than someone with 28 who is moving down toward the 0 mark. (http://geert-hofstede.com/countries.html)

The Good Country Index data were released in 2014. The following description of the index is taken from the website. Figure 2 at the end of the paper also provides a description of the various elements of the Good Country Index.

> We have used 35 reliable datasets which track the way that most countries on earth behave: there are five of these in each of seven categories, covering the big issues like education, science, war and peace, trade, culture, health, censorship, the environment, freedom, etc. Most of these datasets are produced by the United Nations and other international agencies, and a few by NGOs and other organisations. These datasets are combined into a common measure which gives an overall ranking, a ranking in each of the seven categories, and a balance-sheet for each country that shows at a glance how much it contributes to the world and how much it takes away. More technically, countries receive scores on each indicator as a fractional rank (0=top rank, 1=lowest) relative to all countries for which data is available. The category rankings are based on the mean fractional ranks on the 5 indicators per category (subject to maximum 2 missing values per category). The overall rank is based on the average of the category ranks. (http://www.goodcountry.org/faq)

Dependent Measures

Previous research has used a variety of methods to determine the return achieved from investment in marketing for international tourism. The two most common methods are to measure expenditures (spending) by international tourists or to measure the number of international travel arrivals.

To operationalize tourism marketing effectiveness, the two most common methods from previous research are employed: tourism visitation statistics (arrivals) and tourism expenditures statistics (revenue resulting from tourism spending). However, the size of the nation will clearly impact the amount of return that a nation can expect to achieve. Therefore, the current investigation used two common methods to standardize the return based on the size of the nation. Standardization was done based on the country's population and the nation's economy (as evidenced by its Gross Domestic Product -GDP). The combination of the two measures of marketing return and the two methods of standardization led to four measures of international travel:

- International Tourism Expenditures (in U.S.D) per 1,000 in population (123 nations)
- International Tourism Expenditures as % of national GDP (both in U.S.D) (121 nations)
- International Tourism Arrivals per 1,000 in Population (123 nations)
- International Tourism Arrivals per $1 Million (USD) in GDP (121 nations)

Data Analysis

To examine the data, Hofstede's six cultural dimension scores and Anholt's Good Country Index score as well as the scores on the seven subscales were used as predictor variables in linear regression analysis. The thirteen predictor variables were entered into four, linear regression analyses, one for each of the four dependent variables described earlier.

RESULTS / DISCUSSION

Prior to presenting the results for the regression analyses, it is informative to review the results for the four dependent variables that were computed for the regression analysis. Since there were data for over 120 nations, it seemed impractical to present the score for each nation on each measure. However, Table 1 attempts to provide for the reader an understanding of the range of scores achieved in the measures of international travel marketing. The nations with the top 10 scores and the bottom 10 are provided to demonstrate the range. The mean and median values for each measure are included, as well as the score for the United States.

TABLE 1: TOP 10, BOTTOM 10, MEAN AND MEDIAN VALUES FOR THE FOUR MEASURES OF TOURISM RETURN

International Tourism Expenditures (in U.S.D) per 1,000 in Population		International Tourism Expenditures as % of national GDP		International Tourism Arrivals per 1,000 in Population		International Tourism Arrivals per $1 Million (USD) in GDP	
Country	**$**	**Country**	**%GDP**	**Country**	**Arr/1000**	**Country**	**Arr/GDP**
Luxembourg	6864.19	Albania	12.132	Malta	3701.42	Kyrgyzstan	419.36
Qatar	5171.71	Lebanon	10.410	Austria	2907.38	Georgia	334.08
Singapore	4493.24	Lesotho	10.057	Croatia	2585.92	Cambodia	276.46
Norway	3676.06	Singapore	8.132	Iceland	2442.08	Lao, D. R.	224.32
Kuwait	3583.41	Kuwait	7.091	Estonia	2183.24	Albania	221.19
Iceland	2594.71	Kyrgyzstan	6.885	Singapore	2175.32	Lesotho	201.61
Switzerland	2189.80	Cyprus	6.667	Cyprus	2085.76	Malawi	198.27
Belgium	2136.35	Luxembourg	6.348	Ireland	1790.70	Croatia	189.31
Sweden	2058.30	Qatar	5.771	Luxembourg	1699.41	Malta	164.06
U.A.E.	1873.78	Yemen	5.702	Greece	1635.37	Botswana	143.20
Mean	558.15	Mean	2.57	Mean	522.32	Mean	54.14
Median	139.31	Median	2.02	Median	273.23	Median	28.72
Mozambique	11.71	India	0.743	Tanzania	20.94	Australia	4.09
Zambia	11.45	Pakistan	0.697	Sudan	15.25	Iraq	3.84
India	10.92	Sudan	0.692	Belarus	14.47	India	3.74
Benin	9.06	Japan	0.655	Madagascar	8.31	Venezuela	2.66
Pakistan	8.74	Zambia	0.641	India	5.50	Brazil	2.43
Bangladesh	8.18	Turkey	0.640	Pakistan	5.22	Japan	2.11
Malawi	6.00	Congo, D.R	0.566	Nigeria	3.36	Belarus	1.87
Madagascar	4.67	Kenya	0.317	Moldova	3.23	Kuwait	1.71
Kenya	3.82	Botswana	0.315	Congo, D.R.	2.75	Nigeria	1.17
Congo, D R	2.45	Angola	0.257	Bangladesh	0.93	Bangladesh	0.99
United States	428.74		.815		218.81		4.16

Several important trends are immediately evident by reviewing Table 1. First, when the size of the nation is held constant, many of the countries that are traditionally seen as the "top" international tourism destinations drop from the top of the list. For example, none of the top-ten in Table 1 appear in Bloomberg's list of the top-10 nations based on the number of international tourists (Top tourist destinations, nd). Thus, the standardization of the data to take into account the size of the nation has created a more equal field upon which to compare the tourism efforts of nations.

A second finding from an analysis of Table 1 is that the United States, while number two on Bloomberg's "Top tourist destinations" is more commonly near the bottom when the size of the nation is held constant. In fact, for the two measures based on GDP, the U.S. score on the measure was just above the bottom 10 on the list of over 120 nations.

Third, by reviewing the Table 1 measures that have been standardized by GDP, it is easy to see which nations are the most dependent on international tourism as a component of their nation's economy. Over 10% of the GDP of Albania, Lebanon and Lesotho comes from international tourism. The economies of those nations near the top of the list will be the most susceptible to cyclical fluctuations in travel, since their GDP from travel is five times the median percentage

(2.02%) of the GDP for the 123 nations for which data is available. At the bottom end of Table 1, the nations may be there not because they have an insignificant amount of international travel. Rather, nations such as the United States, Australia and Japan, are near the bottom on measures standardized by GDP, because they have robust economies with a significantly smaller amount coming from tourism. Those nations that currently receive a very small portion of their economic prosperity from international travel, and that have relatively small economies (e.g., Sudan, D. R. Congo, and Nigeria), will have the easiest time showing a marked improvement to their economy through tourism marketing efforts. Of course, the success of any tourism marketing efforts will be impacted by the presence of conflicts, world economic realities, etc.

In an attempt to answer the research question regarding whether the country's culture can help to predict the success of international tourism marketing efforts, several linear regression analyses were conducted. The results of the analyses are presented according to the dependent variable in the equation.

International Tourism Expenditures (in U.S.D) per 1,000 in population (123 nations)

Table 2 presents the results of the regression equation with the dependent variable being the international tourism expenditures (spending) per 1,000 in population of the host nation. The thirteen independent measures discussed earlier were entered into the equation and the result was statistically significant (R^2=.448; p<.001). As noted on Table 2, one of the predictor variables had a t value that was statistically significant below .05, and two more had values between .05 and the more lenient 0.1. Thus, the Good Country Index dimensions of Planet and Climate, Prosperity and Equality and Health and Wellbeing provided significant contributions to explaining the variance. The negative coefficient values are consistent with the lower scores (indicating the country was better in this category) being correlated with higher rates of tourist expenditures.

TABLE 2: COEFFICIENTS TABLE FOR DEPENDENT MEASURE: EXPENDITURES PER 1,000 POPULATION

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Err	Beta	t	Sig.
(Constant)	3235.169	1390.414		2.327	.023
GC-Index-Rank	11.978	14.029	.405	.854	.397
GC-Science & Technology	1.911	6.831	.064	.280	.781
GC-Culture	-14.081	9.217	-.451	-1.528	.132
GC-Int'l Peace & Security	-5.772	5.577	-.193	-1.035	.305
GC-World Order	.545	5.660	.018	.096	.924
GC-Planet & Climate	**-11.652**	**5.719**	**-.381**	**-2.037**	**.046**
GC-Prosperity & Equality	**-8.372**	**4.335**	**-.294**	**-1.931**	**.058**
GC-Health &Wellbeing	**-7.632**	**4.437**	**-.262**	**-1.720**	**.091**
Power Distance	-1.594	8.302	-.030	-.192	.848
Individualism	-.273	8.935	-.006	-.031	.976
Masculinity	-4.744	5.788	-.086	-.820	.416
Uncertainty Avoidance	-8.010	5.879	-.155	-1.362	.178
Long term Orient	7.660	6.551	.164	1.169	.247
Indulgence	-1.408	6.419	-.030	-.219	.827

Note: $R^2 = .44$; $p < .001$

International tourism expenditures as % of national GDP (both in U.S.D) (121 nations)

Table 3 presents the results of the regression equation with the dependent variable being the international tourism expenditures (spending) as a percentage of the nation's Gross Domestic Production. The thirteen independent measures discussed earlier were entered into the equation and the resulting model was on the margin of demonstrating statistical significance (R^2=.295; p<.055) and explained just less than 30% of the variance. As noted on Table 3, two of the predictor variables had t values that were statistically significant at or below .05. Thus, the Good Country Index dimensions of Culture and Prosperity and Equality provided significant contributions to explaining the variance. The negative coefficient values are consistent with the lower scores (indicating the country was better in this category) being correlated with higher rates of tourist expenditures.

TABLE 3: COEFFICIENTS TABLE FOR DEPENDENT MEASURE: EXPENDITURES AS A PERCENTAGE OF GDP

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Err	Beta	t	Sig.
(Constant)	7.373	2.891		2.550	.013
GC-Index-Rank	.026	.029	.480	.896	.374
GC-Science & Technology	.004	.014	.072	.279	.781
GC-Culture	**-.045**	**.019**	**-.785**	**-2.353**	**.022**
GC-Int'l Peace & Security	-.010	.012	-.188	-.890	.377
GC-World Order	.002	.012	.042	.194	.847
GC-Planet & Climate	-.019	.012	-.334	-1.581	.119
GC-Prosperity & Equality	**-.018**	**.009**	**-.351**	**-2.042**	**.046**
GC-Health &Wellbeing	-.003	.009	-.047	-.274	.785
Power Distance	.027	.017	.285	1.592	.116
Individualism	-.001	.019	-.012	-.061	.952
Masculinity	.005	.012	.047	.398	.692
Uncertainty Avoidance	-.020	.012	-.213	-1.651	.104
Long term Orient	-.010	.014	-.114	-.717	.476
Indulgence	-.030	.013	-.338	-2.224	.030

Note: $R^2 = .295$; $p < .055$

International tourism arrivals per 1,000 in population (123 nations).

Table 4 presents the results of the regression equation with the dependent variable being the international tourism arrivals per 1,000 in population of the host nation. The thirteen independent measures were entered into the equation and the result was statistically significant (R^2=.42; p<.001). As noted on Table 4, only one of the predictor variables (Culture) had a t value that was statistically significant at or below .05, thus providing a significant contribution to explaining the variance. The negative coefficient value for the Culture dimension is consistent with the lower score (indicating the country was better in this category) being correlated with higher rates of international tourist arrivals.

TABLE 4: COEFFICIENTS TABLE FOR DEPENDENT MEASURE: INTERNATIONAL TOURISM ARRIVALS BY 1,000 POPULATION

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Err	Beta	t	Sig.
(Constant)	2456.494	1024.562		2.398	.020
GC-Index-Rank	-.391	10.104	-.019	-.039	.969
GC-Science & Technology	2.200	4.923	.104	.447	.657
GC-Culture	**-18.640**	**6.705**	**-.838**	**-2.780**	**.007**
GC-Int'l Peace & Security	-2.407	3.977	-.115	-.605	.547
GC-World Order	3.230	4.043	.155	.799	.428
GC-Planet & Climate	-4.369	4.171	-.203	-1.047	.299
GC-Prosperity & Equality	2.083	3.096	.105	.673	.504
GC-Health &Wellbeing	-2.077	3.257	-.101	-.638	.526
Power Distance	-4.563	5.918	-.126	-.771	.444
Individualism	-7.309	6.690	-.215	-1.093	.279
Masculinity	2.219	4.147	.058	.535	.595
Uncertainty Avoidance	-1.715	4.205	-.048	-.408	.685
Long term Orient	-.681	4.702	-.021	-.145	.885
Indulgence	-2.514	4.578	-.076	-.549	.585

Note: $R^2 = .42$; $p < .001$

International tourism arrivals per $1 million (USD) in GDP (121 nations)

Table 5 presents the correlation coefficients of the regression equation with the dependent variable being the international tourism arrivals (visitors) per $1 Million (U.S.D.) of the nation's Gross Domestic Production. The thirteen predictor measures were entered into the equation and the resulting model explained just over 25% of the variance, but was not statistically significant (R^2=.258 ; $p < .142$). As noted on Table 5, only one of the predictor variables (Culture) had a t value that was statistically significant at or below a more lenient standard of 0.1. No variable's t value had a significance value of .05 or less. The negative coefficient values are consistent with the lower scores (indicating the country was better in this category) being correlated with higher rates of tourist expenditures.

TABLE 5. COEFFICIENTS TABLE FOR DEPENDENT MEASURE: INTERNATIONAL TOURISM ARRIVALS (VISITORS) PER $1 MILLION IN GDP

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Err	Beta	t	Sig.
(Constant)	73.672	68.895		1.069	.289
GC-Index-Rank	-.365	.679	-.293	-.537	.593
GC-Science & Technology	.281	.331	.224	.849	.399
GC-Culture	**-.842**	**.451**	**-.637**	**-1.867**	**.067**
GC-Int'l Peace & Security	-.035	.267	-.028	-.132	.895
GC-World Order	.140	.272	.113	.514	.609
GC-Planet & Climate	.146	.280	.115	.522	.604
GC-Prosperity & Equality	.073	.208	.062	.352	.726
GC-Health &Wellbeing	.220	.219	.180	1.004	.320
Power Distance	.433	.398	.201	1.089	.280
Individualism	-.266	.450	-.131	-.591	.557
Masculinity	.028	.279	.013	.102	.919
Uncertainty Avoidance	.010	.283	.005	.037	.971
Long term Orient	-.322	.316	-.167	-1.017	.313
Indulgence	-.444	.308	-.227	-1.442	.154

Note: $R^2 = .258$; $p < .142$, NS

DISCUSSION AND CONCLUSION

The results of the regression runs provide several important findings. First, none of the culture dimensions provided by Holstede and others were found to have t-values that were statistically significant in any of the four regressions. Thus, it would appear that the dimensions of Hofstede's Model of National Culture are not significant predictors of a nation's ability to attract visitors and visitor spending. An explanation for this finding is discussed below. A second finding from the regression results is that standardizing the nation's return on international travel marketing (spending and arrivals/visitors) with the nation's Gross Domestic Production, may have obscured any significant correlations, so that only the Good Country dimension of "Culture" was significant to emerge. Standardizing the results around the nation's population appeared to be superior. A final important finding is that among the Good Country Index dimensions, four in particular stand out for being significantly correlated with the measures of tourism marketing: Culture; Prosperity and Equality; Planet and Climate; and Health and Wellbeing.

The culture of one's country plays a very important role in international destination branding. This study introduced one way to determine how culture contributes to the tourism economy. Like any studies, it poses limitations. First, the authors did their best to obtain scores that all

represent the same year. However, the Hofstede cultural dimensions are from the 1980s while the Good Country Scores represent an index of scores that were generally drawn from 2009-2013. Thus, future investigations should continue to strive obtain the most recent data and to attempt to collect data for all variables during the same time period.

A second limitation is that the Good Country dimensions were used as the unit of analysis. This study serves as a springboard for future studies that may examine other aspects that may impact tourism marketing effectiveness. Our results do suggest a creative way to determine if culture matters. Given that the Good Country dimensions of Culture; Prosperity and Equality; Planet and Climate; and Health and Wellbeing, were significant in one or more regression, perhaps they should be further examined in the future to see if and how they influence tourism efforts. Additionally, the authors suggest that other index scores be examined (e.g., Social Progress Index, Country Brand Index, OECD Better Life Index, Edelman Trust Barometer, Gallup Well-Being Index, Happiest Countries Index, etc.). Further, future studies may consider using updated scores developed by Fernandez, Carlson, Stepina & Nicholson (1997). The authors did not use these updated scores because they only represented nine countries.

Since the tourism industry is as diverse as the travelers who visit, the research agenda for travel and tourism scholars is as robust as the industry itself. As a "service provider to the economy," the travel/tourism industry plays a key role in enhancing public diplomacy among visitors to and from other nations. The current investigation appears to support the notion that elements of a nation's culture can influence the level of international travel that the nation receives.

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Power Distance: This dimension expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. The fundamental issue here is how a society handles inequalities among people. People in societies exhibiting a large degree of Power Distance accept a hierarchical order in which everybody has a place and which needs no further justification. In societies with low Power Distance, people strive to equalise the distribution of power and demand justification for inequalities of power.
Individualism vs. Collectivism (IDV): The high side of this dimension, called individualism, can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families. Its opposite, collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty. A society's position on this dimension is reflected in whether people's self-image is defined in terms of "I" or "we."
Masculinity vs. Femininity (MAS): The Masculinity side of this dimension represents a preference in society for achievement, heroism, assertiveness and material rewards for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented. In the business context Masculinity versus Femininity is sometimes also related to as "tough versus gender" cultures.
Uncertainty Avoidance Index: (UAI): The Uncertainty Avoidance dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. The fundamental issue here is how a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? Countries exhibiting strong UAI maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles.
Long Term Orientation vs. Short Term Normative Orientation (LTO): Every society has to maintain some links with its own past while dealing with the challenges of the present and the future. Societies prioritize these two existential goals differently. Societies who score low on this dimension, for example, prefer to maintain time-honoured traditions and norms while viewing societal change with suspicion. Those with a culture which scores high, on the other hand, take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future.
Indulgence vs. Restraint (IND): Indulgence stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint stands for a society that suppresses gratification of needs and regulates it by means of strict social norms.

Definitions are taken directly from the Hofstede website, where the data are located: http://geert-hofstede.com/national-culture.html

FIGURE 1. HOFSTEDE'S MODEL OF NATIONAL CULTURE

Science, Technology & Knowledge

- Number of foreign students studying in the country relative to GDP
- Exports of periodicals, scientific journals and newspapers relative to GDP
- Number of articles published in international journals (2009 latest data) relative to GDP
- Number of Nobel prize winners relative to GDP
- Number of International Patent Cooperation Treaty applications relative to GDP

Culture

- Exports of creative goods (UNCTAD's Creative Economy Report categorisation) relative to GDP
- Exports of creative services (UNCTAD's Creative Economy Report categorisation) relative to GDP
- UNESCO dues in arrears as percentage of contribution (negative indicator)
- Number of countries and territories that citizens can enter without a visa
- Freedom of the press (based on mean score for Reporters without Borders and Freedom House index as a negative indicator)

International Peace and Security

- Number of peacekeeping troops sent overseas relative to GDP
- Dues in arrears to financial contribution to UN peacekeeping missions as percentage of contribution (negative indicator)
- Attributed number of casualties of international organised violence relative to GDP (negative indicator)
- Exports of weapons and ammunition relative to GDP (negative indicator)
- Global Cyber Security Index score (negative indicator)

World Order

- Percentage of population that gives to charity as proxy for cosmopolitan attitude
- Number of refugees hosted relative to GDP
- Number of refugees overseas relative to GDP (negative indicator)
- Population growth rate (negative indicator)
- Number of treaties signed as proxy for diplomatic action and peaceful conflict resolution

Planet and Climate

- National Footprint Accounts Biocapacity reserve (2009)
- Exports of hazardous waste relative to GDP (only 2008 and 2011 data available, so 2011 data used as negative indicator)
- Organic water pollutant (BOD) emissions relative to GDP (2007 latest data as negative indicator)
- CO_2 emissions relative to GDP (negative indicator)
- Methane + nitrous oxide + other greenhouse gas (HFC, PFC and SF6) emissions relative to GDP (negative indicator)

Prosperity and Equality

- Trading across borders (open trading performance compared to best practice; i.e. IFC distance to frontier score)
- Number of aid workers and volunteers sent overseas relative to GDP
- Fairtrade market size relative to GDP
- Foreign Direct Investment outflow relative to GDP

• Development cooperation contributions (aid) relative to GDP
Health and Wellbeing • Amount of wheat tonnes equivalent food aid shipments relative to GDP • Exports of pharmaceuticals relative to GDP • Voluntary excess contributions to World Health Organisation relative to GDP • Humanitarian aid contributions relative to GDP • Drug seizures (pure cocaine equivalent kilograms) relative to GDP

Descriptions are taken directly from the website, where the data are located: http://www.goodcountry.org/index_intro

FIGURE 2. GOOD COUNTRY INDEX

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