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A DIFFUSION OF TECHNOLOGY PERSPECTIVE ON SOCIAL ENTREPRENEURS ROLE IN ADDRESSING THE WORLD WATER CRISIS

Stephen C. Betts, William Paterson University

Robert Laud, William Paterson University

Andrey Kretinin, William Paterson University

ABSTRACT

“High and Dry - Climate Change, Water, and the Economy”, a 2016 report from the World Bank Group paints a bleak picture of the world water economy. Among their conclusions is that “Water scarcity, exacerbated by climate change, could cost some regions up to 6% of their GDP, spur migration, and spark conflict.” (World Bank Group, 2016). Some of their recommendations are:

- *Better planning for water resource allocation*
- *Adoption of incentives to increase water efficiency*
- *Investments in infrastructure for more secure water supplies and availability.*

Our research explores the role of social entrepreneurs in developing and spreading the technology and innovations needed to accomplish these goals, as well as the policy changes necessary to facilitate and support their efforts. We use the theories and perspectives found in the diffusion of innovation literature to examine the structure of the problems and design processes, approaches and policy guidelines that would enable social entrepreneurs to potentially achieve what larger corporations, NGOs and Governments have failed to accomplish.

THEORETICAL FRAMEWORK

“High and Dry - Climate Change, Water, and the Economy”, a 2016 report from the World Bank Group paints a bleak picture of the world water economy. Among their conclusions is that “Water scarcity, exacerbated by climate change, could cost some regions up to 6% of their GDP, spur migration, and spark conflict.” (World Bank Group, 2016). Some of their recommendations are:

- *Better planning for water resource allocation*
- *Adoption of incentives to increase water efficiency*
- *Investments in infrastructure for more secure water supplies and availability.*

In 1962, E.M. Rogers described how an idea, behavior or product gains attention, is adopted and spreads through society to the point of widespread acceptance. In order to be adopted, the potential adopters must perceive it as being novel, new or innovative. The perception of innovativeness allows for the diffusion through society. The theory is referred to as ‘diffusion of innovation’ (or ‘diffusion of technology’). Over time, scholars and practitioners have developed the theory. Adopters of technological innovation were grouped into categories. Factors that

influenced adoption were identified, including attributes of innovations. Process models were developed to show the path and stages of adoption and diffusion.

The diffusion of innovation literature spanned many fields and addressed many issues; however the lens has not been focused on many social issues and social entrepreneurship has been completely overlooked. Social entrepreneurship is a contemporary approach to solving social problems that were previously addressed by governmental and non-profit organizations. Social entrepreneurs look for both a return on investment and a return to society. Water scarcity is a problem that social entrepreneurs can help to address. The diffusion of innovation regarding water scarcity through social entrepreneurship is the subject of this research project.

We plan to use the existing diffusion of innovation frameworks to categorize water related innovations, examine adoption strategies for social entrepreneurs, clarify the process (or processes) as applied to solving problems of water scarcity and identify key success factors and potential roadblocks. By identifying the key success factors and potential roadblocks we will be able to prescribe actions and approaches for social entrepreneurs and provide guidelines for policy makers.

SIGNIFICANCE OF THE PROJECT:

Policy makers can use our research for guidance on how to facilitate social entrepreneurs' roll in dealing with problems of water scarcity. For example, government funding can help entrepreneurs directly with training and technology. Policies can be designed to provide grants and tax incentives for developing and building technology and for distribution of water and water technology, allow for profit-making ventures in the water sector and securing water rights.

The research will guide traditional and existing organizations on partnering with social entrepreneurs as providers of technology or consumers of water. It will guide social entrepreneurs in adoption and development strategies for water distribution innovations.

The local significance is that the Cotsakos College of Business is a champion of social causes in general and sustainability in particular. Our curriculum is unique in that we require all students at both the undergraduate and graduate levels to take a course in sustainability. Furthermore we have concentrations on entrepreneurship on the undergraduate and graduate levels. This research project directly fits into both areas of interest. This particular project is part of a social entrepreneurship research stream by the three authors which has already resulted in several presentations, refereed journal and proceedings publications and two distinguished research awards.

OCCUPATIONAL STRESS AMONG THE HEALTHCARE WORKERS – THE CASE OF A REHABILITATION HOSPITAL

Amitava Chatterjee, Texas Southern University

ABSTRACT

Workplace stress is a recurring problem. Due to various work-related issues and constraints, people continue to suffer from stress that results in a continued reduction in productivity and economic loss to society. Over the years, various researchers have tried to identify the causes of workplace stress and their consequences. In the healthcare field, this predicament is more pronounced and pervasive. Healthcare workers at various levels and in different activities have reported occupational stress that hinders their work, have a detrimental impact on their health and general wellbeing, and creates an overall negative work environment.

This paper focuses on describing and examining various determinants of occupational stress in the healthcare field. The effect of these factors is manifold and largely reduces the quality of patient care. Many studies have explored finding various remedial measures and evaluated them for their relative effectiveness. These findings are useful in generating policy prescriptions for healthcare organizations and their implementations for stress remediation. This study investigates whether an organizational intervention, both at alleviating personal issues of the workers and at creating a welcoming and non-discriminatory work environment for the employees, is effective. Various stress related specific measures and recommendations have also been described for their usefulness for different types of healthcare workers, such as doctors, nurses, support staff, and such. As a case study, occupational stress among the employees of a regional long-term rehabilitation hospital has also been observed through a work-related stress questionnaire. Subsequently, the efforts by its HR department on how to manage occupational stress among its employees are analyzed.

USE OF TWITTER IN E-LEARNING: ENHANCING STUDENT LEARNING IN AN INTRODUCTORY FINANCE COURSE

Amitava Chatterjee, Texas Southern University

ABSTRACT

In recent years, the advent of technologies has allowed the educators to interact with the students in various ways, enrich their learning, and keep track of the student progresses with tools, such as the use of 'blogs' as assessment instruments, the use of 'wikis' as interactive study modules, the use of 'podcasts' to broadcast audio and video contents to the students, the use of 'SMS' messages to communicate with the students on a real-time basis, and the use of social networking sites 'Facebook' and 'Twitter' to enhance the learning experiences of the students. If used appropriately, these recent technologies and social networking services can enhance experiential and active learning, and allow students to communicate effectively, be creative, and to get involved in teamwork. The various usages of these technologies in university education are still evolving and educators are finding ways to co-opt them in their courses.

Twitter is a microblogging tool with a limit to 140 characters that allows an educator to disseminate any concise and focused information to the students instantaneously. Two-way communication can be established with the students in a class by creating a unique search term, preceded by a 'hashtag' and invite the students to be the followers of any tweets relating to that hashtag. Twitter further allows the instructor to circulate the truncated form of a web address of any length with web tools (such as bit.ly) to the students and direct them to various websites, current business news of interest, journal, and magazine articles, etc. In limiting the students to 140 characters, Twitter also forces the students to be precise and summarize important concepts as responders.

This paper investigates the use of Twitter in enhancing student learning in a business course. As a case study, we look at the student experience in an introductory online finance course when Twitter usage is incorporated as a learning instrument every week. An iteration of the Twitter-enhanced course has been offered to test the effectiveness of Twitter in enhancing student learning. At the beginning of every week, one or more tweets are sent out to the followers (students) based on the week's topic. The tweets usually include small descriptive questions and quantitative problems for the students to respond to and weblinks to various finance-related articles from the previous week for the students to comment on. Under this structure, twitter is used as a tool to judge student participation throughout the semester and as an out-of-class learning tool. Further uses of in-class activities of Twitter are tested since the online version of the introductory course is scheduled regularly with multiple sections at the business school of a regional university.

DIVERSITY IN THE HEALTHCARE SECTOR – THE CASE OF A REHABILITATION HOSPITAL

Amitava Chatterjee, Texas Southern University

ABSTRACT

The population in the United States is increasingly getting diversified and aged. It is expected that the current trend would continue along with all the related issues that come with it. To cope with this diversification and to cater to this diversified and aging population, healthcare organizations must change too. It should follow that the workforce in healthcare organizations must reflect the population they serve and the personalized care they provide. This paper reflects some of the theories that investigate workforce diversities and how adherence to them would improve the functions and activities of healthcare workers and increase the satisfaction of the hospitalized clientele.

Different types of healthcare diversities that have been identified by past researchers, the observed conditions, and the current and expected trends are also discussed. The paper further reflects on the studies that have suggested remedial actions that can alleviate the diversity problems in healthcare institutions through training and experiential learning. A reflection on team treatment is also touted as a solution to provide customized care to the underserved population. As a case study, a close inspection of a regional long-term rehabilitation hospital has also been performed to test the efficacies of the prevailing theories on diversity. The efforts of its HR department in maintaining and expanding workforce heterogeneity are analyzed by conducting an employee survey through a diversity survey questionnaire.

ARE THE TAX AND FINANCIAL PROVISIONS OF THE CARES ACT SUFFICIENT TO REMEDY THE PANDEMIC CRISIS DRIVEN US ECONOMY?

Constance J. Crawford, Ramapo College of New Jersey

Corinne L. Crawford, City University of New York

Glenn C. Vallach, Ramapo College of New Jersey

ABSTRACT

The impact of the Covid-19 Pandemic has been staggering for the entire US economic system. Entire industries have been thwarted from operating on any sustainable level. In response, Wall Street reacted with a resounding CRASH....and so...the need for federal intervention became a stark reality for the US economic system's survival. As major retailers collapse into bankruptcy, the need for continued federal financial support is tantamount to survival for a wide array of fledgling companies. Will the CARES legislation be sufficient to prevent a United States' economic freefall?

Keywords: CARES Act, Bankruptcy, Pandemic

INTRODUCTION

The problem of how-to arrest the flow of corporate failures and thwart an epidemic of bankruptcy filings is currently the primary focus of the US economic system. Entire Industries, including: Retail, Airline, Cruise Line and Hotels, were preventing from operating on any sustainable level as a result of a federal mandate. The inability of major segments of the US economy to function on any sustainable level, required a financial bailout. In essence, the federal government became the independent 3rd party financial funding source disguised as legislation. The question that loomed large on the minds of the investment community was: "What can Congress do to prevent a crash that would exceed even the 1929 debacle?" The answer was presented in the form of a legislative pronouncement known as the CARES ACT.

ECONOMIC IMPACT CAUSED BY THE PANDEMIC

The Covid-19 Pandemic began in China most probably in the late fall of 2019 and quickly spread throughout the world. By March 2020, the Coronavirus' devastating impact resulted in the shut-down of the entire United States economic system. Schools closed, businesses shuttered, and emergency rooms were overwhelmed with the rising tide of infected Covid-19 patients. Governors and Mayors across the US mandated "stay at home rules". Unfortunately, not only did the virus create a health emergency but it also caused an unforeseen economic crisis.

The new "norm" included remote learning for all schools, face masks to be donned in public and the requirement for social distancing of a minimum of 6 feet. The result of such stringent restrictions created an atmosphere of uncertainty and a fear that the virus would

negatively alter people's lives forever. Neither of those two outcomes provides a level of confidence to sustain a viable U.S. economic atmosphere. The inability to shop for food and medicines became a previously unknown challenge, impacting the most vulnerable in our society. Take-out became the only option for restaurant fare and travel was restricted both internationally and domestically.

Unfortunately, as the US population struggled to cope with the health effects of a Pandemic lifestyle, certain problematic and unsettling economic trends began to emerge. The unprecedented rise in major retail bankruptcy filings created a crisis for commercial realtors as malls lost their anchor stores and massive layoffs of retail workers', created an avalanche of unemployment claims. The crisis impacted the upscale shopping mecca of Hudson Yards as a result of the bankruptcy of their anchor store Neiman-Marcus along with the strip malls of middle-income shoppers with the demise of Sears and JC Penny.

The bankruptcy filings essentially negated the lease contracts entered into by the now debtor-in-possession retail entities and thwarted landlords from eviction options. The entire landscape of large metropolitan cities was altered by the shuttered storefronts and lack of any commuters or the always desirable summer tourists. A once enviable geographic locale, like New York City, became an overnight ghost town.

The complete shut-down of entire industries, due to the pandemic, created an economic freefall cascading into massive losses as revenue growth collapsed. So many industries, some expected others not, fell victim to the COVID-19 economic fallout. The oil & gas industry, for example, was an unanticipated victim resulting from both a lack of demand and an international power struggle regarding production. Cruise ships were unable to find a port resulting in a multitude of employees trapped on board for months as the Coronavirus continued on its' relentless journey. Airlines were hobbled as they could only fly to limited destinations coupled with an extreme lack of demand. With no travelers, the demand for both hotels and Airbnb rentals fell, along with the stock market.

The Stock Market reaction was overwhelmingly negative as a once heralded low unemployment rate began to increase in a manner reminiscent of the 1929 depression. Clearly the world, along with the United States, was in a Pandemic crisis mode and the governments throughout the world, became the only lifeboat available in the chaotic storm known as the Covid-19 Pandemic.

THE RESPONSE: THE CARES ACT: THE ANSWER TO CORPORATE AMERICA'S CRISIS?

On March 27, 2020, President Trump signed into law the Coronavirus Aid, Relief, and Economic Security Act (H.R. 748) (the "CARES Act"). On March 18, 2020, President Trump signed into law the Families First Coronavirus Response Act (H.R. 6201) (the "FFCRA"), which includes the Emergency Paid Sick Leave Act and the Emergency Family and Medical Leave Expansion Act ("FMLA Expansion Act").

The legislation was intended to alleviate the strain of unemployment for the US worker and provided much needed financial support for fledgling industries. The CARES Act included the following tax relief provisions aimed at assisting the crippling economic crisis:

CARES ACT: TAX RELIEF CORPORATE PROVISIONS:**I. Reinstate the Net Operating Losses and Other Deductions for Businesses:**

Net operating losses (“NOLs”) provide taxpayers to ability to reduce certain business income on their tax returns. However, the Internal Revenue Code (the “IRC”) had disallowed NOLs to be carried back to prior tax years and limited the use of NOLs to 80% of taxable income for future taxable years as per the 2017 Tax Cuts and Jobs Act (TCJA). Due to the Pandemic crisis, the CARES Act amends Section 172(b)(1) of the IRC to once again allow taxpayers to carry back NOLs from 2018, 2019 and 2020 for up to five years.

Additionally, the 2017 TCJA limited the amount of net business loss that a non-corporation taxpayer could reduce their income by to \$250,000 for individuals and \$500,000 for joint filers effective January 1, 2018. The CARES Act postpones the effective date of the limitation to January 1, 2021 and provides for taxpayers to file amended returns to recoup a prior tax consequence.

The CARES Act includes provisions that increase the deduction for business interest from 30% to 50% of adjusted taxable income for 2019 and 2020.

II. Delayed Employer Payroll and Self-Employment Tax Payments

The due date of the employers’ portion of the employees’ payroll tax of 6.2% for FICA or Social Security and 50% of the 12.4% self-employment tax was postponed by the CARES Act as well. The extension for 50% of such taxes will be December 31, 2021 and the due date for the remaining 50% of such taxes will be December 31, 2022.

III. Employee Retention & FFCRA Credit

The CARES Act includes incentives for employers to retain employees during the Pandemic. The Act provides for employers to receive an employee retention credit for qualified wages limited to \$10,000 per employee. The credit provides for 50% of such employer’s qualified wages from March 13, 2020 to December 31, 2020 for each employee. In addition, the CARES Act provides for similar tax credits to offset mandatory FFCRA paid leave expenses.

IV. Depreciation of Qualified Improvement Property

The CARES Act provides for the immediate write-off of qualified improvement property in an attempt to accelerate the cost recovery provisions of the IRC and provide an additional incentive to purchase new property.

The 2017 Tax Cut and Jobs Act included a similar provision, but the language was challenged and therefore ineffective. The CARES Act revises that problematic verbiage. Once again, the CARES Act provides for amended return filing provisions to recapture prior tax payments.

V. Charitable Contributions

The Cares Act amends the 10% limitation for corporate charitable contributions to 25% of their taxable income.

CRITIQUE OF THE CARES ACT: WILL THE CARES ACT FINANCIAL AND TAX PROVISIONS REMEDY THE FINANCIAL CRISIS CAUSED BY THE PANDEMIC?

Clearly many of the provisions and tax remedies provided by the Cares Act will alleviate some of the financial crisis caused by the Pandemic. Several of the Cares Act provisions provide opportunities for the recapture of prior taxes in an attempt to alleviate cash flow issues for cash starved businesses. Most notably, the reintroduction of the Net Operating Loss (NOL) carryback provision will allow for the recapture of prior period taxes, which should alleviate cash liquidity issues for some struggling entities. Additionally, the rewording of the depreciation tax guidelines will also provide for both cash refunds via amended returns for 2018 and 2019 along with a potential incentive for future acquisitions of property. The deferment of employers' tax payments for payroll along with the employee retention credit should provide incentives for employers to resist the urge to lay-off employees in an attempt to salvage their businesses.

The \$600 additional unemployment payment provides needed financial security for the overwhelming number of unemployed workers. The much-needed cash flow provided a financial safety net for the recently furloughed and unemployed workers. The restrictions placed on landlords, pertaining to unpaid rental eviction limitations, provides a level of security for tenants, both residential and commercial, who were the victims of a relentless enemy. The CARES Act attempted to assure all of the victims of the COVID-19 Pandemic, that the federal government, would provide a financial life preserver. One that was clearly lacking during the early days of the 1929 depression.

CONCLUSION

Whether the provisions of the CARES Act, which includes a multitude of tax reduction provisions and cash flow assistance remains questionable, at best. Congress is currently engaged in a debate over whether to extend the additional \$600 weekly unemployment provisions, which some believe provides a disincentive to return to work, whether to discontinue the employee/er tax withholdings for Social Security, which may deplete the already burdened Social security coffers, and whether to provide financial bailout provisions for states and municipalities, which perhaps may be a consequence of prior poor governmental decision-making, continues to be discussed. The United States economy continues to struggle within a Pandemic atmosphere of fear, as evidenced by the plethora of current and pending bankruptcy filings. Congress attempted to provide tax relief via the Cares Act legislation, but as far as the remedy it ultimately provides to a precarious entity on the verge of bankruptcy or an unemployed worker, remains, an unanswerable question, at best.

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THE COVID PANDEMIC AND MARKET RETURNS

Mike Cudd, Mississippi College
Marcelo Eduardo, Mississippi College
Chris Smith, Mississippi College

ABSTRACT

Studies of the impact of the COVID-19 virus on the stock market to date are primarily limited to the first quarter of 2020, or apply event methodology to broad market indices, rather than individual stocks. The current study applies event methodology to a random sample of individual stocks using a standard three-factor model (Fama and French, 1996) to generate expected returns and a time span encompassing roughly the first two quarters of 2020. Findings indicate that stocks experience negative cumulative abnormal returns throughout the middle of the two-quarter period. However, a correction during the last week of observation (ending July 6, 2020), produces positive cumulative abnormal returns for the year to date. The positive returns are essentially concentrated in stocks representing the technology, consumer cyclical, and healthcare sectors of the economy.

A JAVA PROGRAM FOR THE ANALYSIS OF SOCIAL MEDIA USER COMMENTS IN LARGE VOLUME

Selcuk Ertekin, Brenau University & University of North Georgia

ABSTRACT

This research is composed of a proprietary program for user-based analysis of social media comments by consumers. Currently, there is widespread availability for large text-based data, but no user-based, non-commercial program for specific research question driven verbal analysis for it. Verbal analysis in business is essentially qualitative and exploratory in nature (Burns and Bush, 2010). When researchers attempt conclusive research for any type of research problems in new avenues, they have difficulty formulating hypotheses as there are many previously not tried research directions in our ubiquitous data driven technology world. Hence, exploratory and text-based analyses are more important than ever (Hair et al. 2010; Leedy and Ormrod, 2013; Kerlinger and Lee, 2000). The major strength of exploratory research is its flexibility. However, current commercially available programs are not user-based. Therefore, the author of this research developed their own Java program to address this important problem. We created a Java code and will demonstrate the code with the Institute for Global Business Research (IGBR) Fall virtual conference participants and share feedback. The utility of the program is extensive, wide-reaching and instant and can be used in avenues such as social media user comments for the most recent Superbowl.

INTRODUCTION

Current ubiquitous technology era blessed academics and practitioners with large verbal data sets. In fact, there is widespread availability for large text-based data, but no user-based, non-commercial program for specific research question driven verbal analysis. Verbal analysis in business is essentially qualitative and exploratory in nature (Burns and Bush, 2010). When researchers attempt conclusive research for any type of research problems in new avenues, they have difficulty formulating hypotheses as there are many previously not tried research directions in our ubiquitous data driven technology world. Hence, exploratory and text-based analyses are more important than ever (Hair et al. 2010; Leedy and Ormrod, 2013; Kerlinger and Lee, 2000). The major strength of exploratory research is its flexibility. However, current commercially available programs are not user-based. Therefore, we developed our own Java program to address this important problem. We created a Java code that has extensive utility, wide-reaching functionality and instant. We applied the code to the social media user comments for the most recent Superbowl. However, the code we developed can also be used to instantly analyze social media posts for a plethora of emerging research questions.

LITERATURE REVIEW

There are several recent studies in marketing literature on text data analysis on social media platforms. For instance, Amado et al (2018) reviewed the literature on text mining in marketing research. Their main finding was that the research in big data applications is at a nascent stage. They identified that big data techniques are not on par with technological changes. They indicated that the extreme volume of data, especially in text form, is not allowing for full analysis by researchers, merely due to sheer size. Liao and Hsu (2019) looked at the users of Line sticker social media platform, using big data cluster analysis. They observed the emoticons (a combination of emotions and icons) from the users as a form of meta-communication instrument. They highlighted the fact that their research had to use big data analysis because current statistical techniques are insufficient to handle complex and large data sets with visual cues.

Similarly, Wilk, Soutar and Harrigan (2017) studied the computer-aided qualitative analysis. They focused on various software types for text data from social media outlets with a particular emphasis on QSR, NVivo and Leximancer applications and CAQDAS program. They analyzed 1796 posts from a brand community with these software platforms and they found that each have several benefits and various weaknesses. Likewise, Taylor (2019) used text data from consumers of GsK company. They indicated that the amount of data is key to deriving insights from consumers and they suggest a sample size of over 10,000 reviews or other text is needed for meaningful conclusions. They also recommend a diversity of data sources.

Barreto and Ramalho (2019) incorporated the existing literature from consumer behavior into social media domain. They explored the effects of involvement level on social media engagement in relationship with different brands and content. They used a code sheet to qualitatively categorize brand posts on a social media platform using content analysis and showed that low involvement users are less inclined to share knowledge with others regardless of context (text, image or post, hedonic or utilitarian appeals). Cripps et al. (2020) also used a qualitative approach. They employed Structural Topic Modelling (STM), a form of text data analysis/mining tool, and compared its findings with in-depth interviews with participants. They found that users glean information from Twitter and they also get innovative ideas. Similarly, Jin and Lee (2019) analyzed the utility of digital platforms for the visual art market. They used the technology acceptance model (TAM) and framed the meaning generation in online art market by the users. They used qualitative analysis based on the instrumental case methodology. They found that the symbolic capital of the information provider is as important as the technological usefulness of the websites.

Overall, all of these studies added new depth into our understanding of text data qualitative analysis in relationship to marketing applications. However, they used existing software to conduct their analysis and there remains a gap in the literature due to no attempts being made on designing a specific computer application or code to address a research problem. In order to address this gap, we created a Java code in order to demonstrate that marketing researchers can tailor an analysis tool that can swiftly sort through text data and come up with qualitative conclusions for a specific detail in a large data set.

METHODOLOGY

We developed a Java program to analyze large text data (Appendix). The utility of the program is extensive, wide-reaching and instant. We used it to analyze the social media user comments for the Superbowl LI half-time show. We randomly picked the user comments from a popular video sharing site. Our code was able to sort through 12,000 words of user comments and checked for most commonly used 100 positive and negative feeling adjectives as listed by “English Here.com”. We found that there are 27 positive and 30 negative feeling adjectives were used out of 12,000 words of text data that was posted. Pepsi, the main sponsor of the event was called six times.

RESULTS AND CONCLUSION

The main purpose of this article was to find out if it is possible to custom design an object-oriented program using Java language in order to conduct a text-based qualitative analysis on a common marketing issue, namely user comments for Superbowl LI. We found that the code we created was able to sift through a large data set and compare its contents to custom word lists composed of feeling adjectives. We conclude that there were almost as many negative comments from the users as there are positive comments. In fact, there were more negative comments than positive ones and the main sponsor of the event, Pepsi, was mentioned by users in the comments as well. Even though our current analysis was limited in terms of text size, the code we share in the Appendix can be used to analyze millions of lines of user comments. It can also be quickly tailored to compare text to thousands of words under various categories. Therefore, we suggest future marketing researchers to utilize the benefits of custom designed object-oriented software coding and conduct text-based qualitative analysis on the ever-increasing data sets of current digital marketing platforms.

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APPENDIX

[Java Code – Data Limit Set to 12000 Words](#)

```
import java.io.*; import java.util.Scanner; public class ReadFromFileUsingScanner52clear{
public static void main(String[] args) throws IOException { int positivecount = 0; int negativecount = 0;
    String[] mystring = new String[12000]; String[] mystring1 = new String[100];
    String[] mystring2 = new String[100]; for (int i=0; i <=11999; i++) { mystring[i]= " "; } for (int n=0; n <=99;
n++) { mystring1[n]= " "; } for (int p=0; p <=99; p++) { mystring2[p]= " "; }
    File file = new File("C:\\numberone.txt"); Scanner sc = new Scanner(file); File file1 = new File("C:\\N.txt");
Scanner sc1 = new Scanner(file1); File file2 = new File("C:\\N.txt"); Scanner sc2 = new Scanner(file2);
    String searchedword = " "; Scanner scan = new Scanner(System.in); System.out.println("Count for which word are
you looking for? "); searchedword=scan.nextLine(); for (int j=0; j<=11999; j++) {
    mystring[j]= sc.next(); } for (int s=0; s<=99; s++) { mystring1[s]= sc1.next(); } for (int z=0; z<=99; z++) {
    mystring2[z]= sc2.next(); } for (int t=0; t<=99; t++) { System.out.println(mystring1[t]); } for (int q=0; q<=99;
q++) { System.out.println(mystring2[q]); } int searchedwordcount=0; for (int m=0; m<=11999; m++) { if
((mystring[m].equals(searchedword)) {
    searchedwordcount++; } } System.out.println(" "+searchedword+" "+ " count is: "+searchedwordcount);
    int[] samecount = new int[12000]; // (initializing samecount for all of the ten
    for (int r=0; r<=11999; r++) { samecount[r]=0; } // initializing samecount for all of the ten
    for (int n=0; n<=11999; n++) { for (int u=0; u<=11999; u++) if((mystring[u].equals((mystring[n]))) {
    samecount[u]++; } } int samecountmax=0; for (int t=0; t<=11999; t++)
    if ((samecount[t]>samecountmax)) { samecountmax = samecount[t]; }
    System.out.println("samecountmax count is "+samecountmax);
    for (int f=0; f<=11999; f++) { for (int b=0; b<=99; b++) { if((mystring[f].equals((mystring1[b]))) {
    positivecount++; } } } System.out.println("positivecount count is "+positivecount); for (int d=0; d<=11999; d++)
    { for (int w=0; w<=99; w++) { if((mystring[d].equals((mystring2[w]))) { negativecount++; } } }
    System.out.println("negativecount count is "+negativecount); } }
```

UNDERGRADUATE RESEARCH WITH INTERNATIONAL STUDENTS – A CASE STUDY

Doris Geide-Stevenson, Weber State University

ABSTRACT

Over the last decade, pedagogies have shifted toward high impact practices, asking students at US universities to engage in undergraduate research, for example. At the same time, the enrollment of international students, especially in the business and economics disciplines, has increased substantially until the most recent year. This paper presents a case study of an economics department at a large comprehensive regional public university that implemented a required undergraduate capstone experience course for all majors and subsequently, through international agreements with partner universities from China and South Korea, saw a substantial increase in the number of international students in the program. This case study focuses on student performance and pedagogical strategies of teaching a required undergraduate research capstone course with a majority of international students from China and Korea. Differences between the pedagogical practices of the home and host countries are highlighted with reference to Confucian Heritage Learners. Ten years of performance data from the capstone course reveal that international students are more likely to successfully complete their undergraduate research experience than domestic students, but earn lower grades in the process. Thus corroborates the hypothesis that Confucian Heritage Learners may struggle with undergraduate research requirements at US universities. A number of teaching strategies are discussed that have proven successful in helping international students complete their capstone experience course.

INTRODUCTION

In 2004, the economics department at a large comprehensive regional public university in the Western United States implemented a required capstone experience course for all economics majors. This course requires all students to conceive and complete an independent research project, demonstrating understanding of the scientific method. The course is an integral part of the economics program as both the capstone experience, and the assessment point for basic knowledge, as well as assessment of other departmental learning outcomes. During the last decade, the number and composition of economics majors has changed dramatically with the successful implementation of an international transfer program that recruited economics majors from China and South Korea. The curricular change of introducing a required capstone experience course and the increase in the number of international students places the economics department in the middle of two national trends that warrant a case study of teaching undergraduate research with a student body that differs with respect to cultural, educational and language background.

UNDERGRADUATE RESEARCH

Undergraduate research within the economics profession is still considered an innovative teaching practice, but fits well into the learning outcomes or essential competencies for economists (Allgood/Bayer, 2017).

The Concept of the ‘Chinese Learner’ – are international students different?

A comprehensive attempt to systematically explore ‘Chinese learners’ goes back to Watkins and Biggs (1996) who study cultural, psychological, and contextual influences on the learning style of students from countries whose cultural identities are shaped by Confucian thought. Learners from China, including Hong Kong and Taiwan, as well as from Japan, Korea and South East Asian are often referred to as Confucian heritage learners (CHLs) (Chan (1999)). While much of that literature distills and explores stylized features of the learning style of Confucian heritage learners, there seems to be a consensus that a student’s cultural background does not predetermine their learning style, but that students are able to adapt to a changing context (Wong (2004), Wu (2015)) when they participate in authentic learning experiences. It may be argued that part of the study abroad experience of CHLs at US universities is an expectation that those students adjust to different modes of instruction. The task for instructors of the receiving institutions, in this case US institutions of higher education, is to understand the learning beliefs and behaviors of the international students from a Confucian heritage country and to help students adapt to the changed context.

Chan (1999) postulates that with cultural values focused on harmony within a collective and a strong sense of maintaining face within the Confucian tradition the “participative approach commonly used in Western teaching may ... cause a problem for Chinese learners.” Specifically, Chinese learners or Confucian heritage learners are used to a more teacher-focused model of instruction. The teacher is often the ‘sage on the stage’ and responsible to convey the correct knowledge. This may prevent those students to fully participate in classroom discussions or in group learning (Hodkinson and Poropat (2014)). Chinese learners are observed to be more reluctant to ask spontaneous questions in class or to contribute a point of view, making it more difficult for instructors to explicitly engage students in their learning and to receive continuous feedback on students’ understanding, a practice that is fairly common in classroom settings in the United States. Hodkinson and Poropat (2014) call this the phenomenon of the ‘silent Chinese student’ which makes the active co-creation of knowledge in a classroom harder for instructors at US institutions than it would be with students who are more used to interactive learning styles.

This case study will work with the premise that the background of Chinese learners or Confucian Heritage learners may be at odds with the requirement to complete an independent, individually conceived, undergraduate research thesis that requires the application of the scientific process and creative knowledge creation.

Structure of the curriculum and department

The literature on developing undergraduate research skills in economics stresses that exemplary economics programs provide students with multiple opportunities to engage in undergraduate research and emphasize the need for skill development throughout the time that students are enrolled in the program (DeLoach et. al. (2012).

The economics department is housed within the AACSB accredited College of Business and Economics. Before implementing a dual degree program with partner universities in China and South Korea, the economics department had between 70 – 100 declared majors and graduated between 8 – 20 students each year. Initially there was a sufficient number of faculty qualified and interested in offering the capstone experience class. Then in 2009 the first cohort of international transfer students joined the department. Those students would earn a dual degree from a Chinese university and from the US institution. In 2010 the first students from a South Korean partner university joined the department. With this influx of international students, the number of majors increased up to 180, almost a 100% increase. The number of graduates per year increased to between 31 – 48, an increase of more than a 100%. While the influx of international students has decreased over the last two years, the change in the composition of the student body during the last decade meant that upper-level economics course consisted of up to 80% of international students.

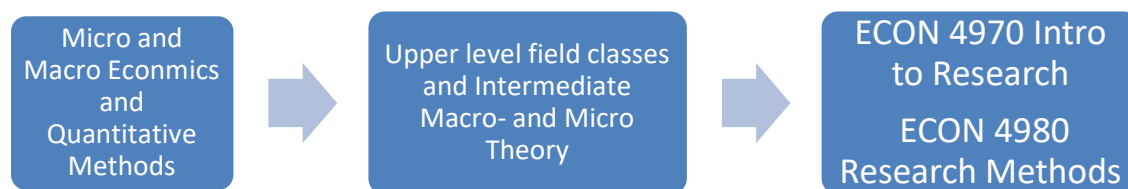


Figure 1: Curriculum Flow – Economics program

As illustrated in Figure 1, all majors within the economics department complete the principles sequence micro- and macroeconomics as well as a two semester business statistics sequence and business calculus. All majors take up to five upper level elective courses in economics and enroll, typically during their last semester, in the capstone course ECON 4980 Research Methods. At some point before enrolling into ECON 4980, the capstone course, students also have to complete a one credit hour course, ECON 4970 Introduction to Research Methods. Students typically take this course the semester preceding the capstone course. The goal for the one credit hour class is to guide students through the process of creating a research paper and to prompt them to come up with a research proposal that they can implement in the subsequent semester. This structure helps with completion of the capstone course and is in line with building a framework for undergraduate research in economics.

The Council on Undergraduate Research (2020) defines undergraduate research as “an inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline.” In designing the Research Methods course, the department decided on a course structure that embraces CUR’s definition of undergraduate

research, deliberately putting the onus on students to choose a research topic and specifying a research question that makes an original contribution to the discipline. The expectation of the course is that students understand and follow the scientific process in designing their project. The course description from the catalog is:

“A course, designed for senior economics majors, which requires the completion of an extensive thesis project. This course will focus on the formulation of hypotheses, review of relevant literature, and either theoretical or empirical analysis.”

Comparison of Student Performance

The data on course enrollments in the Research Methods course over the time period from fall 2010 through spring 2020 shows that 389 students received grades over this time period (excluding students who withdrew from the class and received a W on their transcript). Of the 389 course completions, 30% were domestic students and 70% international transfer students. Over this time period, the average grade earned in the course is a 2.96/4.0, slightly below a B grade average. The average grade earned for domestic students is 3.07 and for international transfer students 2.92. Those means are not statistically different. This picture changes when only students who actually passed the course are considered. Students need to earn a C- (1.67) in order to successfully complete the course. The average passing grade for domestic students is 3.48, and 3.18 for international students. This grade difference is statistically significant at the 1% level. This grade pattern emerges due to a higher failure rate for domestic students at 12.2% compared with international students at 8.4%, also statistically significant.

The pattern of lower failing rates for international transfer students, but lower overall grades, may be explained by the substantially higher cost that international students face when they have to repeat a course at the end of their program of study at the host university. Most students take the capstone course during their last planned semester at the host university and would have to extend their stay for another term in order to be able to graduate. This would require additional cost of living in the United States and a tuition rate that is above the in-state tuition rate paid by the international students. Some international students need to work around visa issues to be able to extend their stay which imposes additional cost as well.

ISSUES IN TEACHING INTERNATIONAL STUDENTS

While domestic students seem to accept the requirement of finding their own research topic and then a specific research question, it is more common for international students to wait for the course instructor to suggest a topic or research question. This is sometimes interpreted as a lack of creativity on those students' part, but may stem from the instructional model they have been exposed to at their home institution. In practice, it takes more effort on the instructor part to provide specific examples of research projects along with group and one-on-one discussions with the international students to emphatically make the point that the students are to be in the driver seat in terms of ideation. While sometimes hard, because of the CHLs reluctance to participate in class, it can work well to have every single students share their idea for a research topic during a shared class session. This is often a chance for the domestic students to model asking questions and

thinking out loud about the creation of a project. It is likely to take several class sessions and additional one-on-one meetings to craft a feasible research question for all students. Some international students get positively excited once they truly believe that they can work on a project of their choice. In terms of mentoring, instructors need more resolve in getting students to ideate, but in terms of final results, the effort is often very gratifying. To get students to open up about their personal interests, one avenue to find a research topic, it may be useful to have all students share an article they have read on social media, thus validating their interests and taking the opportunity to show how an economic research question may be arrived at.

Domestic students have been exposed to the scientific method at least since junior high school, but international students do not have the same preparation. This issue looms large even in the discussion of China's pace of economic growth with some arguing that the West outperformed China for a long time because of the "breakthrough of the scientific method" in the West (Wolf, 2011).

In practice, this requires instructors to pay close attention to the language of the scientific method and to practice the implications of picking a specific research question. Especially for international students the distinction between dependent and independent variables can be easily confused. This confusion can get in the way to an effective literature review that is supposed to turn up academic research papers which are helpful in completing the thesis. If students are confused about the terminology of dependent and independent variables, they may end up looking into the wrong literature. For example, one student wanted to study the impact of the yuan/dollar exchange rate on the price of gold. She needed to find literature on what types of economic variables drive the gold price in order to build an empirical model that would include the exchange rate as her focus variable. The student initially started to look for academic research papers that explain the exchange rate, not finding much help for her project. It is important to check early during the semester that students are actually looking for the type of literature that will help them with their project.

Through student interest, it is inevitable that course instructors will be more exposed to topics that center on China and will force instructors to engage with institutional and cultural realities in another country. It is important to have students share some of their background and personal interest in their home country to help them craft a thesis that is meaningful to them. Conversely, individual mentoring of international students has to include a component on cultural issues when international students attempt to study local issues that often involve the design of a survey. International students may lack the knowledge of appropriate wording in asking about ethnic backgrounds or have narrow views regarding marital status. They may also not be familiar with appropriate brackets for income related questions. It becomes more important for those students to be pointed to good examples of surveys that pertain to their subject area. On the other hand, while lack of cultural knowledge may be a challenge in the research design stage, in the presentation of their work, international students get the opportunity to showcase their new found cultural knowledge. Especially during their oral presentations, students might infuse some humor or use colloquial terms in an appropriate way. Especially after working with those students over a two year period, the value added by their education becomes broadly observable.

Because of the 2+2 program in particular, students in the Research Methods class are now likely to be in one cohort that has studied together for 4 years. Also, students tend to be very closely connected to senior students from their home country who might have taken on a peer mentoring role. This cohort model has advantages in that more recent cohorts seemed to have a better understanding of what is expected in the course. Those expectations are not just communicated by faculty and advisers, but also by more senior students who have completed the course. A disadvantage of this cohort model is that faculty has to be mindful of past projects that were completed by students. Some students are tempted to marginally modify past work. The information sharing among students that helps in conveying expectations can also lead to students choosing to work on very similar topics, defying the goal of having students think about their own interests. At times, faculty teaching the course, have sequestered topics that were frequently chosen in past classes. Another strategy is to identify students with similar topics and assign the same faculty mentor in order to monitor that students work individually.

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INFLUENCER MARKETING: A CONCEPTUALIZATION OF THE DEVELOPING PHENOMENA AMONG ADOLESCENTS

Morgan Alexandra George, Missouri State University

Ismet Anitsal, Missouri State University

Melek Meral Anitsal, Tennessee Tech University

ABSTRACT

Influencer marketing is a type of marketing that uses celebrities or people with a large social media following to influence their viewers on what they should buy. Influence marketers are widely available on various social media platforms like Instagram, Facebook, and YouTube and target their activities towards especially adolescents. This technique has gained popularity through companies large and small because of the versatility and creativity that it can be achieved through. While influencer marketing has been around for quite some time, it has only recently become popular because of the growth in popularity of social media and the use of consumers of all ages. The objective of this research is to investigate influencer marketing from the perspective of consumers and businesses. More specifically, an analysis of the fundamental principles of social media marketing that is used to make an overview of the advantages and disadvantages of influencer marketing. This paper offers a conceptual model and concludes with implications for managers and researchers.

RELATIONSHIPS BETWEEN STOCK PRICE, TRADING VOLUME AND BID-ASK SPREAD ON THE US STOCK EXCHANGE: AN EMPIRICAL INVESTIGATION

Mosheda Hassan, Grambling State University
Raja Nassar, Louisiana Tech University

ABSTRACT

In this study we investigate the relationships between stock price, stock trading volume and bid-ask spread for 45 firms on the US stock market. To study the nature and direction of these relationships, we used the Johansen co-integration test, the Vector Error Correction Model (VECM) and the Vector Autoregressive Model (VAR).

Results from the analysis indicated that the majority of firms showed no relationships among price, volume and spread. In 58% of the firms there was no relationship between price and volume and in 71% no relationship between price and spread. Also, 89% of the firms showed no relationship between volume and spread. In addition, there was little evidence for co-integration. Price and volume were co-integrated in only 3 firms and price and spread in two firms. Volume and spread were not co-integrated. Price and volume were most related over the firms and volume and spread were least related.

Price affected volume in 29% of the companies. This effect was mostly positive. In 9% of the companies, volume had a positive effect on price. In 9% of the firms, price had a negative effect on spread. Spread affected price more than price affected spread. In 16% of the firms, the spread effect was mostly positive. There was little support for any relationship between spread and volume. In the 3 cases where there was a relationship, volume affected spread negatively.

CASH-OR-NOTHING WARRANTS - A CASE OF BINARY PAYOFFS IN STRUCTURED PRODUCTS §

Rodrigo Hernández, Radford University

Kaschia Wade, Radford University

ABSTRACT

Recent years have witnessed a substantial increase in both the size and scope of the retail market of structured financial products known as certificates. This growth has attracted the attention of the entire financial industry, academicians and regulators. Most certificates are created by intermediaries through various combinations of fixed income securities, equity securities, and/or derivative securities and typically marketed to investors under a proprietary brand name created by the intermediary (issuer). Regulators have concerns about the sophistication of certificates especially when issuers begin targeting less-sophisticated individual investors as primary customers.

In this paper, we study a new financial product known as “Cash-or-Nothing Warrants”. Cash-or-Nothing Warrants (also known by the commercial name of “Touchdown Warrants”) are one of the equity-linked “structured products” issued by major banks Europe (OTC- over the counter), whose value has a binary relationship to an underlying asset. We introduce and describe Touchdown Warrants and show, based on option pricing theory, that the payoff of a Touchdown Warrant can be duplicated with binary options. We also empirically examine Touchdown Warrants issued by Bank Vontobel AG between August 2005 and January 2008 to investigate if the issuer made a profit in the primary market. Consistent with previous research on structured products, the issuer generates a profit in the primary market. Finally, we simulate the sensitivities of Touchdown Warrants to changes in different pricing input variables and parameters used in the design of Touchdown Warrants.

JEL classification: G13, G24

Keywords: Cash-or-Nothing Warrants; Binary Options; Structured Products; Financial Innovation; Exotic Options

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EXPLORING THE ANTECEDENTS OF CORPORATE SUPPORT OF SOCIAL ENTREPRENEURSHIP: DYNAMIC CAPABILITY PERSPECTIVE

Andrey Kretinin, William Paterson University

Stephen C. Betts, William Paterson University

Robert Laud, William Paterson University

ABSTRACT

Numerous occurrences of natural disasters, scarcity of resources, shortage of fresh water, just to name a few, provide a more than sufficient demand for immediate actions. Both, hierarchies and markets, demonstrated their inefficiency in solving the major problems humanity faces due to the requirements of consistent commitment, resources, and coordination. The evidence suggests that solutions to such great problems can be better attempted by social entrepreneurs, whose major purpose is to attempt to solve global issues and deliver a blended value. While beneficial consequences of social entrepreneurship are well studied, the antecedents of social entrepreneurship still remain unclear. This paper is dedicated to contributing to the company-level antecedents of social entrepreneurship.

SOCIAL ENTREPRENEURSHIP

The field of social entrepreneurship has attracted an enormous amount of attention among both practitioners and scholars over the last two decades as it manifested itself as a very efficient way of tying company's performance to societal needs. The concept of social entrepreneurship has shifted focus from simple redistribution of wealth and benefits to the idea of shared value. In other words, entrepreneurs have created business models that focus on value creation by solving various societal issues, such as access to water supplies, agricultural development, education, poverty, among others, in the situations of both market and government failures.

Given the complexity and relatively young stage of social entrepreneurship research, social entrepreneurship has multiple definitions and is sometimes confused with corporate social responsibility. We begin with a contemporary definition of social entrepreneurship as "using profit making enterprises to address social, environmental and other problems that were traditionally entrusted to governmental and non-profit organizations" (Betts, Laud & Kretinin, 2018). We also consider an earlier definition of 'social 'enterprise (a term synonymous with social entrepreneurship) as the "recognition, formation, evaluation, and exploitation of opportunities to create new businesses, models and solutions with a focus on achieving blended value" (Zahra, Newey & Li, 2014). The second definition allows us to focus on a company's ability to identify and exploit these aforementioned social opportunities. Moreover, we draw a clear distinction between social entrepreneurship and corporate social responsibility. While social entrepreneurship is focused on creating blended value, which benefits societies as a whole, corporate social

responsibility is usually aimed at maximizing profitability by satisfying specific stakeholders (Baron, 2007). Social entrepreneurship requires not only entrepreneurial skills, but also a deep understanding of social needs. When entrepreneurs interact with their customers, they can get a better idea of specific needs in the given market and adjust their business model to create a blended value.

The research field of social entrepreneurship is relatively young, and as a result, researchers still struggle to reach a consensus on the definition of the concept and boundaries of the field. Keeping these incongruences in mind, the majority of current research focuses on several major areas: consequences of social entrepreneurship, specific missions of social entrepreneurs, entrepreneurial processes, and the characteristics of individual entrepreneurs. In addition to conceptualization issues, research on social entrepreneurship suffers from the lack of empirical studies due to the following issues:

- Majority of social entrepreneurs are private entities
- The most severe and focal societal needs arise in developing countries where data is not routinely collected and resources available to entrepreneurs are very scarce
- Societal problems and needs are unique, which makes coding and generalization almost impossible for large empirical studies
- Entrepreneurs and existing companies in developed countries usually do not directly face extreme societal needs such as poverty or lack of water supplies

DYNAMIC CAPABILITIES

We utilize the dynamic capabilities approach (Teece, 2018) to highlight how a company's interactions with customers allow social entrepreneurs to learn and adjust to specific needs of the society. We claim that companies' direct exposure and communication with their customers will allow companies to better understand the social needs and correspond to them via adjusting its business model. However, the majority of companies are seldom exposed to a homogenous market. In most cases, companies interact with customers of different cultural and economic backgrounds. The variety and complexity of different societal needs will make it more difficult for social entrepreneurs to learn them and implement a corresponding strategy due to the limited resources and potential information overload (Ghemawat, 2007). Therefore, we claim that the cultural and economic diversity of entrepreneurs' customer exposure will negatively moderate the relationship between companies' exposure and social entrepreneurship. To test our hypotheses we have compiled a 10-year panel dataset. We have performed a linear regression with panel corrected standard errors and control for heterogeneity to account for time series nature of the data and potential autocorrelation (Greene, 2012). Our results provide support to our hypotheses.

A company's strategy is defined as specific allocation of its resources toward the identified goal. A companies' ability to set specific goals and efficiency with which resources are utilized are dependent upon the company's capabilities. Social entrepreneurship requires strong market knowledge and specific skills in order to identify specific market and societal needs and effectively apply the companies' resources. We will build upon the seminal cultural frameworks of Hofstede (1980) and the Global Leadership and Organizational Behavior Effectiveness (GLOBE) (House,

1998) research which reviews cross-cultural differences including humane orientation and altruism -concepts closely related to social entrepreneurship. Therefore, consistent with extant literature, we will ground our study in dynamic capabilities paradigm combined with a resource-based view in order to highlight factors that serve as antecedents to company's social entrepreneurship activities.

EMPIRICAL APPROACH

This project is dedicated to providing a generalizable empirical contribution to the area of social entrepreneurship by focusing on the antecedents of corporate social entrepreneurship of US-based companies. In particular, we are seeking to answer the following questions:

1. What factors can encourage US corporations to engage in social entrepreneurship?
2. What specific characteristics of US corporations are associated with higher degree of social entrepreneurship?

US corporations provide a unique opportunity to study corporate social entrepreneurship since the majority of US companies operate in various international markets, where they are exposed to extreme societal needs that are not present in the developed countries and US companies do follow specific disclosure policies, which makes the study possible.

Our study utilizes a large panel data that covers US public corporations from 2004 to 2018. We combined the data from multiple sources: SEC, annual reports, proxy statements, World Bank Database, Global Entrepreneurship Monitor, and companies' websites. In order to capture companies' exposure to harsh societal needs, we include companies that operate in international markets. We will utilize a longitudinal regression model with panel-corrected standard errors to control for autocorrelation in the panel.

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IMPACTS OF INFORMATION TECHNOLOGY SPENDING ON FINANCIAL PERFORMANCE AND QUALITY OF PATIENT CARE IN THE U.S. HOSPITALS

C. Christopher Lee, Central Connecticut State University

Robert Marfia, Central Connecticut State University

Christopher Chagnon, Central Connecticut State University

Youngseon Kim, Central Connecticut State University

ABSTRACT

This research explored impacts of IT spending on hospital financial performance and quality of patient care. We tested two research hypotheses. The first hypothesis was that IT spending would be positively related to the hospital financial performance, and the second hypothesis was that hospitals with higher IT spending would have better quality metrics. We used the 2017 American Hospital Association Survey data and the 2017 HCAHPS dataset from Medicare website. We tested three hospital financials and four quality measures. We employed T-Tests and ANOVA models to test the hypotheses. Results were inconclusive for both hypotheses. Evidence showed statistical significance on two out of seven tests.

A FIVE CAMPUS STUDY ON CREDIT CARDS AND BUDGETS OF AMERICAN COLLEGE STUDENTS

Marty Ludlum, University of Central Oklahoma

Sue Lynn Sasser, University of Central Oklahoma

Vijayan Ramachandran, Oklahoma City Community College

Weichu Xu, East Stroudsburg University

Cenea Reese, UCO

ABSTRACT

Are college students prepared for the financial realities of the world? Will college students be buried under credit card debt? We surveyed US college students across five campuses (n=787) in 2016. We examined their use of credit cards and budgeting. We found students were unaware of the financial tools they used every day. We examined specific demographic subgroups of gender, year in school, being employed, being married, and having children and reported the significant results. We also examined the changes in credit use from the 2009 CARD Act. We conclude with discussing limitations and opportunities for further research in this area.

Key words: financial life skills, financial literacy, college students, credit, budgeting

INTRODUCTION

Americans are deep in debt, nearly \$1 trillion in credit card debt alone (Rae, 2019). Do we know what we are doing? Sadly, no. Financial illiteracy is very expensive. Consumers in America paid \$104 billion in credit card interest and fees in 2018, and that amount was expected to grow to \$110 billion annually by 2020 (O'Brien, 2018). The fees and interest had grown 11% from the 2017 figure of \$93.7 billion (O'Brien, 2018). While the economy has historically low interest rates, these fees are obscene.

Financial literacy research has been confusing and contradictory because of the many operational definitions of the construct. For example, financial literacy has been defined as “the ability to make informed judgments and to take effective actions regarding the current and future use and management of money” (U.S. Dept. of Treasury, 2008). This definition, while palatable, is not measurable. The definition includes several vague terms, such as effective actions and informed judgement, which require further detail. What does the definition include or exclude? Often financial literacy is defined in academic circles as higher-level financial job skills, such as earnings ratios and investment risks.

The watershed research of Brüggen, Hogreve, Holmlund, Kabadayi, & Löfgren (2017) developed the five facets of financial well-being, including multiple objective and subjective measures. Their construct incorporated and expanded on the past research in this area to develop a comprehensive way to examine financial well-being.

We wanted to take the topic in another direction. To avoid confusion, we will describe our concept as financial life skills. Few of our students will become hedge fund managers, but all of

them will become consumers. What financial life skills does a consumer, every consumer, need in the modern economy?

Financial life skills impact two broad issues to the college community: leaving with high interest debt (credit cards) and leaving without understanding financial instruments for day to day life (responsible use of credit, making a budget, and avoiding financial pitfalls, such as gambling).

In addition to credit cards, student loans are a burden. In 2019, the average student loan debt was \$33,000 per borrower (USFLEC, 2019). When student loans and credit cards were combined, the average debt for an American college graduate was over \$40,000. This amount of debt is unsustainable.

Credit is not necessarily bad if the choice was informed. This was not the case. American students did not understand credit cards and were financially harmed from this lack of knowledge (UFLCC, 2019). To repeat: Financial illiteracy is very expensive.

The primary cost of credit is the interest rate. The APR on card typically fluctuates with the prime rate (White, 2020). Ironically, the average APR on credit cards is 17-24%, while USA has historically low interest rates (U.S. News & World Report, 2020). Nearly half (45%) of US households have had a credit card balance for over 2 years (O'Brien, 2018). The average household has a balance over \$16,000 and spends nearly \$1300 per year on interest alone (O'Brien, 2018).

Besides interest, credit cards are loaded with fees. The average late fee is \$36 and in addition, some card companies raise interest rates to 27% (U.S. News & World Report, 2020). The over balance fees (if you agree to the charges) are \$35 (White, 2020). The convenience cash advance fee is 2-8%; however, most cards have a \$5 minimum (U.S. News & World Report, 2020) which means for the convenience of getting \$20 in cash, you must pay \$25. Lastly, many companies charge you a fee just to have a credit card, whether you use it or not. Annual fees for cards often exceed \$100 (White, 2020).

Over a third of Americans (36%) had experienced a hidden fee (Hutheesing, 2019). The problems are especially acute on campus, where most students are making financial decisions alone for the first time. Historically, credit card issuers were ready to pounce on these unsuspecting and naïve customers.

Congress tried to address this issue with the CARD Act of 2009, effective 2010, to slow the spread of easy credit on campus. The CARD Act required students to have either co-signors or independent income in order to gain credit (Samuelson, 2010). Part of the motivation of the current project is to determine if the CARD Act of 2009 had the effect of slowing credit use on campus.

In addition, this study adds to the body of research by combining several aspects of financial life skills (credit card literacy, budgets, and gambling). We wanted to see a more comprehensive view of college students and their understanding of real-world skills needed by every member of society.

REVIEW OF THE LITERATURE

Since interest is the primary cost of credit, a financially literate student should know the interest rate he/she pays (Robb and Sharpe, 2009). College students, however, did not possess a

strong financial knowledge (Ludlum and Smith, 2010; Jones, 2005; Warwick and Mansfield, 2000; Chen and Volpe, 2002). This lack of knowledge also included budgeting and retirement planning (Norvilitis et al. 2006).

Ludlum, Tilker, Ritter, Cowart, Xu, & Smith (2012) surveyed American college students (n=725) and found that 70% of undergraduates had a credit card. However, less than 10% of students paid their credit card in full monthly. This leaves 90% of students paying very high interest. Fewer than one in five students claimed to know the interest rate they paid. Fewer than 10% knew their interest rate, the late charges, and the over balance penalty on their credit card(s). Less than one in ten students knew basic facts of a financial tool they have in their pocket every day.

Limbu & Sato (2019) surveyed college students (n=427) and found credit card literacy led to greater financial well-being of college students, thereby supporting the efforts of financial literacy programs. Singh, Rylander, & Mims (2018) segmented college students into four payment behavior groupings (n=400). Students who pay full balances on time each month were predictably in better financial shape, with higher credit limits and less debt. These students also checked their statements more carefully and had more positive perceptions of credit card companies. Solis & Ferguson (2017) examined financial satisfaction among undergraduate students (n=1,498). They found the probability for financial dissatisfaction increased when students held student loan and credit card debt. Limbu (2017) examined the direct and indirect effects of credit card knowledge on credit card misuse among US college students (n=427). Credit card knowledge and social motivation were inversely associated with credit card misuse. Credit card literacy programs should incorporate strategies that can enhance students' knowledge, social motivation, and behavioral skills for the responsible use of credit cards.

Henager & Wilmarth (2018) surveyed college students (n=16,670) and analyzed the relationship between financial wellness and debt. Holding a student loan was negatively related to financial wellness. Having a college degree (as compared to having a high school degree) was positively associated with financial wellness.

With this as a background, we wanted to see if any demographic factors influenced undergraduate students' financial life skills. We crafted seven research hypotheses. Those hypotheses are:

- Hypothesis 1. Gender (male/female) affects financial life skills;
- Hypothesis 2. Indoctrination (year in school) affects financial life skills;
- Hypothesis 3. Being an international student affects financial life skills;
- Hypothesis 4. Employment affects financial life skills;
- Hypothesis 5. Marriage affects financial life skills;
- Hypothesis 6. Having children affects financial life skills; and
- Hypothesis 7. Taking a class in personal finance affects financial life skills.

For each, we started with a null hypothesis.

METHOD FOR THE SURVEY

A convenience sample was taken from large business survey classes at five state (public) schools across the United States in the fall of 2016. Those campuses included: University of Nebraska-Lincoln, University of Central Oklahoma, Oklahoma City Community College, Indiana University of Pennsylvania, and East Stroudsburg University of Pennsylvania.

Students completed the IRB approved questionnaire during class time. The survey instrument was voluntary and anonymous. We were best able to minimize bias by using a large group survey, with anonymous results and confidential submissions. A total of 787 surveys resulted. After excluding those surveys missing significant amount of data, some questions had fewer than 787 responses.

Most (63%, n=466) of the participants were business majors. The respondents were in the following academic years: first, 10.8%, n=81; second, 24%, n=180; third, 28.7%, n=215; fourth, 33.7%, n=253; and 21 graduate students (2.8%). In our sample, males outnumbered females 52.1% to 47.9%. Only 9.5% (n=71) of the respondents were married, and only 62 students (8.4%) had children. Most students worked while attending school (73%, n=540).

Credit cards were still common on campus, but not universal. Over a third (37%) of students did not have a credit card. Another 30% only had a single credit card. However, 18% of our sample had four or more credit cards.

Student loans were also a concern. In our sample, 54% had student loans, the average reported amount being \$21,000. This amount is lower than most national surveys, likely because our sample included only state schools with lower tuition costs. On a positive note, 46% of students did not have any student loans. Of course, the student loan debt is in addition to the credit card balances.

Did students understand the financial tools they possess? Sadly, no. The table above indicates the percentages of students who did know the features of their credit card, and the percentages range from a third to nearly 90% on some of the common fees.

In addition, we wanted to examine student budgeting. In our sample of college students, only 373/728 or 51.2% had a budget. Half of students being prepared might sound good, but the success is more in theory than in practice. Only 31.8% knew how much of their budget they spent on housing. Only 22.9% knew how much of their budget they spent on credit card bills. However, 45.6% knew how much of their budget they spent on restaurants. It seems students have their priorities, even if their priorities should be adjusted.

Credit cards and the failure to budget are not the only financial pitfalls. Gambling is another one. In our sample, only 20.24% of the students have visited a casino. Of the students who visited a casino, only 48 (7.25%) visited a casino more than twice a year. Of students who went to a casino, they reported spending an average of just under \$23. Gambling online for money was even more rare (7 out of 710 or less than 1%).

FINDINGS

We wanted to examine what demographic factors affected student financial life skills. We ran chi square analyses for relationships for independent variables (gender, year in school, employment, marital status, etc.). We examined five questions on credit card literacy and four questions on budgeting.

For Hypothesis 1, we examined if gender (male/female) affects financial life skills. To our surprise, gender yielded only one statistically significant result from the nine questions, that females are more aware of their budget related to restaurants.

For Hypothesis 2, we determined year in school (as opposed to physical age) does affect financial life skills. We found that upperclassmen more aware four of the five credit card literacy questions and two of the budget questions.

For Hypothesis 3, we found being an international student (non-USA) does affect financial life skills. Specifically, we found international students were more aware of all five of their credit card literacy issues. In addition, international students were more aware of three of the four budget questions.

In Hypothesis 4, we determined Employment does affect financial life skills. From our analysis, employed students did better on two issues of credit card literacy and all four questions about budgeting.

In Hypothesis 5, we found that marriage does affect financial life skills, being statistically significant on eight of nine questions. The results found that married students were more financially aware in knowing his/her current credit card balance; the APR; the late fee; and the cash advance fee.

Hypothesis 6 examined whether having children does affect financial life skills. Students who had children had statistically significant results on all nine questions.

Lastly, in Hypothesis 7, we examined whether taking a class in personal finance affects financial life skills. To our surprise, we found no statistically significant results based on whether a student had taken a personal finance class or not.

DISCUSSION

Hypothesis 1 was not supported. We found only one statistically significant result of the nine questions. We are left to conclude that gender does not affect financial life skills, or if it does have any effect, it is a small effect that favors females.

Hypothesis 2 (year in school) was generally supported. Our rationale would be that more senior students, with more experience with credit cards, and more access to credit, would be more financially aware consumers.

For Hypothesis 3 (being an international or domestic student) heavily favors the international students. Our explanation would be two-fold. First, we had a small group of international students which might affect the result. Second, we believed the necessity of living abroad (not with family) requires a budget.

For Hypotheses 4, 5, and 6, we rationalize the overwhelming support for all three as evidenced by the adage, if you want to learn about the real world of money, get a job, get married,

and have some kids. In our sample, the result was clear. Real world obligations make students much more aware and concerned about the financial issues.

Our conclusions about Hypothesis 7 were unexpected. We thought taking a personal finance course would impact all the questions. Just the opposite occurred. We were perplexed. Then we examined our sample. The overwhelming majority were business majors. This meant all our sample had been exposed to the content of a personal finance course, whether they took the introductory course (often offered as an elective for non-business majors) or gained the knowledge from the business core of economics, accounting, and finance courses.

Lastly, we asked whether our students had gotten a credit card after 2010, when the CARD Act became effective. In our sample, 402 students indicated they acquired a credit card since 2010. Of the, 402 with post-CARD Act credit, 392 (97.5%) were employed at the time, and 137 (34.1%) had parental co-signors (some had both). Based on these results, it appears the CARD Act has been a success. The time of students getting credit cards without any income verification or co-signor appears to be gone.

MANAGING THE MULTI-GENERATIONAL FRANCHISEE – THE IMPACT OF AGE ON FRANCHISEE SUCCESS AND SATISFACTION

Martin J. McDermott, Purdue University Global
David H. Butler, Purdue University Global

ABSTRACT

This quantitative study explores the influence of age on successful franchise business ownership. Franchising is a popular alternative to entrepreneurship. However, prior studies suggest one of the greatest challenges for a franchise organization is finding and retaining a proper match for the franchisor's system. Studies on entrepreneurs not constrained to franchisees have found mixed evidence on the impact of age on successful entrepreneurship. The United States presently has several distinct and very different generations of entrepreneurs. These cohorts include Baby Boomers, Generation X, Millennials, Traditionalist, and Generation Z. Previous studies have shown that the rate of self-employment for younger individuals is lower than older individuals and businesses created by persons less than 35 years old don't perform as well as businesses created by entrepreneurs between the ages of 45 to 54 years old. Previous research also indicates under capitalization is typically the biggest problem that an entrepreneur can face when it comes to growing a business. This study wanted to learn if older franchise business owners are significantly more satisfied with operating and owning a franchised business compared to younger franchise business owners. Findings in this quantitative study reported here indicate that of the several franchise categories researched, more older individuals pursue a franchise compared to younger entrepreneurs. Additional findings reported that in contrast to some research findings on non-franchisee entrepreneurs, age was not correlated to satisfaction.

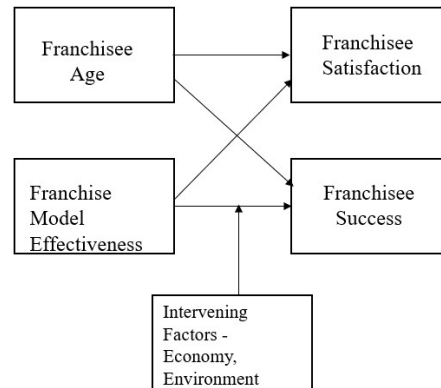
INTRODUCTION

This study examines the influence of age on satisfaction associated with successful franchise business ownership. Previous research has explored the impact of age on entrepreneurship (Bohlmann, Rauch, & Zacher, 2017; Ratten, 2019; Rogoff, 2007; Shane, 2008; Small, 2012; Weeks & Schaffert, 2017; Zabel & Early, 2016), yet limited research has focused specifically on the franchise format of business ownership. This study seeks to fill this gap in research. The question of whether a franchise owner's age is significant because it will determine best practices for evaluating future franchisee acceptance by franchisors. Much literature suggests there is a relationship between age and entrepreneurship. However, a franchise model is very different from other entrepreneurial ventures (McDermott & Boyd, 2017; McDermott & Butler, 2019). Therefore, it is important to know whether the factors that apply to non-franchise business opportunities are the same as those that work for a franchise.

Conceptual Framework

The concepts of age and successful franchising are the theoretical underpinnings of this study. As shown in Figure 1, there are various elements that can affect a franchisee's success and satisfaction with a franchising arrangement. This study, as shown in Figure 1 concentrates on the correlation between a franchisee's age to success and satisfaction.

Figure 1



This study is significant for several reasons. First, if generational differences are found, there are important implications for franchisors in terms of training, recruiting, and leading franchisees. Furthermore, if generational differences are not found, franchisors should not make significant changes based exclusively upon the generational make-up of their prospective and current franchisees. Next, acquiring a franchise involves a substantial investment and time from the franchisor and franchisee. According to McDermott and Boyd (2017), previous studies have discovered a relationship between expectations and satisfaction. Oliver (1981) describes satisfaction as a psychological state ensuing when the emotion surrounding disconfirmed expectations is joined with a person's past feelings about the experience. According to McDermott and Boyd (2017), the benefits of job satisfaction include fully engaged employees, increased job performance, increased effectiveness and productivity, lower turnover and absenteeism, and a higher level of motivation. These outcomes are typically associated with a higher level of success and performance.

HYPOTHESES

Previous studies have shown that fewer, younger individuals pursue entrepreneurship (Hipple and Hammond, 2016), have a lower level of work ethic (Jobe, 2014; Meriac, Woehr, & Bannister, 2010) and may not perform not as well compared to older entrepreneurs (Shane, 2008). Hipple and Hammond (2016) suggest one of the biggest challenges for younger entrepreneurs is raising capital to finance their business and makes it more difficult for this group to acquire a franchise, even if they are a proper match for this entrepreneurial model. It therefore follows that:

- H1 Older franchise business owners have a significantly higher level of job satisfaction than younger franchise business owners.*
- H2 Older franchise business owners have a significantly higher level of career satisfaction than younger franchise business owners.*
- H3 Older franchise business owners have a significantly higher level of life satisfaction than younger franchise business owners.*

METHODOLOGY

To analyze the hypotheses, a comparative research model was chosen to gauge the variances in satisfaction between older franchisees in contrast to younger franchise business owners. The final sample was established using a stratified random sampling process. The dependent variables for this study were job satisfaction, career satisfaction, and life satisfaction. This study utilized a self-administered mailed survey with 30 items. Survey contents were taken from the Minnesota Satisfaction Questionnaire (1977), Diener's (1984) Satisfaction with Life Scale, and Greenhaus's (1990) Career Satisfaction Scale. These surveys were selected for their high levels of validity and reliability. The independent variable for this study is age category. Age category was obtained by asking survey participants to identify their age category, which was broken into five groups: 21-30, 31 to 40, 41 to 50, 51 to 60, 61 and older.

Sample Characteristics

The original sample of 1,280 had a 19.6% response rate, yielding a sample size of 251. A general summary is provided in Table 1. The franchisees randomly selected in this study came from organizations franchising over 25 years ($M = 25.17$, $SD = 12.49$, minimum-maximum 11-61, $N = 12$).

Table 1 Summary of Sample Characteristics			
ITEM	CATEGORY	FREQUENCY	PERCENT
Age Range of Franchise Business Owner	61 and over	60	23
	51 to 60 years' old	93	37
	41 to 50 years' old	63	25
	31 to 40 years' old	20	8
	21 to 30 years' old	1	0
	No response	14	6

Table 2 shows the descriptive statistics for job, career, and life satisfaction as the independent variables.

Table 2 Descriptive Statistics								
SCALE	AGE CATEGORY	N	MEAN	STD. DEV.	STD. ERROR MEAN	LOWER BOUND	UPPER BOUND	MIN
JOB SATISFACTION	61 and over	60	77.68	8.257	1.066	75.55	79.82	61
	51 to 60 years' old	93	75.52	9.963	1.033	73.46	77.57	47
	41 to 50 years' old	63	75.19	11.67	1.470	72.25	78.13	46
	31 to 40 years' old	20	74.35	7.903	1.767	70.65	78.05	50
	Total	236	75.88	9.907	.645	74.61	77.15	46
LIFE SATISFACTION	61 and over	60	27.35	5.851	.755	25.84	28.86	12
	51 to 60 years' old	93	25.31	6.354	.659	24.00	26.62	9
	41 to 50 years' old	63	25.90	5.975	.753	24.40	27.41	13
	31 to 40 years' old	20	28.35	3.870	.865	26.54	30.16	17
	Total	236	26.25	6.008	.391	25.48	27.02	9
CAREER SATISFACTION	61 and over	60	18.23	5.331	.688	16.86	19.61	5
	51 to 60 years' old	93	18.32	4.547	.472	17.39	19.26	6
	41 to 50 years' old	63	18.37	4.393	.553	17.26	19.47	8
	31 to 40 years' old	20	18.90	4.291	.959	16.89	20.91	9
	Total	236	18.36	4.673	.304	17.76	18.96	5

To reduce the risk of a Type 1 error, a one-way between groups ANOVA was used to compare the means for job satisfaction, career satisfaction and life satisfaction for age category. ANOVA by its very nature reduces the risk of a Type 1 error. A summary can be seen in Table 3.

Table 3						
Age Category -Test of Between-Subjects Effect: Dependent Variables: Job and Life Satisfaction						
SCALE	ANOVA	SUM OF SQUARES	df	MEAN SQUARE	F	SIG.
JOB SATISFACTION	Between Groups	284.205	3	94.735	.965	.410
	Within Groups	22,780.473	232	98.192		
	Total	23,064.678	235			
LIFE SATISFACTION	Between Groups	250.160	3	83.387	2.350	.073
	Within Groups	8,231.586	232	35.481		
	Total	8,481.746	235			
CAREER SATISFACTION	Between Groups	6.927	3	2.309	.105	.957
	Within Groups	5,125.459	232	22.092		
	Total	5,132.386	235			

No statistical differences were found between the four categories of age for job, career, and life satisfaction.

CONCLUSIONS

This research makes several contributions. Studies on entrepreneurs not constrained to franchisees have found mixed evidence on the impact of age on successful entrepreneurship. However, this study showed no relationship between age category and franchisee satisfaction suggesting younger entrepreneurs can be equally as successful in franchising. One of the biggest obstacles younger entrepreneurs face is securing financing for starting a business, particularly franchising. Improving the financial requirements of younger entrepreneurs and warranting access to outside financing is among the key suggestions noted in this research. Next, the biggest category of entrepreneurs identified in this study was the 51 to 60-year-old group, implying franchising is more targeted to an older entrepreneur. Franchisors might benefit by offering lower cost models to obtain more of a younger audience in their franchise system. Some food franchises have used this approach by creating low cost, kiosk opportunities or lower cost, home-based models for service-oriented franchises. The emphasis of younger entrepreneurs and franchising is not a view of trying to hit some sort of percentage. This is a concern of business development, opportunity, and that a large portion of the United States and qualified population of potential entrepreneurs are not completely participating in franchising.

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A TWO FACTOR MODEL OF THE PROFESSOR BRAND

Michael W. Pass, Sam Houston State University

ABSTRACT

A professor develops a reputation based on certain abilities and personality traits that lead to student perceptions of the professor's brand. The professor's brand personality may contribute to positive perceptions and outcomes, such as greater student satisfaction and positive word of mouth. The term "living brand" is used for individuals, such as professors, because they are human beings, instead of products, that are likely to influence brand perceptions of an institution (Bendapudi and Bendapudi, 2005). Therefore, it is important for institutions to understand salient characteristics of the professor brand so they can better manage institution brand perceptions. This area is also of interest to professors because student perceptions from teaching evaluations are considered when making tenure and promotion decisions.

A brand is "an identifiable product, service, person or place, augmented in such a way that the buyer or user perceives relevant, unique added values which match their needs most closely" (De Chernatony and McDonald, 2003, p.25). Brands have been studied widely including research related to brand identity (Aaker, 2003; De Chernatony, 1999; Balmer & Greyser, 2006), brand personality (Aaker, 1997; Freling & Ford, 2005), brand positioning (Trout & Reiss, 1980), and brand equity (Keller, 1993; Davcik, Rui Vinhas da Silva & Hair, 2015). The research suggests that numerous concepts may be applied to explain the brands of individuals. The roles of individuals as brands are researched in studies of entrepreneurs (Razeghi, 2016), CEOs as brands (Bendisch, Larsen, & Trueman, 2012), the branding of doctoral candidates (Close, Moulard & Monroe 2001) and branding of psychologists (Cedergerg, 2017). The professor brand has been examined in terms of brand advocacy (Jillapalli & Wilcox, 2010) and brand equity (Jillapalli & Wilcox, 2014).

The professor brand is investigated in the current study to seek answers to the following questions: (1) To what extent does a professor's brand personality influence the students' perceptions of the professor brand? (2) To what extent do the students' perceptions of the professor brand influence student brand advocacy for the professor? (3) To what extent do the students' perceptions of the professor brand influence student academic effort? The presentation includes reporting of initial results from structural equation modeling of data gathered from students. Two personality factors were found to influence the students' perceptions of the professor brand that was measured as the student's relatedness to the professor. The professor brand was found to be related to brand advocacy that was measured as the extent that the students exhibit word-of-mouth about the professor. The initial results indicate that the extent of academic effort, measured as effort to complete readings, is not significantly related to the professor brand.

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HEALTH SAVINGS ACCOUNTS: TAXATION AND INVESTMENT ISSUES

Richard W. Powell, Pepperdine University

ABSTRACT

A Health Savings Account can be an attractive vehicle for both the payment of medical expenses and the accumulation of retirement savings. The account generally provides for reimbursement for medical expenses in conjunction with a high deductible medical insurance plan. Under Federal tax law, qualifying individuals can make deductible contributions to the account. Gains on the investment account are not subject to taxation unless distributed. There can be nontaxable treatment if the funds are used to pay medical expenses not covered by the high-deductible policy. Other favorable tax results can occur for the investor based on factors such as age or disability. Investors have the option to accumulate savings in a Health Savings Account while using separate funds to make current medical payments. This paper models some common investment scenarios and estimates their outcomes. The results are sensitive to model assumptions such as rates of return, tax rates, and administrative fees.

SERVICE AND HUMILITY IN CRISIS LEADERSHIP: INTRIGUING THEORIES, BUT DO THEY ACTUALLY PRODUCE RESULTS?

Wilbur Reid, Johnson University

ABSTRACT

In times of crisis, people turn to leaders for guidance and inspiration. Literature theorizes that servant leaders might be particularly effective in times of crisis (Greenleaf, 1977). “Ego works in the face of genuine crisis” (Greenleaf, p.6), indicating that the subjugation of the ego into service to followers is more effective in navigating crisis. However, there is not yet any published empirical evidence to support that theory. The purpose of this research was to identify the leaders that people turn to in crisis, and then ascertain the type and effectiveness of that leadership. Utilizing the definition of a leader as anyone who influences the thoughts and behaviors of others (Sims, 2002), this leader could be one with formal authority or one with no formal authority. Participants were asked to identify the person that they turned to in a specific time of crisis. They were then asked to evaluate the effectiveness of those leader during the time of crisis. Finally, they assessed the servant leadership and level 5 leadership behaviors exhibited by each of the leaders. Servant leadership was measured utilizing the ten item Essential Servant Leader Behaviors instrument from Winston and Fields (2015), and level 5 leadership was measured utilizing the ten item Level 5 Leadership instrument by Reid (2012). An analysis of the data shows that each of these leadership types is effective in crisis, but that level 5 leadership has the strongest relationship with success.

Keywords: Level 5 leadership, servant leadership, crisis, turbulence, humility

HUMAN RESOURCE ACQUISITION IN COMPETITIVE MARKETS BY RESOURCE POOR FIRMS

Lawrence Roth, St. Cloud State University

Subba Moorthy, St. Cloud State University

Sarah Sengupta, St. Cloud State University

ABSTRACT

Stealthy innovations would enable firms to acquire superior resources without detection by competitors. Circumstances in which they theoretically could provide sustained competitive advantages are developed. Simulations of the acquisition of human resources in open markets reveal that inimitable innovation strategies are most likely to succeed if firms use indices or proxies for making resource acquisition decisions and competitors need to acquire only a small portion of the total resources available in the market.

STUDY ABROAD REGARDING MNCs: ENSURING FUTURE SUCCESS USING PATH-GOAL THEORY

Allyson Sadegur, West Texas A&M University

Jackie Marr, West Texas A&M University

CASE DESCRIPTION

This case is well-suited to mid-level management classes where the curriculum includes concepts of leadership theories, Path-Goal Theory, Human Resource Management, and Cross-Cultural Management. This case is best suited after an introductory management class. For this case, the primary concern would be to use leadership theories and management practices to identify which of the four leadership styles best fit for each stage of recruitment for study abroad and intern-based employment. This includes how to apply elements of motivational and expectancy theories to encourage the students abroad to work for the company and how to improve retention after graduation. A short summary of study abroad statistics and motivations is included as well as the description of the job role for the Head of Recruitment, who would be responsible for creating such a plan. The Path-Goal Theory is presented and ties into motivational and expectancy theories, as they share common areas for leadership.

This case has a three-four difficulty level for junior or senior level undergraduate course. The case can be taught in less than two hours with one to two hours of preparation outside of class by students.

CASE SYNOPSIS

You are the new head of recruitment of a multinational corporation and the board of directors has brought some concerns to you. The amount of people who show interest in working overseas has declined due to people already in the workforce having families and not wanting to be separated. Your job as the new head of recruitment is to find talent that will stay with the company and be willing to go abroad. From your own experience as a student, you know that study abroad and internships abroad are a great source to find new talent who are young and motivated

As the Head of Recruitment, your main concern is after the time abroad. You want to ensure the students have an incentive to return to the company. To reach this end, you know the Path-Goal Theory would be a good approach in establishing an intern abroad program that works with schools and international education programs. The priority for this is how to devise a way to guarantee the students receive the support and guidance they need to succeed for their own educational goal while also securing your goal of hiring new talent. A secondary goal is to use motivational and expectancy theories to encourage students to return to work for the company, improving the retention of expatriated employees.

JOB ROLE

The Head of Recruitment is responsible for directing the recruiting department and the business in the entirety of its, “recruiting functions, inclusive of team leadership, sourcing strategy development and execution, program design and implementation, and recruiting goal development and achievement” (Head of Recruitment, 2017). The head of recruitment is also responsible for guiding the “end-to-end talent acquisition strategy” of the business including retaining the talent after training and development (Head of Recruitment, 2017).

STATISTICS ON EDUCATION ABROAD

The Bureau of Educational and Cultural Affairs under the United States Department of State and the Institute for International Education jointly build and release the Open Doors Reports, which provides multiple statistics on education abroad. These reports have been released annually since 1993 when education abroad became a common and continued occurrence. In the 1999-2000 academic year, there were 143,590 students in the United States who studied abroad (Open Doors Excel, 2019). In the 2017-2018, this amount nearly tripled with 341,751 students going abroad and receiving academic credits (Open Doors, 2019). The number of students traveling abroad for education has steadily grown each year with expectations that it will continue to do so. To support this statement, in the 2017-2018 academic year students studying abroad increased 2.7% compared to the previous year (Open Doors Excel, 2019). From the 2019 report, Europe is consistently the most popular destination for students with the United Kingdom, Italy, and Spain at 39,403, 36,945, and 32,411 respectively (Open Doors Excel, 2019). This accounts for 32% of all United States students abroad. (Open Doors, 2019). China is another popular destination with 11,613 students from the U.S. traveling there during the 2017-2018 academic year (Open Doors Release, 2019). Furthermore, Costa Rica had 8,681 students, the highest in Central and South America; and Australia had 10,332 students, the highest out of Oceania (Open Doors, 2019).

In addition to these numbers, there are also students who go abroad and do not receive educational credits, such as internships, research, and volunteer opportunities. In the 2017-2018 year, there were 38,401 students who participated in non-credit experiential abroad work (Open Doors, 2019). Moreover, there are 50,989 students who are pursuing their bachelor’s or master’s degrees abroad in a school supported by their home school and country where the credits will transfer back if they return for more education after graduating at the school abroad (Open Doors, 2019). The number of study-abroad students demonstrates that there are plenty of people who wish to go abroad in an effort to better themselves and their opportunities, even if it does not allow them to receive educational credit. The reasons for this include: studying abroad is an enriching experience that enables students to develop their human, relational, and technical skills in a real-world environment.

The final major statistics that are worth noting are the fields of study as well as the diversity of the students choosing to go abroad for learning. Reported by the Open Doors Report, the following are the top four majors for study abroad students: STEM, Business and Management, Social Science, and Foreign Language and International Studies (Open Doors Release, 2019). The most surprising statistics in this report are that 26% of the students are STEM majors, followed by

Business and Management majors at 21% (Open Doors Release, 2019). Consequently, this means if companies are searching for job candidates in the Management or STEM fields, they have a large selection of students to choose from. Given this information, if there are more companies willing to sponsor scholarships, this number will only grow.

From a diversity perspective, there has shown to be a significant increase in students who study abroad. In the 2017-2018 academic year, 30% of the students who went abroad were African American, Asian or Pacific Islander, Hispanic, or multiracial (Institute for International Education, 2019). Likewise, 68% of the minority students received scholarships from the Benjamin A. Gilman International Scholarship Program (Institute for International Education, 2019). This confirms that non-white students are receiving financial aid now more than ever, which is allowing them the opportunity to study abroad more than before.

REASONS FOR STUDY ABROAD- STUDENTS AND BUSNIESSES

According to the Institute for International Education (IIE), there are ten main reasons for students deciding to study abroad, all of which enrich students' education, career opportunities, and sense of self. The reasons are as follows: "expand their worldview; enhance career opportunities and grow their network; learn another language and improve linguistic skills; experience another culture first-hand; make new friends globally; discover new things about their own culture; learn more about self and gain self-awareness; strengthen communication, team-building, and adaptability skills; boost confidence and independence; and become a smarter traveler" (Institute for International Education, Inc., n.d.). Furthermore, in a survey conducted by QS Global, 60% of employers in 116 countries stated they "value an international study experience" and the "attributes that the experience" will leave with the student (Tillman, 2014).

A reason for businesses to consider study abroad regarding recruitment and training for internships is it allows students to build knowledge and skills in a world that is growing increasingly aware of other nations and cultures as more companies are going multinational. As stated by IIE, we as a world are becoming a "digital, technological, and interconnected world", and future workers need the ability to implement and develop human and technical skills on a basis that is applicable in many cultures (Institute for International Education, Inc., n.d.). Additionally, the most popular destinations from the Open Doors Reports correspond with the major countries that United States corporations work with- from China, Spain and Italy to the United Kingdom. Lastly, from the growing statistics regarding diversity of study abroad students, it provides companies a pool of diverse talent with various experiences from multiple countries and backgrounds to select from (Open Doors, 2019).

PATH-GOAL THEORY

The beginnings of the path-goal theory of originated with the research of Martin Evans at the University of Toronto in 1968 (Evans, 1970; Luque & MacDonald, 2013). Inspired by the work of Evans, Robert House first introduced the path-goal theory of leadership in 1971 (House, 1971). According to the path-goal theory, "Leaders can increase subordinate satisfaction and performance by clarifying and clearing the paths to goals and by increasing the number and kinds of rewards available for goal attainment" (Williams, 2017). With that in mind, the path-

goal theory is a comprehensive leadership approach that focuses on the dyadic relationship between leaders and their employees (House, 1971; House & Dessler, 1974; Luque & MacDonald, 2013).

Within House's path-goal theory, four leadership behaviors have been identified: directive, supportive, participative, and achievement-oriented (House & Mitchell, 1974). The directive style of leadership involves providing structure, clear performance expectations, and precise task instructions to employees (Williams, 2017; Northouse, 2019; Luque & MacDonald, 2013). In turn, this alleviates ambiguity, offers clarity, and allows employees to see the "path" to their personal goals (Northouse, 2019; Luque & MacDonald, 2013).

Supportive leadership behaviors foster a pleasant work environment where employees can thrive (Williams, 2017; Northouse, 2019; Luque & MacDonald, 2013; House, 1971). Respect, friendliness, approachability, and concern for subordinates' well-being are at the center of supportive leadership (Williams, 2017; Northouse, 2019; Luque & MacDonald, 2013). This can inevitably lead to increased employee satisfaction and performance because supportive leaders enhance employee confidence and trust between leadership while lowering their stress levels at work (Williams, 2017; Northouse, 2019; Luque & MacDonald, 2013; House, 1971).

Welcoming employees' ideas, opinions, and suggestions and then incorporating their input into the organization's decisions are at the core of the participative leadership style (Williams, 2017; Northouse, 2019; Luque & MacDonald, 2013). Ultimately, this empowers employees and increases their commitment to seeing the decisions succeed because they were involved in the decision-making process (Williams, 2017; Northouse, 2019; Luque & MacDonald, 2013). Another added benefit to this leadership style is the fact that employee collaboration and group performance improve since participation in the decisions regarding goals as well as the paths to accomplish them were encouraged (Williams, 2017; Northouse, 2019; Luque & MacDonald, 2013).

The achievement-oriented leadership style consists of challenging employees to perform at their optimal level. This leader does so by setting ambitious, yet achievable, goals for employees while displaying an extraordinary level of confidence that employees can obtain these goals (Williams, 2017; Northouse, 2019; Luque & MacDonald, 2013). In addition, achievement-oriented leaders possess high standards and expectations of performance excellence from their employees and pursue continuous improvement (Williams, 2017; Northouse, 2019; Luque & MacDonald, 2013).

The path-goal theory of leadership states that leaders may display any or all four leadership behaviors depending on their subordinates or the given situation (House & Mitchell, 1974; Williams, 2017; Northouse, 2019). Unlike other leadership theories, the path-goal theory acknowledges that leaders can and should adapt their leadership styles to correspond with their employees' characteristics and motivational needs as well as varying situations and environmental factors (House & Mitchell, 1974; Williams, 2017; Northouse, 2019; Luque & MacDonald, 2013). There may be times when a leader realizes that it is appropriate to use multiple leadership styles simultaneously to motivate their employee(s) in identifying the correct decisions and behaviors that will be critical to the path towards goal attainment (Northouse, 2019; Luque & MacDonald, 2013).

It is important to note that House's path-goal theory of leadership includes shared elements with not only other situational theories of leadership, but employee motivational theories as well (Luque & MacDonald, 2013). For example, the path-goal theory assumes that, "... effective leadership depends on the degree of fit between the leader's behavior and various factors in the particular situation" (Luque & MacDonald, 2013). Both Fred Fiedler's contingency theory as well as Paul Hersey and Ken Blanchard's situational leadership theory also share this assumption (Luque & MacDonald, 2013; Williams, 2017).

A motivational theory relevant in the path-goal theory is Victor Vroom's expectancy theory (Luque & MacDonald, 2013; Vroom, 1964; Williams, 2017). The expectancy theory states that, "people will be motivated to the extent to which they believe that their efforts will be rewarded, and that they will be offered attractive rewards" (Williams, 2017). Consequently, to be an effective leader in line with the path-goal and expectancy theories, he/she must establish an employee's valued work outcomes (i.e. extrinsic and/or intrinsic rewards) (Luque & MacDonald, 2013; Vroom, 1964; Williams, 2017). Then, the leader needs to guarantee that the employee can achieve the required performance level essential for acquiring their valued work outcomes (Luque & MacDonald, 2013; Vroom, 1964; Williams, 2017). House's path-goal theory of leadership also encompasses needs-based motivational theories such as Abraham Maslow's Hierarchy of Needs because these theories assume leaders will help their employees fulfill their lower and higher-order needs at work (Luque & MacDonald, 2013; Williams, 2017).

APPLICATION TO BUSINESS WORLD

Study abroad and the international business world have numerous commonalities, especially regarding human resource management (HRM) in the specific area of recruitment and retention. Staffing in HRM is a four-step process: 1) development of a staffing plan; 2) development of policies to encourage multiculturalism at work; 3) recruitment; and 4) selection (Human resource management, 2016). When creating plans for each step, managers would apply the theories discussed to discover approaches that motivate and encourage people to work for the organization using internal and external rewards. The Path-Goal Theory can be utilized from the company perspective to obtain the highest level of employee development and retention in the following ways: decide how to recruit new hires; determine how many new hires are needed/wanted; and establish what method(s) new hires would be trained. Similarly, the Path-Goal Theory could be applied from the employee perspective in the following ways: define employee goals set by the company; and confirm how the organization is going to assist employees in attaining their personal and professional goals through benefits and rewards.

Using this for study abroad, the four steps of HRM could be applied when developing a plan for a program that sends students abroad. The intention of this program would be for students to advance their skills while abroad, and then recruit them to the company that helped sponsor their education. In addition, the program would improve the multiculturalism of the organization because of continued increase of diversity in education abroad programs. Furthermore, this would reinforce students' acquiring experiences in different environments, making them the best candidates for multinational corporations. Application of the Path-Goal Theory when developing the program would ensure students are receiving the education they wanted abroad, while

providing them with the opportunity to graduate school with a job, which is the ultimate goal of all students.

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3D PRINTING: AN EXAMPLE OF INTERNATIONAL COOPERATION FOR STANDARDS

Donna Schaeffer, Marymount University

Patrick Olson, National University

ABSTRACT

3D Printing. 3D Printing is a physical process that prints a three-dimensional (3D) object from a three-dimensional digital model, typically by laying down many thin layers of a material, usually plastic, in succession.

3D printing is a technology that differentiates public policy surrounding the technology, e.g. the 3D printers themselves, and the products that are printed, which often fall under regulations from other industries.

3D Printing is still a young technology – the first patent in the field was granted to Wyn Kelly Swainson in 1977 for a method for producing a 3-dimensional form by solidifying liquid plastics. In 1986, Chuck Hull patented an “Apparatus for Production of Three- Dimensional Objects of Objects of Stereolithography. That same year, Carl R. Deckard patented “Selective Laser Sintering” which fuses small particles of plastic, metal, ceramic or glass powders into solid 3D forms with a high- powered laser. Since the first patents, global collaborations occurred and several successful companies have been formed. In the early 1980s, researchers at 3M in the United States and at Nagoya Municipal Research Institute in Japan collaborated on linking lasers with photopolymeric solutions in liquid polymer. Stratasys, founded in Eden Prairie, Minnesota in 1989, went through an initial public offering on NASDAQ in 1994 and later merged with Israeli-based Objet in 2012. The company currently has dual headquarters in Minnesota and in Israel.

These examples illustrate the interplay of patents, corporate law, financial regulations (e.,g. initial public offerings), and international commerce laws and agreements.

Funding Priorities. Public policy implements development priorities through funding decisions and allocations. In 2011, then-President Barack Obama announced the Advanced Manufacturing Process Partnership (AMP). This is a national initiative that encourages industry, universities and the federal government to invest in emerging technologies, such as 3D printing, to increase U.S. competitiveness in manufacturing.

The relationship between policy and standards are important in the emergence of technologies. Policies are formal expressions of general objectives. Policies include required actions and are mandatory. Standards typically define policies. While conformance may not be enforceable, it is usually in everyone’s best interest to follow standards. In the realm of printing, standards were introduced in 1884, with the development of typesetting. For 3D printing, standards manifest as file formats, which facilitated widespread applications of 3D printing. Chuck Hull developed the stereolithography file format (STL), which allows 3D digital files to be converted into 3D-printed objects.

3D printed objects may be subject to Intellectual Property (IP) regulation. When an object that is protected by a trademark or a patent is 3D printed for purely private use, it is not considered an infringement of IP rights.

The Digital Millennium Copyright Act (DMCA), passed in 1998, extends US copyright laws to digital content, which would include STL files. The DMCA has global counterparts. The European Union adopted the Electronic Commerce Directive in 2000 and the Copyright Directive in 2001. The DMCA and these EU directives are rooted in the 1996 World Intellectual Property Organization (WIPO) Copyright Treaty.

Established in 1967, WIPO is an agency of the United Nations. Its 191 member states cooperate on intellectual property (IP) and related policy issues and facilitate dispute resolutions across country borders. Treaties in which member states cooperate include The Patent Cooperation Treaty that enables inventors to file one patent application for patent protection across 152 countries, The International Trademark System which involves one application and one set of fees to register trademarks in 117 countries, and The International Design Union, a common registry for international designs across 69 countries that have one common registry for international designs.

Scenario. This scenario incorporates hardware technology, file standards, and end products. An auto parts manufacturer supplies auto parts stores with files (standards) so that they may 3D print (technology) replacement auto parts (products) on demand and on-site in response to customer needs. An auto parts store sells the 3D-printed part to a customer, who later is involved in an accident and blames the 3D-printed part for causing the accident. The injured consumer may have recourse against the auto parts manufacturer and the auto parts store, as well as the company that manufactured the 3D printer if there is evidence that it malfunctioned in an unreasonable and unforeseeable way. The scenario becomes more complicated in today's global society – the auto manufacturer may be headquartered in a country other than the one the customer is in. The software design for the auto part may have been written by programmers in another country. The 3D printer may have been manufactured in yet another country.

Public Policy from Other Industries. In the United States, 3D printing is an example of an emerging technology that falls under regulations designed for other industries. For example, a gun that is printed by a 3D printer is regulated by current firearms policies and medical devices or pharmaceuticals are regulated by the Food and Drug Administration.

Firearms. The Undetectable Firearms Act of 1988 makes it illegal to manufacture or possess a firearm that cannot be detected by a metal detector. 3D printed guns can be polymer or ceramic – materials that are not detectable by metal detectors. The Undetectable Firearms Act has been renewed since its sunset in 1998 and is set to expire in 2023.

In 2013, the United States State Department ordered a website to remove the design files for 3D printed guns (Paul, 2018). These files had been downloaded more than 100,000 times in the one-month period they were available via the website. The State Department had invoked the International Traffic in Arms Regulation (ITAR), stating that uploading such files was tantamount to exporting. The website owner filed suit against the US government for violating his right to free speech, which is guaranteed by the First Amendment. The case settled after five years, when jurisdiction for the issue transitioned from the State Department to the Department of Commerce.

The State Department continues to oversee exports under ITAR of military-grade firearms, ammunition and heavy artillery, while responsibility for commercially available firearms and related manufacturing technology is transferred to the Department of Commerce.

Medical Applications. The medical field has 3D printed dental implants and customized prosthetics since the technology was first commercialized in the early 2000s (Gross et al, 2014). Today, 3D printing produces bones that can be implanted and the hope is that organs can be 3D printed (Schubert et al, 2014). It is also used for manufacturing drugs. Aprelia Pharmaceuticals licensed 3D printing technologies developed at Massachusetts Institute of Technology and introduced ZipDose, a 3D manufactured pill that comprises multiple layers of powder blend that rapidly disintegrates when taken with water. The company received Food and Drug Administration (FDA) approval in 2016 enabling it offer Spiritam, an epilepsy medication that is 3D printed. Obtaining FDA approval may be a barrier for some companies. The FDA requires large randomized controlled trials and there are regulations on manufacturing and dispensing drugs (Ventrola, 2014).

In 2017, the FDA released Technical Considerations for Additive Manufactured Medical Devices (Preethy, 2018). The document specifies requirements for design and manufacturing processes, device testing, and labeling. To gain approval for a 3D printed drug, the firm's processes, equipment, and software must be validated and must conform to existing quality assurance guidelines.

Framework. The final step in our analysis of each of these individual emerging technologies is to apply the framework from Chapter 1 and in the chapter on drones. This is not completed for 3D printing.

Conclusion. In addition to industry-specific regulations, safety and security concerns arise when 3D printing is used. Regulations can also protect users' health and safety, e.g. 3D Printing involves ultrafine particles and volatile organic compounds. Other concerns include product liability, intellectual property issues, and public safety. Regulations from other industries, e.g., firearms, will apply to the artifacts that are 3D printed.

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PREDICTION OF ASIAN COUNTRIES FOREIGN EXCHANGE RATE – A TIME DELAY NEURAL NETWORK APPROACH

Hari Sharma, Virginia State University

Dinesh K. Sharma, University of Maryland Eastern Shore

H.S. Hota, Atal Bihari Vajpayee University

ABSTRACT

Foreign exchange (FX) rate is determined by several factors including financial, economic, foreign trade policies of the country. Since, the prediction of FX rate is a nonlinear problem, researchers are designing and developing sophisticated and real time predictive models accommodating variables that are considered most influential on currency exchange rate in the short term. Recent researches reveal that a number of nonlinear models have been developed claiming better predictive power using Artificial Neural Network (ANN). We used a Time Delay Neural Network (TDNN) technique for predicting currency exchange rate and tested the predictive power of the technique using three currencies (China, India and Japan) in US dollar. We assume that the similar models can be designed to predict any currency rates. A data set of the currencies (Indian Rupees/US dollar), Chinese Yuan Renminbi/US dollar, and Japanese Yen /US Dollar) for a five year period was selected for testing the predictive power of the model. The analysis of results revealed that Mean Square Error (MSE) for CNY/USD currency exchange rate is the lowest in comparison to other two exchange rates. Thus, we conclude that the Chinese currency was the least volatile among three currencies chosen for the study for that particular time period. The results further imply that the Chinese currency exhibited a lesser impact of the global recession.

Keywords: Time Delay Neural Network (TDNN), Foreign Exchange Rate.

IMPLICATIONS OF TUITION POLICIES AND STUDENT LOANS ON COLLEGE STUDENTS: A LOOK AT PROBLEMS AND POSSIBLE ALTERNATIVES

Andrea Smith-Hunter, Siena College

Parneet Kaur, Siena College

Avni Patel, Siena College

ABSTRACT

The work on college student loan debt is extensive, needs to be comprehensive and can be expected to be infinite. This paper looks at student loan debt from several major streams: student loan debt and financial knowledge; student loan debt and subject area of study/major; student loan debt and socioeconomic status; student loan debt and emotional behaviors and anxieties; student loan debt and source of funding; student loan debt and financial satisfaction levels; student loan debt and debt directly related to the financing of college education by students. The evidence shows a number of significant relationships - specifically that student loan debt was correlated with students having difficulty sleeping, concentrating on their schoolwork, being fatigued and having muscle tensions. In addition, students from more affluent backgrounds, that is higher family incomes were less likely to have student loan debt.

INTRODUCTION

Student loan debt has been studied extensively in the last several decades by a number of authors (Collinge, 1965; Balderston, 1970; Hansen, 1981; Woodhall, 1988; Roots, 1999; Pinto, 2006; Froidevaux et al, 2020). Some researchers have looked at student loan debt and its relation to later life choices (Chapman et al, 2010; Adamson, 2009; Dwyer et al, 2012; Glater, 2015). Others have looked at the relation between student loan debt and socioeconomic status (Elliott et al, 2013; Holzer et al, 2017a); student loan debt and job experience Kota et al, 2018); student loan debt and education (Alias et al, 2018); student loan debt and the level of educational attainments (Baum et al, 2011; Dowd et al 2006; Pascarella et al, 2004) student loan debt and gender or veteran status (Behrman et al, 1989; Dwyer et al, 2013). In a predictable move, a few have looked at the relation between student loan debt and anxiety that comes from borrowing large sums of money (Dentea, 2000; Cooke et al, 2004; Avery et al, 2014). In a divergent perspective, Houle (2014a), Houle (2014b), Hauptman (1990), Holzer et al (2017b), Monks (2014) and Kramer (1999) looked at ways different federal agencies and organizations have approached student loan debt levels in several cross-sectional surveys. Finally, student loan debt and the inability to pay or not repay has been analyzed from a variety of different angles (Patillo et al, 1972; Posiecznick, 2017; Quadin et al, 2015; Stein, 1969; Williams (2014). The preceding coverage has left a gap in understanding how student loan debt levels differ for students from different backgrounds, pursuing different goals and facing different challenges as they navigate the world of a tertiary level education.

Student loan debt has been described as a possible deterrent to attending college, developing a career and accumulating wealth after one's college career. Coverage of this important topic is not just limited to the United States - a worldwide coverage is not immune and student loan debt has been extensively and meticulously covered by international authors. Specifically Usher (2005); Johnstone (2001) and Britton et al (2019a) looked at student loan debt, the antecedents and consequences from across the world. Calendar et al (2017); De Gayardon et al (2019) and Britton et al (2019b) looked at student loan debt in the United Kingdom; Dearden et al (Dearden 2019) looked at it from Brazil while Sato et al ((2019), Pavlic (2018), and Dary et al (2018) looked at it from Japan, Chile and Ghana respectively.

The topic of student loan debt is important because of its implications to other important life variables such as the ability to accumulate wealth, advance in one's career and provide for one's offspring. Three important studies to look at student loan debt for those in developing countries where students are most vulnerable to the ills of student loan debts. These studies were undertaken by Woodhall (1987), Woodhall (1988), Albrecht (1991). Lastly, a paper by Kirby (2016) looked at student loan debt and the impact on students in Anglophone countries - described as countries where English is the main language.

The work on college student loan debt is extensive, needs to be comprehensive and can be expected to be infinite. This paper looks at student loan debt from several major streams: student loan debt and financial knowledge; student loan debt and subject area of study/major; student loan debt and socioeconomic status; student loan debt and emotional behaviors and anxieties; student loan debt and source of funding; student loan debt and financial satisfaction levels; student loan debt and debt directly related to the financing of college education by students.

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ARE MARKET CORRECTIONS REFLECTED IN INVESTORS' EXPECTATIONS? EMPIRICAL EVIDENCE FROM THE FINANCIAL SECTOR

Victor Bahhouth, University of North Carolina- Pembroke
Rebecca Gonzalez-Ehnes, University of North Carolina- Pembroke
William Stewart Thomas, University of North Carolina- Pembroke

ABSTRACT

The prices in financial markets are driven by investors' expectations about firms' performance. On a daily basis, stock prices change as news about firms becomes available. As a result, fundamental and market financial measures adjust to reflect these changes. Many studies examined the validity of the use of financial measures as key ingredients to assess firm performance and make future projections. The purpose of this paper is to examine if the volatility of financial measures are better predictors than financial measures in predicting the changes in stock prices during market corrections. This study develops a scenario of tracing the values of a selected set of fundamental and market measures as leading measures during 1998 and 2007 period; then, it examines the correlation between the volatility of these measures and that of stock prices during the 2008 market correction period. The study identifies a set of financial measures that shows evidence that the cumulative changes in certain market measures shows significant correlation with price changes during that market correction period. .

INTRODUCTION

The purpose of this study is to explore if market measures can explain the change in stock prices during market corrections. The fact that systemic risk is a characteristic of the financial system is debated. De Bandt and Hartmann (2000) defined systematic crisis as an event that affects financial markets in such a way that it severely distorts the proper functioning of the entire financial system. Schwarcz (2008) discussed the systematic crisis as a stimulus event that can shock or collapse an economic sector while creating a chain reaction that affects financial institutions and markets.

Today, the Internet provides investors access to large volumes of information about firm performance and the stock market. Information includes technical aspects of trading activities and it highlights firms' strengths and weaknesses such as fundamental and market measures as these are unique characteristics of firms; these measures provide a good source of information for investors to assess firm performance and make investment decisions. The purpose of this paper is to examine if market measures can explain the change in stock prices during market corrections.

RESEARCH METHODOLOGY

The study includes eighteen fundamental and market financial measures collected from the six major industries of the financial sector. There are twelve fundamental measures: 1- Earnings Retention (E/ Retention), 2- Return on Assets (ROA), 3- Return on Equity (ROE), 4- Debt to Earnings Before Interest and Taxes (D/ EBIT), 5- Earnings Before Interest, Taxes, Depreciation and Amortization to Assets (EBITDA/Assets), 6- Total Assets Turnover (TAT), 7- Profit Margin (PM), 8- Financial Leverage, 9- Free Cash flows+ Dividends / Debt, 10- Free Cash flow + Int / Debt, 11- Debt Service Coverage, and 12- Z score. There are six market measures: 1- Return on Investment (ROI), 2- Common Stock Ranking, 3- Price Earnings (P/E), 4- Price Book Value (P/BV), 5- Beta, and 6- Cumulative Change in Price. The six major industries are 1- Banks, 2- Finance Companies, 3- Insurance, 4- Real Estate Investment Trusts, 5- Dealers, Brokers, and Investment Banks, and 6- Thrift Companies.

The sample data is collected over a ten-year period (i.e. December 31, 1998 – December 31, 2008). It covers all public firms that are listed on national and regional exchange stock markets. Data is taken from Compustat. The total number of firms included in the study is 9,503; however, few firms remained in the study because of missing data.

The research model is made of two stages: In stage one, the correlation coefficient of the financial variables with the change in 2008 stock price is measured (Equation 1) and its validity is tested (i.e. at an alpha of 5%, the correlation coefficient is tested to see if it is significantly different from zero) (equation 2). In stage two, the correlation coefficient of the volatility of financial variables with the change in 2008 stock price is measured and then its validity is tested.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Equation (1)

$$t_{\text{stat}} = (r - \rho) / [(1-r^2) / (n - 2)]^{0.5}$$

Equation (2)

RESULTS

The two-stage data analysis of the financial sector is applied over the six major groups. Table 01 reflects data output of banks. Stage 1: Measuring the coefficient of correlation of financial measures' volatility and 2008 stock price change (Alpha 5%) provided one market measure that showed significant result; it is P/BV ($r = 27\%$, P-value = 0.0%). Stage 2: Measuring the coefficient of correlation of financial measures and 2008 stock price change (Alpha 5%), four financial measures showed significant results. These are A- three fundamental measures: 1- Debt/EBITDA ($r = -11\%$, P-value 1%), 2- EBITDA / Assets ($r = -23\%$, P-value 0%), and 3- Total assets turn over ($r = -23\%$, P-value 5%). B- One market measure showed significant result and it is P/BV ($r = 33\%$, P-value = 0%).

Table 01 – Banks

Measure	Measure Volatility			Measure		
	N	Correl	Sig.	N	Correl	Sig
P/E	241	-11%	10%	553	4%	34%
P/BV	231	27%	0%	573	33%	0%
Beta	494	-5%	28%	553	4%	34%
E / Retention	28	23%	25%	69	-4%	73%
ROA	277	-7%	27%	579	-4%	39%
ROE	272	-2%	80%	572	0%	99%
ROI	258	-1%	87%	545	3%	49%
Debt / EBITDA	255	-12%	6%	547	-11%	1%
EBITDA / Assets	275	-3%	60%	548	-23%	0%
Total Asset Turn Over	220	-8%	22%	578	-8%	5%
Tang Fin Leverage	58	-3%	82%	58	-3%	82%
Free CFL +Div/Debt	18	15%	54%	57	-3%	83%
Free CFL + Int Exp/Debt	18	19%	45%	57	-3%	84%
Debt Service Coverage	9	-36%	33%	50	-6%	66%
Common Stk Ranking	121	-9%	30%	na	na	na
Z Score	15	49%	6%	na	na	na

Table 02 reflects data output of finance companies. Stage 1: Six financial measures showed significant results. Stage 2: Six financial measures showed significant results .

Table 02 – Finance Co

	Measure Volatility			Measure		
	N	Correl	Sig.	N	Correl	Sig
P/E	32	-11%	56%	137	9%	32%
P/BV	38	79%	0%	83	31%	1%
Beta	606	-6%	13%	886	-11%	0%
E / Retention	42	-2%	91%	75	8%	49%
ROA	48	62%	0%	82	36%	0%
ROE	46	-28%	6%	79	32%	1%
ROI	46	-19%	21%	80	34%	2%
Debt / EBITDA	33	-15%	42%	75	-4%	72%
EBITDA / Assets	44	-32%	3%	75	19%	10%
Total Asset Turn Over	43	11%	48%	82	27%	2%
Tang Fin Leverage	69	-6%	63%	69	-9%	46%
Free CFL +Div/Debt	28	46%	1%	65	-15%	24%
Free CFL + Int Exp/Debt	28	-59%	0%	65	-18%	14%
Debt Service Coverage	9	18%	65%	54	4%	76%
Common Stk Ranking	17	20%	44%	39	18%	29%
Z Score	11	38%	24%	29	30%	11%

When assessing Insurance companies. Stage 1: Six financial measures showed significant results (P/E, P/BV, ROE, ROI, EBITDA/Assets, Common Stk Ranking). Stage 2: Five financial measures showed significant results (P/E, P/BV, ROA, ROE, ROI).

When assessing Real Estate Investment Trusts (REIT) companies. Stage 1: Six financial measures showed significant results (P/BV, ROA, ROE, ROI, Tang Fin Leverage, Z Score). Stage 2: Nine financial measures showed significant results (P/BV, ROA, ROE, ROI, EBITDA/Assets, Total Asset Turn Over, Tang Fin Leverage, Free CFL +Div/Debt, Z Score).

When assessing Dealers, Brokers, and Investment Banks. Stage 1: One financial measure showed significant result (Common Stock Ranking). Stage 2: None of the financial measures showed significant results.

When assessing Thrift companies. Stage 1: Six financial measures showed significant results (P/BV, Beta, ROA, Cum. price change, EBITDA/Assets, Free CFL+Div/Debt). Stage 2: Nine financial measures showed significant results (P/BV, Beta, E/Ret, ROA, ROE, ROI, Cum price change, Debt/EBITDA, EBITDA/Assets)

CONCLUSIONS AND RECOMMENDATIONS

Study showed that the correlation coefficient of financial measures volatilities with the stock price movement are significant. However, the results are mixed in that the financial measures analyzed do not show consistent results across the six financial sectors. The following is a summary of observations: None of the financial measures volatilities exhibited any significant correlation with stock price movements in brokers, dealers, and investment bank sector. In banking

sector, only correlation coefficient of P/BV volatility is significantly correlated with stock price movement.

In finance companies sector, the correlation coefficient of P/BV, ROA, and EBITDA/Assets volatilities are significantly correlated with the stock price movement. In insurance sector, correlation coefficient of P/E, P/BV, ROE, and ROI volatilities are significantly correlated with the stock price movement. In real estate investment trust sector, the correlation coefficient of P/BV, ROA, ROE, ROI, Tangible Financial Leverage and Z score volatilities are significantly correlated with the stock price movement. In thrift sector, the correlation coefficient of P/BV, Beta, ROA, Cumulative Price Change, EBITDA / assets, and Free CFL +Div/Debt volatilities are significantly correlated with the stock price movement.

Results show that there is no consistency in the correlation coefficient of financial measures volatility as they exhibited different results. The highest consistency across the financial sectors is the Price/Book ratio; it exhibited significant effect across five industries. Beta, a measure of systematic risk, showed significant effect only in one sector, which is thrift industry. It showed a strong negative correlation with price movement. Systematic risk failed to explain stock price movements, but further analysis will allow us to examine its validity.

Price / Book value and EBITDA / Assets showed consistent results in the 5 industries.

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ECONOMIC IMPACTS OF A GENERAL AVIATION AIRPORT: MURFREESBORO MUNICIPAL AIRPORT (MBT)

**Murat Arik, Middle Tennessee State University
Bronwyn Graves, Middle Tennessee State University**

ABSTRACT

Airports represent important parts of local, regional, and global transportation systems. General aviation (GA) airports (as contrasted with large commercial airports) operate within the scope of needs for their local communities and provide direct effects for employment, business revenues, and tax revenues. This study confirms the impacts of Murfreesboro Municipal Airport (MBT) on its resident county (Rutherford County) and for the state of Tennessee. More broadly, we show the heaviest use of MBT is through Middle Tennessee State University's (MTSU) Aerospace program. In this way, MBT contributes to the aviation labor supply (in the form of pilots and air traffic controllers) for the global community.