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AN EXPLORATORY STUDY ON REBRANDING OF AN ONLINE EDUCATIONAL PORTAL

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ABSTRACT

Rebranding is a well-known activity among marketing practitioners, as they rebrand their offerings in the minds of consumers to correct marketing mistakes or adjust their core value proposition to ever-changing marketing environments. Universities and programs in higher education also rebrand themselves. While doing this adjustment, they need to pay attention to unique characteristics of services. Online education portals not only deliver pure services to students, but also they provide an interactive environment that brings faculty, administrators, and students together in a virtual learning setting supported by technology. Therefore, it is important to understand dual relationships between faculty-student, faculty-technology, student-technology, and administration-student among others before any rebranding activity.

Faculty and student interactions in online learning environment are drastically different from traditional classroom where faculty toolbox for technology and how it is being implemented would satisfy students' learning needs at different levels. In traditional classrooms, faculty can instantaneously adjust the delivery to student requirements while managing faculty-student and student-student interactions to prevent any service failures. Online courses that heavily rely on technology component change the environment of service recovery due to technology glitches and failures as well as proficiency level of faculty and administrators.

The core value proposition comes from students' perception of the learning environment and overall knowledge or skills build up. The purpose of this exploratory research is mainly to investigate student perceptions of faculty-student-technology interactions in an online higher education learning environment and how these interactions influence core value propositions. Specifically, this study content analyzed student comments from focus groups designed for branding activities of the online education portal.

EVIDENCE BASED MANAGEMENT AND SMALL BUSINESS: THE BUSINESS PLAN

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ABSTRACT

Evidence-Based Management (EBM) has emerged as an important perspective that emphasizes the use of available evidence to inform decisions and guide practice. Management researchers and practitioners are developing ways of incorporating evidence-based management into organizational decision making processes. The central issues are 'when is evidence needed by managers?' and 'what form should it take?'. However most of the research and application of EBM has concentrated on issues found in medium to large organizations. Small business has been left out of the discussion. In this paper we explore areas where a small business can be helped by evidence based management. As a framework for this analysis, we use the familiar business plan, a common approach used by many successful small businesses.

TEACHING MANAGEMENT AS ART, SCIENCE AND CRAFT: ALIGNING PERSPECTIVE AND COURSE CONTENT USING BLOOM'S TAXONOMY

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ABSTRACT

Management can be considered a combination of art, science and craft. The art of management involves inspiration and creativity. The science is experiment and analysis. The craft relies on experience and practice. Each perspective is important, however frequently management courses are taught in ways that give emphasis to one or two perspectives at the expense of the other(s). Even if all three perspectives are present in a course, they may not be taught at the same level of depth and development. To help course designer's deal with these problems we propose aligning course content with management perspective using Bloom's taxonomy of educational objectives. In this paper we will first briefly review the art, science and craft perspectives of management and Bloom's taxonomy. We will then examine how each perspective can be addressed at different levels in the taxonomy. Specific examples of course elements (activities, assessments, exercises and so on) will be matched with perspective and level.

INTRODUCTION

Can management be taught? In a College of Business we don't have the luxury of taking a stand that it cannot be taught. We must accept that management can be taught to some degree in our undergraduate and graduate programs. Therefore it makes sense to address an alternative series of questions - What should we teach? Why should we teach it? And how should we teach it? Management is sometimes approached as a science. Consider Frederick Taylor, Frank and Lillian Gilbreth and the legacy of scientific management. Today we have analytical ability and technology beyond the imagination of those pioneers. Certainly management can be approached scientifically. Beyond concrete answers to well defined problems, managers also have vision. They propose, develop and implement creative, innovative approaches. Such creativity and vision certainly is art. However teaching management as an art would and should be different than teaching it as a science. To further muddy the waters, there are things that experienced managers can handle that would baffle and stop a novice. There are skills that become embedded in the individual through daily exposure to a situation. This is the craft side of management. Furthermore, all three perspectives have their own basic terminology, principles and so on, as well as methods of analysis and ultimately each approach can develop new innovative approaches. In order to teach management from different perspectives and at different levels of learning, we turn to Bloom's taxonomy of educational objectives as an organizing frame. In this paper, we propose an organized multi-method approach of matching pedagogical approaches, assignments and such with the various perspectives and levels. To address the possibility an approach or course element might fit into more than one perspective, we propose that real world

situations be viewed from a process approach in which there is a dynamic transition from one perspective to another.

MANAGEMENT AS ART, SCIENCE AND CRAFT

The practice of leadership (and later management) has always been described at times as art, science or craft. In the Art of War, Sun Tzu presented the Bing-fa philosophy of military strategy and tactics. In his book he set out many specific formulae and practical guidelines for warfare. By identifying common situations and providing solutions he reduced much of military strategy and tactics to a craft. King Solomon, when faced with the decision of who to award custody of a child when two women both claimed to be the mother, proposed dividing the child in two. This exposed which of the two women was truly the mother. King Solomon’s approach was a work of art. The ancient Greek city-state of Syracuse (modern Sicily) was known for research and development teams that were strikingly similar to those in modern research facilities. They used modeling and testing to develop solutions to design problems in many areas (i.e. trireme boats, repeating catapults, Archimedes’ screw). By using analysis and experiment they took a decidedly scientific approach.

More recently, management scholars have begun to conduct formal and thoughtful analysis of these differing perspectives (Mintzberg, 1980). The question ‘Is Management and Art, Science or Craft?’ is an alternative or complement to ‘Are leadership and management the same thing?’ (Zaleznik, 1978). In this paper we will not be addressing the leadership versus management debate, therefore we will use the terms somewhat interchangeably. Instead we will look at management (or leadership) as science, art and craft. We further propose that organizational situations sometimes span more than one perspective and organizational processes move from one perspective to another. Table 1 describes the differences between the perspectives

Table 1			
MANAGEMENT AS SCIENCE, ART AND CRAFT			
	Science	Art	Craft
Origin	Logic, Reason	Imagination, Innovation	Experience, Practice
Basis	Scientific fact	Creative insight	Practical experiences
Purpose	Replicability, Codification	Originality, Novelty	Pragmatism, Utility
Decision Making	Deductive	Inductive	Iterative
Orientation	External	Internal	Interactive (Internal/External)
Primary Strategy	Planning	Inspiration	Trial and error
Contribution	<i>Science</i> as systematic analysis	<i>Art</i> as comprehensive synthesis	<i>Craft</i> as dynamic learning

Table adapted from Mintzberg 2009, Gram 2010

Relationship Between the Three Perspectives

The three perspectives can overlap considerably in practice (see Figure 1a). When a manager with significant experience uses intuition to decide on some new process or policy, that falls in the intersection between art and craft. When a manager adopts and adjusts some new method to better solve a familiar problem, that is in the overlap between craft and science. Analyzing and testing an innovative new method before implementation falls between science and art. However this content model approach does not capture the essential nature of management as a dynamic process and consisting of a sequence of behaviors. As a dynamic

process, the manager’s actions do not take place in one perspective or overlap. The actions move the manager from one perspective to another. Dynamic organizational processes can start in one area and move to another. As the decision process evolves, a manager may need to seek out the strengths of the other perspectives. Furthermore, the need for managerial action can arise anywhere on the diagram. By taking a process perspective we can separate creative problem solving and technical problem solving. In Figure 1b, technical problems move clockwise and creative problems proceed counterclockwise. If we start at the craft area and assume that a problem has come up. If a problem is unfamiliar and the general solution is unknown, then the manager must move to the art area to develop a novel approach and innovative solution. If the problem is somewhat familiar and the general solution is known, then a technical problem exists. The manager moves to the science perspective to analyze and develop a specific solution to the problem. An innovative product might need market research

Figure 1a

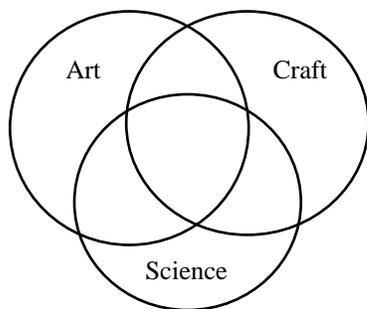
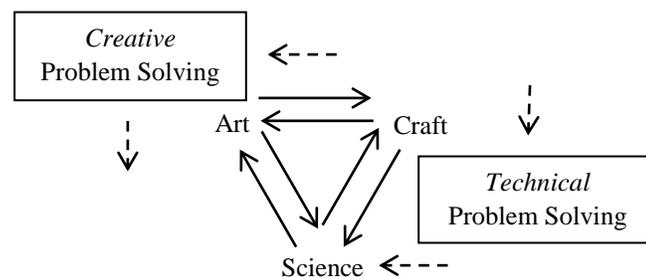


Figure 1b



BLOOMS TAXONOMY

After working on a project since 1949, in 1956, a group headed by Benjamin S. Bloom, finally published what is now known as ‘Bloom’s Taxonomy of Learning Objectives’ (Bloom, 1956). Bloom’s taxonomy of learning objectives provided a systematic assessment tool as to what can be expected from instruction to assist teachers and curriculum designers (Bloom, Engelhart, Furst, Hill & Krathwohl, 1956; Krathwohl, 2002). The typology was originally meant to help develop rubrics and measure learning (Bloom, 1956; Krathwohl, 2002) and is still used in evaluation (Bissell & Lemons, 2006; Lipscomb, 1985; Barker & Hapkiewicz, 1979; Athanassiou, McNett & Harvey, 2003); however in practice the most extensive use is in course and curriculum development and design (Christopher, Thomas & Tallent-Runnels, 2004; Foote, 1998; Noble, 2004; Chyung, & Stepich, 2003).

The taxonomy (Table 2) has six levels in increasing order of student’s grasp of the material - Knowledge, Understanding, Application, Analysis, Synthesis and Evaluation. Although it is still used in its original form, there are occasional modifications (i.e. Christopher, Thomas & Tallent-Runnels, 2004), revisions (i.e. Krathwohl, 2002) and alternative typologies proposed (i.e. Lytras & Pouloudi, 2006). For practical purposes of the objectives are oftentimes grouped into three groups: low level - knowledge or understanding - that emphasizes memory and basic understanding; medium level - application or analysis - involving the ability to use the material, and high level - synthesis or evaluation - which involves applying the concepts to new areas and developing new idea (Betts, 2008; Christopher, Thomas & Tallent-Runnels, 2004).

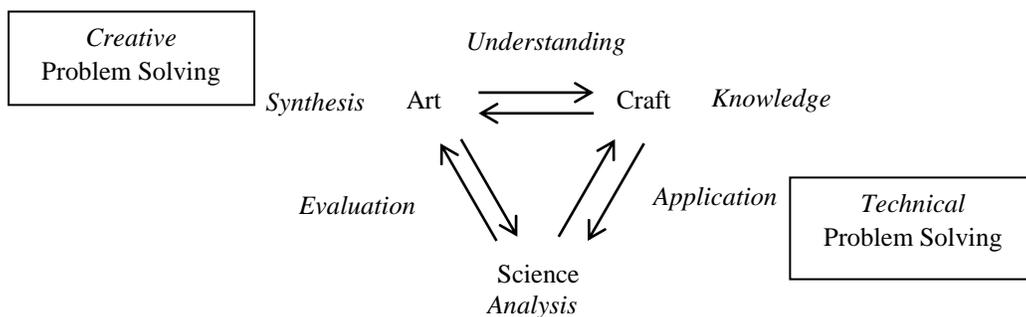
Table 2		
LEVELS OF THINKING – ADAPTATION OF BLOOM’S TAXONOMY		
High level	Evaluation	Behaviors that assess the value of particular ideas or solutions
	Synthesis	Behaviors that combine elements of learning into a new whole
Medium level	Analysis	Behaviors that break down knowledge into its component parts
	Application	Behaviors that require students to use what they have learned in a new way
Low level	Understanding	Behaviors that indicate a literal understanding
	Knowledge	Behaviors that emphasize recall or memory

(adapted from Christopher, Thomas & Tallent-Runnels, 2004)

BLOOM’S TAXONOMY AND ART, SCIENCE, CRAFT

We can map Bloom’s taxonomy (Table 2) onto the management as art, science and craft process diagram (Figure 1b). The combined diagram (Figure 2) shows synthesis analysis and knowledge as mapped onto art, science and craft respectively. Knowledge aligns with craft because the essence of craft is the knowledge of how to do something. Science depends on analysis, along with experiment and verification. Application of the findings of science falls between knowledge and science. For artistic elements to be translated into practice they need to be evaluated and scientific analysis can inform the evaluation, therefore evaluation is between art and science. Synthesis is a creative process that best aligns with art. To bring the new creative solution into organizational operations, and bridge the gap between art and craft it is necessary to understand the transformation processes involved.

Figure 2



MATCHING COURSE ELEMENTS

The integrated model shown in Figure 2 facilitates an examination of what we wish students to learn and which set of course elements will best accomplish this learning. The first part of the process is determining what you want students to learn, which should already exist to some degree in course documentation (course outlines, syllabi). Learning objectives in existing documents may have to be broken down into parts or supplemented with peripheral objectives. Using a perspective of management as primary a problem solving process, the next step is determining whether the learning objective corresponds to a more technical or creative challenge. This leads us more towards the science or art approaches, and corresponding levels of Bloom’s taxonomy. Table 3 shows some examples of course elements that are matched with learning objectives by way of management perspective and Bloom’s taxonomy. The first example is a common learning objective take from a principles of management outline regarding

being literate in the field. At the lowest, or knowledge level, corresponding to a craft approach, the use of vocabulary tests would suffice. To raise the expectations to using or explaining the terms, the class can play a game, or essay assignments given with the explicit expectation that course terms will be properly used. The third example on the table reflects the interest all schools have in ethics. We want students to know the high level principles and concepts and see how different points of view interact, however we also want them to be able to understand and apply ethical principles in practical situations. A debate is one way to address the different learning levels and perspectives associated with this objective. The preparation and initial sections of the debate can help students learn the principles, whereas the later parts of the debate can concentrate on practical applications. There are many tools and techniques that can be used in designing a course. Matching course elements in the manner described will help assure that objectives are covered and at the right level.

Table 3			
EXAMPLES OF ALIGNED COURSE ELEMENTS			
Learning Objective	Perspective	Bloom’s Level	Course Element
Develop a management vocabulary and explain basic management principles	Craft	Knowledge	Vocabulary tests Short answer tests
	Art/Craft, Craft, Science/Craft	Understanding, Knowledge, Application	Games Essay Assignments
Relate management theory to other parts of their lives	Art/Craft, Craft, Science/Craft	Understanding, Knowledge, Application	Discussion Boards
Explain the ethical implications of management decisions	1) Art, Art/Science, Science 2) Art/Craft, Science/Craft	1) Analysis ,Evaluation, Synthesis 2) Understanding, Application	Debates 1) preparation and primary points 2) practical examples and discussion
Explain why pro forma financial analysis is a central strategy-implementation tool	1) Science, Science/Art 2) Art/Craft, Science/Craft	1)Evaluation, Application 2) Understanding, Application	Simulation 1) conducting analysis 2) making & explaining decisions

CONCLUSIONS AND FURTHER RESEARCH

The ideas presented in this paper can be used to evaluate courses for appropriate coverage of learning objectives. It can also be used to develop assignments, activities and assessments designed specifically to cover learning objectives. Further research should examine the forms and purposes of our course outlines and the possibility of explicitly addressing matching assignments with learning objectives. Research also can apply the ideas in this paper to assessment issues.

REFERENCES (REFERENCES AVAILABLE ON REQUEST)

STEPPING IN TO THE FIRE: WHY RESEARCH IS IMPORTANT FOR EDUCATIONAL EXPERIENCES IN BUSINESS AS WELL AS WHY IT IS IMPORTANT TO STAND UP FOR THE FREEDOM OF ACADEMIC RESEARCH

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ABSTRACT

In this paper we examine why it is important to stand up for the freedom to do academic research as well as why it is important for business students to have professors who are active in research even for undergraduate students. The senior author has been working with 5 Fortune 100 organizations since the 1990's in order to examine what results in professional success across organizational careers. When using income as a desired outcome the most important predictors of income are academic major as well as academic levels [undergraduate degree versus a master's degree]. Engineering majors tend to earn the most while those in the arts tend to earn the least with more than a fourfold difference in expected lifetime income over a 40 year career. While MD's and master's degrees in nursing may generally have higher expected lifetime earnings they are not typical degrees for those in industry and we found that the highest expected lifetime earnings were for those with an MBA followed by those with master's degrees in technical fields [whether engineering, finance, MIS, or accounting]. JD's earned roughly what master's students in technical fields earned but had a lower standard deviation of earnings. The typical MBA with a technical undergraduate degree was earning an average of approximately \$8 million compared with MBA's who were expected to earn an average of slightly more than \$6 million however the standard deviations were large.

As to the individual decisions of students, other than making a decision about academic major and education level, the most important factor was choosing professors who had higher Age Weighted Citation Rates. Controlling for educational level and educational major a one point increase in a professor's Age Weighted Citation Rate was worth \$69.44 to each student and an increase in the average Age Weighted Citation Rate across all of the professors a student would take during their undergraduate degree resulted in a \$2777.78 increase in expected lifetime earnings. Useful to have undergraduate as well as master's students involved in research to support their educational experiences as well as promoting their career. Future research should seek to examine which other factors might influence the potential present value of an annuity for students. As the AACSB moves towards an increasing importance of the impact of research such as Age Weighted Citation Rates and the impact of individual articles as opposed to impact scores for entire journals. We do believe that it is important to publish in top journals, the variations in the impact for individual articles within journals is greater than that between journals. Alexander von Humboldt's ideas should be used more widely in educational circles. Having published for over 30 years we have seen dramatic changes to conferences and publications such as the changing nature of proceedings over the years with vivid memories of early on including as much of papers within proceedings which often led to the removal of

references while currently many journal editors desire that full papers NOT be included in proceedings to be published but that abstracts and the works cited within the paper may be included in proceedings.

REFERENCES

- Ahmed, ZU., Zgheib, PH, Carraher, SM & Kowatly, AK. (2013). Public policy and expatriate entrepreneurs. *Journal of Entrepreneurship and Public Policy*, 2(1), 42 – 53.
- Baugh, S. Gayle, Sullivan, Sherry E., & Carraher, S.M. (2013). *Global Careers in the United States*. In *Careers without Borders: Critical Perspectives*. Reis, Christina, Baruch, Yehuda (Eds) Routledge Publishes, 297-322.
- Bhattacharya, T.K. & Carraher, S.M. (2008). How to teach high school students about entrepreneurial finance: The Financial Challenge. *International Journal of Family Business*, 5(1), 69.
- Buckley, M.R., Carraher, S.M., Carraher, S.C., Ferris, G.R., & Carraher, C.E. (2008). Human resource issues in global entrepreneurial high technology firms: Do they differ? *Journal of Applied Management & Entrepreneurship*, 13(1), 4-14.
- Buckley, M., Carraher, S., & Cote, J. (1992). Measurement issues concerning the use of inventories of job satisfaction. *Educational and Psychological Measurement*, 52(3), 529-542.
- Buckley, M., Carraher, S., Ferris, G., & Carraher, C. (2001). Human resource concerns in entrepreneurial multinational high technology firms. *Journal of Applied Management and Entrepreneurship*, 6(1), 97-104.
- Buckley, M., Fedor, D., Carraher, S., Frink, D., & Marvin, D. (1997). The ethical obligation to provide recruits realistic job previews. *Journal of Managerial Issues*, 9(4), 468-484.
- Buckley, M., Fedor, D., Veres, J., Wiese, D., & Carraher, S. (1998). Investigating newcomer expectations and job-related outcomes. *Journal of Applied Psychology*, 83, 452-461.
- Buckley, M., Mea, W., Weise, D., & Carraher, S. (1998). *Evaluation change in public organizations: An Alpha, Beta, Gamma change perspective*. In *Accountability and Radical Change in Public Organizations* edited by Ronald R. Sims, Westport, CT: Quorum Books.
- Buckley, M., Mobbs, T., Mendoza, J., Novicevic, M., Carraher, S., & Beu, D. (2002). Implementing realistic job previews and expectation lowering procedures: A field experiment. *Journal of Vocational Behavior*, 61(2), 263-278.
- Budd, J. & Carraher, S. (1998). Validation of an inventory to measure attributes of strategic management. *Psychological Reports*, 82(3), 1220-1222.
- Burgess, S., Johnson, C., & Carraher, S.M. (2008). Cameron University Leaders and Entrepreneurs: Developing the next generation of leaders and entrepreneurs. *International Journal of Family Business*, 5(1), 45-46.
- Burgess, S., Johnson, C., & Carraher, S.M. (2008). Cameron University Leaders and Entrepreneurs: How to develop the next generation of leaders and entrepreneurs at your university. *International Journal of Family Business*, 5(1), 65-66.
- Carraher, C. & Carraher, S. (1996). ISO 9000 - An industrial management tool. *Polymeric Materials Encyclopedia* edited by J. Salamone, Boca Raton, FL: CRC Press.
- Carraher, C.E., Carraher, S.M., & Stewart, H.H. (2010). Metal-containing polymer structures for enhancing seed germination and plant growth. *Advances in Environmental Biology*, 4(1), 108-116.
- Carraher, C.E., Carraher, S.M., & Stewart, H.H. (2011). Plant growth hormone-containing polymers for enhanced seed germination and plant growth. *Journal of Polymeric Materials*, 28(2), 287-301.
- Carraher, C., Gaonkar, A., Stewart, H., Miao, S., & Carraher, S. (1998). *Structural characterization and effects of Gibberellic acid-containing Organotin polymers on sawgrass and cattail germination and seedling growth for everglades restoration*. Washington, DC: American Chemical Society & Oxford UP.
- Carraher, C., Stewart, H., Carraher, S., Chamely, Learned, W., Helmy, J., Abey, K., & Salamone, A. (2002). *Condensation polymers as controlled release materials for enhanced plant and food production: Influence of gibberellic acid and gibberellic acid-containing polymers on food crop seed*. New York: Kluwer Academic/Plenum Publishers.
- Carraher, S.M. (2011). Turnover prediction using attitudes towards benefits, pay, and pay satisfaction among employees and entrepreneurs in Estonia, Latvia, & Lithuania. *Baltic Journal of Management*, 6(1), 25-52.
- Carraher, SM. (2012). The future of the Journal of Management History. *Journal of Management History*, 18(1).
- Carraher, SM (2012). Global and empirical management history? *Journal of Management History*, 18(3).

- Carraher, SM (2012). Social entrepreneurship: interviews, journal surveys, and measures. *Journal of Management History, 18*(4).
- Carraher, SM. (2013). ISI, social entrepreneurship, and research. *Journal of Management History, 19*(1).
- Carraher, SM. (2013). Signaling intelligence, management history, marry-go-round, and research. *Journal of Management History, 19*(2).
- Carraher, SM. (2013). Follett, Barnard and Taylor. *Journal of Management History, 19*(4).
- Carraher Shawn M. (2014). Consumer behavior, online communities, collaboration, IFRS, and Tung. *Journal of Technology Management in China, 9*(1).
- Carraher, SM. (2014). Technology, AACSB and research suggestions. *Journal of Technology Management in China, 9*(2).
- Carraher, SM. (2014). Cambridge Business & Economics Conference best papers and Anne Tsui. *Journal of Technology Management in China, 9*(3).
- Carraher SM. (2014). Leadership, entrepreneurship, and suggestions for future research. *Journal of Management History, 20*(1).
- Carraher Shawn (2014). Dutton, management philosophy, realistic job previews, and Weber. *Journal of Management History, 20*(2).
- Carraher Shawn (2014). Kathryn Harrigan, Management History, and Michael Peng. *Journal of Management History, 20*(3).
- Carraher Shawn M. (2014). AACSB standards, Academy of Management and 3000 Citations. *Journal of Management History, 20*(4).
- Carraher, SM. (2014). Leadership, entrepreneurship, and suggestions for future research. *Journal of Management History, 20*(1).
- Carraher, SM. (2015). Denise Rousseau, 20 Years of the JMH, and goodbye. *Journal of Management History, 21*(4).
- Carraher, SM. (2015). 4000 citations for the JMH and Strategic IQ. *Journal of Management History, 21*(3).
- Carraher, SM. (2015). Signaling intelligence, signaling theory, Project A, and excellent management history research. *Journal of Management History, 21*(2).
- Carraher, SM. (2015). Objectivism, Lyman Porter and ethical leadership. *Journal of Management History, 21*(1).
- Carraher, SM. (2015). Objectivism, Lyman Porter and ethical leadership. *Journal of Management History, 21*(1).
- Carraher, S.M., Buchanan, J.K., & Puia, G. (2010). Entrepreneurial Need for Achievement in China, Latvia, and the USA. *Baltic Journal of Management, 5*(3), 378-396.
- Carraher, S. & Buckley, M. R. (1996). Cognitive complexity and the perceived dimensionality of pay satisfaction. *Journal of Applied Psychology, 81*(1), 102-109.
- Carraher, S.M. & Buckley, M.R. (2008). Attitudes towards benefits and behavioral intentions and their relationship to Absenteeism, Performance, and Turnover among nurses. *Academy of Health Care Management Journal, 4*(2), 89-109.
- Carraher, S., Buckley, M., Mea, W., Carraher, S.C., & Carraher, C. (2006). Entrepreneurship and leadership: Why we have an ethical obligation to assess change in entrepreneurial research. *International Journal of Family Business, 3*(1), 19-31.
- Carraher, S., Buckley, M., Scott., C., Parnell, J., & Carraher, C. (2002). Customer service selection in a global entrepreneurial information services organization. *Journal of Applied Management and Entrepreneurship, 7*(2), 45-55.
- Carraher, S. & Carraher, C. (1994). ISO 9000 - theories of management. *Polymer News, 19*, 373-376.
- Carraher, S. & Carraher, C. (1995). Total quality management applied to industry - ISO 9000. *Journal of Polymer Materials, 12*, 1-9.
- Carraher, S. & Carraher, C. (1996). ISO environmental management standards: ISO 14,000. *Polymer News, 21*, 167-169.
- Carraher, S. & Carraher, C. (1996). ISO 9000. *Polymer News, 21*, 21-24.
- Carraher, S. & Carraher, S.C. (2005). Felt fair pay of small to medium, sized enterprise (SME) owners in Finland and Latvia: An examination of Jaques' equity construct. *Journal of Small Business Strategy, 16*(1), 1-8.
- Carraher, S. & Carraher, S.C. (2006). Human resource issues among SME's in Eastern Europe: A 30 month study in Belarus, Poland, and Ukraine. *International Journal of Entrepreneurship, 10*, 97-108.
- Carraher, S., Carraher, S.C., & Whitely, W. (2003). Global entrepreneurship, income, and work norms: A Seven country study. *Academy of Entrepreneurship Journal, 9*(1), 31-42.
- Carraher, SM, Crocitto, MM, & Sullivan SE. (2014). A kaleidoscope career perspective on faculty sabbaticals. *Career Development International, 19*(3), 295 – 313.
- Carraher, S., Franklin, G., Parnell, J., & Sullivan, S. (2006). Entrepreneurial service performance and technology

- management: A study of China and Japan. *Journal of Technology Management in China*, 1(1), 107-117.
- Carraher, S. & Parnell, J. (2008). Customer service during peak (in season) and non-peak (off season) times: A multi-country (Austria, Switzerland, United Kingdom and United States) examination of entrepreneurial tourist focused core personnel. *International Journal of Entrepreneurship*, 12, 39-56.
- Carraher, S., Parnell, J., Carraher, S.C., Carraher, C., & Sullivan, S. (2006). Customer service, entrepreneurial orientation, and performance: A study in health care organizations in Hong Kong, Italy, New Zealand, the United Kingdom, and the USA. *Journal of Applied Management & Entrepreneurship*, 11(4), 33-48.
- Carraher, S.M., Parnell, J., & Spillan, J. (2009). Customer service-orientation of small retail business owners in Austria, the Czech Republic, Hungary, Latvia, Slovakia, and Slovenia. *Baltic Journal of Management*, 4(3), 251-268.
- Carraher, S., Scott, C., & Carraher, S.C. (2004). A comparison of polychronicity levels among small business owners and non business owners in the U.S., China, Ukraine, Poland, Hungary, Bulgaria, and Mexico. *International Journal of Family Business*, 1(1), 97-101.
- Carraher, S., Sullivan, S. & Carraher, S.C. (2005). An examination of the stress experience by entrepreneurial expatriate health care professionals working in Benin, Bolivia, Burkina Faso, Ethiopia, Ghana, Niger, Nigeria, Paraguay, South Africa, and Zambia. *International Journal of Entrepreneurship*, 9, 45-66.
- Carraher, S.M., Sullivan, S.E., & Crocitto, M. (2008). Mentoring across global boundaries: An empirical examination of home- and host-country mentors on expatriate career outcomes. *Journal of International Business Studies*, 39(8), 1310-1326.
- Carraher, S.M. & Van Auken, H. (2013), The use of financial statements for decision making by small firms. *Journal of Small Business & Entrepreneurship*, 26(3), 323-336.
- Carraher, S.M. & Welsh, D. H. (2009; 2015). *Global Entrepreneurship*. Kendall Hunt P.
- Carraher SM, Welsh, Dianne H.B., and Svilokos, A. (2016). Validation of a measure of social entrepreneurship. *European Journal of International Management*, 10(4), 386-402.
- Crocitto, M., Sullivan, S., & Carraher, S. (2005). Global mentoring as a means of career development and knowledge creation: A learning based framework and agenda for future research. *Career Development International*, 10(6/7), 522-535.
- Deng, F., Huang, L.Y., Carraher, S.M., & Duan, J. (2009). International expansion of family firms: An integrative framework using Taiwanese manufacturers. *Academy of Entrepreneurship Journal*, 15(1), 25-42.
- Hart, D. & Carraher, S. (1995). The development of an instrument to measure attitudes towards benefits. *Educational and Psychological Measurement*, 55(3), 498-502.
- Huang, L.Y. & Carraher, S. (2004). How effective are expatriate management and guanxi networks: Evidence from Chinese Industries. *International Journal of Family Business*, 1(1), 1-23.
- Lester, D., Parnell, J., & Carraher, S. (2003). Organizational life cycle: A five-stage empirical scale. *International Journal of Organizational Analysis*, 11(4), 339-354.
- Mea, W. & Carraher, SM (2005). *Leadership: Succeeding in the Private, Public, and Not-for-profit Sectors*. Armonk, NY: M.E. Sharpe, Inc.
- Paridon, T. & Carraher, S.M. (2009). Entrepreneurial marketing: Customer shopping value and patronage behavior. *Journal of Applied Management & Entrepreneurship*, 14(2), 3-28.
- Paridon, T., Carraher, S., & Carraher, S.C. (2006). The income effect in personal shopping value, consumer self-confidence, and information sharing (word of mouth communication) research. *Academy of Marketing Studies*, 10(2), 107-124.
- Parnell, J. & Carraher, S. (2001). The role of effective resource utilization in strategy's impact on performance. *International Journal of Commerce and Management*, 11(3), 1-34.
- Parnell, J. & Carraher, S. (2002). Passing the buck: Managing upward delegation in organizations. *Central Business Review*, 21(1), 20-27.
- Parnell, J. & Carraher, S. (2003). The Management Education by Internet Readiness (MEBIR) scale: Developing a scale to assess one's propensity for Internet-mediated management education. *Journal of Management Education*, 27, 431-446.
- Parnell, J., Carraher, S., & Holt, K. (2002). Participative management's influence on effective strategic diffusion. *Journal of Business Strategies*, 19(2), 161-180.
- Parnell, J.A., Koseoglu, M.A., Behtas, C., & Carraher, S.M. (2010). Knowledge management, organizational communication and job satisfaction: An empirical test of a five-star hotel in Turkey. *International Journal of Leisure and Tourism Marketing*, 1(4), 323-343.
- Parnell, J., Mintu-Wimsatt, A., & Carraher, S. (2002). Trust in Internet shopping and its correlates: A cross-cultural

- investigation. *The E-Business Review*, 2, 195-201.
- Peng, M.W., Ahlstrom, D., Carraher, S.M., & Shi, W. (2017). An institution-based view of global IPR History. *Journal of International Business Studies*, 48.
- Peng, M.W., Ahlstrom, D., Carraher, S.M., & Shi, W. (2017). History and the Debate over Intellectual Property. *Management and Organization Review*, 13(1).
- Scarpello, V. & Carraher, S.M. (2008). Are pay satisfaction and pay fairness the same construct? A cross-country examination among the self-employed in Latvia, Germany, the UK, and the USA. *Baltic Journal of Management*, 3(1), 23-39.
- Sethi, V. & Carraher, S. (1993). Developing measures for assessing the organizational impact of information technology: A comment on Mahmood and Soon's paper. *Decision Sciences*, 24, 867-877.
- Smothers, J., Hayek, M., Bynum, L.A., Novicevic, M.M., Buckley, M.R., & Carraher, S.M. (2010). Alfred D. Chandler, Jr.: Historical impact and historical scope of his works. *Journal of Management History*, 16(4), 521-526.
- Sturman, M. & Carraher, S. (2007). Using a Random-effects model to test differing conceptualizations of multidimensional constructs. *Organizational Research Methods*, 10(1), 108-135.
- Sullivan, S., Crocitto, M. & Carraher, S. (2006). *Winning Reviews: A Guide for Evaluating Scholarly Writing*. Palgrave Macmillan.
- Sullivan, S.E., Carraher, S.M., Baker, L., Cochrane, D., & Robinson, F. (2009). The entrepreneurial dilemma: Grow or status quo?: A real case. *Journal of Applied Management & Entrepreneurship*, 14(4), 37-53.
- Sullivan, S.E., Forret, M., Carraher, S.M., & Mainiero, L. (2009). Using the kaleidoscope career model to examine generational differences in work attitudes. *Career Development International*, 14(3), 284-302.
- VanAuken, H. & Carraher, S.M. (2012). An analysis of funding decisions for niche agricultural producers. *Journal of Developmental Entrepreneurship*, 17(2), 12500121-125001215.
- Van Auken, H. & Carraher, S. (2013). Influences on frequency of preparation of financial statements among SMEs. *Journal of Innovation Management*, 1(1), 143-157.
- Welsh, D.H.B. & Carraher, S.M. (2009). An examination of the relationship between the mission of the university, the business school, and the entrepreneurship center: An application of Chandler's strategy and structure hypothesis. *Journal of Applied Management & Entrepreneurship*, 14(4), 25-36.
- Welsh, D.H. & Carraher, S.M. (2011). *Case Studies in Global Entrepreneurship*. Kendall Hunt P.
- Williams, M.L., Brower, H.H., Ford, L.R., Williams, L.J., & Carraher, S.M. (2008). A comprehensive model and measure of compensation satisfaction. *Journal of Occupational and Organizational Psychology*, 81(4), 639-668.
- Yuyuenyongwatana, R. & Carraher, S.M. (2008/2009). Academic journal ranking: Important to strategic management and general management researchers? *Journal of Business Strategies*, 25(2), 1-8.

THE ROLE OF MATHEMATICS COURSES FOR BUSINESS EDUCATION

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ABSTRACT

Mathematics is a living discipline. Some traditional subjects in pure mathematics have been studied for hundreds of years; other topics, developed during the last few decades from the study of industrial issues, form a body of applied mathematics closely tied to the understanding of practical problems and basic phenomena. In general, the study of mathematics is essentially studying number patterns, and in business, this means knowing how to manipulate numbers and make meaning out of large data sets. Thus mathematics plays a major role in business management because it helps maximize profit by using techniques such as analyzing production costs, determining ideal pricing, discerning sales patterns and projecting future sales. Having strong skills in mathematics means an individual can analyze all of a company's finances and make changes to save the company money and time, and ultimately make a higher profit. However, from business education standpoints, how much knowledge is need for business students? How many math courses should be required for business students? What math course contents are needs for business students?

In this paper, an overview of the math course contents, knowledge and skills and trends should be required for any business majors will be presented. We will pick 30 business programs in the US as the sample to observe their math courses. Then, a variety of math course developments will be discussed. Appropriate math course development provides a systematic, problem-solving approach to planning and designing learning experiences for business majors. It is imperative to explain the benefits that result from mathematics, discuss how its practitioners work, and present the rationale for business majors.

USING SERVICE-LEARNING TO TEACH DATABASE MANAGEMENT

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ABSTRACT

Whatever the type of organization, the database’s dominant role is to support managerial decision making at all levels in the organization. According to recent job market surveys and employment statistics, the strong employment growth estimates and a low unemployment rate secure the profession of database management as one of the best technology jobs in 2016. The demand for database management skills has also actually expanded beyond Web or software companies and into industries such as retail, manufacturers, hospitals, and even government. These industries are seeking individuals with skills in managing and analyzing large data sets. The demand for database management professionals will keep on growing as organizations continue to adopt and integrate increasingly sophisticated modern technologies. Although the future career of database management is assured, the shortage of database management professionals is still a common challenge faced in many organizations today.

The value of service-learning and the adoption of hands-on practice have been proven as an effective instruction methodology (Kenworth-U'Ren, 2008) and provided the learning experiences necessary to enhance students’ skills while developing reasoning and technical abilities (Godfrey, 2005). This research is to design and implement a service-learning project in an undergraduate database course in the Management Information Systems (MIS) program. The service-learning project is to partner the students with a Circuit Court’s office in LaPorte, Indiana to develop a customized database system. The customized database will automate the office’s business functions to better track and manage its case data and case information.

The objective of the study from the service-learning project is to provide students a learning opportunity in experiencing how and what the database management profession requires in the real world. This study not only provides students a real-world project experience to enhance their database management and critical thinking skills required as a database administrator, but also solves the community partner’s business need for an automatic database system. The MIS students who can demonstrate strong database skills will be prominent in the competitive job market and succeed in their future career.

USING A CUSTOMER VALUE-ADD (CVA) APPROACH TO DRIVE IMPACTFUL MARKETING PRACTICES IN A PART-TIME MBA PROGRAM

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ABSTRACT

Due to increasing competitive pressures and limited budgets, marketing programs in higher education need to be laser focused, addressing critical value-add requirements of targeted markets. A Customer Value-Add (CVA) survey methodology was utilized to understand what constitutes “value-add” for prospective, current, and alumni student customers of a large, part-time Northeast PA MBA program. Survey respondents were asked to provide an importance weighting for each MBA value-add attribute, rate the MBA program on each of the CVA attributes, and then provide a relative rating (on each of the attributes) of the MBA program with respect to its competitors. Results from 350 survey respondents suggest that part-time MBA programs should be practical and relevant, flexible, credible and trusted, provide affordable quality, and provide personal attention. Relatively little importance was placed on value attributes emphasizing being connected, focusing on ethics, or globalization. Absolute and relative (to competitor) ratings of the focus MBA program on all value-add elements were discussed and rationalized, while implications for MBA marketing and operational actions were considered. CVA methodological concerns and suggestions for future research were also posited.

USING YELLOWDIG IN MARKETING CLASSES: AN ANALYSIS OF INDIVIDUAL CONTRIBUTIONS AND SOCIAL INTERACTIONS IN ONLINE CLASSROOM COMMUNITIES AND THEIR IMPACT ON STUDENT LEARNING AND ENGAGEMENT

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Andrew P. Feldstein, Fort Hays State University

ABSTRACT

Students in four marketing classes participated in a pilot program where they used Yellowdig in the classroom. Yellowdig is a private network for collaboration targeted towards educational institutions to increase student engagement. Yellowdig seeks to engage students using a broad array of resources including videos, news articles, blogs and more. It offers a Facebook-like experience (a platform the majority of students are very familiar with) for ease of use.

In the classes, Yellow dig was used for two purposes: as a way to create a community inside and outside of the classroom and as a means by which students create and share course-relevant content throughout the semester. To achieve those goals, students posted items of interest relating to course content to Yellowdig and commented on and up-voted others' posts. Yellowdig data was used to capture insights about students' individual contributions and social interactions.

The manuscript summarizes academic literature on social learning and social media, followed by a description of Yellowdig and how it was used in the marketing classes to benefit student learning and engagement. The results of quantitative analyses, including data visualization and social network analysis, are used to help educators understand both individual contributions to and social interactions in the network. In addition, multiple linear regression results suggest that engagement through Yellowdig activities does benefit student learning. Strategies for instructors to enhance student engagement and learning using these types of analyses are provided.

USING A FLIPPED CLASSROOM TO ENHANCE STUDENT ENGAGEMENT AND LEARNING: REFLECTIONS AND RECOMMENDATIONS FOR MARKETING AND BUSINESS EDUCATORS

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ABSTRACT

There has been a good amount of discussion and buzz in the academic circles around the flipped classroom, a non-traditional method that requires students to read and study prior to class and then participate in in-class activities and discussions (rather than listen to lectures). This paper describes the implementation of the flipped classroom in two marketing classes: Strategic Electronic Marketing and Consumer Behavior. After a review of literature on the flipped classroom, instructors' and students' experiences and evaluations of the flipped classroom are described and recommendations for marketing and business educators wanting or considering implementing a flipped classroom are provided.

STUDENT GOAL ORIENTATIONS: ANALYSIS OF DIFFERENCES AND RELATIONSHIPS WITH THE QUALITY OF STUDENT EFFORT

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ABSTRACT

Research examining the quality of student effort in relation to student goal orientations was undertaken to gain a better understanding of how different goals may influence effort. The quality of student effort was conceptualized as the frequency of learning activities and the intensity perceived by students when completing the activities. Mastery and performance goal orientations were examined to represent students evaluating themselves using internal or external standards.

A survey methodology was followed to obtain data from business students completing management and marketing courses. In total, 168 questionnaires were retained for analysis. A structural equation model was generated to represent relationships. Direct and indirect effects were examined. The modeling was followed by regression analyses to examine relationships with the quality of student effort when students reported a predominant mastery or performance orientation. Differences between the students were explored to determine areas for future research.

AN INVESTIGATION INTO THE BASIC BUSINESS AND ACCOUNTING VOCABULARY OF MALE AND FEMALE ENTRY LEVEL ACCOUNTING STUDENTS

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Dan R. Ward, University of Louisiana
Tracy L. Bundy, University of Louisiana

ABSTRACT

All professionals, regardless of career choice, must master the art of effectively communicating and interpreting information peculiar to their chosen field. The accounting profession is no different as it is not only essential in the business and financial worlds, but is commonly referred to as the “language of business.” A critical hurdle in the educational progression of both business and accounting students is the ability to master key phrases and terms that comprise this “language.” Since many business and accounting terms are commonplace in everyday life as well as in familiar business transactions, students may have some familiarity, whether accurate or inaccurate, with such terms prior to taking an introductory accounting course.

This study investigates the extent and nature of an initial basic business and accounting vocabulary foundation among students enrolled in an introductory accounting course prior to an exposure to any course material. In addition, the effect of gender as well as selected educational and academic characteristics on the vocabulary scores is also examined. Results indicate that gender significantly affected both the business and accounting vocabulary scores but the other characteristics produced mixed results on both sets of scores.

STUDENT-CENTERED BLENDED INTER-ACTIVE LEARNING ENVIRONMENT IN INTRODUCTORY ACCOUNTING---A PEER TEACHERS-LEARNERS MODEL

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ABSTRACT

Professors report that there are many student failures in introductory accounting classes. These failures are likely attributable to instructional presentation style and not to students' mental capabilities. Students often appear to be bored and not engaged during the span of traditional lectures about the many concepts, principles, and rules necessary to grasp introductory accounting. This descriptive research design creates a student-centered blended learning environment with a caring community of peer teachers-learners in introductory managerial accounting. The premise of the study is that if students feel they are providing assistance to each other, then the learning of others becomes a duty of knowledge sharing. Knowledge sharing then leads to an interactive and rich learning experience which generates more class participation from students whose comprehensions were likely enhanced by peer-teachers. The on-line interactive-learning environment is also designed to provide a higher level of learning comfort for those students who are considered to be introverts or ambiverts.

The student-centered blended learning environment consists of five-scheduled online classes during the semester that allow students the flexibility to better manage their busy schedules. One or two critical thinking introductory managerial accounting cases are required for each online class. Students are given four to five days to complete and upload their case solutions to the class on-line discussion board. Each student is required to have at least two discussion threads about their classmates' case solutions. Students are also required to rate, from one to five stars, their classmates' case solutions.

The introductory managerial accounting interactive learning environment described above not only enhances the one-on-one relationships between the professor and the students but also forms peer teacher-learner relationships. These relationships change the traditional competitive class model to a cooperative interactive learning model that tends to elevate student learning in introductory managerial accounting. Another impact appears to be that students that are not majoring in accounting have a decreased concern about considering the accounting profession for possible career choices.

STUDY ABROAD AS A CULMINATING FACTOR OF GLOBAL COMPETENCE DEVELOPMENT

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Yim-Yu Wong, San Francisco State University

ABSTRACT

Globalization has brought numerous changes to societies, economies, governments, and businesses. The changes in global economy are moving in multiple, intertwined directions that make it very challenging to keep up. In the meantime, the knowledge-based economy is also growing to new height. What used to be 'knowledge', which is mostly understood as technology based information has now been expanded to intangible knowledge such as know-how, emotional abilities, and soft skills. To compete successfully, human capital development emerges quickly as a competitive advantage for multinational enterprises (MNEs). Yet there is still a shortage in well groomed, developed global managers. Global managers have to possess global competence that is beyond technical knowledge and skills. This study therefore first navigates some major trends in the global economy that drive the growing demand for a renewed set of knowledge, skills, and global competence. Second, from the perspective of higher education, the study addresses the value and various types of formal and information education and training for human capital development that organizations and individuals can choose from in order to obtain global knowledge and competence. Yet there is still a missing link between human capital development and global competence. It is not about the knowledge, nor the skills. It is the transformation of thinking, mindset, maturity, awareness, sensitivity and the like that can be cultivated most effectively through immersion experiences such as foreign assignments by employers as well as through study abroad programs by educational institutions. Thirdly, to help bridge the gap, this study offers an organizing model, which integrate key factors, players, and their impacts on human capital develop, transfer of competence at the firm level, and career paths at the individual level. In conclusion, there is no substitute to first-hand experiences and interactions. They fill the voids in academic materials and prepare aspired future global managers with early involvement. They bridge the gap between observations and reality. Among all immersion experiences, study abroad stands out as a prime choice. A well-crafted program that incorporates administrative leaders, faculty and business practitioners is needed for nurturing the tacit aspects of global competence.

Keywords: *Study abroad, global competence, global economy, knowledge economy, human capital development, career paths.*

EXPLORING GREEN ENERGY PRODUCTION AND SUPPLY CHAIN ISSUES

Kelly Weeks, Lamar University

ABSTRACT

Logistics plays a large role in each person's life. It allows people a means to travel from place to place, receive goods or services, conduct business, and acquire energy. All these aspects are highly important to citizens and the community; however, these things come with a cost. Most logistical methods are not environmentally friendly and thereby causing many challenges and problems. These are detailed and analyzed in this study to find green solutions.

This study examines environmental performance in terms of air emissions and climate temperature changes as well as the types of energy sources being utilized. This is an effort to detail the current state of non-green environmental usage and effects and then to propose alternatives from available opportunities.

An empirical investigation was conducted on the perceptions of managers at various companies. This was an effort to gauge insight into the effects each of these may have upon sustainability, green and environmental issues. After statistical analyses, it appears that there is indeed proof that offers some optimism to increasing green initiatives at the corporate level.

INTRODUCTION

In the simplest terms possible "Greening" simply equates to making more environmentally friendly. Supply chain management (SCM) is a combination of the logistic activities of material management and physical distribution, as well as marketing, sales, finance, strategic planning and information technology (IT). Much of this study will focus on logistical activities but other areas will play an important supporting and secondary role as well.

Although interest is growing in the so-called greening of logistics, relatively few empirical studies have dealt with environmental issues in logistics. This research will analyze the areas of energy transportation and the different modes of transportation of goods. It will then discuss various problems of each and research means of resolving the harmful effects of each, which are both many and serious according to (Moore, 2008).

The first goal of this research is to fully analyze the current state of the environment's level of pollution and associated climate change due to logistical systems. Secondly, this research will discuss current energy usage and production by types. Next, it will proceed to analyze carbon emissions and climate temperature changes over historical periods of times. Production sources of energy will be discussed next followed by green logistics and supply chain issues. This study will briefly attempt to show that a competitive advantage is feasible through green means. In closing will be a discussion and conclusion section. In essence, this research will scrutinize what will be the effects (benefits) on the environment if logistic modes switch to green energy alternatives. The impact of this research will include aspects of statewide, national, and international information.

Finally, in an effort to gain insight from both a managerial and academic perspective, a questionnaire was administered. The survey focused on issues of energy efficiency, supply chain coordination, local fuel usage, sustainability, supply costs, bioenergy usage, and total costs.

LITERATURE REVIEW

Energy

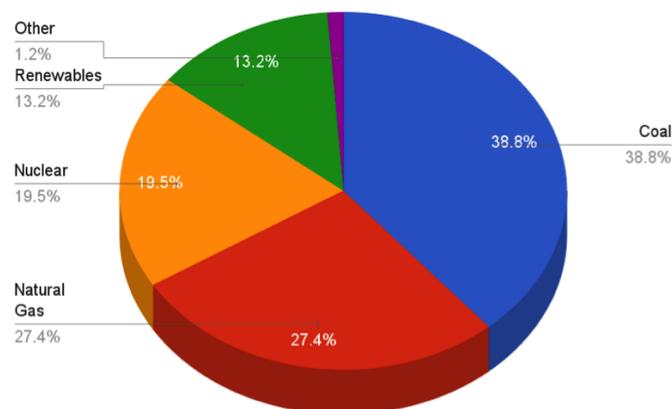
Production of energy is the process of (Halldorsson and Svanberg, 2013). Energy is a source of power that is produced through using different technologies such as solar, wind, or combustion. Various energy carriers (biomass, crude oil, sunlight, coal, natural gas, wind) transform this energy to a consumable form of (electricity, vehicle fuel, heat, etc...). This paper will not delve into specifics on coal vs. solar for instance as much has already been written on each of the various energy methods.

Figure 3 breaks down the means by which the U.S. generates electricity for consumption. It becomes clear fossil fuels dominant the current used source and renewable means are a negligible 13.2%. Table 1 provides a means of comparison to benchmark the U.S. with other countries in this regard. While the U.S. is not quite the largest user of fossil fuels, percent-wise, it is far from the leader or even in the middle of the pack. Recent evidence ranks "reduced costs due to energy efficiency" as the second highest potential "sustainability benefit" for organizations, only superseded by improved brand reputation (Haanes *et al.*, 2011). However, this sole work needs supporting research to confirm results. Therefore:

H1 As energy efficiency (EE) improves, overall, total costs (TC) will be reduced.

An examination of respondents will also try and confirm if brand reputation is indeed regarded as having the highest “potential” over reduced costs. Clearly, as the U.S is economic superpower, there is room for industry improvement. As a supplemental, Appendix A, is attached to show a state-by-state comparison. This will allow, among other things, a means to determine where efforts could begin.

Figure 3
U.S. 2014 ELECTRICITY GENERATION BY TYPE



Source: U.S. Energy and Information Administration. 2016.

Table 1 ELECTRICAL ENERGY PRODUCED BY FOSSIL FUEL COMBUSTION (BILLION KILOWATTHOURS)			
G8 Nation	Fossil Fuel Combustion	Total	%
Canada	136.31	622.98	21.90%
France	44.65	532.57	8.40%
Germany	340.38	567.33	60.00%
Italy	286.35	201.7	70.40%
Japan	759.93	1031.22	73.70%
Russia	668.26	996.82	67.00%
United Kingdom	244.5	342.48	71.40%

Source: International Energy Statistics Database (2011), Energy Information Administration

The context of the energy sector itself is changing; terrorist threats, increased frequency of natural disasters, geopolitical disruptions, the aging of a highly complex infrastructure, climate change and regulatory and economic risks are a threat to a sustainable supply of energy (Bouffard and Kirschen, 2008). Sustainable options tend to offer more energy independent options as well as lowering risks of violence. For instance, nuclear plants are guarded against attacks, which could prove catastrophic for millions. Wind turbines and solar arrays pose little to no threat to the public if attacked. Crude oil is highly volatile in demand and price as much is imported from abroad. Sustainable means, either onsite or offsite, offer more security and less risk.

Green Supply Chain Logistics

Supply chain management incorporates the concepts of logistics, transportation and renewables, as well as some environmental issues. According to Murphy (2003), these separate yet distinct fields have a direct effect upon each other. Green concerns will broaden the scope of logistics as well as influence the way logistics managers do their jobs. (Murphy, 2003).

Supply chain management of bioenergy has been overlooked (Iakovou *et al.*, 2010; An *et al.*, 2011; Halldorsson and Svanberg, 2013). McCormick and Kåberger (2007), identify "supply chain coordination" as a key barrier to "obstructing the expansion of bioenergy". Stock *et al.* (2010), identify energy as a distinct opportunity for further research in SCM. The connection is clear. Abundant opportunity exists waiting to be seized. Therefore, it can be presumed that:

H2 As supply chain coordination (CC) improves companies tend to be more accepting and willing to switch to sources of bioenergy (BE), hence percent used increases.

Some relationship conceptualization between supply chain management and environmental sustainability has been done (Seuring and Mueller, 2008; Carter and Rogers, 2008). Svensson, (2007) has explored renewable resources as an element of supply chain. Some research (Browne *et al.*, 2006, Leonardi and Browne, 2010, and Golicic *et al.*, 2010) acknowledges the role of energy resources as a contributory factor with regards to transportation.

Song *et al.* (2012) extended this to include a framework for the logistics service industry. Although some research has begun in this broad field, it is far from abundant or sufficient. The challenges of energy supply chains vary, depending on technology and mode of energy production (solar, biomass, wind, water).

With current oil (energy) volatility, finite supplies, and emerging technologies, the present is not only a feasible time but an optimal one for a transition to more sustainable methods. Many of the producers of green technology, such as Toyota, “have failed to recognize the mass-market appeal of their vehicles and its significant contribution to a cleaner environment and to less dependency on oil” (Bockmam, 2009). Organizations realize that a strong supporting logistics function is an important organizational offering from both the commercial and the consumer perspective (Sarkis, 2004).

Competitive Advantages

Firms can increase their competitive advantage as a result of a stronger triple bottom line, (composed of social, economic, and environmental issues or people, planet, and profit) propositions are created from a natural-resource-based view of the firm perspective that is supported using accounting theory, management strategy, green logistics and supply chain literatures (Markley 2007). Other countries have begun realizing the importance of green logistics and energy (Jiang, 2007). Research in this area could indeed help the entire country and world but, more importantly, it would pave a way to improve local communities and economies. Hence, additional studies in these areas would be a natural extension of existing programs for the emerging field of green logistics. Take for instance a study done by Ranta and Korpinen (2011), in which they found using local fuels actually lowered supply costs as well as making supply more sustainable. This proved to be an ideal situation. So,

H3 As the overall percent of local fuels (LF) used increases, supply costs (SC) will decrease.

H4 As the overall percent of local fuels (LF) used increases, overall sustainability (ST) improves (meaning sources of fuels tend to be green).

Rogers *et al.* (2007) conclude that accessibility of petroleum-based fuels still makes these economically feasible over alternative sources of energy, and such “access to plentiful and inexpensive fuels has been an important part of building successful supply chains”. Rogers *et al.* (2007) further concluded that supply chains have been built on the assumption that “petroleum-based fuel would be inexpensive and plentiful for a long time”. Christopher (2010) stresses the same urgency: “When many of today’s supply chains were originally designed, the cost of oil was a fraction of what it is today”. Competitive advantage potentials not only exist, they are becoming more easily created. This is due to numerous factors such as higher gasoline prices, lower costs of alternate energy sources such as solar and wind, and governmental incentive programs for “green” initiatives.

METHODOLOGY

Questionnaire Design and Measure

The survey item was designed to obtain responses on a five-point Likert scale. A score of 3 represents average. A score of 1 represents very poor while 2 being poor. A score of 4 is

classified as very good and 5 is excellent. Actual, quantifiable data is excruciating limited in this type field. This may be one reason more research in this area has not been previously done. Therefore, perceptions of observed or suspected benefits was asked. This was one reason the survey was sent to a tactical or strategic level manager, so they would have the expertise and knowledge on which to draw upon for these type questions.

Questionnaires were emailed when there was an option to do so. The remaining surveys were mailed via United State Postal Service (USPS) to the operational manager at each facility. Each questionnaire included a self-addressed, postage paid return envelope.

REFERENCES

- An, H., Wilhelm, W.E. & Searcy, S.W. (2011). Biofuel and petroleum-based fuel supply chain research: a literature review. *Biomass and Bioenergy*, 35(9), 3763-74.
- Bockman, Shel, Razzouk, Nabil & Sirotnik, Barbara (2009). Going Green - From Left to Center Stage: An Empirical Perspective. *Journal of American Academy of Business*, 14(2), 8-9.
- Bouffard, F. & Kirschen, D.S. (2008). Centralised and distributed electricity systems. *Energy Policy*, 36(12), 4504-8.
- Browne, M., Allen, J. & Rizet, C. (2006). Assessing transport energy consumption in two product supply chains. *International Journal of Logistics: Research & Applications*, 9(3), 237-52.
- Carter, C.R. and Rogers, D.S. (2008), "A framework of sustainable supply chain management: moving toward new theory", *International Journal of Physical Distribution & Logistics Management*, Vol. 38 No. 5, pp. 360-87.
- Christopher, M. (2010). *Logistics and Supply Chain Management: Creating Value-Added Networks*. Financial Times/Prentice Hall, Harlow.
- Golicic, S., Boerstler, C. & Ellram, L.M. (2010). Greening transportation in the supply chain. *MIT Sloan Management Review*, 51(2), 47-55.
- Haanes, K., Balagopal, B., Arthur, D., Kong, M.T., Velken, I., et al., (2011). First Look: The Second Annual Sustainability & Innovation Survey. *MIT Sloan Management Review*, 52(2), 77-83.
- Halldórsson, Á., & Svanberg, M. (2013). Energy resources: Trajectories for supply chain management. *Supply Chain Management*, 18(1), 66-73.
- Iakovou, E., Karagiannidis, A., Vlachos, D., Toka, A. & Malamakis, A. (2010). Waste biomass-to-energy supply chain management: a critical synthesis. *Waste Management*, 30(10), 1860-70.
- Jiang, Kejun, Zhu, Songli, Shrestha, & Ram M. (2007). Analysis of policy options for promotion of clean and energy efficient technologies in the transport sector in Beijing. *International Journal of Environment & Pollution*, 30(1), 59.
- Leonardi, J. & Browne, M. (2010). A method for assessing the carbon footprint of maritime freight transport: European case study and results. *International Journal of Logistics Research and Applications*, 13(5), 349-58.
- Markley, Melissa J., Davis, & Lenita (2007). Exploring future competitive advantage through sustainable supply chains. *International Journal of Physical Distribution & Logistics Management*, 37(9), 763.
- Moore, Kelly, Neu Gebauer, Romain, Lurmann, Fred, et al., (2008). Ambient Ozone Concentrations Cause Increased Hospitalizations for Asthma in Children: An 18-Year Study in Southern California. *Environmental Health Perspectives*, 116(8), 1063.
- Murphy, Paul R., Poist, & Richard F. (2003). Green perspectives and practices: A comparative logistics study. *Supply Chain Management*, 8(2), 122.
- Ranta, T. & Korpinen, O.-J. (2011). How to analyse and maximise the forest fuel supply availability to power plants in Eastern Finland. *Biomass and Bioenergy*, 35(5), 1841-50.
- Rogers, Z., Kelly, T.G., Rogers, D.S. & Carter, C.R. (2007). Alternative fuels: are they achievable? *International Journal of Logistics: Research & Application*, 10(3), 269-82.