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# BUSINESS VALUE: IS ETHICS TRULY PART OF THE EQUATION?

**Valerie P. Denney, Embry-Riddle Aeronautical University Worldwide**

## ABSTRACT

*While business ethics is discussed in many forums including team meetings, corporate policy statements, it remains unclear whether ethical behavior is truly considered part of the business value chain by leaders. Project, program, and portfolio managers, as the individuals given the responsibility, accountability and authority to execute the business vision, are often at the center of the balancing act in trying to achieve business success while encountering the myriad of complexities and conflicting objectives. Using qualitative methods, the researchers explored how experienced business professionals define the term business value by providing examples in a specific organization. In response to open-ended questions, the researcher concluded that respondents unanimously identified business values associated with ethics or finance despite being asked specifically about ethics. Second, using a word frequency analysis, the researchers determined that a value-focused analysis was incomplete without a discussion of a stakeholder orientation. Here, over 70% of the respondents identified customer or employee as key stakeholder categories, despite not specifically being asked about stakeholders. To the respondents in this study, ethics is clearly part of the value-chain in their organizations.*

## INTRODUCTION

Business value is often viewed through a competitive lens (Porter, 2008). In the literature, the terms value creation and competitive advantage are closely related such that something is of value only if a customer perceives it to be important (Anitsal & Flint, 2006; Peloza, 2009, Stuebs & Sun, 2010). An entity works to transform the products and services so that they are perceived, by the customer, to be worth more than the sum of the inputs (Freeman, 1984; Magretta, 2012).

While the term value often lack specificity, they are commonly used as jargon in business. Generally, there is little disagreement on the concept, but the specific content varies. In this study, business value definitions and examples are evaluated to determine whether experienced professionals inherently believe that business ethics is truly part of the value chain. For the purpose of this paper, business ethics is defined corporation's behavior and culture and consists of the norms, standards, and expectations of the organization (Fassin, Van Rossen, & Buelens, 2011).

## THEORETICAL BACKGROUND

While the terms value is commonly used in business, the specific content varies in the literature. In classical theory of the firm, the primary value of the corporation is to maximize a

profit and thus achieve success (Porter & Kramer, 2006). There are an almost unending set of business values and value definitions. Some (such as Fischer & Lovell, 2009) explain values from the common-sense perspective which is derived from feelings and emotions. Rokeach (1973) identified different types of values that might impact how an individual views ethics: moral, competence, personal, and social. Kerzner (2015) describes the four categories of project value as financial, future, internal, and customer-related. Others (Koller, Dobbs & Huyett, 2011) focus exclusively on the financial value of a business. Jin and Drozdenko (2010) defined the core set to include those which are difficult to quantify including, collaboration, relationship orientation, creativity, encouragement, sociability, organizational stimulation, equity among employees, and trust. Sometimes, ethics is considered a value of the organization as substantiated by the leadership types or leader characteristics. For example, Hussein (2007) defined the four business leadership types as managerial, charismatic, transformational, and ethical. Nikoi (2009) defined ethical culture as three factors including moral characteristics of the leader, ethical values in the leadership vision, and morality of the environment. While value discussions are commonplace, there is rarely a singularly accepted definition. For the purpose of this paper, value is simply defined as what the benefits of something are worth to someone (Kerzner, 2015).

Most normative business ethics descriptions are based on the ethics of conduct, rather than the ethics of character found in virtue ethics, and based on either a consequentialist or a deontological orientation (Atkinson & Frederick, 2005; Beauchamp, Bowie & Arnold, 2009; Hartman, 2005; Thiroux & Krasemann, 2009). Consequentialist ethics, or teleological ethics (Crane & Matten, 2010; Thiroux & Krasemann, 2009) focuses on the results of an action such that *good* is defined independently of what is *right* and is based on what will provide the greatest benefit to society (Beauchamp, Bowie & Arnold, 2009; Crane & Matten, 2010; Thiroux & Krasemann, 2009). Teleological ethics is one of a cost-benefit analysis and includes logical and rational arguments to produce benefit. Teleological ethics can be further decomposed into ethical egoism (in which actions benefit oneself), altruism (in which action benefit society), and utilitarianism (in which actions benefit the greatest good (Beauchamp, Bowie & Arnold, 2009; Crane & Matten, 2010; Thiroux & Krasemann, 2009). The most well-known instance of teleological ethics is utilitarianism, or utility, as described by Mill (2005). Some of the issues associated with teleological ethics include (Beauchamp, Bowie & Arnold, 2009; Crane & Matten, 2010; Thiroux & Krasemann, 2009): (a) difficulties in predicting the outcome of situations because it is not possible to predict the future; (b) difficulties in comparing intangible values, reducing ethics to economic calculations; (c) conflicting rules; (d) loss of individual rights when the benefit is for the majority; and (e) having the ends justify the means in all circumstances.

Deontological ethics, which are also called rule-based ethics, focuses on duty, obligation, justice, and right- independent of the greatest good (Thiroux & Krasemann, 2009). Instances of deontological ethics included Kantianism and the Golden Rule (Thiroux & Krasemann, 2009). In Kantianism, morality means acting from the universal set of rules (Beauchamp, Bowie & Arnold, 2009; Kant, 2005). This is also referred to as the categorical imperative (Kant, 2005; Thiroux & Krasemann, 2009), which is a single principle from which all other rules are derived.

According to Kant, duties are absolute obligations, independent of personal feelings, all situations are examined in the same way without exception, and individual intent, or will, determines the morality of the act, not the outcome of the situation. Some of the issues associated with deontological theory include difficulties in turning individual intentions into rules, difficulty in identifying individual intentions, establishing universal test for the rules, ignoring the consequences of actions in all cases, and ignoring the emotional basis for decisions and feelings (Beauchamp, Bowie & Arnold, 2009; Crane & Matten, 2010; Thiroux & Krasemann, 2009). Despite the multitude of well documented ethical theories, it remains unclear how business professionals perceive the value of ethics within the context of the complex business environment.

## **RESEARCH PURPOSE AND DESIGN**

The purpose of this qualitative study is for experienced project, program and portfolio managers (notionally 10 or more years of experience) to examine values in the organization and comment on the extent to which ethics is viewed as part of the value chain. The study considers the following specific research question: how do experienced business professionals define the term business value by providing examples in a specific organization?

This qualitative research was conducted by having respondents provide written responses to open-ended, essay-type questions related to the research topic. Both qualitative and quantitative methods are valid approaches to study ethics (Bordens & Abbott, 2008; Zikmund, Babin, Carr, & Griffin, 2010). However, qualitative research provides enhanced inner meaning and insights, and greater depth of information (Cozby, 2009; Trochim & Donnelly, 2008; Zikmund et al., 2010) and as such it is used in this research. For the open-ended questions, respondents were asked to choose a current organization, or a former organization that they are familiar with. To further quantify the level of detail requested, each respondent was asked write around 500 words per question to help the researcher understand their thought process to add a practical dimension to the myriad of theoretical research. The questions stated that each respondent was to provide information on the way the respondent perceives his business culture with respect to the areas in the questions and why he perceives it that way.

Respondents were solicited through a variety of social media and personal contact mechanisms resulting in a convenience sample. Posting were placed on reputable project and program management LinkedIn groups with a brief description of the research and contact information. Each potential respondent was provided a written description of the planned research including contact information, purpose, expectations, risks, benefits, a description of how anonymity and confidentiality, and provisions for stopping participation in the study. 36 individuals responded with interest and agreed to participate in this qualitative survey, with 15 qualified individuals completing the responses.

Electronically distributed, written questions were used in lieu of open ended, recorded interviews for two primary reasons. First, electronic survey instruments provide the reflective time necessary for the respondents to provide thoughtful responses. Each respondent was given an estimated time required, but the actual amount of thought and the specific time and location

for response were left to the individual. In face-to-face interviews, respondents may need more time to think about and respond to a specific question. The survey was distributed and data was collected by SurveyMonkey®. Second, the questions were scripted to avoid framing bias (Corner & Hahn, 2010; Fischer, Jonas, Frey & Kastenmüller, 2008). Corner and Hahn (2010) described question framing as a bias in which an individual would be disproportionately influenced by the way that the information was presented. As such, the researcher was aware of the biases and attempted to remain neutral but recognized that personal experiences played a role in the conduct of the research and analysis of results.

## **RESEARCH QUESTIONS**

The research questions included the following. First, what is of value to your organization (RQ1)? Participants were asked to use as many adjectives or descriptive phrases as they like and to provide the rationale for how they know these are valued by their organization. If there is a priority, participants were asked to provide it. Definitions of value or other context information was requested as well.

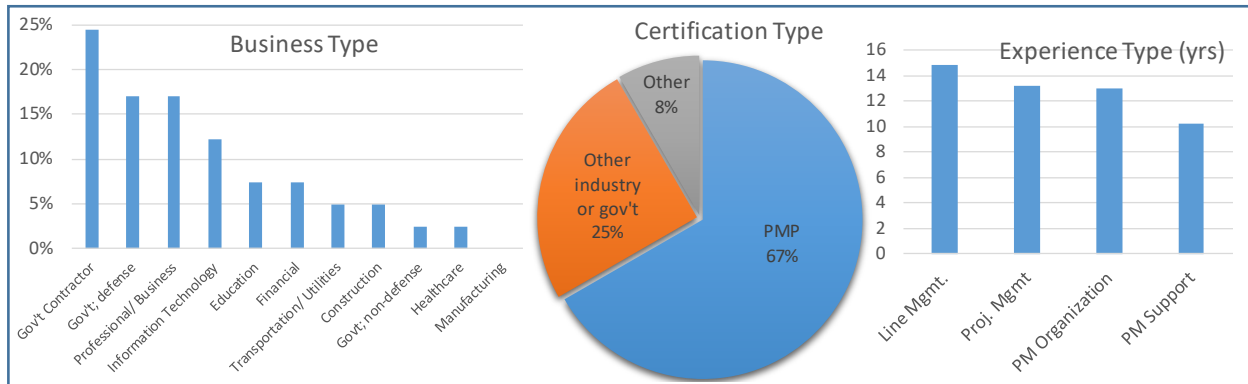
Second, describe the business values that are weak or lacking in your organization or personal values that your organization does not have and describe what values could be improved (RQ2)? Participants were asked to provide rationale of why they perceive them to be weak, lacking, or in need of improvement. Again, participants were asked to provide detailed examples with sufficient context to help with interpretation of meaning. In summary, the research questions asked what is of business value, how do you know it, and what could be improved?

## **DATA COLLECTION, PROCESSING AND ANALYSIS**

Data was extracted from SurveyMonkey®. responses and imported into NVivo-11® for coding and analysis consistent with current practice (Corbin & Strauss, 2008; Saldana, 2011). Content analysis included identification of categories, subcategories, and key phrases. All responses were in vivo since the respondents wrote the responses directly without researcher interpretation or transcription. Respondent demographics is shown in figure 1. In addition to the data shown on the figure, 38% of the respondents identified as female and 62% as male.

NVivo-11® provided the researcher the flexibility to iteratively test subcategories and categories throughout the analysis. Categories were not determined a priori. Coding was an inductive process that created analytic categories which was derived from the data consistent with Emerson, Fretz, and Shaw (2011).





*Figure 1. Respondent Demographics.* Respondents responded to one or more categories. For experience type, most respondents responded to more than one category. All respondents were screened to ensure each has sufficient experience in one or more of the categories shown.

## FINDINGS

As previously described, the research questions asked what is of value, how do you know it, and what could be improved? While RQ1 and RQ2 both referred to values, RQ1 specifically asked about business values, while RQ2 asked about personal values or weak business values. The questions were designed to ask the same question, but using slightly different terms and context. The expectation was that respondents would provide an underlying rationale and context for the identified values. Overlapping questions are a form of triangulation that is used to improve validity of the data set and analysis (Denzin, 2006). The sections that follow describe the participant-derived value definition, value-focused categories, value priority, and a discussion of stakeholder- focused responses.

### Value Definition

Only one respondent attempted to define value as opposed to providing examples. Value is “the thing that drives or affects behavior” (personal communication, Summer 2016). Note that all in vivo phrases are designated by quotations and the citation (personal communication, date). This nomenclature is used consistently through this paper.

In this participant’s view ethics is associated with behaviors or what one does, rather than that which is right in any absolute sense, consistent with teleological ethics, such as Mill (2005). No respondents discussed personal values. From a context analysis, it is likely that respondents viewed their personal values as their business values and vice versa. This is an opportunity for future research to explore this relationship further.

## Value-Focused Categories

Inductive coding resulted in the seven value- categories as shown on table 1. Table 2 summarizes synonyms associated with each of the value subcategories. As part of the informed consent, responses were told that the purpose of the study was to examine whether ethics is part of their value chain. As such the respondents may have been biased toward answering all the questions from an ethical framework. However, the research questions did not use the term ethics.

Table 1  
*Value-Focused Categories*

Value category	% Respondents	Data Sources	Total References
Ethics	100%	48	87
Finance	100%	41	78
Compliance	67%	14	37
Quality	47%	27	36
Time	47%	19	23
Business Assets	40%	25	49
Longevity	40%	18	32

*Note.* Total references include references that are contained in one or more other value-focused subcategory.

Table 2

*Value-Focused Categories and Associated Synonyms*

	Representative Synonyms	R20	R23	R11	R24	R44	R5	R12	R6	R28	R10	R1	R35	R33	R15	R18
<b>Ethics</b>																
	Ethics or Business Ethics	x	x		x		x		x			x			x	x
	Right	x	x		x	x	x		x		x			x	x	
	Integrity	x	x	x	x	x	x	x			x					x
	Trust		x			x	x		x							x
	Transparent and/or open		x	x	x		x		x							
	Respect		x		x	x				x	x				x	
	Accountable	x	x	x	x	x	x		x				x	x	x	
	Honesty		x			x										
<b>Finance</b>																
	Financial (or similar)	x	x	x	x	x		x	x	x						
	Price	x		x		x	x				x	x	x		x	
	Budget	x	x	x	x		x									
	Profit	x	x	x		x	x									
	Cost	x				x							x	x		
	Making money									x	x	x				
	Sales, Orders (see Note 1)	x		x		x	x									
	Stock price [or] dividend			x							x					
	Business [side or oriented]	x					x									x
<b>Compliance</b>																
	Compliance		x	x	x			x								
	Law, regulation, or policy		x			x	x		x			x				
	Bribery or corruption		x									x				
	Staying out of trouble									x	x					
<b>Quality</b>																
	Innovation							x	x	x						
	Program objectives [quality]	x		x		x										
	Operational efficiency				x	x		x								
<b>Time</b>																
	Schedule constraints			x						x						
	Products on-time or early	x			x			x					x	x		
<b>Business Assets</b>																
	People or staff				x	x	x	x								
	Third party assets		x				x									
	Resources		x		x											
	Right talent [or] personnel	x	x													
<b>Longevity</b>																
	Sustainable growth		x		x				x							
	Strategic growth or strategically				x			x	x							
	Grow the business (see Note 2)	x		x												

*Note.* Citation for each respondent is (Rx, personal communication, Summer 2016), where x is the respondent number. Note 1: Also includes Earnings, Margins (Return on Sales), Cash Flow, return on Invested Capital, and Earning per Share [or related]. Note 2: Also includes (bookings, sales) or new business, or new customers

There is a curious unanimous emphasis on finance with 100% of the respondents discussing some form of finance or budget as a value. Even those in non-profit organizations responded of the value of finance, albeit, different from those in a profit making corporation. Of particular note was the statement “profitability is important to the company, profitability by any means” (personal communication, Summer 2016). If benefits exceed cost and thereby lead to profitability, then the legal action is considered acceptable consistent with teleological ethics (Crane & Matten, 2010; Thiroux & Krasemann, 2009). “By any means” necessary suggests both lawful and unlawful, but this was not explored further and remains an opportunity for future research.

## Value Priority

While slightly over half (53%) of the respondents specifically addressed the question about value priority, the priority was discussed implicitly through combinations of values. Pairs of code were discussed implying that priority is more about balance of values and objectives than an outright priority. Table 3 summarizes the respondent-identified values that were discussed in two or more categories. The numbers reflect how many respondents who discussed the pair of values within the same sentence (for example ethics and finance was discussed by 8 respondents in a single sentence). Over 50% of the respondents identified the top five pairs of values as: finance/ business assets, finance/quality, quality/business assets, ethics/finance, and ethics/assets. Ethics, finance, and business asset values were more likely to be paired with another value. A Pareto chart of the results is shown on figure 2. Respondents unanimously (100%) identified at least one other value category within the same sentence.

Table 3  
*Value Pairs by Number of Respondents*

	Ethics	Finance	Compliance	Quality	Time	Business Assets	Longevity
Ethics		8*	2	6	2	8*	3
Finance	8*		3	11*	6	12*	7
Compliance	2	3		1	1	2	2
Quality	6	11*	1		5	11*	4
Time	2	6	1	5		2	0
Business Assets	8*	12*	2	11*	2		4
Longevity	3	7	2	4	0	4	

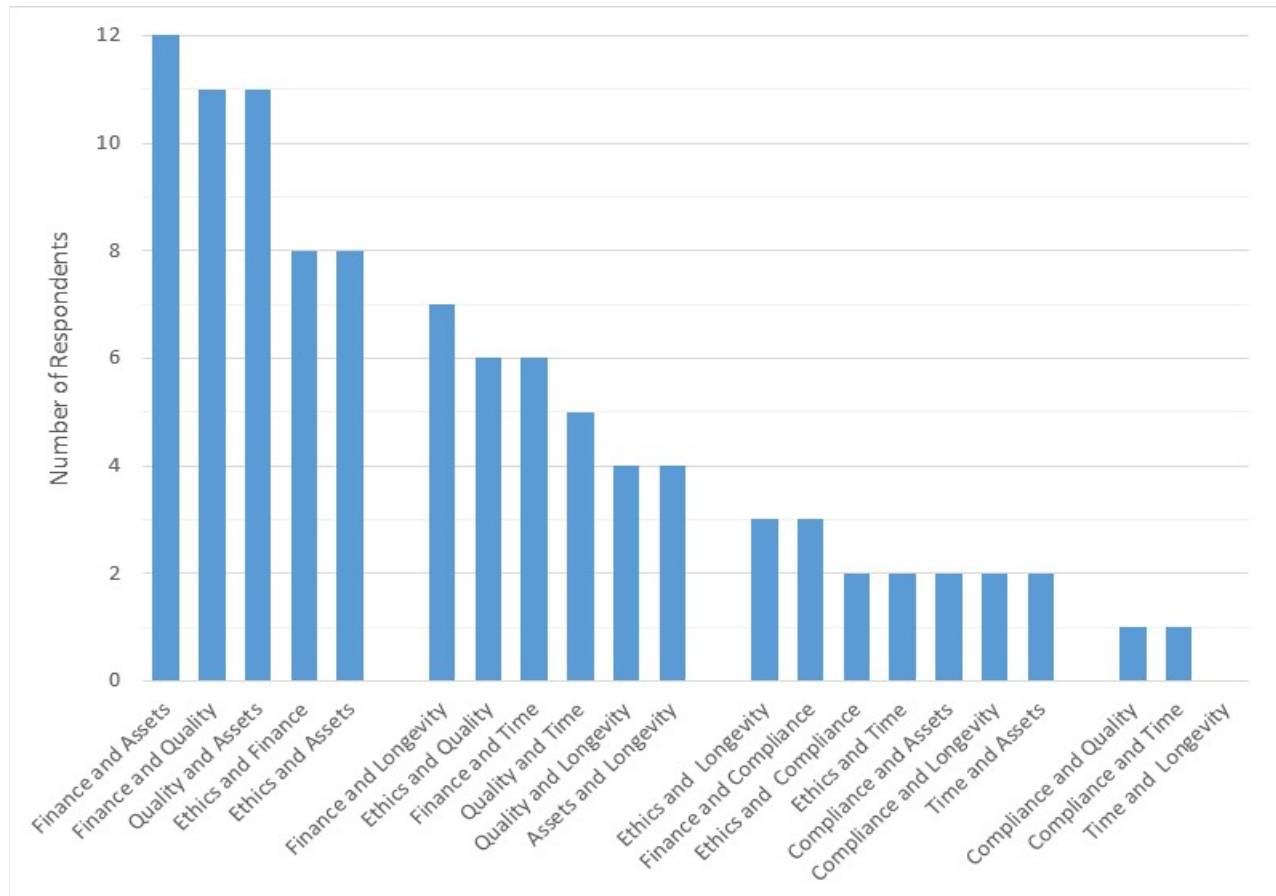
*Note.* The top 5 pairs are shown with an asterisk.

## Stakeholder Orientation

Mitchell, Agle, and Wood (1997) first defined the classes of stakeholders as power, legitimacy, and urgency and proposed a typology of stakeholders. Power refers to the ability of a stakeholder to influence the behaviors of others in an organization. Legitimacy refers to the perceived validity of the stakeholder's rightful claim in the organization. Urgency, or importance, refers to the degree to which the stakeholder's position in the organization demands immediate attention. There is overwhelming emphasis on the customer and on the employee, but little on the others demonstrating a narrow view of stakeholders, but still consistent with Mitchell, Agle, and Wood (1997). Since ethics theory has been shown to link to stakeholder theory (Carroll & Buchholtz, 2006; Freeman, 1984; Freeman, Harrison, Wicks, Parmar, & DeColle, 2010; Phillips, 2003), it not surprising that there is such a strong discussion of stakeholders by the respondents as described in this section.

The 10 most frequently used words coded to value-focused categories and subcategories, are shown on figure 3. While many of the words (contracts, profit, price, financial, technical, ethics, and costs are mapped to value-focused categories, others (customer, personal, and

employees) do not code well against the value-focused categories. Therefore, a value-focused analysis is incomplete without a discussion of a stakeholder orientation. Corporate stakeholders include those individuals who directly derive value from the activities of a corporation and those whose actions can be affected by an organization's decisions (Freeman et al., 2010).



*Figure 2. Value Pairs.* Of the 21 value pairs (such as finance and business assets), 8 respondents commented on 50-75% of the pairs and 5 respondents commented on < 50%.

Word	Length	Count	Weighted Percentage ▽	Similar Words
customer	8	123	1.30	customer, customers
contracts	9	78	0.82	contract, contracts
profit	6	74	0.78	profit, profitability, profitable, profits
price	5	67	0.71	price, priced, prices, pricing
financial	9	62	0.66	financial, financially
technical	9	61	0.64	technical
ethics	6	54	0.57	ethic, ethical, ethically, ethics
personal	8	52	0.55	person, personal, personality, personally, persons
costs	5	49	0.52	costing, costs
employees	9	49	0.52	employee, employees, employees'

Figure 3. Value Coded-Data Word Frequency. Generated by the NVivo® tool

Using the aforementioned method, inductive coding of the original data set resulted in the seven stakeholder subcategories as shown on Table 4. Table 5 shows the number of stakeholder categories identified by respondents. All respondents, except for one, commented on two or more stakeholder categories.

Table 4  
*Stakeholder Subcategories*

Stakeholder	% Respondents	Data Sources	Total References
Customer	87%	41	78
Employee	73%	25	44
Business Entity	60%	20	33
Supplier	60%	12	30
Competitors	33%	7	7
Self	33%	6	6
Other	13%	6	6

*Note.* Total references include references that are contained in one or more other value-focused subcategory.

Table 5  
*Multiple Stakeholder Mappings*

Stakeholder Categories	Number of Respondents
All 7	0
6 of 7	4
5 of 7	1
4 of 7	2
3 of 7	2
2 of 7	5
1 of 7	1

*Note.* Shows the number of stakeholder categories identified by respondents. The 7 stakeholder categories are identified on table 4.

Table 6 summarizes synonyms associated with each of the stakeholder subcategories. Taking care of customers and providing them with value is aligned with ethical behavior, as described by survey respondents. Returning to the earlier discussion on priorities, the most representative statement is you “need to know... respondents the priorities of your customer and [make] adjustments to those new priorities (personal communication, Summer 2016). For several respondents, overall program value is simply defined by customer satisfaction. In a discussion of a problem program, the future relationship became important: “It wasn’t just the financial impact to our corporation but the ... long term relationship with our customer that drove the [changes]” (personal communication, Summer 2016).

Table 6

*Stakeholder Subcategories in Detail*

Representative Synonyms	R23	R18	R5	R11	R6	R28	R44	R24	R1	R35	R15	R33	R10	R20	R12
Customer															
Customer		x	x	x	x	x	x		x		x	x	x	x	x
Client	x														
Employee															
Employee	x	x	x	x	x	x		x	x	x	x				
Staff		x		x			x	x	x		x				
Workforce	x	x													
Business Entity- broader than the individual employee															
Employees	x	x	x	x	x	x		x							
Business entity				x			x								
Executive management			x	x								x			
Supervisors or managers	x		x	x											
Organization	x	x													
Supplier															
Partner or partnership	x	x						x						x	
[Sub]contractor	x		x		x	x									
Supplier	x											x			
Teammate			x				x								
Consultant	x						x								
Competitors															
Competitor	x	x	x	x									x		
Self															
Self-Development		x													
Self-Check		x													
Self-Interest					x										
Personal value or interest	x			x											
Worry about themselves			x												
Other															
Congress										x					
Steward of the environment					x										

### Combining Value-Focused and Stakeholder Categories

Respondents identified the top three pairs: customer/finance, customer/ethics, and employee/ethics as shown on table 7. A Pareto chart of the results is shown on figure 4.

Table 7

*Value and Stakeholder Pairs by Number of Respondents*

	Ethics	Finance	Business Assets	Quality	Longevity	Compliance	Time
Customer	10*	11*	8*	8*	6	2	3
Employee	9*	7*	8*	8*	3	2	1
Business Entity	5	5	5	3	4	1	1
Supplier	6	4	5	3	2	1	1
Competitor	3	4	3	2	1	1	0
Self	1	0	0	0	0	0	0
Other	2	2	1	1	1	0	0

*Note.* The pairs with 7 or more respondents (> 45%) are shown with an asterisk.

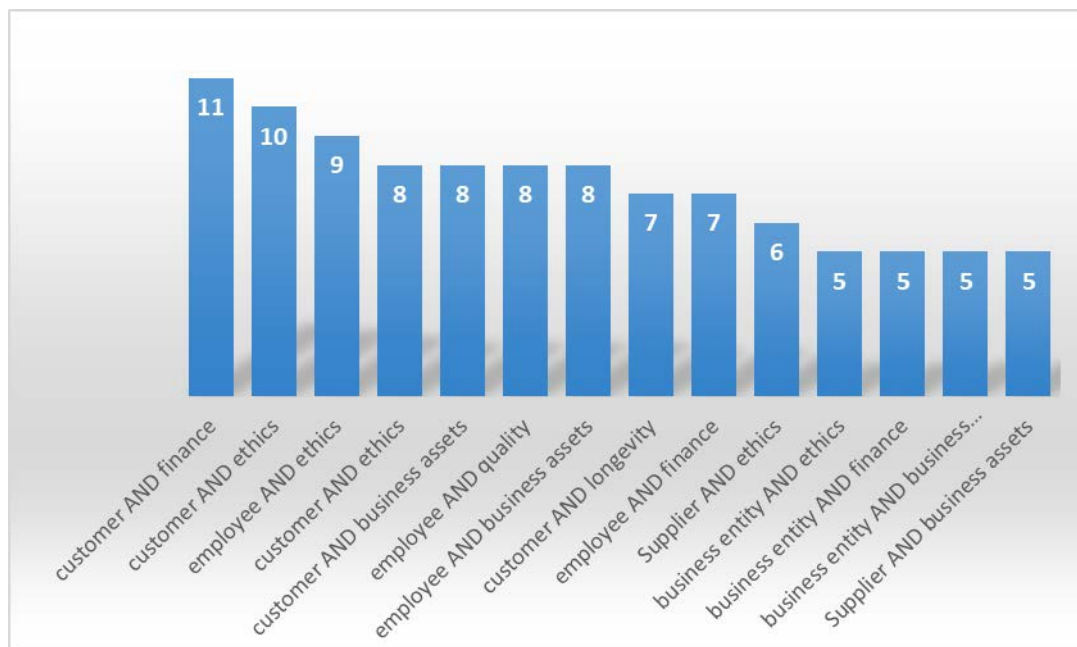


Figure 4. Combined value and stakeholder pairs.

## SUMMARY AND CONCLUSIONS

In this study, business value definitions and examples were evaluated to determine whether experienced professionals inherently believed that business ethics is part of the value chain in business. All respondents (100%) identified business values associated with ethics or finance. Other value-focused categories included compliance, quality, time, business assets, and business longevity. At least 40% of the respondents identified these other value categories as important to business. Over 50% of the respondents identified particularly pairs of values as significant. Top value pairs included finance/ business assets, finance/quality, quality/business assets, ethics/finance, and ethics/assets. Neither of the survey questions used the word ethics yet 100% of the respondents commented on ethics as a business value. As a result, it can be concluded that ethics is part of the value chain, as perceived by the respondents in this study. In



addition to the research opportunities previously described, additional research should focus on a series of follow-on questions focusing on success and ethical behavior.

Inductive coding resulted in seven stakeholder categories. Over 60% of the respondents identified customer, employee, the business entity or the supplier as key stakeholder categories. As such, a stakeholder orientation is an important part of business value, as perceived by the respondents in this study.

In combining the value-focused and stakeholder-oriented categories, over 45% of the respondents identified key stakeholder and value pairs for the customer and the employee. With a focus on the customer, the top pairings were with ethics, finance, business assets and quality, in that order. With a focus on the employee, the top pairings were ethics, finance, business assets and quality, in that order. From the results of this study, clearly ethics is considered part of the value-chain by respondent organizations consistent with the literature (Hussein, 2007; Nikoi, 2009).

## REFERENCES

- Anitsal, I. & Flint, D. (2006). Exploring customer' perceptions in creating and delivering value. *Services Marketing Quarterly*, 27(1), 57-72. doi:10.1300/J396v27n01\_04
- Atkinson, C., & Fredrick, C. (2005). Aristotelian ethics. In L. P. Hartman (Ed.), *Perspectives in business ethics* (3rd ed.). (pp. 46-51). Boston, MA: McGraw-Hill/Irwin.
- Beauchamp, T., Bowie, N., & Arnold, D. (2009). *Ethical theory and business* (8th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Bordens, K. & Abbott, B. (2008). *Research design and methods: A process approach* (7th ed.). New York, NY: McGraw-Hill Companies.
- Corbin, J. & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Corner, A., & Hahn, U. (2010). Message framing, normative advocacy and persuasive success. *Argumentation*, 24(2), 153-163. doi:10.1007/s10503-009-9159-6
- Crane, A. & Matten, D. (2010). *Business ethics* (3rd ed.). New York, NY: Oxford University Press.
- Cozby, P. C. (2009). *Methods in behavioral research* (10th ed.). Boston, MA: McGraw Hill Higher Education.
- Denzin, N. (Ed.). (2006). *Sociological methods: A sourcebook* (5th ed.). Piscataway, NJ: Aldine Transaction Publishers.
- Fassin, Y., Van Rossem, A., & Buelens, M. (2011). Small-business owner-managers' perceptions of business ethics and CSR-related concepts. *Journal of Business Ethics*, 98(3), 425-453. doi:10.1007/s10551-010-0586-y
- Fischer, C. & Lovell, A. (2009). *Business Ethics, and Values* (3<sup>rd</sup> ed.). Harlow Essex, England: Pearson Education Limited.
- Fischer, P., Jonas, E., Frey, D., & Kastenmüller, A. (2008). Selective exposure and decision framing: The impact of gain and loss framing on confirmatory information search after decisions. *Journal of Experimental Social Psychology*, 44(2), 312-320. doi:10.1016/j.jesp.2007.06.001
- Freeman, R. E. (1984). *Strategic management: A Stakeholder perspective*. Englewood Cliffs, NJ: Prentice Hall.
- Freeman, R. E., Harrison, J., Wicks, A., Parmar, B., & De Colle, S. (2010). *Stakeholder theory: The state of the art*. New York, NY: Cambridge University Press.
- Hartman, L. P. (2005). *Perspectives in business ethics* (3rd ed.). Boston, MA: McGraw-Hill/Irwin.
- Hussein, M. (2007, October). Ethical leadership makes the right decisions. *Journal of Technology and Business*, 57-65. Retrieved from <http://www.npu.edu>
- Jin, K. & Drozdenko, R. (2010). Relationships among perceived organizational core values, corporate social responsibility, ethics, organizational performance outcomes: An empirical study of information technology professionals. *Journal of Business Ethics*, 92, 341-359. doi:10.1007/S10551-009-0158-1

- Kant, I. (2005). Grounding for the metaphysics of morals. In L. P. Hartman (Ed.), *Perspectives in business ethics* (3rd ed.). (pp. 18-23). Boston, MA: McGraw-Hill/Irwin.
- Kerzner, H. (2015). *Project Management 2.0*. Hoboken, NJ: John Wiley & Sons, Inc.
- Koller, T., Dobbs, R., & Huyett, B. (2011). *Value: The Four cornerstones of corporate finance*. Hoboken, NJ: John Wiley & Sons, Inc.
- Magretta, J. (2012). *Understanding Michael Porter: The essential guide to completion and strategy*. Boston, MA: Harvard Business Review Press.
- Mill, J. S. (2005). Utilitarianism. In L. P. Hartman (Ed.), *Perspectives in business ethics* (3rd ed.). (pp. 30-36). Boston, MA: McGraw-Hill/Irwin.
- Mitchell, R., Agle, B. & Wood, D. (1997). Toward a theory of stakeholder identification and salience: Defending the principle of who and what really counts. *Academy of Management Review*, 22(4), 853-886. doi:10.5465/AMR.1997.9711022105
- Nikoi, A. (2009). Ethical leadership and business decision making in contemporary times. *International Journal of Business and Management*, 3(10), 183-193. Retrieved from [www.ccsenet.org/journal.html](http://www.ccsenet.org/journal.html)
- Peloza, J. (2009). The challenge of measuring financial impacts from investments in corporate social performance. *Journal of Management*, 35(6), 1518-1541. doi:10.1177/0149206309335188
- Porter, M. & Kramer, M. (2006, December 1). Strategy and society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78-92. Retrieved from <http://hbr.org>
- Porter, M. (2008). *On Competition*. Boston, MA: Harvard Business Review Press.
- Rokeach, M. (1973). *The Nature of human values*. New York, NY: The Free Press.
- Saldana, J. (2011). *The coding manual for qualitative researchers*. London, England: Sage Publications.
- Stuebs, M., & Sun, L. (2010). Business reputation and labor efficiency, productivity, and cost. *Journal of Business Ethics*, 96(2), 265- 283. doi:10.1007/s10551-010-464-7
- Thiroux, J. & Krasemann, K. (2009). *Ethics theory and practice* (10th ed.). Upper Saddle River, NJ: Prentice Hall
- Trochim, W., & Donnelly, J. (2008). *The research methods knowledge base* (3rd ed.). Mason, OH: Cengage.
- Zikmund, W., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business research methods* (8th ed.). Mason, OH: Thomson/South-Western.

# ACHIEVING BUSINESS PERFORMANCE THROUGH ETHICAL BUSINESS PRACTICES

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## ABSTRACT

*Ethical leadership can be a key driver of corporate behavior but it is an individual's sense of ethics that has an impact on business success. Despite the plethora of academic, government, and industry studies, it remained unclear whether investing in ethics provided a competitive advantage for businesses. The purpose of this qualitative, ethnographic case study was to examine how the internal stakeholders in a single business defined and applied ethics and what elements of the business culture and competitive environment affected decision-making. This research was conducted as part of a doctoral dissertation on behavioral ethics using JWD Technologies (pseudonym) which is a for profit engineering and manufacturing company. Through this research, the business values and culture were demonstrated through a focus on pride in the quality of the delivered product through a disciplined, continuous improvement, cooperation, teamwork, and leadership excellence. Key leadership characteristics included being engaged, accessible, credible, trustworthy, stable, and able to relate to the people. The keys for optimizing the culture were moral fortitude including a strong ethical tone, voicing opinions, transparent communications, and individual accountability, consistent with prior literature. The informants demonstrated that effective ethical behavior includes going beyond the practices required by law. Finally, the informants identified ethical values used to achieve future business to deliver a differential value.*

## INTRODUCTION

Few in the United States would argue that business ethics are unimportant to business leaders and society. Business ethics reflect the company standards, code of values, and principles of what is right versus what is wrong (such as Carroll & Buchholtz, 2006). However, company standards are implemented through stakeholders in the organization and specifically through individual employee behavior, not simply by publishing documents. In a litigious society such as the United States, prevention of poor behavior often becomes laws that are used to enforce expected behavior. Business ethics is no exception; laws are used to regulate ethical standards.

Business ethics encompasses more than legal compliance (Berger, Cunningham, & Drumwright, 2007; Siegel & Vitaliano, 2007; Schuler & Cording, 2006; Stuebs & Sun, 2010). It includes comprehending the difference between right and wrong and acting in an ethical manner. The definition of what is *right* and *good behavior* is complex and subject to interpretation. Recently Chiu and Hackett (2017) described the term moral goodness, but failed to provide an instrument to measure it. While most U.S. corporations have codes of ethics or standards of

conduct, the written words are valuable only if their intent is reflected in the culture of the business and actions of the executive leaders (Beggs & Dean, 2007; Brown, Trevino, & Harrison, 2005; Hess & Broughton, 2014; Minoja, Zollo, & Coda, 2010). Ethical leadership can be a key driver of corporate ethical behavior (Basu & Palazzo, 2008; Zoghbi-Manrique-de-Lara & Suarez-Acosta, 2014; Zhu, He, Trevino, Chao & Wang, 2015) but it is an individual's sense of ethics that has an impact on behavior. This is the essence of the field of behavioral ethics such as shown in recent publications (Bazerman & Sezer, 2016; Chiu & Hackett, 2017; Duska, 2017; Ellertson, Ingerson & Williams, 2016; Jennings, Mitchell & Hannah, 2015).

Traditionally, the primary goal of business leaders had been to increase profits (Friedman, 1970; Levitt, 1958). Today, business leaders have the responsibility to increase profits while maintaining ethical and societal expectations (Calvey, 2008; Foote, Gaffney, & Evans, 2010; Turker, 2009). Stakeholder theory provides the framework for addressing societal expectations in that it is not sufficient for managers to focus exclusively on the stockholders, but must satisfy the broader stakeholder community, which includes the stockholders (Freeman, 1984). Normative ethics theory (prescriptive) is unequivocally linked to stakeholder theory (Carroll & Buchholtz, 2006; Freeman, 1984; Freeman, Harrison, Wicks, Parmar, & DeColle, 2010; Phillips, 2003).

Few authors used qualitative methods to address ethics and financial performance (Beggs & Dean, 2007), and the studies were often multi-industry, multi-sized, multi-site, and multi-national and lacked an understanding of the underlying culture. Those who did use qualitative approaches generally were not "truth seekers" (Campbell & Cowton, 2015). Using ethnography, researchers (Bergman, Lyytinen & Mark, 2007; Hair & Clark, 2007; Healy, Beverland, Oppewal & Sands, 2007; Johnston & Everett, 2012) examined the underlying business culture, but with little emphasis on decision-making.

One of the key determinants in ethical decision-making is the organizational or business culture (Bazerman & Sezer, 2016; Beggs, & Dean, 2007; Garcia-Castro, Arino, & Canela, 2010; Hess & Broughton, 2014). The terms organizational, business, and corporate culture are used somewhat interchangeably in the literature, but Schein's (1990) definition is one of the most widely accepted and includes understanding a group's basic assumptions about how they perceive, think, react and feel about problems. However, despite the plethora of academic, government, and industry studies, it remains unclear whether investing in ethics provides a competitive advantage for businesses, resulting in a positive financial return. The preponderance of empirical studies on ethics, and financial performance and the relative dearth of qualitative studies in this area, provides an opportunity for research in ethics, business culture, and decision making in a competitive environment. In this research, an ethnographic case study was to examine how the internal stakeholders at a single business site defined and applied ethics and what elements of the business culture and competitive environment affected decision-making.

## THEORETICAL BACKGROUND

### Ethical Culture

Schein (1990) description of an organizational or business culture is one of the most widely accepted. Culture includes “a pattern of basic assumptions, invented, discovered, or developed by a group, as it learns to address the problems of external adaptations and internal integration, that has worked well enough to be considered valid and, therefore is to be taught to new members as the correct way to perceive, think, and feel in relation to those problems” (Schein, p. 111). Given the general definition of culture, various researchers have proposed methods to define, characterize, and measure the ethical culture in organizations as described below.

For example, Hussein (2007) defined four business leadership types including managerial, charismatic, transformational, and ethical, which acknowledged the role of positive ethical values on the culture of an organization. Bazerman and Sezer (2016) supported with by emphasized that noticing (ethical and) unethical behavior should be considered a critical leadership skill. Brown, Trevino, and Harrison (2005) defined ethical leadership as a demonstration of appropriate conduct through personal actions and interpersonal relationships, and advocated that others follow that conduct through communication, reinforcement, and decision-making.

One of the key determinants in ethical decision-making is the business culture and the quality of the ethical leader (Beggs & Dean, 2007; Hess & Broughton, 2014; Minoja, Zollo, & Coda, 2010). Garcia-Castro, Arino, and Canela (2010) concluded that an organizational culture, the quality of its executive management, decision-making style, and ethical attitudes and values are the characteristics that drive businesses financial performance. Basu and Palazzo (2008) also described strong leadership as a key driver of corporate ethical behavior.

The Ethics Resource Center (ERC, 2011) defined ethical culture as consisting of three elements: ethical leadership, which sets the tone for the organization, supervisor reinforcement of ethical behavior; and peer commitment that supports one another in taking the proper action. While the concept of distributed leadership is not new (Gibb, 1954), Hess and Broughton (2014), enhanced our understanding of distributed ethical leadership where all employees share the commitment to ethics and organizational values.

Nikoi (2009) also defined an ethical culture as a function of three factors including moral characteristics of the leader, which is an element of ethical leadership, ethical values in the leadership vision, and morality of the surrounding environment, which is similar to the ERC concept of peer commitment. More recently, Zoghbi-Manrique-de-Lar and Suarze-Acosta (2014), the explored role of the ethical leader at injustice toward peers. This study concluded that unjust leaders lead employees to an increased amount of deviant workplace and inappropriate organizational citizenship behaviors. In all, there is little disagreement in the definition of an ethical culture or the role of ethical leadership.

While culture is important, a number of recent studies focus on bounded ethicality, which is the systematic and predictable ways that good people engage in unethical conduct, sometimes intuitively or unconsciously (Bazerman & Sazer, 2016; Dedeker, 2015; Keupers, 2015; Sezer,

Gino & Bazerman, 2015; Sturm, 2017; Weaver, Reynolds & Brown, 2014; Welsh & Ordenez, 2014; Zhang, Gino & Bazerman, 2014). This can be as a result of narrow focus on options, focalizism framing of information, self-interest, or the so called slippery slope of unethical behavior (Pittarello, Leib, Gordon-Hecker & Shalvi, 2015; Sturm, 2017; Welsh, Ordenez, Snyder & Christian, 2015). This can result in the so-called bounded awareness, where others see, but fail to act to prevent unethical situations (Bazerman, 2014; Bazerman & Sazer, 2016; Bazerman & Tenbrunsel, 2011; Sturm, 2017).

## **Ethical Culture Measurement**

Various attempts have been made over the recent decades to measure culture. Although each provides an interesting perspective, none has proven to be accepted by the academic community as evidenced by the lack of citations. Craig and Gustafson (1998) developed and validated an instrument called the *perceived leader integrity scale*, but it was not cited by others. Spiller (2000) proposed an ethical scorecard as a model to measure what an ethical business should strive to be. The scorecard used a stakeholder perspective identifying ethical characteristics for contributing to the community, environment, employees, customers, suppliers, and shareholders. Although called the ethical scorecard, the categories included the broader social interests defined in Corporate Social Responsibility (CSR), demonstrating a tightly woven relationship between ethics and CSR. Jamali (2008) used this same ethical scorecard as a framework for studying the relationship between stakeholder theory and CSR. The analysis was based on Lebanese and Syrian companies and likely would not have applicability in other cultures, particularly in the U.S. The Spiller scorecard lacks specific measurements and analysis that inhibits a researcher from reproducing the study.

Aquino and Reed (2002) developed a measurement scale for moral identity that considered the beliefs, attitudes, and behaviors of leaders in an organization. However, the research lacked the academic rigor and detail necessary for use in future research. Chiu & Hackett (2017), described the term “moral goodness” as the intersection of self-assessment, and ethical value, but failed to provide a measurement mechanism. Upon further reading, “moral goodness” was simply a synonym for behavioral ethics. Brown, Trevino, and Harrison (2005) developed a leadership measurement instrument call the ethical leadership scale that includes trustworthiness, fairness, and concern for employees, setting ethical standards, disciplining violators, and modeling ethical behavior for employees. As a testimony to the instrument, this Brown’s leadership measurement continues to be used by recent ethics researchers (Chikeleze & Baehrend, 2017; Zhu et al., 2015; Zoghbi-Manrique-de-Lar & Suarze-Acosta, 2014).

Nikoi (2009) proposed an ethical leadership decision model, which included leadership vision analysis, sensitivity analysis, decision analysis, and motivation analysis. However, the research was opinion-based and lacked the scientific rigor to be useful in future research. Foote, Gaffney, and Evans (2010) studied CSR, and specifically the ethics category identified in the Malcolm Baldrige National Quality Award criteria. Without empirical evidence, Foote and colleagues concluded that there was a positive relationship between CSR and financial performance because of a positive ethics culture. One of the distinct deficiencies in the study of

CSR is the lack of focus on the significance of the individual (Frynas & Yamahaki, 2016). Likely the same claim can be made with respect to studies on business ethics.

### **Financial Impact of Unethical Behavior**

The financial impact of negative ethical behavior was well publicized in such cases as Enron, WorldCom, Bernie Madoff, Tyco International, and Arthur Andersen (Nikoi, 2009) and resulted in Securities and Exchange Commission (SEC), Department of Justice (DOJ), grand juries, and billions of dollars in fines and sanctions. Enron and Arthur Andersen failed due to a lack of management truthfulness, conflict of interest, fraud, and ethical accountability by individuals and management (Li, 2010; Linthicum, Reitenga, & Sanches, 2010). Nikoi concluded that laws alone are insufficient in deterring unscrupulous leaders from making unethical decisions.

The financial impact can be devastating to businesses even in less publicized cases (Murphy, Shrieves, & Tibbs, 2009). In one study (Karpoff & Lou, 2010) of 632 SEC enforcement actions for financial misrepresentation, the average one-day stock price declined 18.2% on the day after misconduct was publically revealed. Karpoff, Lee, and Martin (2008) concluded that after SEC or DOJ enforcement actions, 93% of identified individuals lost their jobs, 28% received criminal charges and penalties, along with an average jail sentence of 4.3 years. Only one study (Tibbs, Harrell, & Shrieves, 2011) concluded a positive financial impact from fraud on the shareholders of the offending business. However, the results of this study cannot be generalized to all business because of the narrow scope. In summary, research makes a compelling case that dishonesty still exists and that there is a significant negative financial impact to a corporation for improper ethical behavior. The question remains whether positive ethical behavior results in positive financial performance.

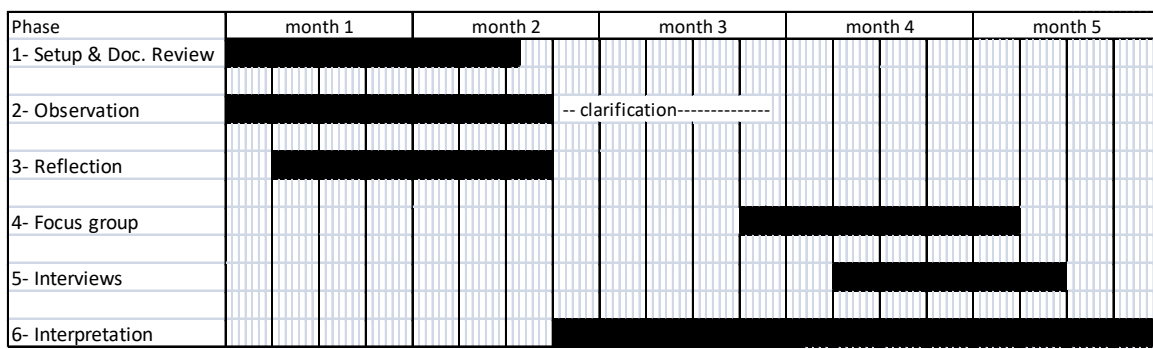
### **RESEARCH METHODS, DESIGN AND RESEARCH QUESTIONS**

Both qualitative and quantitative methods are valid approaches to study ethics and competition (Bordens & Abbott, 2008; Zikmund, Babin, Carr, & Griffin, 2010). The majority of studies on ethics, and competition over the past 50 years have been quantitative in nature and achieved generally inconsistent results (Baron, Harjoto & Jo, 2009; Beurden & Gossling, 2008; Filbeck, Gorman & Zhao, 2009; Garcia-Castro, Arino, & Canela, 2010; Linthicum, Reitenga & Sanchez, 2010; Lopez, Garcia, & Rodriguez, 2007). Given the current state of research on the business case for ethics, a qualitative approach was used to understand the elements of a business culture and competitive environment that affected decision-making. Qualitative methods provide inner meaning, patterns, and insights in a natural setting (Cozby, 2009; Phelps & Horman, 2010; Trochim & Donnelly, 2008; Zikmund et al., 2010), which allowed the researcher to focus on the culture.

Creswell (2013) identified five primary qualitative inquiry approaches: narrative research, phenomenology, grounded theory, ethnography, and case study. This research used ethnography

and a case study because ethnography provides a richer understanding and deeper insights of the informants' experience than is possible through other quantitative methods (Wolcott, 2008).

There are three time dimensions that must be considered in ethnographic research: total length of time spent in the field, the breadth of time spent in the field, and the number of times spent in the field (Murchison, 2010). To address the breadth of time, the researcher used content analysis, participant-observation, focus groups, individual interviews, and informant review of the findings and conclusions to achieve triangulation (Berger, Cunningham, & Drumwright, 2007; Bergman, Lyytinen, & Mark, 2007; Denzin, 2006; Dixon & Clifford, 2007; Healy, Beverland, Oppewal & Sands, 2007; Johnston & Everett, 2012; Moore, 2011). The research was conducted in six overlapping phases (Jeffrey & Troman, 2004; LeCompte & Schensul, 1999) over five months total length in the field, as shown on Figure 1.



**Figure 1**

Phase one (setup and documentation review) began with a single one-on-one meeting with the site director. This phase occurred over the first two months of the study. Phase two (participant-observation) involved spending time in the informant's natural environment, observing and collecting data (Murchison, 2010; Wolcott, 2008). During this phase, the researcher documented situations as they occurred, learning through exposure or observing routine activities, identifying key stakeholders, and identifying key concerns consistent with ethnographic practice (LeCompte & Schensul, 1999; Schensul, et al., 1999; Schensul, Schensul, & LeCompte, 1999). Notes, which are referred to as jottings (Emerson, Friez & Shaw, 2011), are a brief record of the events and impressions, in the opinion of the researcher, which were written as they occurred to preserve accuracy and detail and were captured during this phase. Categories and subcategories began to emerge during this phase.

The primary purpose of phase four (focus groups) was to document the norms, behaviors, attitudes, and cultural factors of the informants (Bergman, Lyytinen & Mark, 2007; Goddard & Palmer, 2010; Khoo, Rozaklis, & Hall, 2012; LeCompte & Schensul, 1999; Khoo, Rozaklis & Hall, 2012; Moore, 2011; Phelps & Horman, 2010; Schensul et al., 1999, Schensul, Schensul, & LeCompte, 1999; Westney & Van Maanen, 2011). Additionally, the purpose was to build on the observations during the participant-observation phase and to refine the questions that were used in the individual interview phase.



Phase five (individual interviews) were used to enhance emerging themes through in-depth questions, building on the information obtained in prior phases (Beggs & Dean, 2007; Berger, Cunningham & Drumwright, 2007; Bergman, Lyytinen, & Mark, 2007; Bertels & Pelozo, 2008; Fassin, Van Rossem, & Buelens, 2011; Goddard & Palmer, 2010; Healy, Beverland, Oppewal & Sands, 2007; Heyl, 2010; Hine & Preuss, 2009; Khoo, Rozaklis & Hall, 2012; Moore, 2011; Morrison & Lumby, 2009; Murchison, 2010; Phelps & Horman, 2010; Wolcott, 2008). Additionally, this phase identified cultural knowledge and beliefs and described the practices at JWD Technologies (pseudonym) using an emic perspective relative to the research topic (LeCompte & Schensul, 1999; Schensul, et al., 1999, Schensul, Schensul, & LeCompte, 1999).

Phase six (interpretation and analysis) assimilated the data resulting in the first draft of the conclusions. The site director was briefed on the results and provided additional clarification (Murchison, 2010). Although no formal debriefing was planned for this research, each informant was given the opportunity to obtain an executive (brief) report of the findings. Additionally, at the end of phase six (interpretation and analysis) the site director was given the opportunity to review and provide feedback on the draft results.

The JWD Technologies population was approximately 700 skilled and professional staff. To effectively narrow the scope for an ethnographic study, a single product line, was examined to obtain a depth of understanding. The product line that was selected was because of accessibility of the informants, researcher familiarity with the customer base, and the degree to which it represented the type of product typically produced at the site. Approximately 275 skilled and professional staff worked on the selected product line.

The specific population of internal stakeholders included the onsite customer representatives, senior leadership, managers, professional, and factory and support staff at JWD Technologies. The selection criterion for informants and information varied from phase to phase in order to maximize the data collection opportunities and improve triangulation. A summary of the population and selected sample, for each phase, is found in table 1. For phase one (setup and company documentation review), sample selection was targeted to the site director of the company because without leadership support and access, the research would never proceed. Murchison (2010) identified accessibility as the most important ethnographic concern. For phase two (participant-observation), the informants were serendipitously (Murchison, 2010; Schensul, Schensul, & LeCompte, 1999) selected using a convenience. One of the goals of phase two was to identify key informants to narrow the ethnographic study for focus groups and interviews (Wolcott, 2008).

<b>Table 1</b>			
<b>POPULATION AND SELECTED SAMPLE, BY PHASE</b>			
Phase	Population	Sample	Sample Detail
1	undefined	13 documents	8 parent company; 5 site-specific documents.
2	275	97 informants	By gender: 74 male (M); 23 female (F). By stakeholder type: 22 leader/manager (L); 27 professional staff (P); 47 factory/ support staff (S); 1 customer representative (C).
3	n/a	n/a	n/a
4	275	32 informants	By gender: 24 M; 4 F. By stakeholder type: 9 L ; 9 P; 14 S.
5	100	7 informants	By gender: 7 M. By stakeholder type: 2 L; 5 P.
6	n/a	1 informant	Site director for feedback.

*Note.* For phase one, the total population of all documents at the parent and site company remained undefined. Phase 3 is analysis only. M = Male and F = Female. Stakeholder types include L = leader/manager, P= professional staff, S= factory/ support staff, and C= customer representative. Population for phase 5 accounts for duplicate encounters.

### **Data Collection, Processing, and Analysis**

In ethnography, the researcher is the primary data collection (Wolcott, 2008, 2010) using both the etic (outside) and emic (inside) perspectives (Murchison, 2010). In this study, the role of the researcher was to explain what the informant's behavior means to the individual participant rather than imposing the researcher's personal interpretations of those behaviors.

Multiple techniques were used to maximize the construct validity and reliability and improve researcher judgments and data truthfulness (Healy, Beverland, Oppewal & Sands, 2007). Following Denzin's (2006) multiple method triangulation, the researcher used content analysis, participant-observation, focus groups, in-depth interviews, and informant review of the findings and conclusions to gather data as a means of achieving triangulation.

The data collection methods are summarized in table 2. For each method, the target and sample column described the informant type, artifacts, and activities. In phase one (setup and documentation review) the researcher used content analysis (LeCompte & Schensul, 1999) as the primary data analysis technique. The researcher met with the site director of JWD Technologies and described the purpose of the research during this phase (Schensul, Schensul & LeCompte, 1999; Schensul et al., 1999). Informants were asked throughout the research process if additional documents should be reviewed. Phase one consisted of a review of company literature including ethics policies, code of ethics, and company vision statement, and occurred primarily over the first two months.

**Table 2**  
**RESEARCH DATA COLLECTION METHOD SUMMARY**

Method	Purpose	Target & Sample	Collection & Documentation
Content analysis (phase 1)	-Elicitation of categories in a body of written media	-Internal documents (informant recommendations)	-Document review form
Participant-observation (phase 2)	-Record situations as they happen -Learning through exposure or observing routine activities -ID key stakeholders -ID key concerns	-Activities -Events/ sequences -Settings -Participation -Behaviors of individuals and groups -Interactions -Convenience sample	-Written observation log /jottings -Exploratory, open-ended observation and questions
Reflection (phase 3)	-Preliminary coding and reflection on phase 2 collection	-N/A (analysis only)	- N/A (analysis only)
Focus groups (phase 4)	-Build on prior phase observations -Refine questions for next phase -Document norms, behaviors, and attitudes -Coding refinement and preliminary theme development	-Self-selected individuals familiar with study -Convenience sample	-Researcher-led facilitation -Group discussion & elicitation - Background information -Answers to open ended questions -Audio recorded -Flip charts
In-depth individual interviews (phase 5)	-Enhance emerging themes -ID Cultural knowledge & beliefs -Description of practices	- Key informants or topic experts -Selected by researcher -Targeted sample	-In-depth, semi-structured interview -Audio recorded -Answers to open ended questions

*Note.* Derived from *LeCompte and Schensul (1999), Schensul et al., (1999), Schensul, Schensul, and LeCompte (1999).*

In phase two, the researcher used participant-observation as the data collection method (LeCompte & Schensul, 1999, Murchison, 2010, Schensul, et al., 1999, Schensul, Schensul, & LeCompte, 1999; Wolcott, 2008). While formal interviews with fixed questions are more repeatable, semi-structured interviews and exploratory questions allowed flexibility as the meetings progressed and maximized the available research time to the specific environment (Wolcott, 2008). Using this strategy for participant-observation, the informant responses were naturally occurring, or at least not biased because of a specific question framing.

The first part of this phase was used to gain acceptance into the organization, build trust, understand the roles, and understand the hierarchy of the organization under study (Murchison, 2010; Phelps & Horman, 2010). While participant-observation is a broad label (Wolcott, 2008) ranging from pure observation to full involvement in the business, for approximately the first two weeks the researcher planned to act as an independent observer and ask questions only for clarification. If questions were asked, they were exploratory, open-ended questions (Schensul, Schensul & LeCompte, 1999; Wolcott, 2008).

In phase four, focus groups, of approximately five to seven people participated in a researcher-led facilitation and discussion and provided feedback to open-ended questions (LeCompte & Schensul, 1999; Wolcott, 2008). Focus groups were open to all informants on a voluntary basis. In phase five, individual, 60 minute (maximum), in-depth interviews (consistent with Yin, 2009) were conducted during months four and five of the study. As with the focus groups, the number of interviews depended on the results from the prior phases and the types of themes that resulted. A prioritized list of questions (Wolcott, 2008) was pre-scripted, and used as a guide, but specific questions were followed by clarification questions not in the original script. Informants in the individual interviews were selected by the researcher in areas where further information was required and serve to extend the informant's ideas expressed during the participant-observation or focus group phases (Wolcott, 2008). Interviews flowed naturally with the conversation, consistent with Schensul, Schensul and LeCompte (1999) and asked about personal, not abstract, ideas (Murchison, 2010).

Data collection and analysis overlapped (Corbin & Strauss, 2008; Dixon & Clifford, 2007) with the more open-ended analysis in the early stages (Bertels & Peloza, 2008). The writing process was iterative (Bertels & Peloza, 2008; Corbin & Strauss, 2008; Phelps & Horman, 2010; Vilanova, Lozano, & Arenas, 2009) and the researcher built ideas and theory from the ethnographic data.

Table 3 summarizes the research data analysis. Data were subjected to coding, which is an analytical process in which data were categorized (Emerson, Fretz & Shaw, 2011; Saldana, 2011; Strauss & Corbin, 1990). More specifically, coding used a specific event, incident, or features and related it to other events, incidents, or features (Emerson, Fretz & Shaw, 2011) to enable analysis. Qualitative coding was an inductive process that created analytic categories that reflected the significant of events and experience and was derived from the data (Emerson, Fretz & Shaw, 2011; Schensul, LeCompte, Nastasi & Borgatti, 1999).

**Table 3**  
**RESEARCH DATA ANALYSIS SUMMARY**

Phase	Inputs	Analysis Product(s)
Phase 1	-Completed Document Review Forms	- Pre- and first cycle coding
Phase 2	n/a- data collection only	n/a- data collection only
Phase 3	-Completed Observation Log Forms and notebook jottings	-Field notes -Pre-, and first cycle coding - MS Excel spreadsheets
Phase 4	-Completed Focus Group Collection Forms -Completed Informant Background Forms -Transcribed audio-recordings	-Field notes -First and second cycle coding -Updated MS Excel spreadsheets
Phase 5	-Completed Interview Collection Forms -Transcribed audio-recordings	-Field notes - Second cycle coding -Updated MS Excel spreadsheets
Phase 6	-Outputs of all prior phases	- Second cycle coding updates -Leadership characteristics analysis

*Note.* First cycle coding resulted in groups, words, concepts, issues, relationships, and preliminary subcategories. Second cycle coding resulted in updated subcategories, categories, and unifying themes (Corbin & Strauss, 2008; Emerson, Fretz & Shaw, 2011; Hodson, 2008; Phelps & Horman, 2010; Saldana, 2011; Stall-Meadows & Hyle, 2010). Coding moved from real to abstract, and from subcategory to category to themes (Saldana, 2011).

The analysis consisted of pre-coding, first cycle coding, and second cycle coding in sequence, and built upon each other (Corbin & Strauss, 2008; Phelps & Horman, 2010; Saldana, 2011). Pre-coding consisted of circling, bolding, underlining, or otherwise highlighting specific items of interest in the field notes consistent with Saldana. During first cycle coding, the field notes were decomposed and categorized to create groups, words, concepts, and preliminary subcategories (Corbin & Strauss; Saldana; Stall-Meadows & Hyle, 2010). The researcher read each field note, line by line to identify and formulate ideas, issues, and subcategories without regard to possible relevance (Emerson, Fretz & Shaw, 2011). A separate code list was maintained in a Microsoft® Excel® worksheet and evolved throughout the analysis process resulting in a researcher-defined definition for each category. After first cycle coding, the data were realigned using second cycle coding, which related the subcategories to one another (Corbin & Strauss; Stall-Meadows & Hyle) using a fine grained, line by line analysis further delineating subcategories and topics (Emerson, Fretz & Shaw). Additionally, second cycle coding was used to identify the unifying themes related to the observed phenomena (Corbin & Strauss; Murchison, 2010; Saldana; Stall-Meadows & Hyle). Pre-coding was hand-written on the data sheets and in the log book. First cycle and second cycle coding was maintained on Microsoft® Excel® spreadsheets to enable sorting.

### Research Questions

The research questions included the following. First, how do stakeholders in the organization characterize business values and ethical behavior and to what extent are they important in decision-making (RQ1)? Next, how do stakeholders in the organization define success in this business and to what extent do they perceive that there is a relationship between ethical behavior and business success (RQ2)? Next, how do stakeholders in the organization

view the impact of competition on business values and ethical behavior within the studied organization (RQ3)? Finally, how do business values and behaving ethically contribute to a competitive advantage from the perspective of the stakeholders (RQ4)?

### DATA ANALYSIS: CODING RESULTS

The first and second cycle coding process resulted in 8 categories and 34 subcategories as shown in table 4. Each of the categories is described in the paragraphs that follow.

*Activeness.* The noun activeness is defined as being engaged in action and characterized by energetic participation. The adjective active includes doing something, being involved, participating, or engaging in vigorous activity. The word effective is a closely related adjective. In this research, activeness is used to describe the conditions under which worksite documentation and informants at JWD Technologies exhibited action-oriented behavior, engaged in activities, and engaged in decisions of the worksite.

*Community.* This is a unified group of people who have common understanding, who work and live in a similar location, and have an interest within a larger society. Interests may include business success, hobbies, and service, social, economic, or political emphasis. Fellowship is a near synonym for community. In this research, community is used to describe the conditions under worksite documentation, and the informants at JWD Technologies considered themselves part of the worksite team and involved in local activities.

*Diversity.* This noun is a quality or state of having different ideas in a group or organization. This includes inclusion which accepts a variety of different perspectives into a group or organization. Heterogeneity is a near synonym while likeness, community, and homogeneity are antonyms. In this research, diversity is used to describe the degree to which the worksite documentation and the informants at JWD Technologies included and accepted individuals with different perspectives.

**Table 4**  
**CATEGORY AND SUBCATEGORY HIERARCHY AND DEFINITIONS**

Category	Subcategory	Definition or Focus
Activeness		Describes the conditions under which expectations for workforce action-oriented behavior are defined
	Action	Individual obligation to act, commitment, and determination to succeed in reporting an alleged violation
	Guidance	Seeking advice, gathering information, and asking questions before acting
	Reporting	Focus on the repercussions of not reporting
	Voicing values	Speaking up and talking to others about conflict
Community		Expectations for employees to participate in local activities
	Citizenship	Good qualities that an individual is expected have locally and globally
	Cooperation & teamwork	A group working together for a common cause
	Family	A tightly knit group of related individuals working together for a common cause
Discipline		Describes the expectations for adhering to decision-making norms and procedures
	Anonymity	Addresses the discipline required to protect the person who reports an alleged ethical violation, and protects the accused
	Authority	Power to give orders or make decisions
	Compliance	Conformity to requirements
	Consistency	Agreement or harmony of features to one another
	Employee empowerment	Self-actualization in making changes
	Process	Relying on well-established policies and procedures to achieve a repeatable result
Diversity		Degree to which individuals with different perspectives are included and accepted
	Differences	Something that distinguishes contrasting points of view
	Inclusion	Act of taking in or compromising on parts of a group
Diversity		Degree to which individuals with different perspectives are included and accepted
	Accomplishment	Achievement or success orientation and performance
	Accountability & Responsibility	Often used without precision as synonyms; More generally, accountability means answerable to others; Responsibility means completion of individual assignments
	Customer-oriented behavior	Focus on understanding the requirements, desires and expectations of the funding organization and end user
	Leadership & skill	Focus on the ability to lead others and the roles of talent and expertise in achieving excellence
	Change & efficiency	Ability to improve something or reduce waste
	Data-driven decisions	Emphasis on assessing risks and alternatives before taking action
	Quality-oriented behavior	A way of acting that focuses on desirable feature that a product has

<b>Table 4 Continued...</b>		
<b>CATEGORY AND SUBCATEGORY HIERARCHY AND DEFINITIONS</b>		
Longevity		The expectations for future stability and permanence of the worksite
	Competitiveness	Focus on the ability of the business to win future work
	Future	Focus on the long-term sustainability of the business and making it viable beyond today
	Reputation	Emphasis on perception as reality in future business
Moral fortitude		Expectations for conforming to worksite standards of behavior, and for speaking up when violations are identified
	Dignity	Way of behaving with self-control and seriousness
	Ethics	Way of behaving consisting of norms, standards, and expectations (Fassin, Van Rossen & Buelens, 2011)
	Honesty	Way of being truthful
	Integrity	Firm adherence to values
	Respect	A feeling of admiring someone or something
	Right	Morally or socially acceptable behavior
	Transparent	Focus on fairness and openness, and avoiding bias when making decisions
Positivity		State of thinking about good quality and expectations in the workplace
	Positive character traits	Includes the concepts of enthusiasm, and incentives for good behavior
	Avoid the negative	Staying away from harmful or bad (negative) character traits
	Negative character traits	Includes the concepts of blame, intimidation, pressure, and a prohibition against retaliation

*Note.* Researcher developed definitions, except where noted

*Excellence.* This noun category includes improvement and the quality of being excellent. Improvement includes the act or process of making something better and more valuable to a stakeholder, or simply providing enhanced value. Near synonyms, include striving toward perfection, preeminence, superiority, evolution, and elaboration. Antonyms include degeneration, deterioration, and mediocrity. In this research, excellence is used to describe the degree to which worksite documentation and the informants at JWD Technologies demonstrated passion for the quality of the product and for continual improvement.

*Longevity.* This category includes the length of time that something lasts, continues, or is durable. In this research, longevity is used to describe the focus on the future stability and permanence of the worksite found in the worksite documentation.

*Moral fortitude.* The adjective moral concerns what best people think is right in human behavior and conforms with that codes and a standard of behavior. The noun fortitude concerns the mental strength that allows an individual to face adversity with courage. Near synonyms for fortitude, include determination, forbearance, and stamina. Combined, moral fortitude means the determination to do what an individual think is right, based on a standard of behavior. Similar phrases include moral judgment, moral obligation, and moral fiber. In this research, moral fortitude is used to describe the degree to which informants at JWD Technologies demonstrated the strength to conform to worksite standards of behavior, and to speak up when violations are



identified, and the expectations of individuals to do the same as found in the worksite documentation.

*Positivity.* This noun category is the quality or state of being positive. The adjective positive includes identifying the good qualities of something such as being hopeful, confident, or optimistic rather than begin negative or providing unflattering descriptions. In this research, positivity is used to describe a spectrum of descriptors ranging from optimism to pessimism found in the worksite documentation and discussed by the informants at JWD Technologies.

## FINDINGS

The four findings resulted from the research questions are summarized in table 5. Each finding is discussed in the paragraphs that follow.

Table 5 SUMMARY OF FINDINGS		
Finding	Brief Title	Description
1	Cultural transformation	How the branded cultural transformation project had a direct relationship to the improvements at the site
2	Business behaviors	Key business behaviors that influenced decision making included a focus on improvement, teamwork, quality, customer, accountability, leadership excellence, and respect for individuals
3	Workplace ethical values and culture	Values that most significantly contributed were moral fortitude, ability to voice opinions through transparent and open communications, and using data to know where boundaries are
4	Competitive pressures and ethical behavior	A focus on business success in a competitive market while exhibiting ethical behavior

### Finding 1: Cultural Transformation

The cultural transformation, branded Project Millennium (pseudonym) evolved the culture from a dysfunctional one to one of accountability. The stakeholder participants felt that accountability training had a direct correlation to the cultural transformation improvements at the site, although the changes may be a result of external causes.

Almost three years prior to the start of the research, the worksite nearly closed due to quality problems and lack of new business. Almost three years prior to the start of the research, the site experienced what is referred to as the "near death experience" through at two primary events. The first trigger event included a series of quality escapes, which resulted in a formal letter from the customer indicating dissatisfaction. The second trigger was the loss of a major piece of follow-on work, which occurred one year after receipt of the quality escape letter. While not mentioned as often as the quality escape, informants identified the loss of follow-on work as a contributing factor to why a significant change was undertaken.

Many of the comments from the informants spontaneously described the past environment as a way of describing the current environment. This contrast served as a powerful way for informants to express the culture of the current organization. Without this contrast, the

informants generally struggled to find the right words to describe the current environment. The environment was being characterized as dysfunctional and lacking discipline.

The site director hired an outside a firm to teach a new culture of accountability. Training was given to all supervisors and managers and covered a variety of topics including discretion, decisiveness, justice, compassion, sensitivity, persuasiveness, enthusiasm, thoughtfulness, and truthfulness. The cultural transformation was also based on the research of Quinn (1996, 2004, and 2012). The material is based on Quinn's competing values model and framework, which fundamentally presents participants with a choice between "making a deep change, or accepting a slow death" (p. xiii, 1996).

## Finding 2: Business Behaviors

The study determined that the internal stakeholders in the organization exhibited the key business behaviors summarized on table 6 and described in the paragraphs that follow. Also note that all in vivo phrases are designated by quotations and the citation (personal communication, date). This nomenclature is used consistently through this paper.

Table 6 FINDING 2 DATA COLLECTION RESULTS SUMMARY				
Category	Subcategory	D	C	T
Excellence	Change & efficiency	5	64	69
	IV: Innovation	4	0	4
	Quality-oriented behavior	1	21	22
	IV: Quality	1	22	23
	Customer-oriented behavior	5	33	38
	Leadership excellence	3	55	58
	Accountability & Responsibility	8	18	26
Community	IV: Accountable/ responsible	11	22	33
	Cooperation & teamwork	4	28	32
	IV: Team	7	10	17
Diversity	Respect for Differences	11	27	38

*Note.* Category and subcategory refers to the categories previously described in the Data Analysis section. IV refers to in vivo code, or direct quotations, consistent with Saldana (2011). D refers to the number of occurrences found in the documentation; C, refers to the occurrences in the Contact data from the informants and T is the total of the documentation and contact occurrences.

*Effective change and efficiency.* A disciplined mechanism for making changes was the use of root cause analysis, which reportedly had been used extensively in the past.

*Quality-oriented behavior.* Of particular note is the comment that the quality management system is "owned by [the site director], and not the quality department" (personal communication, September 2013), referring to the desire for a quality mindset to be a responsibility of all, and not just a specific department.

*Customer-oriented behavior.* Two informants commented that customer success means our success and vice versa. As observed during status meetings, such as "give the customer

love” (personal communication, October 2013), and don’t surprise the customer, express the concept of proactive customer involvement and notification.

*Leadership excellence.* The site leader was referred to as the champion of the organization, rather than a director. Another referred to the leaders of the organization as having credibility, apparently in contrast to before cultural transformation. Activities such as management by walking around, and “knowing people [as the] key to getting things done” (personal communication, October 2013). Accessibility of leaders and overall leadership stability were identified as the keys for success.

*Accountability and Responsibility.* These terms were generally used interchangeably. For example, “people like accountability” (personal communication, September 2013), and there is a culture of accountability.

*Cooperation and teamwork.* References to “family” described the relationship that some of the informants felt with co-workers. Empathy was expressed when talking about rumors and recognizing that they hard on almost everyone. This is consistent with virtue ethics which addresses how human emotions result in moral empathy and sympathy (Beauchamp, Bowie & Arnold, 2009).

*Respect for individual differences.* For this form of diversity, the researcher observed individuals who spoke of embracing differences by capitalizing on prior experience and ways of doing things that they learned at other work locations. Informants commented about their “roots” and how that background affected their decision-making.

### **Finding 3: Workplace Ethical Values and Culture**

Ethical values and an ethical culture permeated the workplace. The study determined that the internal stakeholders in the organization exhibited the workplace ethical values summarized on table 7 and described in the paragraphs that follow.

*Moral fortitude.* This cultural statement was derived an informant (personal communication, September 2013) in which he declared, “we need the moral fortitude to do the right thing.” Fundamentally, it means conforming to worksite standards of behavior and includes concepts such as dignity, ethics, honesty, integrity, respect, and most simply, doing the right thing. “Ethics has been pounded into us”, according to another informant (personal communication, September 2013). While this phrase could be taken as a negative connotation, this researcher interpreted this to imply the consistency in which the ethical message is delivered and reinforced. Ethics was often simply described as a habit.

<b>Table 7</b>				
<b>FINDING 3 DATA COLLECTION RESULTS SUMMARY</b>				
Category	Subcategory	D	C	T
Discipline	Moral fortitude	28	12	40
	IV: Ethics	35	22	57
	IV: Right	17	22	39
	IV: Respect	15	7	22
	IV: Law or legal	20	0	20
	IV: Integrity	15	3	18
	IV: Expectation	8	8	16
	IV: Compliance	12	4	16
	IV: Inclusion or inclusive	9	3	12
	IV: Honesty	4	5	9
	IV: Dignity	4	0	3
Activeness	Voicing values	22	68	90
	IV: Transparent/ open	4	19	23
	IV: Voicing	2	0	2
Excellence	Data-driven decisions	5	26	31

*Note.* Same note as Table 6.

While at the worksite, there was an alleged time charging violation, which resulted in an employee termination. In discussing this matter with one of the senior managers, he stated, “it had to be done. There was no choice. It was not a mistake [by the employee. The employee action] was intentional” (personal communication, October 2013). The site senior leader is described as “blunt honest [and] you always know where you stand [with him]” (personal communication, October 2013). Another (personal communication, September 2013) commented that the senior worksite leader “brought integrity to the position,” apparently referring to the leadership situation prior to the cultural transformation. The most striking phrase included “business success depends on a commitment to integrity” (D002 & D005) demonstrating a belief in a connection between ethical performance and financial performance.

While the word right was a broad term and difficult to define precisely, it was used extensively including “people want to do what is right” and “do the right thing” (personal communication, September 2013). In contrast, was noted that the concept of wrong, as opposed to the concept of right, is only mentioned one time, demonstrating the generally positive nature of the comments and culture.

*Voicing values through transparent and open communications.* This is best illustrated by the simple statement “if it doesn’t feel good in my stomach, then I say something” (personal communication, September 2013). Other key voicing phrases included “speak up” (personal communication, October 2013- January 2014), and welcoming “coming forward and criticiz[ing]” (personal communication, October 2013).

Transparency included the concepts of fairness, openness, avoiding bias, and an above board attitude. While the workforce expressed the ability to talk openly about concerns, several acknowledged that it is difficult to focus on the tasks when rumors fly. This open communication

is further demonstrated by a manager stating at two different group gatherings “I want to let you know where I stand on [this]” (personal communication, October 2013).

Through the policies and training documentation, employees were encouraged to listen to others, “reframe” (D011) what they have heard, “express concerns” (D011), and take initiative. The voicing value provided tools and techniques to speak up, even when it is difficult to do so. The same ethics training sets the expectation that the standards are communicated to all employees and that all employees are trained in techniques on an annual basis.

*Using data for decision-making.* The decision-making culture was data driven, as evidenced by the abundance of metrics posted on meeting room walls and factory boards and through informant statements. Several informants described how the metrics improved relative to what they were prior to the cultural transformation. This recurring method of contrasting history with current state served to quantify how much better the environment is today compared with last year, or the year before. These informants smiled and talked with pride when describing the improvements in cost per unit, scrap/rework rate, safety, rework rate, and first pass yield, to name a few.

#### **Finding 4: Competitive Pressures and Ethical Behavior**

The stakeholder participants described a focus on business success that included a focus on ethical behavior to achieve future business in a competitive market as summarized on table 8 and described in the paragraphs that follow.

<b>Table 8</b> <b>FINDING 4 DATA COLLECTION RESULTS SUMMARY</b>				
Category	Subcategory	D	C	T
Longevity	Competitiveness	2	8	10
	Future	2	88	90
	Reputation	2	15	17
	IV: Future	1	10	11

*Note.* Same note as table 6.

Simply stated, the company must “compete fairly for all business opportunities [to achieve] long term success” (D002). During one conversation, this researcher prompted the informants by asking what ethics means and how it affects competition. This researcher made no further attempts to guide the discussion in this direction after the opening question. The informants focused on describing the dividing line for ethics, but not in the sense of describing right and wrong. Instead, the discussions centered on what should be labeled as ethical, and what is just poor behavior. Taken out of context the phrase “that is not an ethical violation” implies what is acceptable and what isn’t, but instead the informants agreed that the examples given were wrong, independent of the label that is placed on them. This perspective is consistent with voicing opinions previously described in Finding 3.

Reputation is closely related to the ability of a business to be competitive. Barrett commented, “do you want to see it in the newspaper” (personal communication, September

2013) when referring to the criteria for determining the right course of action, and the lingering effects of poor decisions on future business.

While the terms competition and reputation were sparsely used, they may have been veiled as a discussion on future business and what it means to be successful at this worksite. The informants defined worksite success as delivering a quality product, being adaptable, having leadership stability, delivering on-budget and on-time, and delivering a profit to the corporation.

## DISCUSSION

This section discusses each of the research questions, provides a mapping to the findings previously discussed, and discusses support found in the literature for these conclusions. Table 9 summarizes the conclusions by research question as mapped to the findings.

<b>Table 9</b>						
<b>CONCLUSIONS MAPPING TO FINDINGS AND LITERATURE SUPPORT</b>						
RQ	Description	Finding				Literature Support
		1	2	3	4	
1	Characterizing business values	X	X	X		Basu & Palazzo (2008); Bazerman & Sezer (2016); Beggs & Dean (2007); Brown, Trevino & Harrison (2005); Garcia-Castro, Arino, & Canela (2010); Gentile (2010a, 2010b, 2010c, and 2011); Hussein (2007); Minoja, Zollo, & Coda (2010); Nikoi (2009); Quinn (1996); Wernerfelt (1984)
2	Ethical behavior & business success			X	X	Basu & Palazzo (2008); Beggs & Dean (2007); Berger, Cunningham, & Drumwright (2007); Brown, Trevino & Harrison (2005); Garcia-Castro, Arino & Canela (2010); Hussein (2007); Kant (2005); Minoja, Zollo, & Coda (2010); Nikoi (2009); Schein (1990); Schuler & Cording (2006); Siegel & Vitaliano (2007); Stuebs & Sun (2010); Zhu et al. (2015); Zoghbi-Manrique-de-Lara & Suarez-Acosta (2014)
3	Ethical values & culture				X	Hess & Broughton (2014); Porter, (1985); Vilanova, Lozano, & Arenas (2009)
4	Competitive pressures & ethical behavior		X	X	X	Comite, (2009); Johnson & Everett (2012); McWilliams, Siegel, & Wright, (2006); Peloza, (2009); Stuebs & Sun, (2010)

### RQ1- Characterizing Business Values

How do stakeholders in the organization characterize business values and ethical behavior and to what extent are they important in decision-making? The business behaviors are driven by the deeply held beliefs at the worksite, which impact ethical behavior and decision-making. As in finding 2, the internal stakeholders in the organization identified the key business values as effective change and efficiency, quality-orientation, customer-orientation, leadership excellence, cooperation and teamwork, accountability focus, and respect for individual differences. As in finding 3, stakeholders believed that the ability to voice opinions through transparent and open communications, and using metrics for measurement were the biggest

contributors to ethical decision-making. The culture of JWD Technologies was determined to be one that takes extensive pride in the quality of the delivered product through a focus on disciplined, continuous improvement, cooperation and teamwork with the customer and the worksite team, and through leadership excellence.

**Continuous improvement.** The decision to improve something was highly driven by the data metrics, consistent with finding 3. The decision making environment focused on execution and performance using these metrics as a benchmark, demonstrating the importance of a quality product delivery. The focus on improvement and quality delivery was particularly evident as evidenced by the number of informant observations about the business environment prior to the cultural transformation.

**Cooperation and teamwork.** The research demonstrated that cooperation with the customer and the worksite team, are assuredly linked to leadership excellence, consistent with findings 2 and 3. Two informants commented that customer success means our success and vice versa, demonstrating a partnership link between JWD Technologies and the customer. Informants commented that the site director meets face to face with the customer community and the leadership is consistent, engaged, accessible, and does not change every two years, which contrasted the environment prior to the cultural transformation.

**Leadership excellence and style.** Consistent with finding 2, key leadership excellence characteristics at JWD Technologies include being engaged, accessible, credible, trustworthy, stable, and able to relate to the people.

**Keys to optimizing the culture.** Leadership emphasized doing what is morally right above all else and informants identified a strong ethical tone from the top. The keys for optimizing the culture at JWD Technologies are moral fortitude, transparent communications, individual accountability, and respect for individual differences, consistent with findings 1, 2, and 3. This conclusion is consistent with the literature (Basu & Palazzo, 2008; Bazerman & Sezer, 2016; Beggs & Dean, 2007; Brown, Trevino & Harrison, 2005; ERC, 2011; Garcia-Castro, Arino, & Canela, 2010; Hess & Broughton, 2014; Hussein, 2007; Minoja, Zollo, & Coda, 2010; Nikoi, 2009; Pittarello et al., 2015; Zhu et al., 2015; Zoghbi-Manrique-de-Lara & Suarez-Acosta, 2014) which includes ethical character, values and leadership style, which sets the tone for the organization, supervisor reinforcement of ethical behavior, and peer commitment that supports one another in taking the proper action. As such, this literature reinforces the conclusion that cooperation with the customer and the worksite team, are unquestionably linked to leadership excellence. This is consistent with Quinn (1996, p. 19) that in “troubled times, people thirst for effective leadership. They crave a vision that has credibility.”

**Moral fortitude.** This term evokes images of mental strength, fortitude, forbearance, and stamina, and to transparently voice opinions when violations are identified. While the values associated with right, and more precisely, moral fortitude, closely mirror the Gentile (2010a, 2010c, and 2011) short list of values (which included honesty, respect, responsibility, fairness, and compassion), the values are not simply documented as platitudes, but demonstrated by word and action at the worksite as described by finding 3.

**Transparent communications.** Finding 3 described the importance of the ability to voice opinions through open and transparent communications consistent with Hess and

Broughton (2014) who advocate techniques to practice, script, and use analytical tools to determine how find a voice. The company-wide approach to voicing values and practicing ethical decision making and was based on Gentile (2010a, 2010b, 2010c, and 2011) which focused on skill development and tools needed to speak up and take action when an individual knows what is right. Similarly, deep change requires the “discipline, courage, and motivation” (Quinn, 1996, p. 24), while living with denial or settling for maintenance is the status quo. While it is unclear whether the Gentile training and Quinn framework directly affected the behavior at the worksite, it remains certain that voicing values is a dominant part of the culture at JWD Technologies.

**Personal accountability.** At several times, participants noted plainly that a culture of personal accountability is one of the keys to success at this worksite as described in finding 1. This is consistent with an acknowledgement of the intuitive or unconscious aspects of decision-making (Bazerman & Sazer, 2016; Dedeke, 2015; Keupers, 2015; Sezer et al., 2015; Sturm, 2017; Weaver et al., 2014; Welsh & Ordóñez, 2014; Zhang, et al., 2014).

**Respect for differences.** Finding 3 described a respect for differences for heritage and flexibility. This is consistent with Wernerfelt (1984) resource-based view (RBV). At JWD Technologies, there is a healthy tolerance for individual opinions and backgrounds, but the worksite culture uses a disciplined approach to determine what changes to make. While a focus on quality is clear from finding 2, and the improvements since project millennium are noted from finding 1, the worksite could be becoming stagnant with respect to improvement and maintaining a competitive advantage. Consistent with Quinn (1996), informants commented that process improvement, such as that which has been experienced by JWD Technologies initially makes the organization more efficient or effective. As time progressed, “these routine patterns move the organization toward decay and stagnation” (Quinn, 1996, p. 5).

## **RQ2- Ethical Behavior and Business Success**

How do stakeholders in the organization define success in this business and to what extent do they perceive that there is a relationship between ethical behavior and business success? Consistent with finding 4, the informants defined worksite values for success as delivering a quality product being adaptable, having leadership stability, delivering on-budget and on-time, and delivering a profit to the corporation. Jin and Drozdenko (2010) added collaboration, relationship orientation, creativity, encouragement, equity among employees, and trust as core values for an organization. An awareness of the intuitive or unconscious elements of decision-making are key as well (Bazerman & Sazer, 2016; Dedeke, 2015; Keupers, 2015; Sezer et al., 2015; Sturm, 2017; Weaver et al., 2014; Welsh & Ordóñez, 2014; Zhang et al., 2014).

**Beyond core values: ethical behavior and moral fortitude.** Part of business success at JWD Technologies was the focus on ethical behavior and moral fortitude as described in finding 3. Leadership emphasized doing what is morally right above all else, which demonstrates an alliance with Kant (2005). Surprisingly, ethical relativism (such as McDonald, 2010) was not overtly evident at JWD Technologies. The researcher was particularly struck with the consistency by which the informants described the ability to voice opinions through awareness, transparent and open communications, and using data to know where boundaries are, as



described in finding 3. This is consistent recent works focusing on the value of voicing options (Bazerman & Sezer, 2016; Hess & Broughton, 2014; Pittarello et al., 2015; Welsh, et al., 2015; Zhu et al., 2015).

**Ethics and ethical culture defined.** JWD Technologies informants described ethics as “something we take for granted” (personal communication, December 2013) when we compare ourselves to other businesses and as “a habit”. These two simple words imply that performing ethically is part of the culture of the organization consistent with the literature (Beggs, & Dean, 2007; Garcia-Castro, Arino, & Canela, 2010; Schein, 1990). Schein also acknowledged the role of strong leadership as a key driver of corporate ethical behavior because it sets the tone for the organization (Basu & Palazzo, 2008; Beggs & Dean, 2007; Brown, Trevino & Harrison, 2005; Hess & Broughton, 2014; Hussein, 2007; Minoja, Zollo, & Coda, 2010). Others (Garcia-Castro, Arino & Canela, 2010); ERC, 2011; Nikoi; 2009) added peer commitment to one another and supervisor reinforcement, as key elements of an ethical organizational culture. Peer commitment was evident at RWD Technologies through the ability to voice opinions through transparent and open communications, consistent with finding 3.

**Beyond the practices of law.** One of the striking conclusions from this research is the support in finding 3, for effective ethical behavior ethics going beyond the practices required by law (Berger, Cunningham, & Drumwright, 2007; Nikoi, 2009; Siegel & Vitaliano, 2007; Schuler & Cording, 2006; Stuebs & Sun, 2010). Culture, as expressed by the informants was not simply based on compliance, but on “do[ing] the right thing” (personal communication, September 2013) for “the right reason” (D003 and D004).

### **RQ3- Competition impact on values and behavior**

How do stakeholders in the organization view the impact of competition on business values and ethical behavior within the studied organization? The only time the term competition was discussed was when prompted by this researcher. With the lack of data, it is not possible to evaluate fully the findings relative to the literature. In this research, there was no evidence of applications of the five forces model of competition (Porter, 1979, 1985; Porter & Kramer, 2006), or how JWD Technologies used the forces of competition to identify strengths, weaknesses, opportunities, and threats and develop a plan of action to improve its competitive posture (Porter, 1985). The only relationship to the literature is the Vilanova, Lozano, and Arenas (2009) competitiveness model.

### **RQ4- Business values and competitive advantage**

How do business values and behaving ethically contribute to a competitive advantage from the perspective of the stakeholders? In the literature, the terms value creation and competitive advantage are closely related such that something is of value only if a customer perceives it to be important (Comite, 2009; McWilliams, Siegel, & Wright, 2006; Peloza, 2009; Stuebs & Sun, 2010). Consistent with the description of finding 4, the stakeholder participants described a focus on strong values to achieve future business in a competitive market.

Consistent with finding 4, reputation is closely related to the ability of a business to be competitive. Johnson and Everett (2012) concluded that while external stakeholders have a strong impact on corporate reputation, the most significant factor is the internal organizational culture. However, while JWD Technologies has a strong organizational culture, as described in findings 2 and 3, the impact of that culture on reputation remains unclear. Despite the pride, accomplishment, strong business culture expressed by the informants and overall consistency with the literature, the worksite is faced with a declining base. As such, it remains unclear from the research whether this focus on ethics results in a competitive advantage for JWD Technologies. A competitive advantage exists only when a company is able to motivate a customer to select their product over a competitor, and deliver greater financial return (Christensen, 2010). To date, the positive attributes of the worksite have not resulted in an increase in business base.

## **CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH**

The purpose of this qualitative, ethnographic case study was to examine how the internal stakeholders in a single business defined and applied ethics and what elements of the business culture and competitive environment affected decision-making. This research was a practical application of the stakeholder, normative ethics, and competitive analysis theory using an ethnographic case study. The role of strong, ethical leadership was clearly demonstrated (consistent with Basu & Palazzo, 2008; Beggs & Dean, 2007; Brown, Trevino & Harrison, 2005; Hess & Broughton, 2014; Hussein, 2007; Minoja, Zollo, & Coda, 2010; Schein, 1990) and affected the prevailing view that ethics is simply a habit.

The value of performing ethically in the United States is generally an accepted principle and minimum requirements are regulated by law. Quantitative results to date have been generally inconsistent (Baron, Harjoto and Jo, 2009; Beurden & Gossling, 2008; Filbeck, Gorman & Zhao, 2009; Garcia-Castro, Arino, & Canela, 2010; Linthicum, Reitenga & Sanchez, 2010; Lopez, Garcia, & Rodriguez, 2007) and provided little decision-making guidance for managers, with the possible exception of Hess and Broughton (2014) who advocate the distributed ethical leadership model and Bazerman and Sezer (2016) who focus on bounded awareness.

### **RQ1- Characterizing Business Values**

The business values and culture of JWD Technologies demonstrated a focus on pride in the quality of the delivered product through (a) disciplined, continuous improvement, (b) cooperation and teamwork with the customer and the worksite team, and (c) leadership excellence. Key leadership excellence characteristics at JWD Technologies include being engaged, accessible, credible, trustworthy, stable, and able to relate to the people.

The keys for optimizing the culture at JWD Technologies are moral fortitude including a strong ethical tone from the top, transparent communications, individual accountability, and respect for individual differences, consistent with findings 1, 2, and 3. Moral fortitude was the determination to do what an individual thinks is right, based on a standard of behavior and beyond that, which is required by law.

## **RQ2- Ethical Behavior and Business Success**

The informants at JWD Technologies defined worksite values for success as delivering a quality product, being adaptable, having leadership stability, delivering on budget and on time and delivering a profit to the corporation. Leadership emphasized doing what is morally right above all else, which demonstrates an alliance with Kant's (2005) perspective. The researcher was struck with the consistency by which the informants described the ability to voice opinions through transparent and open communications, and using data to know where boundaries are. To the informants at JWD Technologies, ethics is simply a habit. This research supported that for there to be effective ethical practice, behavior must go beyond the practices required by law (Berger, Cunningham, & Drumwright, 2007; Nikoi, 2009; Siegel & Vitaliano, 2007; Schuler & Cording, 2006; Stuebs & Sun, 2010). The culture, as expressed by the informants was not simply on compliance, but on doing the right thing for the right reason.

## **RQ3- Competition Impact on Values and Behavior**

With few references to competition by the informants, it was not possible to evaluate fully the findings relative to the literature. This remains an opportunity for future studies.

## **RQ4- Business Values and Competitive Advantage**

The stakeholder participants described a focus on strong values to achieve future business in a competitive market. In addition to the business success criteria described in RQ2, there was the focus on ethical behavior and moral fortitude consistent with a "differential advantage of delivering virtue" (Berger, Cunningham, & Drumwright, 2007, p. 140). Long-term sustainability of the business and making it viable beyond today was the most frequently reference category throughout the research period. The impact of that culture on reputation remains unclear at JWD Technologies. This remains an opportunity for future studies.

## **Additional Opportunities for Research**

In addition to the research opportunities previously described, additional research may focus on broadening the research applicability including a broader stakeholder set, use of the forces of competition to examine competitive positive, and a focus on ethical leadership flow down. While there was near universal support that the leaders of the organization exhibited a strong ethical focus, the importance of ethical leadership flow down was not clear during this research period and remains an opportunity for future studies. Norman (1999) advocated the use of rapid ethnography and LeCompte and Schensul (1999) provided criteria under which it is possible to use these techniques. Future research should examine further ways of achieving the goals of rapid ethnography while maintaining data integrity and depth.

## **REFERENCES**

- Aquino, K., & Reed, A. II. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, 83, 1423–1440. Retrieved from [www.apa.org/journals/psp](http://www.apa.org/journals/psp)

- Baron, D., Harjoto, M., & Jo, H. (2009, April). *The economics and politics of corporate social performance* (Research paper 1993R). Retrieved from <http://socialinvest.org/resources/research/documents/2009WinningPrize-Moskowitz.pdf>
- Basu, K. & Palazzo, G. (2008). Corporate social responsibility: A process model of sense making. *Academy of Management Review*, 33(1), 122–136. doi:10.5465/AMR.2008.27745504
- Bazerman, M. H. (2014). *The power of noticing: What the best leaders see*. New York: Simon and Schuster.
- Bazerman, M. & Sezer, O. (2016). Bounded awareness: Implications for ethical decision making. *Organizational Behavior and Human Decision Processes*, 136, 95-105. doi.org/10.1016/j.obhdp.2015.11.004
- Bazerman, M. H., & Tenbrunsel, A. E. (2011). *Blind spots: Why we fail to do what's right and what to do about it*. Princeton: Princeton University Press.
- Beauchamp, T., Bowie, N., & Arnold, D. (2009). *Ethical theory and business* (8th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Beggs, J. M., & Dean, K. L. (2007). Legislated ethics or ethics education? Faculty views in the post-Enron era. *Journal of Business Ethics*, 71(1), 15-37. doi:10.1007/s10551-006-9123-4
- Berger, I. E., Cunningham, P., & Drumwright, M. (2007). Mainstreaming corporate social responsibility: Developing markets for virtue. *California Management Review*, 49(4), 132-157. Retrieved from <http://cmr.berkeley.edu>
- Bergman, M., Lyytinen, K., & Mark, G. (2007). Boundary objects in design: An ecological view of design artifacts. *Journal of the Association for Information Systems*, 8(11), 546-568. Retrieved from <http://aisel.aisnet.org/jais/>
- Bertels, S. & Peloza, J. (2008). Running just to stand still? Managing CSR reputation in an era of ratcheting expectations. *Corporate Reputation Review*, 11(1), 56-72. doi:10.1057/crr.2008.1
- Beurden, P. & Gossling, T. (2008). The worth of values – A literature review on the relation between corporate social and financial performance. *Journal of Business Ethics*, 82, 407–424. doi:10.1007/s10551-008-9894-x
- Bordens, K. & Abbott, B. (2008). *Research design and methods: A process approach* (7th ed.). New York, NY: McGraw-Hill Companies.
- Brown, M., Trevino, L. & Harrison, D. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97, 117-134.
- Calvey, D. (2008). The art and politics of covert research: Doing 'situated ethics' in the field. *Sociology*, 42(5), 905-918. doi:10.1177/0038038508094569
- Campbell, D., & Cowton, C. J. (2015). Method issues in business ethics research: Finding credible answers to questions that matter. *Business Ethics: A European Review*, 24, S3–S10.
- Carroll, A. & Buchholtz, A. (2006). *Business & society: Ethics and stakeholder management* (6th ed.). Mason, OH: South-Western.
- Chikeleze, M. C. & Baehrend, W. R. (2017). Ethical leadership style and its impact on decision-making. *Journal of Leadership Studies*, 11: 45–47. doi:10.1002/jls.21523
- Chiu, R. B., & Hackett, R. D. (2017). The assessment of individual moral goodness. *Business Ethics: A European Review*, 26(1), 31-46. doi:10.1111/beer.12137
- Christensen, H. K. (2010). Defining customer value as the driver of competitive advantage. *Strategy & Leadership*, 38(5), 20-25. doi:10.1108/10878571011072048
- Comite, U. (2009, August). The evolution of a modern business from its assets and liabilities statement to its ethical environmental account. *Journal of Management Research*, 9(2), 100-120. Retrieved from <http://www.indianjournals.com>
- Corbin, J. & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Cozby, P. C. (2009). *Methods in behavioral research* (10th ed.). Boston, MA: McGraw Hill Higher Education.
- Craig, S. & Gustafson, S. (1998). Perceived leader integrity scale: An instrument for assessing employee perception of leader integrity. *Leadership Quarterly*, 9(2), 127-146.
- Creswell, J. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Los Angeles, CA: Sage Publications.
- Dedeke, A. (2015). A cognitive–intuitionist model of moral judgment. *Journal of Business Ethics*, 126(3), 427-457.

- Denzin, N. (Ed.). (2006). *Sociological methods: A sourcebook* (5th ed.). Piscataway, NJ: Aldine Transaction Publishers.
- Dixon, S. & Clifford, A. (2007). Ecopreneurship - a new approach to managing the triple bottom line. *Journal of Organizational Change Management*, 20(3), 326-345. doi:10.1108/09534810710740164
- Duska, R. (2017). Unethical behavioral finance: Why good people do bad things. *Journal of Financial Service Professionals*, 71(1), 25-28.
- Ellertson, C.F., Ingerson, M. & Williams, R.N. (2016). Behavioral ethics: A critique and proposal. *Journal of Business Ethics*, 138(1), 145-159. doi:10.1007/s10551-015-2628-y
- Emerson, R., Fretz, R., & Shaw, L. (2011). *Writing ethnographic fieldnotes* (2nd ed.). Chicago, IL: University of Chicago Press.
- Ethics Resource Center [ERC]. (2011). *National business ethics survey*. Retrieved from <http://www.ethics.org>
- Fassin, Y., Van Rossem, A., & Buelens, M. (2011). Small-business owner-managers' perceptions of business ethics and CSR-related concepts. *Journal of Business Ethics*, 98(3), 425-453. doi:10.1007/s10551-010-0586-y
- Filbeck, G., Gorman, R., & Zhao, X. (2009). The "best corporate citizens": Are they good for their shareholders? *The Financial Review*, 44, 239-262. doi:10.1111/j.1540-6288.2009.00217.x
- Foote, J., Gaffney, N., & Evans, J. (2010, August). Corporate social responsibility: Implications for performance excellence. *Total Quality Management & Business Excellence*, 21(2), 799-812. doi:10.1080/14783363.2010.487660
- Freeman, R. E. (1984). *Strategic management: A Stakeholder perspective*. Englewood Cliffs, NJ: Prentice Hall.
- Freeman, R. E., Harrison, J., Wicks, A., Parmar, B., & De Colle, S. (2010). *Stakeholder theory: The state of the art*. New York, NY: Cambridge University Press.
- Friedman, M. (1970, September 13). The social responsibility of business is to increase its profits. *New York Times Magazine*, 32-36. Retrieved from <http://www.nytimes.com/pages/magazine/index.html>
- Frynas, J. G., & Yamahaki, C. (2016). Corporate social responsibility: Review and roadmap of theoretical perspectives. *Business Ethics: A European Review*, 25(3), 258-285.
- Garcia-Castro, R., Arino, M. & Canela, M. (2010). Does social performance really lead to financial performance? *Journal of Business Ethics*, 92, 107-126. doi:10.1007/s10551-009-0143-8
- Gentile, M. C. (2010, December). Ethics: Working within the gray areas. *Financial Executive*, 26(10), 40-43. Retrieved from [www.financialexecutives.org](http://www.financialexecutives.org)
- Gentile, M. C. (2010). *Giving voice to values*. New Haven, CT: Yale University Press.
- Gentile, M. C. (2010, Spring). The new marketing myopia. *American Marketing Association*, 29(1), 4-11. Retrieved from [www.marketingpower.com](http://www.marketingpower.com)
- Gentile, M. C. (2011, December). A faculty forum on giving voice to values: Faculty perspective on the uses of this pedagogy and curriculum for value-driven leadership. *Journal of Business Ethics Education*, 8, 305-307. Retrieved from [www.pdcnet.org](http://www.pdcnet.org)
- Gibb, C. A. (1954). Leadership. In Lindzey, G. (Ed.). *Handbook of social psychology* (Vol. 2). (pp. 877-917). Reading, MA: Addison-Wesley.
- Goddard, S., & Palmer, A. (2010). An evaluation of the effects of a National Health Service Trust merger on the learning and development of staff. *Human Resource Development International*, 13(5), 557-573. doi:10.1080/13678868.2010.520480
- Hair, N., & Clark, M. (2007). The ethical dilemmas and challenges of ethnographic research in electronic communities. *International Journal of Market Research*, 49(6), 781-800. Retrieved from <http://www.ijmr.com>
- Healy, M., Beverland, M., Oppewal, H., & Sands, S. (2007, November). Understanding retail experiences- the case for ethnography. *International Journal of Market Research*, 49(6), 751-778. Retrieved from <http://www.ijmr.com>
- Heyl, B. S. (2010). Ethnographic interviewing, In P. Atkinson, A. Coffey, S. Delamont, J. Lofland & L. Lofland (Eds.), *Handbook of ethnography* (pp. 369-383). London, England: Sage Publications.
- Hine, J. & Preuss, L. (2009, August). Society is out there, organisation is in here: On the perceptions of corporate social responsibility held by different managerial groups. *Journal of Business Ethics*, 88(2), 381-393. doi:10.1007/s10551-008-9970-2

- Hodson, R. (2008). The ethnographic contribution to understanding co-worker relations. *British Journal of Industrial Relations*, 46(1), 169-192. doi:10.1111/j.1467-8543.2007.00670.x
- Hussein, M. (2007, October). Ethical leadership makes the right decisions. *Journal of Technology and Business*, 57-65. Retrieved from <http://www.npu.edu>
- Jamali, D. (2008). A stakeholder approach to corporate social responsibility: A fresh perspective into theory and practice. *Journal of Business Ethics*, 82(1), 213-231. doi:10.1007/s10551-007-9572-4
- Jeffrey, B., & Troman, G. (2004). Time for ethnography. *British Educational Research Journal*, 30(4), 535-548. doi:10.1080/0141192042000237220
- Jennings, P. L., Mitchell, M.S. & Hannah, S.T. (2015). The moral self: A review and integration of the literature. *Journal of Organizational Behavior*, 36(S1), S104-S168. doi: 10.1002/job.1919
- Jin, K. & Drozdenko, R. (2010). Relationships among perceived organizational core values, corporate social responsibility, ethics, organizational performance outcomes: An empirical study of information technology professionals. *Journal of Business Ethics*, 92, 341-359. doi:10.1007/S10551-009-0158-1
- Johnston, K., & Everett, J. (2012, November). Employee perceptions of reputation: An ethnographic study. *Public Relations Review*. doi:10.1016/j.pubrev.2012.05.007
- JWD Technologies (pseudonym). (2013). [D002: Code of ethics and business conduct]. Unpublished raw data.
- JWD Technologies (pseudonym). (2013). [D003: Why ethics?]. Unpublished raw data.
- JWD Technologies (pseudonym). (2013). [D004: Ethics and compliance site]. Unpublished raw data.
- JWD Technologies (pseudonym). (2013). [D005: How the ethic process works]. Unpublished raw data.
- JWD Technologies (pseudonym). (2013). [D011: Ethics and business conduct training framework]. Unpublished raw data.
- Hess, M. F., & Broughton, E. (2014). *Fostering an ethical organization from the bottom up and the outside in*. Greenwich: Elsevier Science Ltd. doi:10.1016/j.bushor.2014.02.004
- Kant, I. (2005). Grounding for the metaphysics of morals. In L. P. Hartman (Ed.), *Perspectives in business ethics* (3rd ed.). (pp. 18-23). Boston, MA: McGraw-Hill/Irwin.
- Karpoff, J., Lee, D., Martin, G. (2008). The consequences to managers for financial misrepresentation. *Journal of Financial Economics*, 88, 193-215. doi:10.1016/j.jfineco.2007.06.003
- Karpoff, J. & Lou, X. (2010, October). Short sellers and financial misconduct. *Journal of Finance*. 65(5), 1879-1913. doi:10.1111/j.1540-6261.2010.01597.x
- Keupers, W. (2015). Embodied responsive ethical practice: The contribution of Merleau-Ponty for a corporeal ethics in organizations. *Electronic Journal of Business Ethics and Organization Studies*, 20(1), 30-45.
- Khoo, M., Rozaklis, L., & Hall, C. (2012). A survey of the use of ethnographic methods in the study of libraries and library users. *Library & Information Science Research*, 34, 82-91. doi:10.1016/j.lisr.2011.07.010
- LeCompte, M. & Schensul, J. (1999). *Ethnographer's toolkit: Vol. 1. Designing and conducting ethnographic research*. Walnut Creek, CA: Alta Mira Press.
- Levitt, T. (1958, September-October). The dangers of social responsibility. *Harvard Business Review*, 41-50. Retrieved from <http://hbr.org>
- Li, Y. (2010, October). The case analysis of the scandal of Enron. *International Journal of Business and Management*, 5(10), 37-41. Retrieved from [www.ccsenet.org/ijbm](http://www.ccsenet.org/ijbm)
- Linthicum, C., Reitenga, A. L., & Sanchez, J. (2010). Social responsibility and corporate reputation: The case of the Arthur Andersen Enron audit failure. *Journal of Accounting and Public Policy*, 29(2), 160-176. doi:10.1016/j.jaccpubpol.2009.10.007
- Lopez, V. M., Garcia, A., & Rodriguez, L. (2007). Sustainable development and corporate performance: A study based on the Dow Jones sustainability index. *Journal of Business Ethics*, 75(3), 285-300. doi:10.1007/s10551-006-9253-8
- McDonald, G. (2010). Ethical relativism vs. absolutism: Research implications. *European Business Review*, 22(4), 446-464. doi:10.1108/09555341011056203
- McWilliams, A., Siegel, D., & Wright, P. (2006, January). Guest editors' introduction corporate social responsibility: Strategic implications. *Journal of Management Studies*, 43, 1-18. doi:10.1111/j.1467-6486.2006.00580.x

- Minoja, M., Zollo, M., & Coda, V. (2010). Stakeholder cohesion, innovation, and competitive advantage. *Corporate Governance*, 10(4), 395-405. doi:10.1108/14720701011
- Moore, F. (2011). Holistic ethnography: Studying the impact of multiple national identities on post-acquisition organizations. *Journal of International Business Studies*, 42(5), 654-654-671. doi:10.1057/jibs.2011.11
- Morrison, M., & Lumby, J. (2009). Is leadership observable? Qualitative orientations to leadership for diversity. *Ethnography and Education*, 4(1), 65-82. doi:10.1080/17457820802703515
- Murchison, J. (2010). *Ethnography essentials*. San Francisco, CA: John Willey & Sons.
- Murphy, D. L., Shrieves, R. E., & Tibbs, S. L. (2009). Understanding the penalties associated with corporate misconduct: An empirical examination of earnings and risk. *Journal of Financial & Quantitative Analysis*, 44(1), 55-83. doi:10.1017/S0022109009090036
- Nikoi, A. (2009). Ethical leadership and business decision making in contemporary times. *International Journal of Business and Management*, 3(10), 183-193. Retrieved from [www.ccsenet.org/journal.html](http://www.ccsenet.org/journal.html)
- Norman, D. (1999). *The invisible computer*. Cambridge, MA: The MIT Press.
- Peloza, J. (2009). The challenge of measuring financial impacts from investments in corporate social performance. *Journal of Management*, 35(6), 1518-1541. doi:10.1177/0149206309335188
- Phelps, A., & Horman, M. (2010). Ethnographic theory-building research in construction. *Journal of Construction Engineering & Management*, 136(1), 58-65. doi:10.1061/(ASCE)CO.1943-7862.0000104
- Phillips, R. E. (2003). *Stakeholder theory and organizational ethics*. San Francisco, CA: Berrett-Koehler Publishers.
- Pittarello, A., Leib, M., Gordon-Hecker, T., & Shalvi, S. (2015). Justifications shape ethical blind spots. *Psychological Science*, 26, 794-804.
- Porter, M. (1979, March-April). How competitive forces shape strategy. *Harvard Business Review*, 57(2), 87-94. Retrieved from <http://hbr.org>
- Porter, M. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York, NY: Free Press.
- Porter, M. & Kramer, M. (2006, December 1). Strategy and society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78-92. Retrieved from <http://hbr.org>
- Quinn, R. E. (1996). *Deep change: Discovering the leader within*. San Francisco, CA: Jossey-Bass.
- Quinn, R. E. (2004). *Building the bridge as you walk on it*. San Francisco, CA: Jossey-Bass.
- Quinn, R. E. (2012). *The deep change field guide: A personal course to discovering the leader within*. San Francisco, CA: Jossey-Bass.
- Saldana, J. (2011). *The coding manual for qualitative researchers*. London, England: Sage Publications.
- Schein, E. (1990). Organizational culture. *American Psychologist*, 45(2), 109-119. doi:10.1037/0003-066X.45.2.109
- Schensul, J., LeCompte, M., Hess, G. A., Nastasi, B., Berg, M., Williamson, L., Brecher, J. & Glasser, R. (1999). *Ethnographer's toolkit: Vol. 7. Using ethnographic data*. Walnut Creek, CA: AltaMira Press.
- Schensul, J. & LeCompte, M., Nastasi, B. & Borgatti, S. (1999). *Ethnographer's toolkit: Vol. 3. Enhanced ethnographic methods*. Walnut Creek, CA: AltaMira Press.
- Schensul, S., Schensul, J. & LeCompte, M. (1999). *Ethnographer's toolkit: Vol. 2. Essential ethnographic methods*. Walnut Creek, CA: Alta Mira Press.
- Schuler, D. & Cording, M. (2006). A Corporate social performance- corporate financial behavioral model for consumers. *The Academy of Management Review*, 31(3), 540-558. doi:10.5465/AMR.2006.21318916
- Sezer, O., Gino, F., & Bazerman, M. H. (2015). Ethical blind spots: Explaining unintentional unethical behavior. *Current Opinion in Psychology*, 6, 77-81.
- Siegel, D. S., & Vitaliano, D. F. (2007). An empirical analysis of the strategic use of corporate social responsibility. *Journal of Economics & Management Strategy*, 16(3), 773-792. doi:10.1111/j.1530-9134.2007.00157.x
- Spiller, R. (2000). Ethical business and investment: A model for business and society. *Journal of Business Ethics*, 27, 149-160. doi:10.1007/978-94-011-4311-0\_15
- Stall-Meadows, C., & Hyle, A. (2010). Procedural methodology for a grounded meta-analysis of qualitative case studies. *International Journal of Consumer Studies*, 34(4), 412-418. doi:10.1111/j.1470-6431.2010.00882.x
- Stuebs, M., & Sun, L. (2010). Business reputation and labor efficiency, productivity, and cost. *Journal of Business Ethics*, 96(2), 265- 283. doi:10.1007/s10551-010-464-7

- Sturm, R. E. (2017). Decreasing unethical decisions: The role of morality-based individual differences. *Journal of Business Ethics*, 142(1), 37. doi:10.1007/s10551-015-2787-x
- Tibbs, S., Harrell, D. & Shrieves, R. (2011, September). Does crime pay? Long-term stock and operating performance before and after allegations of corporate misconduct. *Journal of Empirical Legal Studies*, 8(3), 449-476. Retrieved from [www.blackwellpublishing.com/jels](http://www.blackwellpublishing.com/jels)
- Trochim, W., & Donnelly, J. (2008). *The research methods knowledge base* (3rd ed.). Mason, OH: Cengage.
- Turker, D. (2009). Measuring corporate social responsibility: A scale development study. *Journal of Business Ethics*, 85, 411-427. doi:10.1007/s10551-008-9780-6
- Vilanova, M., Lozano, J., & Arenas, D. (2009). Exploring the nature of the relationship between CSR and competitiveness. *Journal of Business Ethics*, 87, 57-69. doi:10.1007/s10551-008-9812-2
- Weaver, G., Reynolds, S., & Brown, M. (2014). Moral intuition: Connecting current knowledge to future organizational research and practice. *Journal of Management*, 40(1), 100-129.
- Welsh, D. T., & Ordonez, L. D. (2014). Conscience without cognition: The effects of subconscious priming on ethical behavior. *Academy of Management Journal*, 57, 723-742.
- Welsh, D. T., Ordonez, L. D., Snyder, D. G., & Christian, M. S. (2015). The slippery slope: How small ethical transgressions pave the way for larger future transgressions. *Journal of Applied Psychology*, 100(1), 114-127.
- Wernerfelt, B. (1984). A resource-based view of the firm: Summary. *Strategic Management Journal (pre-1986)*, 5(2), 171-180. doi:10.1002/smj.4250050207
- Westney, D. E., & Van Maanen, J. (2011). The casual ethnography of the executive suite. *Journal of International Business Studies*, 42(5), 602-607. doi:10.1057/jibs.2011.20
- Wolcott, H. F. (2008). *Ethnography: A way of seeing* (2nd ed.). Lanham, MD: AltaMira Press.
- Wolcott, H. F. (2010). *Ethnography lessons: A primer*. Walnut Creek, CA: Left Coast Press, Inc.
- Yin, R. K. (2009). *Case study research: Design and method* (4th ed.). Thousand Oaks, CA: Sage.
- Zhang, T., Gino, F., & Bazerman, M. H. (2014). Morality rebooted: Exploring simple fixes to our moral bugs. *Research in Organizational Behavior*, 34, 63-79.
- Zhu, W., He, H., Trevino, L. K., Chao, M. M., & Wang, W. (2015). Ethical leadership and follower voice and performance: The role of follower identifications and entity morality beliefs. *The Leadership Quarterly*, 26(5), 702-718. doi:10.1016/j.leaqua.2015.01.004
- Zikmund, W., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business research methods* (8th ed.). Mason, OH: Thomson/South-Western.
- Zoghbi-Manrique-de-Lara, P., & Suárez-Acosta, M. A. (2014). Employees' reactions to peers' unfair treatment by supervisors: The role of ethical leadership. *Journal of Business Ethics*, 122(4), 537-549. doi:10.1007/s10551-013-1778-z



# MECHANICAL TURK: IS IT JUST ANOTHER CONVENIENCE SAMPLE?

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## ABSTRACT

*The study explores the use of an innovative technique for data collection – Amazon Mechanical Turk. Three studies utilizing the Theory of Planned Behavior to assess population behavior were used to compare behavioral outcomes between Amazon Mechanical Turk and general and specified populations. Results show that Amazon Mechanical Turk is a viable and generalizable sampling technique when a general population sample is needed. However, when specific populations are desired Amazon Mechanical Turk might be suboptimal.*

**KEYWORDS:** *Convenience sampling, Data collection, Amazon Mechanical Turk, Survey research*

## 1. INTRODUCTION

Empirical research is undoubtedly one of the most important aspects of a social and behavioral scientist's career. We collect data from subjects on a variety of different topics to advance knowledge through publication. Although many of our management and psychology colleagues dream of large organizational samples of paired supervisor/employee dyads or entrepreneur interviews to help answer research questions, the fact is that the majority of social/behavioral scientists must rely on convenience samples to collect data. However, finding a good convenience sample can be difficult.

Convenience sampling is a sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher. There are several types of convenience samples, but most social and behavioral science researchers have utilized convenience samples of graduate and undergraduate populations. Despite the ease that researchers can and do use student samples, their prevalence in the literature is still much debated (Bello, Leung, Radenbaugh, Tung, & Witteloostuijn, 2009; Sackett & Larson, 1990). Specifically, the results of student-based samples have been questioned as to whether they can be applied to a general population of interest, for instance employee behavior in organizations (Bello et al., 2009). To combat issues of general worker population representativeness, many researchers have sought out alternative data sampling techniques, such as internet-based sampling. The purpose of this study will be to compare a relatively new and popular form of data collection called crowdsourcing. Specifically, using three studies which utilized the Theory of Planned Behavior, we will explore how well sample

populations from Amazon Mechanical Turk compared with other internet-based sample populations

### 1.1 Amazon Mechanical Turk

Amazon Mechanical Turk (MTurk) is an online crowdsourcing website that offers businesses and developers an innovative way to access an on-demand workforce. To date, there have been several studies investigating the design, use, and data quality of MTurk as a viable data sampling technique (Behrend, Sharek, Meade, & Wiebe, 2011; Berinsky, Huber, & Lenz, 2012; Buhrmester, Kwang, & Gosling, 2011; Casler, Bickel, & Hackett, 2013; Cheung, Burns, Sinclair & Sliter, 2017; Landers & Behrend, 2015; Mason & Suri, 2012; Mason & Watts, 2009; Paolacci, Chandler, & Ipeirotis, 2010; Smith, Roster, Golden & Albaum, 2016). Most of the current literature on MTurk has focused on appropriate uses of MTurk for data collection in the social sciences, as well as exploring the external validity of MTurk study results. Much like the concerns discussed previously about student convenience samples, researchers need to question whether the effects found in MTurk accurately represent the effects found in other sample populations (Berinsky et al., 2012).

To explore the external validity of MTurk samples, Berinsky et al. (2012) compared the demographic characteristics of collected samples of MTurk workers to the samples of previously published work. In addition, they attempted to replicate treatment effects of previously conducted experiments to assess sample generalizability. With regards to demographics, MTurk samples reported higher than general education than other adult samples. Additionally, the MTurk participants were found to be younger on average, as compared to the American National Election Studies (ANES). Several other studies have also explored the demographic make-up and found the sample characteristics are consistent and generalizable to the general adult population, with only minor differences (see Behrend, Sharek, Meade, & Wiebe, 2011; Buhrmester et al., 2011; Paolacci, et al., 2010; Ross, Iranim, Silberman, Zaldivar, & Tomlinson, 2010). Berinsky et al. (2012) further explored the external validity of MTurk samples on a variety of political and general attitudinal measures that could be used to compare these measures to the general population. Results of this study did not provide significance tests to assess actual differences; however, substantive differences between groups were found. Ultimately the authors concluded that while the samples do not perfectly reflect each other they are also not drastically different, and that MTurk samples are more representative than other convenience samples such as students.

Further evidence for the external validity of MTurk samples can be found in research conducted by Paolacci et al. (2010) who went beyond exploring demographic and attitudinal variables. The authors examined the differences between an MTurk sample, a traditional student convenience sample, and participants in online discussion boards on three classic judgment and decision-making experiments. Results found that MTurk samples did differ slightly in some cases; however, the differences in samples were consistent with result variability within the judgment and decision-making literature. Several other studies have also compared MTurk workers on a variety of menial and experimental tasks to assess the validity of worker behavior and found that MTurk workers exhibited similar accuracy and quality of work as other samples (Alonso & Mizzaro, 2009; Buhrmester, 2011; Snow, O'Connor, Jurafsky, & Ng, 2008). Despite the extensive research comparing MTurk workers to other samples on menial tasks and decision-making problems, the majority of behavior science research utilizes a variety of measures to assess individual/worker behaviors, attitudes, intentions, skills, and abilities. For research to utilize data

sources such as MTurk, it is crucial to assess whether MTurk sample results are representative to general population sample results when it comes to behavioral survey research.

## **2. MATERIAL AND METHODS**

Three studies were conducted, with two samples each. In each study, two samples were solicited to complete an electronic Qualtrics survey: 1) an MTurk sample was solicited via the Amazon Mechanical Turk website and, 2) a sample was solicited via social media sites such as LinkedIn, Facebook, and Twitter, as well as other electronic media. In each individual study, the Qualtrics survey was identical for the two sample populations.

Each study used the theory of planned behavior (TPB) as the theoretical framework. TPB posits that individual intentions to act a particular way can be predicted by measuring behavioral attitude, perceived behavioral control, and subjective norms (Ajzen, 1985; 1991). Attitude is the positive or negative affect felt by the individual, perceived behavioral control is determined by the individual's perception of the ease or difficulty of engaging in the behavior, and subjective norms relates to others' attitudes. Essentially, the more favorable an individual's attitude and perception of social norms along with their perceived control over their behaviors, the more likely the individual is to act.

Extensions in the theory over time have led to important indicators more closely related to action including desire, intent and plan to behave a particular way (Shaw, Shiu, Hassan, Bekin, & Hogg, 2007). An individual is motivated to act through desire to act, expressed intentions to act, and planning to actually act in a particular manner. Similar attitudinal scales measuring motivations to shop or donate provided a strong foundation for comparing the MTurk and social media samples across the three studies.

### **2.1 Study Descriptions**

The first study (the "Lowes Study") examined shoppers' planned avoidance of shopping at Lowe's home improvement stores following the chain's withdrawal of advertising on TLC's All American Muslim show. Data from the Lowes Study were collected in December 2011 and January 2012. The second study (the "Komen Study") measured participants' planned avoidance of donating to Susan G. Komen for the Cure following the organization's removal of financial support of Planned Parenthood. Data from the second study were collected in February 2012. The third study (the "Livestrong Study") focused on planned avoidance of donating to the Livestrong Foundation in the aftermath of Lance Armstrong's televised confession on Oprah. Data from the third study were collected in February 2013.

### **2.2 Participants**

In the Lowes Study and the Komen Study, an MTurk sample and a general population sample were solicited. In the Livestrong Study, an MTurk sample and a purposively targeted sample toward individuals with a connection to the sport of cycling (as participant, sponsor, employee, coach, etc.) were recruited. In the Livestrong Study, survey invitations were posted in

sport-specific Facebook pages. Basic demographics of the six samples in the three studies (age, gender, and race) were collected, and appear in Tables 1-3.

## 2.3 Procedures

In each study, participants were directed to Qualtrics (either directly or via MTurk). Participants completed a demographics questionnaire containing items on the participant's age, gender, ethnicity, marital status, education, political affiliation, and state of residence. In addition, each study focused on a different controversial situation in which the authors were interested in the participant's planned behavior. Central to TPB is that individual intentions to engage in a particular behavior indicate the likelihood of actually engaging in that behavior in the future (Ajzen, 1985; 1991). TPB has been employed in a variety of disciplines and studies and thus provides a unique opportunity to explore the external validity of MTurk utilizing a commonly assessed behavioral theory.

In each study, a measure of planned behavior was administered across both samples. Following the procedure outlined by Shaw et al. (2007) and Arjen (2006), a survey was administered using 7-point bipolar scales to measure each component of theory of planned behavior: Attitude, Subjective Norms, Perceived Behavioral Control, Desire, Behavioral Intent, and Planned Behavior. Item wording in each of these measures was consistent with that of prior studies (e.g., Ajzen & Fishbein, 1980; Ajzen & Madden, 1986; Shaw et al., 2007). The six scales consist of two items each, except for Attitude (four items) and Perceived Behavioral Control (three items). Two of the Perceived Behavioral Control items were reverse-coded to maintain internal consistency. Summated scores were calculated for each of the six scales and Cronbach alphas were calculated for each sample in each study (see Tables 4-6).

The scale items measuring planned behavior used in each of the studies were adapted to fit the unique scenario addressed in the study. Wording of these items was as consistent as possible to that set forth in Shaw et al. (2007) and modified to reflect attitudes and intent toward avoiding donating (in the case of the Livestrong Study and Komen Study) or avoiding shopping (in the case of the Lowes Study). To ensure quality data in both MTurk and internet-based samples, the measures utilized included open-ended questions. Open-ended questions allow researchers to assess whether participants are taking care and consideration in their responses (Mason & Suri, 2012). In addition, the authors screened all submitted surveys for response time and response patterns.

## 3. RESULTS

Substantive differences between study group samples were assessed. Consistent with previous research, samples were comparable on demographic factors such as ethnicity. However, there were difference in both age and sex in some of the studies. In the Lowes Study there were substantively more females in the general sample than in the MTurk sample. Further, in the Livestrong Study, the cyclist sample was substantively older and consisted of more males than the MTurk sample.

T-tests for independent means were calculated within each of the three studies, using sample membership (MTurk or author-solicited) as the grouping variable to compare scores for the six summated variables. The results show that for the Lowes Study and the Komen Study only one variable was significant at the  $p < .05$  level between the two samples. In the Lowes Study, the

Behavioral Intention variable was significantly different between the MTurk sample and the general sample. In the Komen Study, the Attitude variable was found to be significantly different between the two samples. A different pattern of results was found in the Livestrong Study. Interestingly, four of the six variables were found to be significantly different at  $p < .05$  between the two samples (Attitude, Desire, Behavioral Intention, and Planned Behavior). The only variables that were not significant between the two samples in the Livestrong Study were Subjective Norms and Perceived Behavioral Control.

These results indicate that, in the case of the Lowes Study and the Komen Study, the use of MTurk as a sample recruitment tool was valid. In the case of the Livestrong Study, the results illustrate a not unexpected result: that when specific qualifications are needed among sample members (e.g., cycling affinity), MTurk is probably not a valid method of recruiting participants. However, when general population samples are in order, the results suggest that MTurk can provide the breadth of respondents that is desirable for a diverse sample.

#### 4. DISCUSSION

The purpose of this analysis was to use three studies using TPB to explore the use of MTurk in behavioral survey research. Specifically, can MTurk samples provide representative results? Based on the finding from our studies, we can confidently say it depends! As a data source, MTurk provides a viable means for recruiting samples that closely match the general population (the Lowes Study and the Komen Study). However, when looking for specific sub-group opinions, such as the case in the Livestrong Study, MTurk does not provide an optimal pool of sub-group members. The fact that, in the Lowes Study and the Komen Study, there was one scale variable that was significantly different between the MTurk sample and the internet sample is not necessarily an indictment against MTurk samples, but rather an indication of potential limitations existing with any convenience sample.

The Lowes Study and the Komen Study are each very different from the Livestrong Study in that the latter included a very specific sample of those with cycling affinities (not a general population sample). The former involved samples with no stated connection to either the Lowe's home improvement stores or the Susan G. Komen organization. With regard to the Livestrong Study, the four significant differences reported are not surprising, especially since the cycling community in general felt betrayed by Lance Armstrong. The repercussions of Lance Armstrong's doping are thus likely to be felt even more profoundly among cyclists than non-cyclists. The implications are that an MTurk sample could potentially be useful for comparing a general populace sample to a purposive sample.

MTurk samples also offer great versatility in recruitment. In all our three studies, samples were limited to U.S. residents, although virtually any country could be included. More importantly, though, is that the MTurk samples in our studies were distributed across the U.S., with at least 48 states represented in each of the three samples. This claim could not be made of the author-recruited internet samples which were limited to social media invitations among friends and followers of the authors. Thus, regional bias can be minimized or perhaps even controlled for by using MTurk samples. In addition to sample diversity, MTurk offers great speed with which one can collect data. In both the Komen Study and the Livestrong Study, required sample sizes were reached in less than 24 hours. Collection in the Lowes Study took a little more time, but data collection was still complete within 5 days. The anonymity of MTurk samples is also desirable

vis-à-vis author-recruited samples; minimizing or eliminating bias because of association. This, in conjunction with geographic diversity, may help provide representative results.

While both the Lowes Study and the Komen Study showed one scale to be significantly different between the samples, the efficacy of using MTurk samples is not lost. The dependent variable in the TPB is the scale *planned behavior*; and in both studies, there was no significant difference between the samples with regard to their planned shopping or donating behaviors. It is also possible that the fundamental difference of donating to a charity vs. shopping at a retail chain may have contributed to the significant difference of the one scale in the two studies. Furthermore, it is possible that artifacts of the author-recruited internet sample in the Komen Study may have contributed to the significant difference reported between the attitude scale scores in the two samples: many participants recruited by the authors resided in the same state, a state known for its more conservative leaning and thus criticism of Planned Parenthood. Similarly, the significant difference in the behavioral intentions construct in the Lowes Study may be explained by the readily available retail options for shoppers. Whereas donating to any organization is strictly volitional, the acquisition of household items may be viewed as non-discretionary. The awareness of competing stores may have influenced these results, but at the same time, access to those competitors may have thwarted any intent to avoid Lowe's.

#### 4.1 Limitations and Future Research

While this meta study extends the research regarding use of MTurk as a valid means of sample recruitment, it is not necessarily possible to draw final conclusions regarding the efficacy thereof. For example, it is possible that there could be a volunteer bias among MTurk workers who are simply willing to do anything in exchange for a modest payment. It is also possible that the author-recruited samples may be biased because participants are potentially friends or acquaintances. Still, the results and conclusions reported above appear to indicate that MTurk samples are not substantially different from general population samples, at least as it pertains to applications of TPB, and in fact may be better, given that the complete anonymity between researchers and participants.

This study is limited in that the three studies were cross-sectional. Longitudinal studies in each of the three cases might reveal differences between the sampling techniques. Future studies should focus on other comparisons of MTurk vs. general samples, in different contexts, and using different measures. Another area of concern that warrants future research is the mechanical nature of MTurk. Specifically, are participants human? While we made multiple attempts to screen participants for actual survey participation, it is possible that machine-based responders can compromise MTurk. Thus, future research could explore research ability to detect machine-based response versus human based responses.

### 5. CONCLUSIONS

In spite of the limitations above, the results reported appear to indicate the efficacy of MTurk as a means of sample recruitment. While the method is not without criticism, it is likely to be superior to relying on student-based samples in general, particularly for reaching organizational members and household consumers, as well as participants dispersed across a wide geographical area. The method also avoids any perceived pressure between researcher and students regarding participation, as well as artifacts pertaining to students being at a very different stage of life than

their slightly older adult peers. MTurk might also improve upon author-solicited samples that may reflect an implicit bias because of associations between the participants and the researchers.

## REFERENCES

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl and J. Beckman (Eds.), *Action-control: From cognition to behavior* (pp. 11-39). Heidelberg: Springer.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology*, 22(5), 453-474.
- Ajzen, I. (2006, January). Constructing A Theory Of Planned Behavior Questionnaire. Retrieved from [https://www.researchgate.net/profile/Icek\\_Ajzen/publication/235913732\\_Constructing\\_a\\_Theory\\_of\\_Planned\\_Behavior\\_Questionnaire/links/56f00f4508ae9f93e804b6/Constructing-a-Theory-of-Planned-Behavior-Questionnaire.pdf](https://www.researchgate.net/profile/Icek_Ajzen/publication/235913732_Constructing_a_Theory_of_Planned_Behavior_Questionnaire/links/56f00f4508ae9f93e804b6/Constructing-a-Theory-of-Planned-Behavior-Questionnaire.pdf)
- Alonso, O., & Mizzaro, S. (2009). Can we get rid of TREC assessors? Using Mechanical Turk for relevance assessment. In *Proceedings of the SIGIR 2009 workshop on the future of IR evaluation* (pp. 15–16).
- Amazon Mechanical Turk (2013). *Company overview*. Retrieved from <https://www.mturk.com/>
- Barger, P., Behrend, T., Sharek, D., & Sinar, E. (2011). I-O and the Crowd: Frequently Asked Questions About Using Mechanical Turk for Research. *The Industrial Organizational Psychologist*, 49(2), 11-17.
- Behrend, T., Sharek, D., Meade, A., & Wiebe, E. (2011). The viability of crowdsourcing for survey research. *Behavioral Research Methods*, 43(3), 800-813
- Bello, D., Leung, K., Radebaugh, R., Tung, R.L., & van Witteloostuijn, A. (2009). From the editors: Student samples in international business research. *Journal of International Business Studies*, 40, 361–364.
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Using Mechanical Turk as a subject recruitment tool for experimental research. *Political Analysis*, 20(3), 351-368. doi:10.1093/pan/mpr057.
- Buhrmester, M. D., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6(1), 3-5.
- Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior*, 29, 2156-2160
- Chuang, J., Burns, D., Sinclair, R., & Sliter, M. (2017). Amazon Mechanical Turk in Organizational Psychology: An Evaluation and Practical Recommendations. *Journal of Business and Psychology*, 32(4), 347-361
- Hooghe, M., Stolle, D., Maheo, V., & Vissers, S. (2010). Why can't a student be more like an average person? Sampling and attrition effects in social science field and laboratory experiments. *Annals of the American Academy of Political and Social Sciences*, 628(1), 85-96.
- Landers, R., & Behrend, T. (2015). An Inconvenient Truth: Arbitrary Distinctions Between Organizational, Mechanical Turk and Other Convenience Samples. *Industrial and Organizational Psychology*, 8(2) 142-164
- Mason, W. A., & Suri, S. (2012). Conducting behavioral research on amazon's mechanical turk. *Behavioral Research methods*, 44(1), 1-23
- Mason, W.A., & Watts, D.J. (2009). Financial incentives and the “performance of crowds.” *Association for Computing Machinery Explorations Newsletter*, 11(2), 100–108.
- Paolacci, G., Chandler, J., & Ipeirotis, P. (2010). Running experiments on Amazon Mechanical Turk. *Judgment and Decision Making*, 5, 411-419.
- Ross, J., Irani, L., Silberman, M. S., Zaldivar, A., & Tomlinson, B. (2010). Who are the crowdworkers? Shifting demographics in Mechanical Turk. In *Proceedings of the ACM conference on human factors in computing systems* (pp. 2863–2872).
- Sackett, P. R., & Larson, J. R. Jr. (1990). Research strategies and tactics in industrial and organizational psychology. In M. D. Dunnette, & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 1, 2nd ed., pp. 420-489). Palo Alto, CA: Consulting Psychologists Press.
- Shaw, D., Shiu, E., Hassan, L., Bekin, C., & Hogg, G. (2007). Intending to be ethical: An examination of consumer choice in sweatshop avoidance. *Advances in Consumer Research (ACR)*, Orlando, FL.

- Smith, S., Roster, C., Golden, L., & Albaum G. (2016). A multi-group analysis of online survey respondent data quality: Comparing a regular USA consumer panel to MTurk samples. *Journal of Business Research*, 69, 3139-3148
- Snow, R., O'Connor, B., Jurafsky, D., & Ng, A. Y. (2008). Cheap and fast—but is it good? Evaluating non-expert annotations for natural language tasks. *In Proceedings of the conference on empirical methods in natural language processing*.



*Table 1.*  
Study 1 - Lowe's Demographics by percent

Trait	MTurk	General
Male	56.5	37.3
Female	43.5	62.7
Age	32.6	41.8
White	85.2	85.4
Black	3.6	2.5
Hispanic	2.7	5.7
Other	8.5	6.3

*Table 2.*  
Study 2 - Susan G. Komen Demographics by percent

Trait	MTurk	General
Male	39.3	31.2
Female	60.7	68.8
Age	36.6	34.9
White	81.9	85.2
Black	4.3	2.8
Hispanic	3.3	7.4
Other	10.5	4.6

*Table 3.*  
Study 3 - Livestrong Demographics by percent

Trait	MTurk	Cyclists
Male	61.4	78.5
Female	38.6	21.5
Age	32.25	46.5
White	79.8	92.9
Black	3.8	0.0
Hispanic	7.0	2.1
Other	9.4	5.0

*Table 4.*  
Study 1 - Difference in Lowe's theory of planned behavior results across samples

Subscale	MTurk $\alpha$	General $\alpha$	t	p
Attitude	.89	.86	-.11	.92
Subjective Norms	.79	.86	-1.84	.07
Perceived Behavioral Control	.87	.75	.60	.55
Desire	.98	.97	1.36	.17
Behavioral Intent	.90	.87	2.17	.03
Planned Behavior	.94	.97	1.27	.21

*Table 5.*  
Study 2 - Difference in Susan G. Komen theory of planned behavior results  
across samples

Subscale	MTurk $\alpha$	General $\alpha$	t	P
Attitude	.96	.95	1.93	.05
Subjective Norms	.56	.73	.29	.77
Perceived Behavioral Control	.76	.80	-.60	.55
Desire	.95	.92	.49	.62
Behavioral Intent	.86	.86	.99	.32
Planned Behavior	.94	.93	.37	.71

*Table 6.*  
Study 3 - Difference in Livestrong Results theory of planned behavior results  
across samples

Subscale	MTurk $\alpha$	Cyclists $\alpha$	t	p
Attitude	.94	.98	-2.47	.01
Subjective Norms	.57	.61	1.87	.06
Perceived Behavioral Control	.79	.85	1.74	.08
Desire	.95	.95	-5.91	.00
Behavioral Intent	.91	.89	-5.48	.00
Planned Behavior	.93	.94	-5.78	.00

# EXPLORING GENDER DIMENSIONS IN INTERNET SELF-EFFICACY IN THE PHILIPPINES

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## ABSTRACT

*Given the pervasiveness of the Internet and related technologies, opportunities and challenges related to their development, implementation and usage by individuals and organizations have arisen. Individuals' beliefs in their ability to effectively utilize the Internet and perform Internet-related tasks can affect the way they use, transact and communicate in the Internet. Additionally, this Internet self-efficacy may be influenced by gender differences.*

*Responses to two interrelated Internet self-efficacy scales (Internet Self-Efficacy scale with 39 items across seven factors and the Sources of Internet Self-Efficacy scale with 11 items comprising three factors) administered to 127 Filipinos of varying ages, educational backgrounds and work backgrounds (63 men and 64 women) were analyzed. Results indicated that, overall, there is no significant difference between men and women in almost all of the different factors associated with Internet self-efficacy and sources of Internet self-efficacy although there is a significant difference between males and females when it comes to psychological and affective states, specifically Internet anxiety.*

*Understanding how gender differences can be mitigated in different environments like the home, school or workplace can help in motivating more people, regardless of gender, to make use of the Internet more confidently and harness its potential in their day to day lives. Understanding how the different factors related to Internet self-efficacy and the sources of Internet self-efficacy can influence people's behavior and attitudes towards the Internet would also contribute positively to gradually eliminating any gender differences that may be present.*

*Keywords: Internet, self-efficacy, gender differences, behavior, skills*

## INTRODUCTION

Given the pervasiveness of the Internet and related technologies, opportunities and challenges related to their development, implementation and usage by individuals and organizations have arisen. It has been recognized that, because people are able to access the Internet to do different things such as email, download a document or photo, put their status on Facebook or Twitter or even just chatting over such social media and other platforms such as Yahoo Messenger or Gmail Chat, their information creation and sharing capabilities as well as interaction facilitation have rapidly increased and developed.

The presence of such Internet-related capabilities has influenced product and service development and management as well as the reengineering of business processes, organizational structures and linkages and industry barriers and limits (Torkzadeh & Van Dyke, 2002). However, it is not only processes and structures that have to adapt to the dynamics brought about by the Internet but people as well. Rogers (1983) points out that the successful adaptation or assimilation of any new technology lies in its ability to fit easily and seamlessly into people's lives. More and more people access the web regularly for different types of information – from academic to government to health and wellness to financial and investment related, do different

types of searches – from job opportunities to travel packages to scholarships and other school related opportunities, watch videos and other forms of entertainment and a lot more (Fallows, 2004; Hargittai & Shafer, 2006; Howard, Rainie, & Jones, 2002).

Internet self-efficacy is defined as an individual's self-evaluated ability to use the Internet and independently accomplish Internet tasks (Torkzadeh & Van Dyke, 2002) or individuals' perception of their ability to use the Internet (Tsai & Tsai, 2003) or the examination of learners' confidence in their general skills or knowledge of operating Internet functions or applications in the Internet-based learning environment (Tsai, Chuang, Liang, & Tsai, 2011). It is, therefore, important to recognize how much Internet self-efficacy influences an individual's adaptation of Internet technologies in his or her way of life.

It would also be good to note that Internet self-efficacy may not necessarily be restricted to Internet behaviors, such as performing information searches, exploring websites or blogs, etc. or even emailing or communicating through social media. Akyol and Garrison (2011) recommended that the person's cognitive process and metacognition should be incorporated in the analysis of Internet self-efficacy. Internet self-efficacy may, in fact, be influenced by gender differences. We may even discover important gender differences in attitudes to the Internet, the intensity and frequency of use, and user skill, all factors pertinent to different groups benefitting from Internet use on different levels (Hargittai & Shafer, 2006).

This study explores whether such gender differences exist in the Philippines, a country where there is a lot of potential for Internet technologies which its citizenry want to effectively use to contribute to its competitiveness as a nation, and recommend ways to be able to deal with such differences, if ever.

## **THEORETICAL BACKGROUND AND REVIEW OF LITERATURE**

Individuals with moderate to high self-efficacy tend to engage more frequently in task-related activities and persist longer in coping efforts. This leads to more mastery experiences, which in turn enhance self-efficacy. Those with low self-efficacy tend to engage in fewer challenging efforts; they give up more easily under adversity and evidence less mastery, which in turn reinforces their low self-efficacy (Bandura, 1977; Bandura, 1982).

Bandura (1986) suggests that self-efficacy measures need to be tailored to the domain of interest in order to maximize prediction. Research findings suggest that the predictive capability of a self-efficacy estimate is most accurate when determined by specific domain-related measures rather than with general measures (Bandura, 1989). Research into computer self-efficacy was the pre-cursor to research initiatives into Internet self-efficacy as it was recognized that Internet self-efficacy can be distinguished from computer self-efficacy as the belief that one can successfully perform a distinct set of behaviors required to establish, maintain and utilize effectively the Internet over and above basic personal computer skills (Eastin & LaRose, 2000). Internet self-efficacy can also refer to the beliefs in one's capabilities to organize and execute courses of Internet actions required to produce given attainments (Hsu & Chiu, 2004).

Researchers examining the Internet phenomenon have looked into a wide range of issues such as openness to Internet or web-based learning platforms or environments (Chu & Tsai, 2009; Liang & Wu, 2010) or even psychological influences of Internet usage, including gender differences (Teo & Lim, 1997; Teo & Lim, 2000; Whitty & McLaughlin, 2007; Dhir, Pallesen, Torsheim, & Andreassen, 2016; Malik et al, 2016). A number of studies have indicated either that there are significant differences in perceptions of men and women regarding their Internet

and computer self-efficacy, including attitudes towards computer and Internet usage (Broos, 2005; Dittmar, Long, & Meek, 2004; Durndell & Haag, 2002; Imhof, Vollmeyer, & Beierlein, 2007; Vekiri & Chronaki, 2008; Wu & Tsai, 2006). Several studies have also indicated that men tend to spend much more time online than women and that both sexes use the Internet for different purposes (Busselle, Reagan, Pinkleton, & Jackson, 1999; Durndell & Thomson, 1997; Jackson, Ervin, Gardner, & Schmitt, 2001; Kennedy, Wellman, & Klement, 2003; Kelsey, 2002; Sherman et al, 2000; Schumacher & Morahan-Martin, 2001; Haferkamp, Eimler, Papadakis, & Kruck, 2012). These studies characterize men as functional when it comes to Internet usage while women are more relational.

Weiser (2000) summarized his findings by saying that men use the Internet mostly as a leisure time activity and for recreation, while women use it more for interpersonal communication. Joiner et al (2012) found that males generally had a more extensive use of the Internet compared to females although this was in the area of games and entertainment. They also found that, similar to Weiser (2000), females were using the Internet more for communication and participating in social networking sites (SNS). Fletcher (2005) found that gender and previous online experience influence online learning self-efficacy, with female students having greater self-efficacy. A number of studies have confirmed such inclinations of females to online interpersonal communications and active patronage and use of social networking sites to enhance social gratification (Andreassen, Torsheim, Brunborg, & Pallesen, 2012; Bonetti, Campbell, & Gilmore, 2010; Haferkamp et al, 2012; Debrand & Johnson, 2008; Hargittai & Hsieh, 2010; Dhir et al, 2016; Teppers, Luyckx, Klimstra, & Goosens, 2014; Chan, Cheung, Shi, & Lee, 2015; Special & Li-Barber, 2012).

Men tend to have attitudes that show their stereotypes on who they think are capable of using the internet, and, when it comes to self-evaluations and perceptions, results show that women tend to demonstrate lower levels of internet skills (Cooper, 2006; van Deursen & van Dijk, 2015; Wasserman & Richmond-Abbott, 2005). However, when subjected to actual performance tests, results show that there does not seem to be any significant difference in the measures of skills of men and women do not differ much (Hargittai & Shafer, 2006; van Deursen & van Dijk, 2010, 2011).

On the other hand, there are a number of studies that have indicated that there are no significant differences in the way men and women view their Internet self-efficacy or how they make use of the Internet like in online communication and other online activities (Goldstein & Puntambekar, 2004; Teo, 2001; Torkzadeh, Plfughoeft, & Hall, 1999; Schumacher & Morahan-Martin, 2001; Hung, Chou, Chen, & Own, 2010). Hargittai and Shafer (2006) concluded that gender may not directly influence the level of internet skills, but that it does play a role in one's perception.

Given this mix of findings across different Internet self-efficacy studies, it is proposed that, for this exploratory study, the hypothesis (H) to be tested is: There is no significant difference in the Internet self-efficacy of men and women.

## METHODOLOGY

One of the most important considerations in a research field such as this is the development of valid and reliable measures and constructs to facilitate the collection of relevant findings to substantiate analyses of research hypotheses being put forth.

## **The instrument**

Internet self-efficacy measurements and constructs have been developed to evaluate the individual's self-perception and self-competency in interacting specifically with the Internet.

This study used two questionnaires developed by Chuang, Lin and Tsai (2015) for their exploratory study on the relationship of Internet self-efficacy and sources of Internet self-efficacy among Taiwanese university students. These two questionnaires are the Internet Self-efficacy Survey (ISS) containing seven factors (usage, sharing, communication, verification, metacognition, application and learning) and 39 items in total and the Sources of Internet Self-efficacy Survey (SISS) containing 3 factors (pre-experience, influence of others and psychological and affective states) and 11 items in total. English editing of a couple of statements was done to improve the comprehension of the prospective respondents to such statements.

## **Sample and procedure**

The questionnaire was sent out to multiple email and social media groups and lists in order to establish some form of Internet experience in the respondents who were based in different parts of the Philippines (i.e., Luzon, Visayas, Mindanao, Metro Manila) so as to contribute to the geographical coverage of the whole country and not have respondents just concentrated in one geographic region in the country. A total of 127 complete questionnaires (all items answered) consisting of 63 males (49.6%) and 64 females (50.4%) were gathered. One hundred (78.2%) of the respondents were between the ages of 16 – 30 years old while the remaining 27 (21.8%) respondents were from 31 – 50 years old. There were 44 (34.6%) student respondents, 69 (54.3%) employed and the remaining 14 (11.1%) were entrepreneurs/business owners.

Gender differences were analyzed using t-tests for equality of means. Additionally, a correlation analysis was done to determine the relationship between the seven factors of the ISS and the three factors of the SISS.

## **RESULTS AND DISCUSSION**

### **Data analysis, Results and Discussion**

The reliability (internal consistency) of items in the instrument was examined using Cronbach's alpha to confirm the adequacy of the measures for testing the hypothesis. The coefficient (0.962) of the ISS and the coefficient (0.702) of the SISS confirmed results of earlier studies and provided confidence in testing the hypothesis.

The following tables (Tables 1 and 2) summarize the means and standard deviations of the seven factors in the ISS and the three factors in the SISS as well as the means and standard deviations of the ISS and the SISS.

<b>Table 1</b> <b>Means and Standard Deviations of Responses by ISS and SISS Factors</b>				
Factors	Gender	N	Mean	Std. Deviation
Usage	Male	63	4.4048	.55117
	Female	64	4.4015	.48785
Sharing	Male	63	4.2305	.65195
	Female	64	4.0598	.72272
Communication	Male	63	4.4643	.64735
	Female	64	4.5508	.54405
Verification	Male	63	4.2379	.71179
	Female	64	4.2870	.61412
Metacognition	Male	63	4.3073	.60177
	Female	64	4.3645	.48965
Application	Male	63	4.2500	.73369
	Female	64	4.2891	.63186
Learning	Male	63	4.2806	.66196
	Female	64	4.2555	.58441
Pre-experience	Male	63	3.9048	.62924
	Female	64	3.8531	.58580
Influence	Male	63	3.2381	.81249
	Female	64	3.2656	.62974
Psychological	Male	63	3.2143	.63952
	Female	64	3.4219	.47324

<b>Table 2</b> <b>Means and Standard Deviations of Aggregate Responses for ISS and SISS</b>				
Survey	Gender	N	Mean	Std. Deviation
ISS	Male	63	4.3092	.53178
	Female	64	4.3120	.46868
SISS	Male	63	3.5371	.57980
	Female	64	3.5614	.42660

The following tables (Tables 3 and 4) summarize the results of the t-tests used in analyzing the gender differences in the different factors in both the ISS and SISS.



<b>Table 3</b>						
<b>Independent Samples Tests by ISS and SISS Factors</b>						
Factors		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	Df	Sig. (2-tailed)
Usage	Equal variances assumed	.248	.619	.035	125	.972
	Equal variances not assumed			.035	122.691	.972
Sharing	Equal variances assumed	.596	.442	1.396	125	.165
	Equal variances not assumed			1.397	124.063	.165
Communication	Equal variances assumed	2.460	.119	-.816	125	.416
	Equal variances not assumed			-.815	120.744	.417
Verification	Equal variances assumed	.994	.321	-.416	125	.678
	Equal variances not assumed			-.416	121.795	.678
Metacognition	Equal variances assumed	2.802	.097	-.588	125	.557
	Equal variances not assumed			-.587	119.286	.558
Application	Equal variances assumed	1.269	.262	-.322	125	.748
	Equal variances not assumed			-.321	121.725	.749
Learning	Equal variances assumed	2.162	.144	.227	125	.821
	Equal variances not assumed			.227	122.607	.821
Pre-experience	Equal variances assumed	.238	.627	.479	125	.633
	Equal variances not assumed			.478	124.056	.633
Influence	Equal variances assumed	5.284	.023	-.214	125	.831
	Equal variances not assumed			-.213	116.810	.832
Psychological	Equal variances assumed	7.179	.008	-2.082	125	.039*
	Equal variances not assumed			-2.077	114.200	.040*

\* Significant at .05 level of significance

<b>Table 4</b> <b>Independent Samples Tests by ISS and SISS</b>						
Survey		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	df	Sig. (2-tailed)
ISS	Equal variances assumed	.479	.490	-.032	.972	.975
	Equal variances not assumed			-.032	.972	.975
SISS	Equal variances assumed	6.048	.015	-.269	.165	.788
	Equal variances not assumed			-.268	.165	.789

Analyzing the ISS revealed that was no significant difference found between males and females in the factors of usage, sharing, communication, verification, metacognition, application and learning which suggested that males and females may have similar viewpoints or perspectives with respect to these factors. On the other hand, analyzing the SISS showed a significant difference only in the factor of psychological and affective states. The results showed that males had significantly lower scores ( $t = -2.077$ ) than females in the factor of psychological and affective states. This result might be seen as signifying that female respondents seem to be more anxious than male respondents in the Internet-based environment. The two statements in this factor ("It makes me nervous when I use the Internet" and "It makes me anxious when I am confronted with difficulty on the Internet") seem to suggest that females are more nervous and anxious when using the Internet because of possible difficulties that they may encounter in the course of their usage.

The following table (Tables 5) summarizes the correlation analysis between the respondents' ISS scores and SISS scores.

<b>Table 5</b> <b>Correlation between ISS Factors and SISS Factors</b>				
Factor		Pre - experience	Influence	Psychological
Usage	Pearson Correlation	.507**	-.003	.196**
	Sig. (2-tailed)	.000	.975	.027
Sharing	Pearson Correlation	.522**	.034**	.090
	Sig. (2-tailed)	.000	.701	.312
Communication	Pearson Correlation	.522**	.210**	.153**
	Sig. (2-tailed)	.000	.018	.086
Verification	Pearson Correlation	.480	.085**	.228**
	Sig. (2-tailed)	.000	.343	.010
Metacognition	Pearson Correlation	.490**	.125**	.220**
	Sig. (2-tailed)	.000	.161	.013
Application	Pearson Correlation	.564**	.140**	.196**
	Sig. (2-tailed)	.000	.117	.027
Learning	Pearson Correlation	.595**	.015**	.145**
	Sig. (2-tailed)	.000	.871	.103

Note: N=127

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Going through the correlation analysis, results showed that the factor of pre-experience in SISS was found to be positively and significantly correlated with all the factors of ISS except for verification. This strongly suggests that respondents' prior experience with the Internet and Internet-related transactions or processes could be a significant predictor of their Internet self-efficacy. For the factor of psychological and affective states in SISS, results show that it is also positively and significantly correlated with all factors of ISS except for sharing which seems to be odd because it would seem that the propensity to share information would be significantly affected by a person's psychological and affective state. As for the factor of influence of others, results show that it is also positively and significantly correlated with all factors of ISS except for usage. This seems to suggest that influence of others isn't as significant a factor in a respondent's decision to use the Internet, whether for searching information or transacting business, etc. It seems that, in this day and age, the need to be online or connected is a stronger motivator for respondents to do Internet-related processes or transactions. Results are pointing towards all three factors having a significant relationship with Internet self-efficacy.

Similar to what previous studies (Chou, 2003; Zhang 2005; Chuang et al, 2015) have found out, this study also identified that females expressed more Internet anxiety and nervousness compared to males.

## Discussion

It would be worth pointing out again that it seems that all three factors (pre-experience, influence of others and psychological and affective states) in a person have a strong relationship with their Internet self-efficacy. This means that 1) the more exposed people are to the Internet and the different processes or interactions that can be undertaken, the more people will become comfortable in navigating the different aspects of the Internet environment and thus discover about the potential that lies in the Internet, 2) the more confident people become when it comes to the Internet (as a result of more exposure), the more they would be willing to try things out and move out of their comfort zones thus strengthening their Internet self-efficacy and 3) all of these behaviors can be enhanced by others around them, whether at home (family), school (peers, teachers, etc.) or workplace/business environment (officemates, clients, etc.) especially since more and more things are being done on the Internet and more and more people are finding themselves exposed to what the Internet has to offer on both a personal and school/work – environment level.

The increasing popularity of the Internet especially here in the Philippines, where the presence of Internet cafes in a lot of areas is becoming more and more real along with the influx of products and services to entice people to spend more time using the Internet, has led to exploring what factors influence people when it comes to the Internet. One of those factors is gender.

In the context of the Internet, studies have generally shown that users are predominantly males and that men took to the Internet faster than women ("Finding out who surfs", 1996). Ono and Zavodny (2004) even showed that "there were significant gender differences in computer and Internet usage" as far back as mid-1990s. Yet, in more recent studies (Goldstein & Puntambekar, 2004; Hung et al, 2010), findings indicate no significant differences in gender responses when it came to computer and Internet self-efficacy. Studies such as that of Chuang, Lin and Tsai (2015) even show significant differences between men and women in some factors while no significant differences can be seen in other factors. Joiner et al (2012) have

discovered that the gender differences when it comes to Internet use is more distinct and evident in the present times compared to a number of years ago.

Given this, there may be ways to be able to mitigate such gender differences and encourage more women to be more comfortable and confident in using Internet technologies and applications without necessarily impeding their male counterparts in being more comfortable and confident in using such technologies. Providing more avenues and opportunities, such as training, to women while at the same time, encouraging men to continue their Internet usage would certainly contribute to both men and women experiencing high Internet self-efficacy. Also, recognizing that men and women make use of the Internet for different purposes could help contribute to the streamlining of Internet self-efficacy constructs to take these differences into consideration. It must be noted that self-efficacy is considered to be a dynamic construct and should, therefore, be flexible enough to incorporate changes brought about by new information or experiences (Torkzadeh et al, 2006).

## CONCLUSIONS AND IMPLICATIONS

User acceptance and the effective use of information technology have been considered essential success factors for technology management (Torkzadeh & Van Dyke, 2002). In developing strategies to manage information and communication technologies such as the Internet more effectively, there is a need to recognize and understand why individuals either readily accept and use Internet applications or have difficulty in accepting and using such, strive to learn new Internet technologies and applications as they are introduced in the market or encounter a stumbling block in learning them, seek ways to make their Internet experience more productive or are afraid to explore the Internet world and eventually find themselves either succeeding or failing in their Internet-related tasks or activities.

With the Philippines having more women in the population as evidenced by educational institutional populations as well as workforce configurations and with the changes being brought about by the automation of business processes such as product development and delivery of services such as education, banking and food, it is imperative for women to become more adept in learning and using Internet technologies.

Environments such as the home, school and workplace should encourage everyone regardless of gender to become familiar with information and communication technologies such as the Internet so that men and women would be ready to face the challenges being brought about by an increasingly digital and information technology-centric world and thus being able to effectively combat what Tapscott (1998) identifies as “The issue is not just access to . . . new (technology), but rather whether differences in availability of services, technology fluency, motivation, and opportunities to learn may lead to a two-tiered world of knowers and know-nots, doers and do-nots”. Hsiao, Zhu and Chen (2017) posit that Internet anxiety, as well as varying levels of Internet self-efficacy beliefs and varying levels of Internet skills, still exist in those who describe themselves as digital natives. In both school and the workplace, training programs that expose people more to Internet technologies should be developed as the exposure would surely impact positively on the confidence of those who become familiar with such technologies and are able to use them productively.

Even if there is a general perception that males seem to be more dominant in the Internet-related tasks, nonetheless, gender differences in Internet self-efficacy can be proactively dealt with and eliminated in the long run. In addition, pre-experience, influence of others and

psychological and affective states can be very strong predictors of a person's Internet self-efficacy, and support mechanisms in the different environments (home, school, workplace, etc.) that people interact in should be present to encourage higher Internet self-efficacy. Hsiao, Zhu and Chen (2017) reason that when people feel anxious and uncomfortable when it comes to using the Internet, they would most like say that the Internet is something that they would rather not exert effort to become comfortable with which results in not being able to take advantage of a plethora of opportunities available in participating in the internet community. Van Deursen and van Dijk (2015) also reiterate that we should remember that, in the end, the focus is not on internet skills but, rather, ensuring the narrowing of inequality gap in such day to day phenomena like employability or general well-being in order to ensure more participation rather than exclusion.

Finally, since this is an exploratory study, more research can be done to look into what affects Internet self-efficacy of Filipinos and other nationalities whether solely or in interaction with other factors and what can be done to mitigate the effects of such factors to help improve the Internet self-efficacy of people in their differing environments. It is recommended that future research may be conducted utilizing the current surveys to explore the relationship among Internet self-efficacy, sources of Internet self-efficacy, and other constructs. There may be other factors aside from gender (such as age, educational background or socio-economic class) that may influence a person's level of comfort with anything that has to do with the Internet, whether it be sending encrypted and secure documents through email or getting updated with what is happening through Facebook or Twitter. Cross-cultural studies can also be done to determine if there are any factors that are culture-specific or cross-cultural in nature so that recommendations can be formulated given these considerations in improving Internet self-efficacy across borders.

## REFERENCES

- Akyol, Z. & Garrison, D.R. (2011). Assessing metacognition in an online community of inquiry. *The Internet and Higher Education*, 14, 183–190.
- Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook addiction scale. *Psychological Reports*, 110(2), 501-517.
- Bandura, A. (1977). Toward a unifying theory of behavioral change. *Psychological Review* 84, 191–215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 122 – 147.
- Bandura, A. (1986). *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura A. (1989). Social cognitive theory. In E. Barnouw (Ed.), *International encyclopedia of communications* (pp. 92). New York, NY: Oxford University Press.
- Bandura, A. (1997). *Self-efficacy: the exercise of control*. New York: Freeman.
- Bonetti, L., Campbell, M. A., & Gilmore, L. (2010). The relationship of loneliness and social anxiety with children's and adolescents' online communication. *Cyberpsychology, Behavior, and Social Networking*, 13(3), 279-285.
- Broos, A. (2005). Gender and Information and Communication Technologies (ICT) Anxiety: Male Self-Assurance and Female Hesitation. *Cyber Psychology & Behavior*, 8(1), 21-31.
- Busselle, R., Reagan, J., Pinkleton, B., & Jackson, K. (1999). Factors Affecting Internet Use in a Saturated-Access Population. *Telematics and Informatics*, 16, 45–58.
- Chan, T. K., Cheung, C. M., Shi, N., & Lee, M. K. (2015). Gender differences in satisfaction with Facebook users. *Industrial Management & Data Systems*, 115(1), 182-206.
- Chou, C. (2003). Incidences and correlates of Internet anxiety among high school teachers in Taiwan. *Computers in Human Behavior*, 19, 731–749.
- Chu, R.J.C. (2010). How family support and Internet self-efficacy influence the effects of e-learning among higher aged adults—Analyses of gender and age differences. *Computers & Education*, 55, 255–264.

- Chu, R.J.C. & Tsai, C.C. (2009). Self-directed learning readiness, Internet self-efficacy, and preferences for constructivist Internet-based learning environments among higher aged adults. *Journal of Computer Assisted Learning*, 25, 489–501.
- Chuang, S.C., Lin, F.M., & Tsai, C.C. (2015). An exploration of the relationship between Internet self-efficacy and sources of Internet self-efficacy among Taiwanese university students. *Computers in Human Behavior*, 48, 147–155.
- Cooper, J. (2006). The digital divide: The special case of gender. *Journal of Computer Assisted Learning*, 22, 320–334.
- Debrand, C. C., & Johnson, J. J. (2008). Gender differences in email and instant messaging: A study of undergraduate business information systems students. *Journal of Computer Information Systems*, 48(3), 20–30.
- Dhir, A., Pallesen, S., Torsheim, T., & Andreassen, C. S. (2016). Do age and gender differences exist in selfie-related behaviours? *Computers in Human Behavior*, 63, 549–555.
- Dittmar, H., Long, K. & Meek, R. (2004). Buying on the Internet: Gender Differences in On-line and Conventional Buying Motivations. *Sex Roles*, 50(5/6), 423–444.
- Durndell, A., Haag, Z., Asenova, D., & Laithwaite, H. (2000). Computer Self Efficacy and Gender. In E. Balka & R. Smith (Eds.), *Women, Work and Computerization: Charting a Course to the Future* (pp. 78–85). Boston, MA: Kluwer Academic Publishers.
- Durndell, A. & Haag, Z. (2002). Computer self efficacy, computer anxiety, attitudes towards the Internet and reported experience with the Internet, by gender, in an East European sample. *Computers in Human Behavior*, 18, 521–535.
- Durndell, A., & Thomson, K. (1997). Gender and computing: a decade of change? *Computers & Education*, 28(1), 1–9.
- Eastin, M. & LaRose, R. (2000). Internet self-efficacy and the psychology of the digital divide. *Journal of Computer Mediated Communication*, 6.
- Fallows, D. (2004). *The Internet and Daily Life*. Washington, DC: Pew Internet and American Life Project.
- Finding out who surfs the Internet is their business. (1996, November 12). Straits Times.
- Fletcher, K.M. (2005). Self-efficacy as an evaluation measure for programs in support of online learning literacies for undergraduates. *Internet and Higher Education*, 8, 307–322.
- Goldstein, J. & Puntambekar, S. (2004). The Brink of Change: Gender in Technology-Rich Collaborative Learning Environments. *Journal of Science Education and Technology*, 13(4). 505–522.
- Haferkamp, N., Eimler, S. C., Papadakis, A., & Kruck, J. (2012). Men are from Mars, women are from Venus? Examining gender differences in self-presentation on social networking sites. *Cyberpsychology, Behavior & Social Networking*, 15(2), 91–98.
- Hargittai, E. & Hsieh, Y.P. (2010). Predictors and consequences of differentiated practices on social network sites. *Information, Communication & Society*, 13(4), 515.
- Hargittai, E. & Shafer, S. (2006). Differences in actual and perceived online skills: The role of gender. *Social Science Quarterly*, 87(2), 432–448.
- Howard, P., Rainie, L., & Jones, S. (2002). Days and nights on the Internet: The impact of a diffusing technology. In B. Wellman & C. Haythornthwaite (Eds.), *The Internet and everyday life* (pp. 45–73). Oxford: Blackwell.
- Hsiao, B., Zhu, Y.Q & Chen, L.Y. (2017). Untangling the relationship between Internet anxiety and Internet identification in students: the role of Internet self-efficacy. *Information Research*, 22(2), paper 753. Retrieved from <http://InformationR.net/ir/22-2/paper753.html>, 15 June 2018.
- Hsu, M.H. & Chiu, C.M. (2004). Internet self-efficacy and electronic service acceptance. *Decision Support Systems*, 38(3), 369–381.
- Hung, M., Chou, C., Chen, C. & Own, Z.Y. (2010). Learner readiness for online learning: Scale development and student perceptions. *Computers in Education*, 55(3), 1080–1090.
- Imhof, M., Vollmeyer, R. & Beierlein, C. (2007). Computer use and the gender gap: The issue of access, use, motivation, and performance. *Computers in Human Behavior*, 23, 2823–2837.
- Jackson, L.A., Ervin, K.S., Gardner, P.D., Schmitt, N. (2001). Gender and the Internet: women communicating and men searching. *Sex Roles*, 44, 363–379.
- Joiner, R., Gavin, J., Brosnan, M., Cromby, J., Gregory, H., Guiller, J., Maras, P. & Moon, A. (2012). Gender, internet experience, internet identification, and internet anxiety: a ten-year followup. *Cyberpsychology, Behavior, and Social Networking*, 15(7), 370–372.
- Kelsey, D. (2002, January 18). U.S. Women's Net Use Grows at Triple the Rate of Men's. *Washington Post*.

- Kennedy, T., Wellman, B. & Klement, K. (2003). Gendering the Digital Divide. *IT & Society*, 1, 149–72.
- Kimbrough, D. (1999). On-Line "Chat Room" Tutorials: An Unusual Gender Bias in Computer Use. *Journal of Science Education and Technology*, 8(3), 227-234.
- Liang, J.C. & Wu, S.H. (2010). Nurses' motivations for Web-based learning and the role of Internet self-efficacy. *Innovations in Education and Teaching International*, 47, 25–37.
- Malik, A., Dhir, A., & Nieminen, M. (2016). Uses and gratifications of digital photo sharing on Facebook. *Telematics and Informatics*, 33(1), 129-138.
- Morahan-Martin, J. & Schumacher, P. (2000). Incidence and correlates of pathological Internet use among college students. *Computers in Human Behavior*, 16, 13–29.
- Ono, H. & Zavodny, M. (2004). *Gender Differences in Information Technology Usage: A U.S.-Japan Comparison*. (Federal Reserve Bank of Atlanta Working Paper No. 2004-2).
- Rogers, E.M. (1983). *Diffusion of Innovations*. (3rd ed.), New York: Free Press.
- Schumacher, P. & Morahan-Martin, J. (2001). Gender, Internet and Computer Attitudes and Experiences. *Computers in Human Behavior*, 17, 95-110.
- Sherman, R.C., End, C., Kraan, E., Cole, A., Campbell, J., Birchmeier, Z., & Klausner, J. (2000). The Internet gender gap among college students: forgotten but not gone? *CyberPsychology & Behavior*, 3, 885–894.
- Special, W.P. & Li-Barber, K.T. (2012). Self-disclosure and student satisfaction with facebook. *Computers in Human Behavior*, 28(2), 624-630.
- Tak-Kee Hui & Wan, D. (2007). Factors Affecting Internet Shopping Behaviour in Singapore: Gender and Educational Issues. *International Journal of Consumer Studies*, 13(3), 310-316.
- Tapscott, D. (1998). *Growing up digital: the rise of the Net generation*. New York: McGraw-Hill.
- Teo, T.S.H (2001). Demographic and motivation variables associated with Internet usage activities. *Internet Research: Electronic Networking Applications and Policy*, 11(2), 125-137.
- Teo, T.S.H. & Lim, V.K.G. (1997). Usage patterns and perceptions of the Internet: the gender gap. *Equal Opportunities International*, 16(6/7), 1-8.
- Teo, T.S.H. & Lim, V.K.G. (2000). Gender differences in Internet usage and task preferences, Behaviour and Information Technology, 19(4), 283-95.
- Teppers, E., Luyckx, K., Klimstra, T. A., & Goossens, L. (2014). Loneliness and Facebook motives in adolescence: A longitudinal inquiry into directionality of effect. *Journal of Adolescence*, 37(5), 691-699.
- Torkzadeh, G., Chang, J. & Demirhan, D. (2006). A contingency model of computer and internet self-efficacy. *Information and Management*, 43(4), 541-550.
- Torkzadeh, G., Plfughoeft, K., & Hall, L. (1999). Computer self-efficacy, training effectiveness and user attitudes: an empirical study. *Behaviour & Information Technology*, 18(4), 299–309.
- Torkzadeh, G. & Van Dyke, T. (2001). Development and validation of an Internet self-efficacy scale. *Behaviour & Information Technology*, 20(4), 275-280.
- Torkzadeh, G. & Van Dyke, T. (2002). Effects of training on Internet self- efficacy. *Computers in Human Behavior*, 18, 479–494.
- Tsai, C.C., Chuang, S.C., Liang, J.C., & Tsai, M.J. (2011). Self-efficacy in Internet-based learning environments: A literature review. *Educational Technology & Society*, 14, 222–240.
- Tsai, M.J. & Tsai, C.C. (2003). Information searching strategies in web-based science learning: The role of internet self-efficacy. *Innovations in Education and Teaching International*, 40, 43–50.
- van Deursen, A.J.A.M. & van Dijk, J.A.G.M. (2010). Measuring Internet skills. *International Journal of Human Computer Interaction*, 26(10), 891–916.
- van Deursen, A.J.A.M. & van Dijk, J.A.G.M. (2011). Internet skills and the digital divide. *New Media and Society*, 13(6), 893–911.
- van Deursen, A.J.A.M. & van Dijk, J.A.G.M. (2015). Toward a Multifaceted Model of Internet Access for Understanding Digital Divides: An Empirical Investigation. *Information society*, 31(5), 379-391.
- Vekiri, I. & Chronaki, A. (2008). Gender issues in technology use: Perceived social support, computer self-efficacy and value beliefs, and computer use beyond school. *Computers and Education*, 51, 1392-1404.
- Wasserman, I. M., & Richmond-Abbott, M. (2005). Gender and the Internet: Causes of variation in access, level, and scope of use. *Social Science Quarterly*, 86(1), 252–270.
- Weiser, E.B. (2000). Gender differences in Internet use patterns and Internet application preferences: a two-sample comparison. *CyberPsychology & Behavior*, 3, 167–177.
- Whitty, M.T. & McLaughlin, D. (2007). Online recreation: The relationship between loneliness, Internet self-efficacy and the use of the Internet for entertainment purposes. *Computers in Human Behavior*, 23, 1435–1446.

- Wu, Y.T. & Tsai, C.C. (2006). University students' Internet attitudes and Internet self-efficacy: A study at three universities in Taiwan. *CyberPsychology & Behavior*, 9, 441–450.
- Zhang, Y. (2005). Age, gender, and Internet attitudes among employees in the business world. *Computers in Human Behavior*, 21, 1–10.



# EXPERIENCING SELF-HANDICAPPING BEHAVIOR AT WORK

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## ABSTRACT

*Self-Handicapping is an attempt to externalize a potential failure by offering an excuse, reducing effort, or creating obstacles. While extensive in psychology and education literature, the concept remains absent from business literature. The present study seeks to illustrate what self-handicapping looks like in business. We asked 92 subjects to identify what self-handicapping behaviors they have witnessed at their workplace. We used factor analysis to characterize groups of self-handicapping behavior with an overall category of self-handicapping. At the conclusion of the paper, we posit several further research questions that would follow the present study's aims.*

## INTRODUCTION

Self-handicapping has been defined as the process whereby “people withdraw effort, create obstacles to success, or make excuses so they can maintain a public or self-image of competence”. Furthermore, it is used as a priori rationale for potential failure (Decker & Mitchell, 2016b). Interest in this process has grown considerably in recent years with increased attention to the impact of self-handicapping on leadership ineffectiveness, the setting of unrealistic goals, avoiding accountability, and reducing effort among other consequences (Akin, 2014; Chadwick & Raver, 2015; Decker & Mitchell, 2016b; Leary & Shepperd, 1986; Park & Brown, 2013; Schwinger & Stiensmeier-Pelster, 2011; Thau, Aquino, & Poortvliet, 2007). Yet, most of this increased interest has been confined to psychology, exercise science, and education. Surprisingly, there has been little research reported about self-handicapping in the professional business literature – especially about identifying its forms and overcoming it (Crant & Bateman, 1993; Ishida, 2012; McElroy & Crant, 2008; Siegel & Brockner, 2005, and Flanagan, 2015).

This paper is intended as a partial corrective. In it we report the results of a research study of the witnessing of self-handicapping in the work place among currently employed individuals. Our principal focus is the determination of the areas or types of work place self-handicapping that are commonly observed and experienced. Expressed less formally, our attention is devoted to “what does self-handicapping look like in business?” However, our objective extends beyond merely determining such commonly observed behavior to beginning a conversation about how to mitigate if not eliminate it.

Following a rather detailed literature review, we discuss our methods of developing a set of reliable and valid measures of two variants of self-handicapping – “claimed” and “behavioral.” We then report the results of applying these measures in a working population, results in the form

of observed, different behavioral dimensions. Finally, we discuss the implications of our research results for mitigating or eliminating self-handicapping in business work places.

## Literature Review

### Forms of self-handicapping

In their recent book, Decker and Mitchell (2016) conducted an extensive review from which they identified a variety of forms of self-handicapping behavior in research conducted chiefly in psychology, exercise science and education. These forms included the following –

**Avoiding Accountability** - avoiding conflict and confrontation, making excuses or blaming others, constantly playing “Devil’s Advocate”, poor presentation of self in public or social media, not holding others accountable.

**Tunnel Vision** - focusing on the small picture (i.e., continuously developing “tools” to solve problems in order to avoid big picture thinking), attending to people only until you get your way, being linear – tackling only one problem at a time, and not effectively prioritizing or juggling projects.

**Lack of Awareness** - little or no self-assessment of one’s traits, strengths, or leader behaviors; little or no consistent direction or vision for oneself or others; or not understanding one’s personal impact – what is left in your wake, and not burning bridges.

**Poor Analysis and Decision Making** - not asking the right questions, frame blindness in decision making, not knowing what you don’t know, and not questioning yourself or your organization. Making decisions for instant gratification, impulse, selfishness, or to please others.

**Poor Communication Culture** - an inability to create transparency and trust, not being consistent and open, lacking listening skills, being defensive or unable to take constructive feedback, not allowing vulnerability or expression of doubt in meetings, and ignoring the wisdom of the crowd.

**Poor Engagement** –viewing everything as a transaction, rather than as a partnership, not adding value to relationships, poor networking, talking about others behind their back, and aligning with only a few individuals (pack mentality).

**Poor Talent Development** - hiring the wrong people, not being on the lookout for talent that can be grown in your organization, avoiding coaching, mentoring, and sponsoring deserving employees, not paying attention to the fit of people in the team, and allowing coaching and mentoring from bad leaders.

**Micro-managing** - leading through fear, coercion and intimidation, constantly looking for fault and who to punish, being unable to cope with uncertainty or the unexpected, choosing situations where no unexpected challenge or event will take place, not understanding interpersonal boundaries.

**Not Driving for Results** - anything that keeps one from focusing on outcomes – confusing effort with results or confusing internal results for customer outcomes, avoiding challenge and risk, spending time thinking about how things should be instead of taking action, and not using “baby steps.”

In addition to identifying these several forms of self-handicapping, Decker and Mitchell (2016) offered the important caveat that these forms do not necessarily stand alone. Rather, they suggest that considerable overlap among these forms often exists (p. 7).

Other researchers have long observed how much people in organizations care about how they are seen and perceived by others (Burnstein and Schul, 1982). Appearing competent is important in selection interviews, in interacting with peers and superiors, in managing subordinates and in the choice of one's career path. Appearing competent is characterized as "impression management" (Goffman, 1959; Jones & Pittman, 1982). Such impression management behavior that employees use to shape how they are seen by others is itself central to self-handicapping. Indeed, as Decker and Mitchell (2016) argued, much self-handicapping behavior is the use of such "defensive impression management" as offering excuses, providing justifications, and utilizing apologies.

Still other researchers have distinguished two self-handicapping varieties – claimed and behavioral. The former has been described as using excuses to explain potential failure while the latter has been seen as behavior that takes the form of reducing effort or creating obstacles as an explanation for failing. Either of these varieties can be internal or external to the self-handicapper. For example, tiredness is likely to be internal while a "lack of support" is probably external (Leary & Sheppard, 1986). Further, in our observations of businesses we have noted the claimed variety frequently taking the forms of such excuses as feeling anxious, a lack of time, an overly difficult task, and the absence of resources. On the other hand, we have also seen in business the behavioral variety in the setting of unrealistic goals, in the evasion of accountability, and even in the avoidance of often-need employee confrontations.

### **Consequences of self-handicapping**

Varieties and forms of self-handicapping aside, previous research has suggested various important, adverse consequences resulting from such behavior. According to Hoffman (2007), self-handicapping results in poor, ineffective leadership as a result of uncertainty among those practicing it and their subsequent reliance on "face-saving" strategies rather than the pursuit of innovative, productive problem solutions. Higgins & Berglas (1990) and Snyder (1990) further contend that when face-saving excuses are used by leaders, those same leaders typically reduce their own effort and learning. In a similar vein, Decker & Mitchell (ManageMagazine #2, 2016) have argued that self-handicapping may lead organizational leaders to avoid speaking up, to be more biased in their decision-making, and even to alter how they deploy human resources in their organizations.

Further, Harter, Schmidt, & Keyes (2003) reported that employees who witness their leaders exhibiting self-handicapping behavior were likely to become less engaged and more likely to demonstrate a diminished feeling of well-being. As a consequence, these authors also maintain, employee turnover, customer satisfaction, productivity, and profitability are likely to suffer.

Other researchers have reportedly found that self-handicapping often influences the impressions of others either by (1) lowering expectations (before a task) (Burns, 2005), or by (2) changing attributions about the individual (after a task) (Luginbuhl & Palmer, 1991; Park & Brown, 2014). Additionally, after a task, self-handicapping may also lead to discounting and externalizing the blame ordinarily associated with failure (Luginbuhl & Palmer, 1991; Ryska, 2002).

Still other research has demonstrated that self-handicapping is frequently hidden, subtle, and difficult to establish, characteristics which often lead to it being denied by individuals and avoided in group discussions (Noonan, 2007). Moreover, business leaders are often uncomfortable

dealing with or discussing human issues (Decker & Mitchell, 2016) and, thus, often avoid the very things that are likely their core problems in mission accomplishment – resolving “people matters.”

### **Self-handicapping interventions**

Such consequences aside, previous research also has suggested several possible interventions to deal with self-handicapping behavior and its adverse consequences. Such research has pointed to the leader, the situation, certain forms of individual behavior, and to self-deception as possible pathways to mitigation or complete elimination (Decker and Mitchell, 2016). One such suggested pathway is that of changing how individuals think about themselves and how those individuals react to the impressions of others (Siegel & Brockner, 2005). Other suggestions include increasing self-esteem, addressing performance orientation, reducing fear of failure, facilitating cognitive behavioral therapy, increasing positive self-talk, decreasing hyper-competitive environments, promoting group support, and the fostering of group cohesion (Decker & Mitchell, 2016c; Martin, Marsh, Williamson, & Debus, 2003).

Still other research has focused on preventing self-handicapping, especially through mastery goal orientation (Schwinger & Stiensmeier-Pelster, 2011). Individuals with mastery goal orientation focus on learning and developing competencies with the result that a challenge does not create anxiety. Goal orientation increases the capacity of individuals to withstand obstacles and adjust to change; it fosters a resilience to increased workload. Mastery goals facilitate learning when tasks are confusing or when failures are prevalent (Schwinger & Stiensmeier-Pelster, 2011). All of the processes and results involved in mastery goals are not yet known, but they may prove to be a promising avenue by which to reduce self-handicapping and its consequences.

## **METHODS**

We began our primary research into “what self-handicapping looks like in business” by developing a set of measures based on the forms of self-handicapping behavior identified by Decker and Mitchell (2016) and Jones and Pittman (1982), on research into the consequences of self-handicapping, and on the writings of others concerning interventions to prevent or remediate self-handicapping as cited in the above literature review. Our principal objective was a set of conceptually-grounded survey questions or measures that met the highest business research standards for construct validity, content validity, and reliability (Kerlinger, 1986). A secondary objective was cross-cultural “measurement equivalence or invariance”: the development of measures free from cultural biases that permit interpretation of the same concept of self-handicapping in different nations (“2009 Second International Workshop on Knowledge Discovery and Data Mining,” 2009; Davidov, Meuleman, Cieciuch, Schmidt, & Billiet, 2014; Xue, 2009).

We pursued these objectives by following exactly the measurement development procedures of MacKenzie, Podsakoff, and Fetter (1991) as well as those of Hinkin (1995). At base we used what Hinkin (1995) termed an “inductive approach” in which a group of subjects provided descriptions of their feelings about some behavior. As described by Hinkin (1995, page 6), the responses of these subjects are then categorized by content analysis based on key words or a sorting process (e.g., card sorting). From the categorized responses, measurement items are then derived for a subsequent factor analysis.

We began by writing a series of items in simple, short sentences keeping the content of each consistent across the concepts discussed above (see our literature review). The sentences were written for a 9<sup>th</sup> grade reading level with each addressing only a single idea. Since the subjects at this research stage were intendedly “naïve,” we provided concept definitions and then asked them to match the sentences to one of the corresponding definitions. Prior to the administration of the items and definitions, we adopted an “acceptable agreement index,” a minimum of 75% of subjects had to correctly classify an item for us to accept it. As pointed out by Schriesheim and others (1993), the use of this index does not guarantee construct validity, but it does provide “construct adequacy” – at least a reasonable measure of each construct.

The subjects utilized in matching sentences to definitions were students, an appropriate group we felt since the task did not require a full understanding of self-handicapping (on the importance of this point see Anderson & Gerbing (1991); Schriesheim and others (1993). The matching of sentences to definitions was done in three different classes of students at the same university; a total of 87 students participated. Once we were satisfied with the “acceptable agreement index” results obtained, we incorporated the sentences as question statements into a single survey instrument. A total of 40 survey questions were obtained by this method and comprised the survey.

The methods and procedures we employed, including subject recruitment methods, the survey questions themselves along with our study’s, design, consent procedures, and methods for insuring confidentiality were all approved by the Institutional Review Boards (IRBs) of three separate universities (one in the United States, two in Japan).

Subjects recruited for the subsequent full, self-handicapping study were all volunteer, English-fluent students with work experience. The survey itself was administered on-line and took each subject on average approximately 20 minutes to complete. Each question was scored as 5-item Likert type scale that was encoded from 1 (“strongly disagree”) to 5 (“strongly agree”) with the numeric value 3 representing “neither agree nor disagree.” (The complete questionnaire is shown below.)

## FINDINGS

We obtained completed surveys from a total of 92 subjects that met the selection criteria we established and that were approved by the IRBs. Unfortunately, we were only able to recruit a total of five (5) subjects who self-reported a current residence in a country other than the United States. This limited number postponed for the present the pursuit of our secondary objective of devising “equivalent cross-cultural measures.” As of now, we are continuing to recruit additional subjects in other countries; thus, our secondary objective is still in process.

We decided to eliminate the five (5) subjects currently residing in another country so as not to permit cultural differences possibly to influence self-handicapping scale construction. This left us with a total of 87 subjects, all from the United States. (*None* of these 87 subjects was involved in the sentence to construct matching described above in the Methods section. And *none* was a part of the calculation of “acceptable agreement” index calculations. Different subjects were used measurement development and subsequent analyses.)

Our next step in the analysis was to calculate univariate statistics, including means, standard deviations, and missing values, for the responses of subjects to each of the 40 questions. The results of these calculations are shown for each of the 40 questions in table 1 immediately below.

**Table 1. Descriptive Statistics of Subject Responses**

Item #	Question	Mean	Std. Dev.	Missing responses
1	A lot of managers don't usually know what's really going on with staff and customers.	3.32	1.24	0
2	Once my manager gets his way, it seems like I am dead to him.	2.77	1.30	0
3	People around here seem to spend a lot of time making excuses, blaming others, and avoiding confrontation.	3.32	1.38	0
4	Managers here make sure they solve one problem before they move on to the next one.	3.24	1.21	3
5	I wish my managers would leave me alone and do their own job.	2.89	1.32	0
6	Managers here tend to staff their departments with yes-men or folks that don't speak up.	3.03	1.34	0
7	There are a lot of issues here that are under the table and no one talks about them openly.	3.24	1.38	1
8	Managers her often talk about what should happen - but rarely do anything about it.	3.33	1.49	0
9	Our managers seem to cope with uncertain or unexpected problems and crises poorly.	2.93	1.28	0
10	Very few employees think the most important thing in today's world is to do what you do better and better every day.	3.25	1.19	0
11	Some managers here have a hard time reading the room and picking up the unspoken.	3.32	1.67	0
12	My manager does not make me trust him/her very much.	2.98	1.38	0
13	Most everyone here can easily find someone to blame when something fails but find it difficult to spell out their expectations up front.	3.38	1.24	0
14	My manager often misses the big picture because he/she gets so engrossed in the details.	3.06	1.26	0
15	Lots of managers here are control freaks.	3.18	1.41	0
16	Managers here have a tendency to hire the wrong people.	3.05	1.26	1
17	Managers here would rather make a presentation than sit down with us and find a good solution.	2.92	1.31	0
18	My team can get easily side-tracked while completing an important task.	2.87	1.11	0
19	Teams or committees here seem to avoid risk at all costs in decisions.	2.92	1.23	0
20	People here avoid tasks that maximize opportunities for increasing their competence.	2.69	1.09	1
21	Most of us really don't know much about all the other parts of this organization.	3.03	1.24	0
22	Our managers seem unwilling to share personal stories to better connect with staff.	2.54	1.26	0
23	Managers sometimes avoid the tough conversations until it is too late.	3.09	1.42	0
24	People here do not seem to have an appreciation that they are playing on a larger team than their own department.	3.17	1.43	0
25	Managers here are more worried about maintaining a good image for the department than solving customer's problems.	3.10	1.39	1
26	Our employees are not systematically evaluated on their potential to move into leadership roles.	3.36	1.36	1
27	Managers here rarely encourage us to express our fears or doubts.	3.08	1.42	3
28	Employees often daydream about how things should be instead of taking action.	3.12	1.23	1
29	Management does not know how to create boundaries for a decision so the team is all over the place in deciding.	2.99	1.28	1
30	Employees here tend to procrastinate and do assignments at the last minute	3.09	1.30	0
31	We rarely question ourselves regarding what we don't know.	2.93	1.17	0
32	There is a lot of talking bad about others behind their backs around here.	3.43	1.40	1
33	Managers here don't always do a good job of representing the organization in social situations in the community.	2.76	1.31	0
34	When people discuss problems with their boss they rarely keep in mind that he/she has bigger problems.	3.14	1.15	0
35	Some managers seem to really lose it or throw fits when uncertain or unexpected problems and crises occur.	3.02	1.43	0
36	Managers here are rarely on the lookout for developing talent in their area.	3.21	1.35	1
37	My manager lacks listening skills - can be defensive, or sometimes can't to take constructive feedback.	3.00	1.49	0
38	Employees here rarely seem to challenge themselves to grow professionally.	3.09	1.16	0
39	Teams here seem to know when the law of diminishing returns says to stop researching and make the decision.	3.13	.998	0
40	Our managers mostly act as a judge, rewarder, or punisher.	3.14	1.35	0

As can be seen from the table, all of the survey questions evoked variability (standard deviations) in the responses of subjects. That is, none of the questions resulted in constant

responses across subjects. Moreover, there were relatively few missing responses to the questions. Only 11 of the 40 questions involved subjects not responding and of that number only two questions (question 4 and question 27) resulted in more than a single subject failing to respond. After examining these univariate results, we followed Hinton (1995, page 6) in concluding that the measurement items we developed could be subjected to factor analytic methods.

However, so as not to “lose” subjects to missing responses in applying a factor analytic model, we opted for the long-established method of recoded missing values to the mean of their respective variables (see UCLA Institute for Digital Research and Education (“How can I recode missing values into different categories? | Stata FAQ,” n.d.); SAS Basics (“Accounting for Missing Data,” n.d.); Todd L. Grant, (n.d.) Replacing Missing Values in SPSS with the Series Mean (Todd Grande, n.d.); Missing Data & How to Deal (Humphries, n.d.); Brandon Rohrer, *Azure Al Gallery* (“Methods for handling missing values,” n.d.). In addition to not losing subjects (cases), this method has the advantages of not influencing variances in variables and its underlying assumption is a simple one.

In writing about this such recoding, Rohrer [Ibid.] wrote:

*Real world data is usually missing values....Replace missing values with the mean. [In doing so] we assume that missing values are distributed similarly to the values that are present. The formal name for this assumption is Missing Completely at Random (MCAR). In this case, substituting values that represent the existing distribution, such as the mean, is a reasonable approach.*

After recoding, we next conducted an exploratory factor analysis. We did so because our aim was to explore the relationships among the survey indicators and we did not have an *a priori* fixed number of factors in mind. We did have a general idea about what we thought we would find as guided by the research of Decker and Mitchell (2016), Jones and Pittman (1982) and of others whose work we cited in our review of the literature. However, we did not have a specific set of hypotheses about which of our measured indicators would cohere with which specific construct. Moreover, we were open to the possibility of finding constructs additional to the ones hypothesized by Decker and Mitchell, Jones and Pittman and others. We did not conduct a confirmatory factor analysis which assumes that investigators have a firm *a priori* idea about the number of factors he/she will find, and about which indicators will most likely load on to each of the factors. The differences between exploratory and confirmatory factor analysis are rather widely recognized (see, for example, Rahn M. (n.d.), Surh (n.d.), and Thompson (2004).)

In conducting our exploratory factor analysis we considered several different factor extraction methods, including principal components, principal axis, and maximum likelihood factoring, as well as different rotation methods, varimax, direct oblimin, and promax among the latter (“IBM Knowledge Center - Factor Analysis Extraction,” 2018; Kim & Mueller, 1978; Rummel, 1970). We finally settled on the use of principal components extraction and varimax rotation. We chose this method because we were interested in identifying the factors that would account for the maximum variance in the observations of our subjects as well as in understanding the independent (orthogonal) dimensions of self-handicapping seen by our subjects in the business workplace.

The results, including the rotated factor loadings, the percent of variance explained by each of the rotated factors, and the number of factors with eigenvalues of 1.0 or greater are shown in Table 2 below. (On the importance of only examining factors with eigenvalues equal to or greater

than unity, see (Noble, 1969), Chapter 9; Rummel, 1970, pp. 95-100; Kim & Mueller, 1978 and Girden & Kabacoff (Girden & Kabacoff, 2011); (“Why eigenvalues are greater than 1 in factor analysis?,” 2018)). At base, factors with eignenvales less than 1.00 are not considered to be stable, a point suggested by Girden (2011). Girden (Ibid.) further points out that factors with eigenvalues less than unity account for less variability than does a single variable and, thus, the factor analysis results in a factor with less than one variable in it.

**Table 2: Rotated Factor Loadings and Variance Explained by Each Factor\***

	Factor							
	1	2	3	4	5	6	7	8
Survey Questions [1. - A lot of our managers often don't know what's really going on with staff and customers.]	.331	.168	.055	.044	.104	.766	.160	.024
Survey Questions [2. - Once my manager gets his way, it seems like he/she sees me as useless to him/her.]	.476	.209	.071	-.117	.415	.214	.514	.058
Survey Questions [3. - People around here seem to spend a lot of time making excuses or blaming others.]	.283	.473	.343	.025	.434	.137	.099	.072
Survey Questions [4. - Managers here often focus intently on solving one problem and ignore other problems needing solutions]	.366	.450	.149	-.141	.455	.346	-.206	-.033
Survey Questions [5. - I wish my managers would leave me alone and do their own job.]	.445	-.011	.095	.411	.340	.352	.174	.212
Survey Questions [6. - Managers here tend to staff their departments with people who don't speak up when things are wrong.]	.562	.195	.230	.259	.211	.287	.072	.182
Survey Questions [7. - There are a lot of issues here that are no one talks about openly.]	.549	.358	.353	.270	.087	.285	.111	.174



Survey Questions [8. - Managers here often talk about what should happen - but then don't do anything about it.]	.532	.273	.288	.164	.227	.421	.067	.140
Survey Questions [9. - Our managers often cope poorly with uncertain or unexpected problems.]	.669	.089	.350	-.001	.285	.271	.109	.056
Survey Questions [10. - Very few employees think it is most important to do things better and better every day.]	.158	.025	.733	.137	.193	.178	.005	-.117
Survey Questions [11. - Some managers here have a hard time picking up unspoken problems among team members or an audience.]	.408	.364	.422	.138	.012	.368	.176	.318
Survey Questions [12. - My manager does not cause me to trust him/her very much.]	.706	.112	-.013	.057	.143	.092	.295	.144
Survey Questions [13. - Most everyone here can easily find someone to blame when something fails.]	.302	.227	.578	.172	.369	-.076	.253	.143
Survey Questions [14. - My manager often misses the big picture because he/she gets so caught up in the details.]	.637	.172	.294	.110	.370	.097	.011	.177
Survey Questions [15. - Lots of managers here are "control freaks."]	.711	.202	.101	.151	.090	.210	.228	-.154
Survey Questions [16. - Managers here often hire the wrong people for the job.]	.221	.620	.262	.299	.216	.328	-.005	.021

Survey Questions [17. - Managers here would rather make a presentation or write a memo than sit down with us in a small group and find a good solution]	.489	.326	.147	-.110	.456	.111	.248	.126
Survey Questions [18. - My team can get easily side-tracked while completing an important task.]	.043	.384	-.019	.566	.475	-.205	.019	-.023
Survey Questions [19. - Teams or committees here seem to avoid risk at all costs in making decisions.]	.312	.557	.217	.092	.283	.032	.372	.045
Survey Questions [20. - People here avoid tasks that afford opportunities for increasing their competence.]	.202	.168	.175	.305	.672	.107	.094	-.110
Survey Questions [21. - Most of us really don't know much about all the other parts of this organization.]	.319	.033	.314	.201	.059	.168	.517	.062
Survey Questions [22. - Our managers seem unwilling to share personal stories of themselves.]	.142	.504	.151	.136	.101	.121	.420	-.425
Survey Questions [23. - Managers sometimes avoid difficult conversations - like reprimanding an errant employee - until it is too late.]	.493	.642	-.025	.173	.176	.154	.003	.094
Survey Questions [24. - People here do not seem to appreciate that they are playing on a larger team than their own department.]	.266	.777	.192	.176	.076	.024	.118	.106

Survey Questions [25. - Managers here are more worried about maintaining a good image for the department than solving customer's problems.]	.589	.191	.390	.199	-.001	.357	.100	-.166
Survey Questions [26. - Our employees are not systematically evaluated on their potential for leadership positions.]	.659	.336	.142	.237	-.150	.271	.010	.189
Survey Questions [27. - Managers here rarely encourage us to express our doubts about things.]	.838	.080	.099	.117	.147	.089	-.003	-.067
Survey Questions [28. - Employees often daydream about how things should be instead of taking action]	.494	.087	.297	.524	.248	-.108	-.123	.052
Survey Questions [29. - Management does not know how to create boundaries for a decision so a team keeps making the problem bigger and bigger.]	.598	.309	.331	.251	.164	-.037	-.233	.126
Survey Questions [30. - Employees here tend to procrastinate and do assignments at the last minute]	.209	.094	.139	.751	.087	.073	.049	.030
Survey Questions [31. - We rarely question ourselves regarding what we don't know.]	.142	.109	.612	.313	-.044	-.020	.300	.066
Survey Questions [32. - There is a lot of talking about others behind their backs around here.]	.197	.425	.618	.087	.092	.068	-.002	.040

Survey Questions [33. - Managers here don't always do a good job of representing the organization in social situations in the community.]	.519	.312	.320	.286	.079	-.004	-.099	.122
Survey Questions [34. - When people discuss problems with their boss they rarely keep in mind that he/she has bigger problems.]	.516	.275	.373	.027	.050	-.308	.297	-.054
Survey Questions [35. - Some managers seem to lose personal control or "throw fits" when uncertain or unexpected problems occur.]	.716	.208	.283	.116	.162	.068	.111	-.024
Survey Questions [36. - Managers here are rarely on the lookout for developing talent in their area.]	.639	.305	.205	.289	.086	.059	.246	.023
Survey Questions [37. - My manager can't take constructive feedback.]	.719	.255	.017	.124	.135	.124	.234	-.180
Survey Questions [38. - Employees here rarely seem to challenge themselves to grow professionally.]	.129	.158	.286	.559	-.077	.166	.133	-.044
Survey Questions [39. - Teams here seem to know when to stop researching and make the decision.]	.040	.106	.020	.029	.009	.061	.049	.864
Survey Questions [40. - Our managers mostly act as a judge and jury.]	.562	.236	.234	.174	-.022	.274	.343	.260
<b>Percent of Total Variance Explained</b>	<b>22.86</b>	<b>10.47</b>	<b>9.18</b>	<b>6.94</b>	<b>6.24</b>	<b>5.61</b>	<b>4.61</b>	<b>3.87</b>

\*Note: Only factors with eigenvalues of 1.0 or greater are reported.

As can be seen in the above table, our factor analysis of responses to the forty survey questions resulted in a total of eight (8) factors with eigenvalues greater than 1.0. Together, these eight (8) factors accounted for a total of about 70% of the total variance in responses to the full set

of questions included on our survey instrument. Further, approximately 43% of the total variance in survey responses was accounted for by just the first three factors.

But what do the factors in Table 2 and their respective loadings reveal about observed forms of self-handicapping in the business work place? The interpretation of factors and their respective loadings is quite often an invitation to disagreement. Indeed, two individuals can readily perceive factors and loadings quite differently as a consequence of different prior “world views,” language nuances, judgments about what is a “big” or “small” number and even the meaning of terms like “team” in different work settings. We studied the results in the table ourselves over a considerable time period and, at times, found ourselves in some discord. Only subsequently, did we come to a consensus.

Accordingly, all we can do is to present our own interpretation of the meaning of each factor and the form of self-handicapping observed by our subjects that each represents. However, we invite our reader to share her/his interpretation and judgments as to meaning in order for all of us to develop a deeper and more complete understanding of what self-handicapping looks like in business.

Thus, following the forms identified (above) by Decker and Mitchell, we came to these views about each factor shown in Table 2 —

*Factor 1*, we believe, is akin to what Decker and Mitchell refer to as “micromanaging” which does entail controlling behavior;

*Factor 2* we think refers to “poor talent development”;

*Factor 3* appears to be about management avoidance of accountability but also about team avoidance of accountability;

*Factor 4* seems to us to be about “poor engagement,” including tunnel vision as a component of such engagement in as identified by Decker and Mitchell;

*Factor 5*. We think this factor is not a form of self-handicapping at all; rather it is really a remedy for it. It is what we would identify as “goal orientation”;

*Factor 6* appears rather clearly to be a “lack of awareness”;

*Factor 7* we identified as “poor communication culture” in the words of Decker and Mitchell;

*Factor 8* seems to be about poor analysis and decision making.

Interestingly, of the forms of self-handicapping identified by Decker and Mitchell, we found no evidence in our data of “not driving for results” as a separate, independent construct. This is a point to which we will return in the discussion below.

## DISCUSSION

In sum, our principal focus in this paper has been the determination of the areas or types of work place self-handicapping that are commonly observed and experienced. Expressed less

formally, our attention has been devoted to identifying “what self-handicapping looks like in business.” We found that our research subjects observed a considerable amount of varied self-handicapping in their work environments. We also found considerable support for the forms of self-handicapping discussed by Decker and Mitchell in their recent book, including micromanaging, poor talent development, the avoidance of accountability, poor engagement, a lack of awareness, poor communication culture, and poor analysis and decision making. Moreover, we found these forms to be independent of each other (or orthogonal in the language of factor analysis.)

On the other hand, we found no evidence in our data for what Decker and Mitchell term “not driving for results” as an independent construct. As will be recalled, not driving for results refers to anything that keeps one from focusing on outcomes; confusing effort with results or confusing internal results for customer outcomes, avoiding challenge and risk, spending time thinking about how things should be instead of taking action, and not using “baby steps.”

We are inclined to believe that finding no evidence in our data for this latter construct may well derive from important changes taking place in the environment of business organizations. That is, we have observed businesses both large and small more frequently adopting and utilizing dashboards, MBO, customer complaint facilitation, and continuous quality improvement – to name only a few performance management structures and processes – to drive results. Such structures and processes in business work environments may well mitigate if not eliminate individual managers’ and other employees’ opportunities to utilize “not driving to results” as a form of self-handicapping behavior. At the very least, we think this is a hypothesis that deserves attention in future research.

A second area for future research lies in our secondary research purpose: cross-cultural “measurement equivalence or invariance” or the development of measures free from cultural biases that permit interpretation of the same concepts of self-handicapping in different nations (Davidov et al., 2014; Xue, 2009). With the increasing globalization of business, growing worldwide market interpenetration, greater understanding of management, and the widespread adoption of Western business practices (Cavusgil, Knight, & Riesenberger, 2017), self-handicapping and remedies for it are unlikely to be culturally circumscribed, but will become more universal. Indeed, the need for unbiased, cross-cultural measures now seems all the more pressing. To date we have been unable to gather data on sufficient numbers of research subjects in other nation states. But our efforts to do so are continuing and we urge our professional colleagues to do the same.

A third and final area for future research concerns the remedies for self-handicapping in the business work place. What “remedies” or “interventions” exist for businesses to reduce various forms of self-handicapping, particularly the three forms that explained the most variance in the responses of our research subjects – micromanaging, poor talent development and avoidance of accountability? We have found that a balanced approach between behavior and mindset has the greatest potential to remedy self-handicapping. Behaviorally, practicing deliberate actions, self-efficacy-building baby steps, and listening to others will begin the process of unlearning self-handicapping behaviors and move toward better leadership. Regarding mindset, as outlined in the introduction, having a mastery mindset prevents self-handicapping behavior. People with mastery mindsets are focused on learning and increasing competence to the point where failure is treated like part of the learning process and ultimately beneficial. Because of this, they have no incentive to avoid learning or to enhance their impressions on others, as these items do not further their goal orientation.

## REFERENCES

- 2009 Second International Workshop on Knowledge Discovery and Data Mining. (2009, January). Moscow, Russia. Retrieved from <https://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=4771854>
- Accounting for Missing Data. (n.d.). Retrieved August 13, 2018, from <http://sphweb.bumc.bu.edu/otlt/MPH-Modules/BS/SAS/SAS-Basics1/SAS-Basics17.html>
- Akin, U. (2014). 2X2 ACHIEVEMENT GOAL ORIENTATIONS AND SELF-HANDICAPPING - ProQuest. *Ceskoslovenska Psychologie*, 58(5), 431–441.
- Anderson, J. C., & Gerbing, D. W. (1991). Predicting the Performance of Measures in a Confirmatory Factor Analysis With a Pretest Assessment of Their Substantive Validities. *Journal of Applied Psychology*, 76(5), 732–740. <https://doi.org/10.1037/0021-9010.76.5.732>
- Burns, D. J. (2005). Performance on the Final Exam in the Principles of Marketing Course: Relationships with Self-Handicapping. *Journal for Advancement of Marketing Education*, 6, 10–27.
- Cavusgil, S. T., Knight, G., & Riesenberger, J. (2017). International Business: The New Realities, 4th Edition. Retrieved June 14, 2018, from <https://www.pearson.com/us/higher-education/program/Cavusgil-International-Business-The-New-Realities-Plus-My-Lab-Management-with-Pearson-e-Text-Access-Card-Package-4th-Edition/PGM337327.html>
- Chadwick, I. C., & Raver, J. L. (2015). Motivating Organizations to Learn: Goal Orientation and Its Influence on Organizational Learning. *Journal of Management*, 41(3), 957–986. <https://doi.org/10.1177/0149206312443558>
- Crant, J. M., & Bateman, T. S. (1993). Assignment of Credit and Blame for Performance Outcomes. *Academy of Management Journal*, 36(1), 7–27. <https://doi.org/10.2307/256510>
- Davidov, E., Meuleman, B., Cieciuch, J., Schmidt, P., & Billiet, J. (2014). Measurement Equivalence in Cross-National Research. *Annual Review of Sociology*, 40(1), 55–75. <https://doi.org/10.1146/annurev-soc-071913-043137>
- Decker, P., & Mitchell, J. (2016a). *Self-Handicapping Leadership: The Nine Behaviors Holding Back Employees, Managers, and Companies, and How to Overcome Them*. Pearson FT Press.
- Decker, P., & Mitchell, J. (2016b). *Self-Handicapping Leadership: The Nine Behaviors Holding Back Employees, Managers, and Companies, and How to Overcome Them*. New York: Pearson FT Press. Retrieved from <https://www.pearson.com/us/higher-education/program/Decker-Self-Handicapping-Leadership-The-Nine-Behaviors-Holding-Back-Employees-Managers-and-Companies-and-How-to-Overcome-Them/PGM209379.html>
- Decker, P., & Mitchell, J. (2016c, November 25). Self-Handicapping Leadership: From Performance to Mastery Management. Retrieved June 14, 2018, from <https://managemagazine.com/article-bank/self-handicapping-leadership/self-handicapping-leadership-performance-mastery-management/>
- Flanagan, J. (2015). Gender and the Workplace: The Impact of Stereotype Threat on Self-Assessment of Management Skills of Female Business Students. *Advancing Women in Leadership*, 35, 166.
- Girden, E. R., & Kabacoff, R. (2011). *Evaluating Research Articles From Start to Finish*. SAGE.
- Goffman, E. (1959). *The Presentation of Self in Everyday Life*. Anchor. Retrieved from <http://www.amazon.ca/exec/obidos/redirect?tag=citeulike09-20&path=ASIN/0385094027>
- Harter, J. K., Schmidt, F. L., & Keyes, C. L. M. (2003). Well-being in the workplace and its relationship to business outcomes: A review of the Gallup studies. In *Flourishing: Positive psychology and the life well-lived* (pp. 205–224). Washington, DC, US: American Psychological Association. <https://doi.org/10.1037/10594-009>
- Higgins, R. L., & Berglas, S. (1990). The Maintenance and Treatment of Self-Handicapping. In *Self-Handicapping* (pp. 187–238). Springer, Boston, MA. [https://doi.org/10.1007/978-1-4899-0861-2\\_6](https://doi.org/10.1007/978-1-4899-0861-2_6)
- Hinkin, T. R. (1995). A Review of Scale Development Practices in the Study of Organizations. *Journal of Management*, 21(5), 967–988. <https://doi.org/10.1177/014920639502100509>
- IBM Knowledge Center - Factor Analysis Extraction. (2018). Retrieved June 14, 2018, from [https://www.ibm.com/support/knowledgecenter/en/SSLVMB\\_25.0.0/statistics\\_mainhelp\\_ddita/spss/base/idh\\_fact\\_ext.html](https://www.ibm.com/support/knowledgecenter/en/SSLVMB_25.0.0/statistics_mainhelp_ddita/spss/base/idh_fact_ext.html)
- How can I recode missing values into different categories? | Stata FAQ. (n.d.). Retrieved August 13, 2018, from <https://stats.idre.ucla.edu/stata/faq/how-can-i-recode-missing-values-into-different-categories/>
- Humphries, M. (n.d.). Missing Data & How to Deal: An overview of missing data, 45.

- IBM Knowledge Center - Factor Analysis Extraction. (2018). Retrieved June 14, 2018, from [https://www.ibm.com/support/knowledgecenter/en/SSLVMB\\_25.0.0/statistics\\_mainhelp\\_ddita/spss/base/id\\_h\\_fact\\_ext.html](https://www.ibm.com/support/knowledgecenter/en/SSLVMB_25.0.0/statistics_mainhelp_ddita/spss/base/id_h_fact_ext.html)
- Ishida, J. (2012). Contracting with self-esteem concerns. *Journal of Economic Behavior and Organization*, 81(2), 329–340. <https://doi.org/10.1016/j.jebo.2011.11.002>
- Jones, E., & Pittman, T. (1982). Toward a general theory of strategic self-presentation. *Psychological Perspectives on the Self*, 1(1), 231–262.
- Kim, J.-O., & Mueller, C. W. (1978). *Factor Analysis: Statistical Methods and Practical Issues*. SAGE.
- Leary, M. R., & Shepperd, J. A. (1986). Behavioral self-handicaps versus self-reported handicaps: A conceptual note. *Journal of Personality and Social Psychology*, 51(6), 1265–1268. <https://doi.org/10.1037/0022-3514.51.6.1265>
- Luginbuhl, J., & Palmer, R. (1991). Impression management aspects of self-handicapping: Positive and negative effects. *Personality and Social Psychology Bulletin*, 17(6), 655–662. <https://doi.org/10.1177/0146167291176008>
- MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1991). Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons' performance. *Organizational Behavior and Human Decision Processes*, 50(1), 123–150. [https://doi.org/10.1016/0749-5978\(91\)90037-T](https://doi.org/10.1016/0749-5978(91)90037-T)
- Martin, A. J., Marsh, H. W., Williamson, A., & Debus, R. L. (2003). Self-handicapping, defensive pessimism, and goal orientation: A qualitative study of university students. *Journal of Educational Psychology*, 95(3), 617–628. <https://doi.org/10.1037/0022-0663.95.3.617>
- McElroy, J. C., & Crant, J. M. (2008). Handicapping: the effects of its source and frequency. *The Journal of Applied Psychology*, 93(4), 893–900. <https://doi.org/10.1037/0021-9010.93.4.893>
- Methods for handling missing values. (n.d.). Retrieved August 13, 2018, from <https://gallery.azure.ai/Experiment/Methods-for-handling-missing-values-1>
- Noble, B. (1969). *Applied linear algebra*. Englewood Cliffs, N.J.: Prentice-Hall. Retrieved from <https://trove.nla.gov.au/version/45219248>
- Park, S. W., & Brown, C. M. (2013). Different perceptions of self-handicapping across college and work contexts. *Journal of Applied Social Psychology*, 44(2), 124–132. <https://doi.org/10.1111/jasp.12204>
- Rahn, M. (n.d.). Factor analysis: A short introduction, Part 3, -- The difference between confirmatory and exploratory factor analysis. Retrieved from <https://www.theanalysisfactor.com/confirmatory-and-exploratory-factor-analysis/>.
- Rummel, R. J. (1988). *Applied Factor Analysis*. Northwestern University Press.
- Ryska, T. A. (2002). Effects of situational self-handicapping and state self-confidence on the physical performance of young participants. *Psychological Record*, 52(4), 461–478.
- Schriesheim, C. A., Powers, K. J., Scandura, T. A., Gardiner, C. C., & Lankau, M. J. (1993). Improving construct measurement in management research: Comments and a quantitative approach for assessing the theoretical content adequacy of paper-and-pencil survey-type instruments. *Journal of Management*, 19(2), 385–417. [https://doi.org/10.1016/0149-2063\(93\)90058-U](https://doi.org/10.1016/0149-2063(93)90058-U)
- Schwinger, M., & Stiensmeier-Pelster, J. (2011). Performance-approach and performance-avoidance classroom goals and the adoption of personal achievement goals. *British Journal of Educational Psychology*, 81(4), 680–699. <https://doi.org/10.1111/j.2044-8279.2010.02012.x>
- Schwinger, M., & Stiensmeier-Pelster, J. (2011). Prevention of Self-Handicapping--The Protective Function of Mastery Goals. *Learning and Individual Differences*, 21(6), 699–709.
- Siegel, P. A., & Brockner, J. (2005). Individual and organizational consequences of CEO claimed handicapping: What's good for the CEO may not be so good for the firm. *Organizational Behavior and Human Decision Processes*, 96(1), 1–22. <https://doi.org/10.1016/j.obhdp.2004.08.003>
- Snyder, C. R. (1990). Self-Handicapping Processes and Sequelae. In *Self-Handicapping* (pp. 107–150). Springer, Boston, MA. [https://doi.org/10.1007/978-1-4899-0861-2\\_4](https://doi.org/10.1007/978-1-4899-0861-2_4)
- Suhr, DD (n.d.). Exploratory or confirmatory factor analysis? Retrieved from <http://www2.sas.com/proceedings/sugi31/200-31.pdf>
- Thau, S., Aquino, K., & Poortvliet, P. M. (2007). Self-defeating behaviors in organizations: The relationship between thwarted belonging and interpersonal work behaviors. *Journal of Applied Psychology*, 92(3), 840–847. <https://doi.org/10.1037/0021-9010.92.3.840>
- Todd Grande. (n.d.). *Replacing Missing Values in SPSS with the Series Mean*. Retrieved from <https://www.youtube.com/watch?v=XE6j39CB3qQ>



- Thompson, B. (2004). *Exploratory and confirmatory factor analysis*. Washington, D.C.: American Psychological Association.
- Why eigenvalues are greater than 1 in factor analysis? (2018). Retrieved June 14, 2018, from <https://stats.stackexchange.com/questions/72439/why-eigenvalues-are-greater-than-1-in-factor-analysis>
- William R. Noonan. (2007, September). *Discussing the Undiscussable: A Guide to Overcoming Defensive Routines in the Workplace*. Retrieved February 18, 2016, from <http://www.wiley.com/WileyCDA/WileyTitle/productCd-0787986321.html>
- Xue, X. (2009). Measurement Equivalence in Cross-Culture Research: Concept, Bias Resource and Test Method. In *2009 Second International Workshop on Knowledge Discovery and Data Mining* (pp. 393–396). <https://doi.org/10.1109/WKDD.2009.38>

# ANALYSING OMAN SUPPLY CHAIN PRACTICES VERSUS GLOBAL BEST PRACTICES

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## ABSTRACT

*This research is about, “Analysing Oman supply chain practices versus global best practices.” Researchers used the survey questionnaire method as well as observation, interviews and literature review in this research. Findings reveal that supply chain facilities like ports, airports, roads and a modern Customs and Excise Department, which fully embraces e-government and is strategically linked to all importers and exporters as well as critical trade and related government departments, needed improvement in Oman. It was found that critical skills, ports, Customs and investment infrastructure in Oman needed to be improved as well as processing and turnaround time to match best practice elsewhere. Research output was also low. A One Stop Shop was there but not fully operationalised to cover all transactions.*

*Key Words: Risk Management, Efficiency, Logistics and Supply Chain Management (LSCM), Supply Chain Management (SCM).*

## 1.0 INTRODUCTION

Oman is the jewel of the Middle East and the GCC strategically located on the Strait of Hormuz in the Arabian Peninsula and heavily involved in supply chain operations. Supply Chain Management (SCM) was the critical driver of value for the modern organization. It dealt with virtually any type of goods and services which kept organisations and government ticking. Oman is a very dynamic and futuristic country and always tries to adopt best practices across the board. Its supply chain facilities span ports, airports (many new airports are under construction throughout the country, while existing ones are under refurbishment and upgrading), roads, a modern Customs and Excise Department which fully embraces e-government and is strategically linked to all importers and exporters as well as critical trade and related government departments. In their study Grubic, et al, (2010), said although empirical studies showed that supply chain integration was associated with high levels of business and operational performance, some authors argued that there was no need to pursue total end-to-end supply chain integration and different or relationship-by-relationship approaches were needed. Supply chain management integrates supply and demand management within and across companies, (Slone, Dittmann & Mentzer, 2010). This confirms the value of being an expert in both marketing and supply chain for better results. Supply chain was a business like any other business and standard business concepts and success factors applied, and this included investment criteria in logistics and related firms. The secret is easy of doing business, investment incentives, regulatory requirements, business turnaround, peace and security, low corruption levels, reception and hospitality, quality of life, a tolerant culture, availability of skilled

labour, support industries, a business conscious, efficient and business friendly government, low taxes, free market, fair competition, supply market, predictable policies, entertainment, fast customs clearance, a viable support services sector, cheap land, low crime rate, rule of law, transparency and good returns (ROI).

The USA has always had a five factor development strategy which helped them conquer the whole world economically and dominate global economic affairs and these were:- superior education system, infrastructure, highly skilled immigration promotion, research and development and lastly appropriate national regulations, and said the USA had to ensure a steady supply of highly skilled immigrants in science, engineering and technology, among many critical disciplines (Friedman & Mandelbaum, 2011). The USA is well known for recruiting the best students and faculty from all over the world into its universities and on graduating granting them citizenship after a certain time frame working in America. This strategy was rare and frowned upon in many countries saying it caused cultural contamination, destroyed national identity and changed national demographics completely, yet it was the best strategy to outsmart other countries in innovation and new product development, and was most difficult to copy. That created the greatest concentration of brainpower in the world in the USA and created the world's largest economy and juggernaut.

The latest supply innovation of the Oman Government is the Oman Wind Power Project, Water Desalination Plants in various locations in the country, the new planned Railway Project, Khazaen Logistics City, Duqm Port, Ibri Logistics Cluster and Sohar Shipping Complex, among others. Oman is country with a leadership that loves Oman and does everything to promote the country's progress and prosperity. Very few countries have done what Oman has done for its people within such a short space of time (48 years – 1970-2018). Omanis can walk shoulders high mesmerised by their phenomenal success.

Supply chain excellence drove shareholder value and controlled the heartbeat of the firm, which was the fundamental flow of materials and information from suppliers through the firm to its customers, and customer requirements needed to guide all operations, (Dittmann, 2013). The researcher would add that supply chain was also mandated to ensure security of payment and collect all payments by suppliers using fool proof risk free payment methods. In fact no transaction was complete without payment, the very purpose of business – business was not a charity, practitioners needed to know that. Logistics Clusters are driven by six factors namely:- favourable geography, supporting infrastructure, supportive/efficient government, education/research/innovation, collaboration and value added services (like life sciences companies, advanced manufacturing, clean-tech energy and information technology), (Sheffi, 2014). The researchers would include efficient and corruption free Customs & Excise Department and clean business friendly government. SCM provides an essential back up for successful marketing effort, efficiency, branding, image, repeat business, customer loyalty, customer satisfaction and reputation. It is very important to have customer-oriented marketing channels and these are channels in which the design objectives are set predominantly on the basis of the requirements of customers and where all activities performed and the type of entity is the most suitable for the customer, (Panda & Sahadev, 2012). They went further and said level of service required by target customers from a particular channel must be recorded across certain well-acknowledged features of service for the product category. Were all supply chain personnel customer driven and dedicated to serving customers in a religious way?

Oman is a very ambitious country in terms of innovation, global trade, supply chain and logistics, education, research, localization of jobs and industrialization but faces a myriad of challenges as it marches on with modernization and these are to do with quality and fitness of some college/university graduates to labour market requirements, employability of graduates, playing underdog to Qatar, UAE and Saudi Arabia in regional and global trade, low oil prices, slow diversification, localization of jobs or Omanisation and finally attracting FDI in the fierce and brutal Gulf Cooperation Council (GCC) and global competition (*Refer to Appendices 1-4 and Figure 1*). Research output is also very low compared to UAE, Qatar and Saudi Arabia because of low funding, high teaching loads in universities and a poor incentive system for researchers (low prizes and other incentives), three well-known enemies and obstacles to any effective research agenda.

These difficult obstacles need to be addressed carefully once and for all for this dynamic country to continue its unassailable advance in world trade and industrialisation. Procurement leaders were confronting a whole new generation of challenges as they execute global procurement, and these were:- managing disperse global teams, while ensuring common standards and processes, expanding sourcing into new and more complex categories, ensuring supplier compliance to corporate and regulatory standards across jurisdictions, developing suppliers and encouraging innovation, particularly in emerging markets, ensuring supply security and avoiding supply disruptions and getting visibility into, and mitigating, supplier risks, (Pierce, 2012). One needed to know the gravity of each industry by industry in Oman and field research would uncover that. Oman's biggest advantages and strengths were its strategic global location to world trade routes, hospitality, peace and tranquillity, friendliness, natural entrepreneurship by most of its citizens, excellent international relations and positive country of origin effect which tops the GCC, if not the Asian continent.

In dealing with globalization, a logistician needs to be able to integrate, communicate, and analyze from an international perspective, perform financial analysis, maintain good industry and customer relations, exhibit strong people skills, stay healthy, and understand laws and regulations, (Wu, et al, 2013). He said industry believed that cross-functional marketing skills were critical and emphasized the importance of risk and financial management. That is the missing dimension for most SCM practitioners. Marketing is the wealth creation process and the source of money for any organization and cannot be ignored at all. In fact SCM managers need to know marketing strategy just as good as marketing managers – it is not an option. Without marketing an organization hits the dead end. Degrees in supply chain of the future need to include Marketing Strategy as a course/module in the final year, which is not the case with most supply chain degrees now, thus short changing society.

New jobs do not come from government bail outs of companies, or big firms but new innovative start-up companies, which come from smart, creative, inspired risk takers, and America had surpassed the world in new start-ups through getting more of these people by improving its schools and importing more of them through recruitment of talented immigrants and giving them citizenship, (Friedman & Mandelbaum, 2011). He said when intelligent creative people were combined with free markets, freedom and a good government magic happened in terms of creation of new products, innovation and economic growth.

### 1.1.2 Purpose of the research and problem statement

The purpose of this research is to contribute to the success of Oman Vision 2040 and diversification into logistics, and advance critical ideas to drive this plan forward. This research would be long term lasting five years, and would be in phases. This paper would be the first one in this first year.

Oman is working to establish a solid logistics industry throughout the country as part of Oman Vision 2040 to diversify the Oman economy and industry beyond the oil driven model. The country has achieved phenomenal progress in logistics but more still needed to be done. The major logistics clusters are in Muscat, Salalah, Sur, Duqm, Ibri and Nizwa and these face many teething problems which have to be solved as the exercise progresses. Some of the challenges are the critical shortage of local skilled labour in supply chain, the absence of a railway system (still on the drawing board), infrastructure deficiencies (opening and connecting the country is still work-in-progress), customs delays, the appetite of staying in Muscat by most Omanis which makes it difficult to attract them to other new smaller logistics clusters like Duqm and Ibri, the slow operationalization of the One Stop Shop Concept throughout the country, cumbersome new business registration procedures, the difficulties of getting women candidates to work in logistics due to its odd working hours (including weekends and evenings, logistics is not an 8.00-5.00pm job as cargo moves non-stop 24 hours a day, 7 days a week and 365 days a year), some women who have no cars cannot work 8.00am-5.00pm as relatives who work in government and have cars have to pick them up at 2.30pm which is the time government employees finish work every day (that causes dislocations as logistics firms working hours are 8.00-5.00pm), the requirement to work in the interior where most logistics are done feeding the ports/firms with exports and imports, and lastly the high labour turnover of graduate trainees for logistics firms (40%) as they chase jobs with government (where conditions are much better and working hours are much less plus there were the added benefits of job security, guaranteed advancement, training and development, less pressure and lastly the sweet possibility of overseas scholarships at prestigious Western universities) and rich multinational corporations and oil companies (with rich pickings in high salaries and benefits).

On one side companies have to comply with Omanisation targets (localization of jobs policy) while there is a high labour turnover of recruited graduate trainees which causes huge dislocations in operations and wasted effort as trainees desert firms once they get better jobs elsewhere. It was a catch 22 situation for logistics firms with no immediate solution. Some would argue that the logistics industry must stop being crybabies as the rest of the economy was equally affected and simply soldiered on without so much noise. In any case when any company loses employees to other companies they have to address the reasons/root causes for losing labour to stem an exodus.

Sometimes there would also be unreasonable expectations from recruited graduate trainees regarding progression to senior managerial positions where graduates wanted senior management positions on appointment, whereas experience to run the logistics industry comes gradually and over many years in the field as it is very complex, sophisticated and governed by a complex web of national and international laws, diverse customs and languages, different time zones and subject to different holidays, and lastly subject to different weather patterns and natural hazards and natural disasters. It was one of the most difficult industries on earth linking firms, government and nations in a delicate matrix of trade, politics and economics. Moreover Oman will be competing for investment, markets and talent with regional powerhouses United Arab Emirates and Saudi Arabia in the GCC as well as facing global competition. American professors Friedman and Mandelbaum

said that countries did not decline because of big mistakes but it was many small mistakes in policies and strategies which cumulatively did maximum damage to the economy. This warning needed to be heeded by national economic planners in any country. Research is required to inform government, industry and society about correct policies, alternatives, opportunities, risks and pitfalls. This paper contributes critical research to this national ethos and debate.

### 1.1.2 Supply chain problems

The supply chain and logistics industry has faced a myriad of problems since 2008 ranging from overcapacity, dead and slow moving stocks, bankruptcy, liquidations, supply dislocations, non-payment, default, terrorism, idle plant and equipment, saturation, distortions, market fluctuations, retrenchments, firm closures, consolidations, inertia, panic and emergency of powerful strategic alliances and monopolies and cartels. Oman faces natural disasters like hurricanes and flooding regularly and these do affect smooth supply chain management negatively. Reduced supply chain vulnerability to risks arose through horizontal collaboration amongst producers, and vertical collaboration with the processor and retailer, (Leat, Revoredo-Giha, 2013). Producers improved market and price security. For the processor and retailer the collaboration generated greater security of supply of an assured quality, improved communication with suppliers, and reduced demand risk as they could assure consumers on quality and product provenance. The stages that are involved from the placing of an exports order to the delivery of goods to the buyer need to be professionally executed so that the organization can avoid losses which might cost the firm's very existence, loss of customers, reputation and goodwill, cancellation of operating license, specification of the firm and its directors or managers and at worst heavy jail terms for breaching the Customs & Exchange Control Regulations as well as the Immigration Regulations. Performance metrics measurement was central to good supply chain management and these are:- control (which allows managers to evaluate and control the performance of resources they manage, communication (to communicate performance to internal and external stakeholders) and finally improvement (which shined a light on actual versus expected performance in order to take corrective action where need be, (McKeller, 2014).

Despite a myriad of payment mechanisms as a result of innovation in international trade, the Letter of Credit (LC) is still a viable commercial product and that parties will need to be knowledgeable and skilled enough to keep abreast of dynamic changes on law and policy relating to usage and practice of LCs. Short of that parties could be vulnerable to risk exigencies inherent in international trade they sought to eliminate by subscribing to the LC, (Mugarura, 2014, 246-264). Security of payment is a major strategy required for security of payment but one needs to be knowledgeable about the mechanics of various payment methods including LCs, which are very complicated and tricky. Fool proof methods are required as failure to secure payment can result in bankruptcy or huge losses, especially on big contracts. Many managers have lost their jobs or have been send to jail for long periods for fraud or negligence or both. Another study by (Mellat-Parast, (2013), suggested that quality management facilitated cooperative learning and improved inter-organizational learning processes. It said at the supply chain level, it enhanced supply chain satisfaction and supply chain performance. Therefore TQM was central to SCM and distribution excellence. Appendices 1-4 include questions about the quality of some graduates in Oman. How is excellence possible with teething problems in universities and colleges?

### 1.1.3 Shipping dynamics

The function of shipping is the conveyance of goods from where their utility is low to a place where it is higher. The biggest risks in shipping are demurrage charges through delays, war, fire, piracy, damage and destruction to goods, sinking of vessels and fraud by employees in positions of authority. These need to be managed carefully. What makes global sourcing different from domestic sourcing are a number of issues which are to do with:- additional costs, multiple sets of laws, multiple currencies, longer lead times, language and cultural differences (do Oman Logistics and SCM degrees include key foreign languages as is the case in the first world as a way of bridging the language and cultural divide?), multimodal transportation and payment methods which are more complex for cross border sourcing, (Dominick & Lunney, 2012). As global supply chains compete in an increasingly complex and rapidly changing business environment, supply chain responsiveness has become a highly prized capability, (Williams, Roh, et al, 2013, 543-554). He said to increase responsiveness, supply chain managers often seek information that provides greater visibility into factors affecting both demand and supply and findings indicate that a strategy for achieving supply chain responsiveness requires a dual-pronged approach that aligns increased visibility with extensive information processing capabilities from internal integration.

Factors that influence a shipper's choice of transport mode are basically based on the total product concept enhancing all the constituencies of distribution. These include reliability, frequency, cost, transit time, capital tied up in stock, quality of service, packaging, warehouse charges, permits and licenses, import duty and insurance. Anecdotal evidence continues to suggest that many firms in emerging economies (EEs) lack innovation, (Sun & Lee, 2013). Relations with customers in international business are normally strained or damaged through problems with delivery hence the need to do as much research in this area and try to pre-empt potential problems and maintain good relations with customers, (Grubic, et al (2010). In their study they said although empirical studies showed that supply chain integration was associated with high levels of business and operational performance relationship-by-relationship approaches were also needed.

Most of the problems with shipping are to do with unqualified and inexperienced personnel who do not know the full technical processes to get goods to clients spanning the globe. These mistakes can be quite costly in terms of demurrage charges, damage to goodwill, reputation and credibility. Clients do not want excuses for not delivering as they have obligations downstream too and can face legal penalties and rejection of cargo. Firms which do not invest in strategic skills through recruitment of diploma and degree holders in supply chain continuously were inviting trouble like dislocations, the bull whip effect, disappointments, lost customers, conflicts, misdirected cargo, lost goods, theft, mistrust, lost confidence, damage to image and reputation, penalties from Customs, law suits, damaged goods, wrong documents, demurrage charges, frustrations, poor efficiencies, possibility of jail terms, licence cancelation, poor profits or none, high prices, high costs, environmental pollution and the ultimate closure of the business. Mishra, Modi and Animesh (2013), say inventories represent an important strategic resource for firms, with implications for shareholder wealth. They find that as such, firms expend considerable effort in managing their inventories efficiently. Their results also reveal that firms' IT capability directly reduces their stock market risk and enhances their stock market returns. Taken together, these findings, along with the conceptual model that they advance, have important research and managerial implications. Therefore IT capability greatly improves inventory management and firm profitability. How many Oman firms are ICDL compliant? Government of Oman has gone a long way and trained all its employees to be IT compliant.

Shah (2015), warned procurement practitioners and industrialists saying the ten major challenges future leaders in procurement would face were:- Focus on strategic relationships, continuously looking for new markets, global supply chain risk, exchange rate volatility, political instability, integrate risk management in sourcing, using free trade agreements and tax havens, using of big data and analytics, technological innovation and finally having the right skills and influencing skills which means working collaboratively with other experts in and outside your organization. How prepared were Oman organisations in these aspects?

## **2.0 OBJECTIVES AND RESEARCH QUESTIONS**

The objectives of this research are to:-

- a. Establish logistics and supply chain issues in Oman;
- b. Establish global best practice in logistics and supply chain;
- c. Identify Oman's position in the world of logistics and supply chain;
- d. Establish the institutions and practices that are required for Oman to excel;
- e. Recommend what needs to be done for Oman to maximize logistics and supply chain operations and exploit opportunities available to it.

The research questions to be answered by this research were:-

- a. What are the logistics and supply chain issues facing Oman?
- b. What is global best practice in logistics and supply chain?
- c. What is Oman's position in the world of logistics and supply chain?
- d. What are the institutions and practices that are required for Oman to excel?
- e. What recommendations needed to be advanced to Oman to maximize logistics and supply chain operations and exploit opportunities available to it?

### **2.1.1 Research methodology**

Three research methods were used for data collection for triangulation and these are observation, survey questionnaires and comprehensive literature review. Observation was considered the key research method where researchers have been seeing logistics activities first hand and recording their observations. A survey method was good for research where people related issues and factual information as well as remotely collecting data from large numbers of people, and was cheap, (Bhattacharjee, 2012). Observation was considered suitable since all three researchers work in Oman and have access to companies, support institutions and government ministries and see all these issues in action over long periods of time. In observation the researchers could also talk to people on the ground to clarify issues, and they were able to record feelings and emotions as things happened. Two of the researchers were local people and Omani citizens who have each more than twenty years' logistics industrial experience. Observations on the ground were rich, captivating and objective. The three methods ensured complete outreach, triangulation of findings and exhaustion/saturation of facts before conclusions are reached. That would ensure credibility of findings. Unfortunately not many questionnaires were answered except just five. For that reason no statistics have been provided in findings as that was impossible given the few responses received. The responses were combined with observation findings to consolidate findings. That was a small limitation in the research, but was countered by having two other research methods. A pilot survey and data cross referencing was done with respondents to ensure validity and reliability. Ten well established companies



were interviewed as part of observation, on how they viewed the logistics landscape in Oman and way forward.

### 3.0 LOGISTICS CLUSTERS

Many logistics clusters have educational institutions created specifically to meet the needs and schedules of logistics operations, including deep integration of education with cluster operations. Some cluster operations have invested in specialized university facilities to support their logistics mission and upgrading their capabilities through partnerships with international centres of excellence, (Sheffi, 2014). China has universities of supply chain focusing on servicing and growing this huge sector. There are many big advanced countries which have adopted the same strategy. The rise of public higher education in the 20th century has closely paralleled the Industrial Revolution, creating a different kind of scientific, technological, and organizational model for leading institutions into the new millennium in science, technology, and engineering, (Martin & Samels, 2012). From this narrative it becomes clear that colleges and universities have to do targeted recruitments to recruit top industrial managers, technologists, engineers and designers into their systems to engender a culture of industrial compliance. These will be fused with pure academics to enrich academic debates, practices and embracing of reality. Who knows industrial requirements better than someone who has been there? A galaxy of pure academics only for any institution is now considered a dangerous liability and a mismatch with industrial expectations. Is this not one of the reasons why Oman industry is complaining about graduate non-compliance with labour market requirements and expectations? Mixed recruitments are the trend in the developed world now. If colleges, universities and governments say a person must have a minimum of two years teaching experience to be allowed to teach in higher education, where does one get teaching experience if one is not afforded the opportunity to teach or train how to teach? Countries like the UK have very good open systems where they systematically absorb highly experienced managers from industry into academia to tap into their strategic experience to enrich their lectures and service delivery to students. Their academic staff are a fusion of pure academics and top ex-industrial practitioners which makes for very rich lectures and university experience for students.

The academics from industry have the nuts and bolts of what makes industry tick. Pure academics have global best practices through research. That fusion of pure academics and ex-industrial managers produces magic and excitement in class. Managers and officer with at least five years of working in industry should be admitted into academia on the basis of that experience rather than teaching experience. With austerity and so many retrenchments in many countries globally, countries would be doing themselves good by absorbing these highly experienced managers and officers into academia and make good use of their accumulated expertise and experience to train and educate strategic human resources for the country. Employing them also solves a bigger problem for government, which is the dreaded curse of unemployment, which no government ever wants as it is toxic and tormenting. The employed would wean their family members from social welfare thus relieving government of another burden at a time governments have shrinking budgets. Employment creates the feel good factor and restores personal dignity, trust and confidence in government whilst eliminating the psychosomatic and traumatising dependency syndrome, and dreaded poverty and its punishing effects.

Organizations monitor factor-markets for strategic inputs that directly contribute to the firms' unique advantage, (Ellram, Tate & Feitzinger, 2013). Thus, managers may be unaware of essential supporting inputs that bundle with strategic inputs to sustain the organization's success.

They concluded that increasingly, supply chain resources are part of that strategic bundle of resources essential for achieving the firm's competitive advantage. Sheffi explained why does Singapore handled a fifth of the world's maritime containers and half of the world's annual supply of crude oil (Sheffi, 2014). He said the answer was mostly in logistics clusters as centres of excellence. There was more to it like rule of law, efficiency of Customs Department, IT, e-government, easy of doing business, quality of life, work ethic, attitude and commitment of the people, strategic skills availability, taxation, institutions, economic stability, national image, track record, geography and other factors. Transparent, reliable efficient institutions and rule of law were important than ever before for risk-taking and innovation, and national wealth, power and economic opportunity provided for citizens was not a distinction that is bestowed to last forever like an honorary degree, but must be earned continually like a basketball player's batting average, (Friedman & Mandelbaum, 2011). This was a stark warning to all countries to avoid complacency. Each country had to check that its institutions had a no nonsense business and service culture, and that none became an enclave and hideout for lazy uncommitted workers.

Firms deploying a network strategy frequently adopt a relationship marketing orientation necessitating that they cultivate close relationships with independent firms performing business functions on their behalf, (Pass, et al, 2012). Firms using shipping and other SCM agents in Oman could benefit from this research as they work with shippers, insurance firms, banks, transporters, warehousemen, customs brokers and others. But how does one explain a situation where business is down, like now with low oil prices and austerity everywhere, when service providers are desperate for business? Does it really matter whether they are treated well or not, surely they will just still stick with the firm? Literature does not cover this aspect and reality.

### **3.1.1 Analysis**

Trust is not possible without high quality products (TQM) and honesty. This then calls for the study of principles of TQM as part of a firm's CRM efforts. But does one really need to visit all one's customers. MNCs the world over have never visited some of their small and medium size customers but those customers give them repeat business, trust them, have commitment and satisfaction because of their high quality, good prices, monopoly positions, reliability, brand reputation, resources, production and distribution capabilities, multicultural disposition and sometimes bribery of top management. Yes visits are important but not always. Some industries are blocked markets like the armaments industry where politics rather than normal market factors prevail. Literature does not explain this.

Islamic Arabic countries simply prefer to deal with other Arabic and Islamic countries for cultural reasons as brethren plus it is a language comfort zone but this is not addressed by literature. It is a way to support other Islamic countries. That is why Oman does most of its business in the Middle East.

## **4.0 THE CUSTOMS & EXCISE DEPARTMENT**

There is another very strategic institution facilitating supply chain in any country, and that is the Department of Customs & Excise. The changing role of a customs authority in the 21<sup>st</sup> century is that it is looked at as a trade promotion and trade facilitation agency of government rather than a rigid regulator just going after money and compliance. Any agreement reached to enhance customs cooperation should include a change in governance including the approach to education of customs professionals and there are benefits of cooperation among customs

administrations in achieving a common approach to compliance and the associated competencies, (Libing, 2016). Oman will need to learn lessons from this as it moves to exploit its many trade agreements. The main players in the customs, shipping and logistics business are:- importers, exporters, bankers, insurers, export credit insurers, transporters, shipping /forwarding/customs clearing agents, universities and colleges, research institutions, trade promotion organizations (TPOs), Government Ministries dealing with foreign trade and NGOs like World Bank, United Nations, European Union, GCC, World Customs Union and others. Customs authorities around the world are incorporating risk management strategies into their procedures in the context of achieving their two main goals: ensuring compliance with customs laws and regulations by the efficient control of the cross-border movement of goods, passengers, and transport means; and accelerating economic growth by facilitating foreign trade and investment, (Davaa & Namsrai, 2015). They said that kind of control system required risk probability-based customs inspection. With the advent of terrorism the world over inspections using fool proof electronic means are now necessary. People as well as cargo needed thorough screening to shut out saboteurs and their nefarious activities and undesired products like drugs and smuggled goods. Criminals were on the prowl globally and had to be dealt a heavy blow and exposed by good systems. Oman has a water tight anti-smuggling system which has hit many potential criminals really hard and landed them in prison or had to pay heavy fines. The Oman government must be congratulated for this good system which is protecting national interest and shutting out illegal drugs, expired medicines and expired foods, and all undesirable products.

Logistics clusters depend on supportive government in terms of public infrastructure, paying for and maintaining and regulating the use of key infrastructure assets such as roads, railways, canals, ports and airports and user friendly regulations on land use, infrastructure use, conveyance operations and trade do promote logistics clusters. The Singapore government is renowned for both high efficiency and low corruption, an ill affecting many governments in the world, (Sheffi, 2014). There are lessons for Oman here as it works towards establishment of world class logistics clusters as engines to drive the economy and as diversification measures. Oman is lucky to be one of the countries used as global examples of having the lowest corruption levels in the world. Business ethics is deep rooted here as well as respect for rule of law.

The customs and shipping activity is a complex web of so many well connected and highly influential interest groups and players whose activities and functions take years to unravel and understand fully. International customs practices are changing rapidly where customs authorities are becoming more and more facilitators rather than regulators of business. Their traditional role remains but there is a strong slant towards business facilitation and promotion. The reason is simple – the wealth of nations comes from trading and business activities rather than from the government. A paper by (Chang, et al (2013), found that partner relationships, information sharing, and supply chain integration can represent the processes through which e-procurement contributes to supply chain performance. They say supply chain integration has the highest standardized total effect on supply chain performance; compared to partner relationships and information sharing, supply chain integration has more influences on supply chain performance.

Therefore supporting and facilitating business improves national economic development and welfare and naturally increases tax inflows into the fiscus; it is a win-win situation. Firms invest in countries where there are less barriers to doing business, central of which are the customs and immigration systems. Perfecting customs practices is one sure way of attracting and retaining

investment. In contemporary business environments, the ability to manage operational knowledge is an important predictor of organizational competitiveness, (Setia & Patel, 2013). He went further that organizations invest large sums in various types of information technologies (ITs) to manage operational knowledge. Because of their superior storage, processing and communication capabilities, ITs offer technical platforms to build knowledge management (KM) capabilities.

The modern customs professional is now expected to be bilingual in key foreign languages, e-literate, have top of the range international customs expertise, be a product of a credible business school and have specialized in business at degree level and have international exposure and disposition. It is now imperative for governments to focus their recruitment in an international perspective in order to get the best. Supply chain activities cover everything from product development, sourcing, production, and logistics, as well as the information systems needed to coordinate these activities, (Handfield, 2013). From this explanation it becomes clear that SCM is central to firm efficiency, survival and competitiveness as well as governmental service excellence. He said the concept of Supply Chain Management is based on two core ideas. The first is that practically every product that reaches an end user represents the cumulative effort of multiple organizations. These organizations are referred to collectively as the supply chain. The second idea is that while supply chains have existed for a long time, most organizations have only paid attention to what was happening within their “four walls.” Few businesses understood, much less managed, the entire chain of activities that ultimately delivered products to the final customer. The result was disjointed and often ineffective supply chains.

Four crucial SCM security management dimensions were identified: facility and cargo management; accident prevention and processing; information management; and partner relationship management, Yang and Wei, (2013, 74-85). Container shipping firms can improve safety and customs clearance performance by focusing security management efforts on facility and cargo management, accident prevention and processing, information management, and partner relationship management. Oman firms largely survive on imports and exports therefore managing this aspect of SCM is crucial to avoid stock blackouts and penalties. The rampant and regular road accidents in Oman are a real risk and cost to SCM operations and must be managed carefully.

Key functions which must be carefully managed for success and profitability in SCM and operations were outlined by (Slone, et al, 2010):-

- In-stock percentage
- Customer line fill rate
- Lead time
- On-time delivery from vendor or supplier to customer
- Outbound fill rate rate
- Order forecast accuracy
- Inventory turns

The researcher would add that all this must be accompanied by comprehensive and continuous marketing research, loss control and risk management, efficient production management, waste

minimization, TQM, R & D and NPD. Thieving employees should always be referred to the police for prosecution as a deterrent. Thieves have only one suitable place – jail/prison.

## **5.0 THE DYNAMICS OF THE SERVICES SECTOR IN OMAN AND GLOBALLY**

In a research paper on immigrant labour to find to what extent the observed location pattern is driven by network effects or by traditional location factors, like the structure and behaviour of the local labour market, housing market, public goods, and local tax rates the researchers found out evidence of a very strong network effect, (Ukrayinchuk & Jayet, 2010). It concludes that this network effect is a very important location factor and implies that a location may attract current immigrants mainly because it attracted previous immigrants, even if the traditional location factors are not a source of attractiveness. Good examples abound in Oman and the GCC where large numbers of Indians, Egyptians, Pakistanis, Philipinos, Chinese, British, American, South African, Tanzanian and Sudanese immigrants/expatriates are found in Oman and the GCC, attracted by their kith and kin. One's own nationals are a natural comfort zone and less conflict is experienced and cooperation is at its maximum. Practices, language, culture, food, leisure activities and rites and rituals unite the team. Marriages may be easier too for the young and aspiring immigrants without the need to go back home.

Services have a direct impact on the competitiveness of the goods sector, (Kunaka, et al, 2013). The article illustrated the importance of logistics services, their trade dimension and how regulatory issues act as perhaps one of the most significant barriers to competitiveness. The customs professional is expected to understand the political dynamics in different countries as well as the cultures and religions and their influence on product consumption, business dynamics, negotiations and business etiquette. A qualified world class customs professional is a panacea for any country's international business efforts just as a doctor is a necessity for a hospital and an engineer for an engineering company. The customs professional requires three qualities:- diploma/degree level education in business/supply chain/languages, relevant experience and international exposure/travel experience. There is an additional requirement nowadays and this is the ability to design and plot an annual budget and Strategic Plan. Higher education had become the basic education of the knowledge economy. Yet in transitioning, emerging and developing countries, resources for higher education, and indeed higher educational systems themselves, remained inadequate, (Alon & McIntyre, 2013). Urgent action was needed to expand and diversify the supply of educational avenues to meet the fast rising demand. What is the reality on SCM skills in Oman – a shortage as this is a new area without few graduated students. Education was the foundation of economic strength this century, and stability and prosperity of the 21<sup>st</sup> century international order will be maintained or lost in the classrooms of America's public schools, (Friedman & Mandelbaum, 2011). The assertion here is that the quality of national education system/output determines national competitiveness and economic prosperity. Where does Oman stand in regards to its education system (refer to appendices 1-4)? Great strides had been achieved by Oman in education. The country was a desert state in 1970 and from there onwards has been making leaps and bounds to a highly respected modern state that it is now.

## **7.0 FIELD RESEARCH**

Field research was done for good reasons. (Egbert & Sanden, 2014), quoting Davies, said Davies decried researchers hit and run tactics, where research was done but industry practitioners,

who were on the ground and had current happenings on the ground, were ignored. (Egbert, et al, 2009) agreed that it took time and context to understand patterns and environments and that practitioners should always be consulted regardless of the paradigm through which the research was viewed. The researchers felt that this paper had to be complemented with solid field research to unearth realities on the ground, deep seated feelings, rules and regulations and their effect on SCM in Oman. Various institutions were consulted including logistics and shipping companies, shipping agencies and customs clearing agencies. Questionnaires, observation and face to face interviews were done. Survey questionnaires were sent to 100 respondents but response rate was quite disappointing as only five respondents answered the questionnaire but with comprehensive answers as these were senior managers in supply chain portfolios. Observation was done by the team of researchers at twenty logistics companies in Muscat. Thorough observation compensated for the poor survey questionnaire response. Let it be known that the biggest logistics firms are found in Muscat the capital of Oman, and most had their head offices there too.

Other researchers can include the Customs Department and the Ministry of Industry and Commerce as well as The Oman Chamber of Commerce and Industry in future research.

The following was a summary of findings from field research with Oman industrialists and observation:-

- a. Turnaround timelines, customs clearance procedures and turnaround, tracking and inspection facilities needed to be improved to meet global best practice;
- b. There is limited connectivity between ports and airports compared to other GCC countries;
- c. There is a critical shortage of supply chain qualified and experienced labour. This was a result of the late introduction of supply chain programmes at colleges and universities, and is the major reason for teething challenges being experienced in the logistics industry in Oman across the board as well as low research output in this area;
- d. Freight handling capacity, especially at ports, is not enough for projected growth in domestic production and trade;
- e. Localising infrastructure in specific industries would be beneficial to emerging industries;
- f. GCC countries were investing heavily in infrastructure and Oman was lagging behind but also investing in the sector;
- g. There was a tendency where cargo was routed to and from Oman ports rather than using Oman ports. That cost a lot of business opportunities.
- h. Oman has not operationalized the One Stop Shop Concept fully, which is disadvantaging the country in fast investment processing and operationalization when compared to United Arab Emirates which takes a very short time. A comparison of ease of doing business issues would give a clearer picture:-

**TRADE COMPARISON TABLE**

<b>TRADE FACTOR</b>	<b>OMAN</b>	<b>UNITED ARAB EMIRATES</b>	<b>SINGAPORE</b>
<b>GDP 2016 IN US\$</b>	66.29 billion	348.7 billion	297 billion
Number of offices to visit when investing	13. One stop shop is not yet fully operational. Is still in its infancy.	One Stop Shop Concept is 100% operational (all processing under one roof)	One Stop Shop Concept is 100% operational (all processing under one roof)
Investing processing period (setting up a new business)	About 3 days to one month or more depending on project and risk associated with the project.	One day to 7 days only, depending on size, complexity and risk of the project.	24 hours
Cost of processing fees	High	Low	Low
Port handling facilities	Capacity low	Maximum capacity and very fast	Maximum capacity and very fast
Congestion at ports	Common (especially at Sohar Port), and delays at borders by road, especially on imports (mostly the border with Saudi Arabia). Imports can take 3 days to one week mostly, but up to 3 weeks at worst.	No congestion and speedy processing	No congestion and speedy processing
Research output at universities	Very low.	Very high	Very high
University Technology Parks	Still in their infancy	Heavily used and well established	Heavily used and well established

**Figure 1: Own research**  
**World Bank Country Reports 2017**  
**United Nations Country Trade Reports 2017**  
**WTO Country Trade Reports 2017**

## **DISCUSSION OF FINDINGS**

This section discusses findings from literature review and field research.

The integration of seaports into supply chains has a positive impact on both the effectiveness and the efficiency of seaport performance. In addition, antecedents to seaport supply chain integration are identified; these suggest that a strong orientation to supply chain integration within a port operating company enables the company to adopt and implement a strategy that integrates functions within the port and with other upstream and downstream organisations, (Woo,

et al, 2013). But Customs regulations still remain very important for state security reasons as well as immigration control, promotion of investment (FDI), tourism and international business. Now there is a new area altogether - health tourism, where countries like Malaysia, UAE and Hong Kong are making billions of dollars from health tourists, people coming for specialized, advanced medical services and specialized medical education. This is now an international niche market targeting the upper niche of the income brackets – celebrities, presidents, politicians, sports persons, business persons, the rich and famous and the opinion leaders of this world with plenty of disposable incomes. Where does Oman stand in this regard?

There is a new world challenge which is the new serious threat of international terrorism, drug trafficking and human trafficking which customs authorities must regulate, control and try to shut out of their countries. Maximising benefit out of Customs is mainly done through trade facilitation, lobby and advocacy. Otsuki, et al, (2013), carried out a study to discuss the progress and challenges of South Asia in trade liberalization and facilitation, and to quantitatively demonstrate the potential benefits of trade facilitation in South Asia and their findings indicated gains to the region were estimated to be US\$31 billion in 2007 and \$26 billion in 2010 if South Asia and the rest of the world raised levels of trade facilitation halfway to the world average. This study demonstrates the importance of trade facilitation as an instrument for expansion of trade both within South Asia and with the rest of the world, as well as policy recommendations regarding the priority area for reform. The main trade facilitation players are government and industry associations. The types of issues that are most important to the public differ from the types of issues that lobbyists bring to the attention of government officials, (Kimball, et al, 2012). This could be explained by the interests of the firm – having supportive infrastructure, local support industries, business friendly legislation, trade agreements, good international relations, efficient business friendly bureaucracy, less red-tape, e-government, low taxes, low corruption levels in the country, property rights, availability of skills and good colleges/universities to support industry, peace, maximizing profit and market share whilst society has other priorities like affordable prices, product quality, environmental protection, job creation, job security no matter what, quality of life, anti-dumping, national pride among others. Striking a balance is difficult.

SCM management is not a haven for non-performers. It is not a sin or wrong to fire non-performers for the good of customers, the companies, intermediaries and government which gets maximum taxation and job creation from high performing firms and no other. Lazy and uncommitted employees are thieves who get a salary that they do not deserve. They are stealing value from the firm as they get salaries for doing nothing or for damaging operations. Image, integrity and reputation are rooted in commitment and performance of all employees. A culture of laziness and theft should never be tolerated without exception.

Logistics performance cannot be maximised as long research output from universities is low. Research drives and leads operations. On research findings from field on research revealed that research prizes were required which competed well with regional peers like UAE where the highest annual research prize given to the best researcher was OMR100 000 while in Oman it was OMR1500. In Germany it was US\$2 million while in the USA it was US\$5 million. Research output was closely linked to research funding and research prizes as researchers were economic animals giving the best to the biggest bidder naturally. Countries with higher research prizes motivated researchers to do much more research than those which paid less. The results in terms of research output in each country are instructive and bear evidence to this argument. This is simple



common sense economics. The USA has the highest research prizes for professors/researchers and had the highest research output. 3<sup>rd</sup> world and developing countries paid less and also had much less research output. Off course other factors like staffing, teaching loads, sabbatical and contact leave, annual leave entitlements, class sizes, funding, national higher education and research policies, management commitment to research and research infrastructure come into play too. Nevertheless prizes were right at the top of the agenda for any successful research and innovation drive. This is food for thought in Oman and other NICs.

## **7.0 CONCLUSIONS**

Countries should continue to build university faculties focusing on shipping/supply chain, build airports, roads, railway systems, fuel pipes, telecommunications, dams, canals, electricity power stations, and support industries in one location, vehicle fleets, aero planes, commercial ships and other infrastructure as well as skills to support the development of world class supply chain/shipping systems. No industry can succeed without an accompanying supportive university to give a continuous flow of highly skilled labour and to share international research experiences to pre-empt technology, breakthrough industry practices, opportunities and threats head on. Trade related government ministries also need the same kind of skilled labour to drive government policy in the right direction. Oman needs to rump up degree level education, supporting and funding more research in that area and wrapping up infrastructure development, which it has been unpacking in the whole country. The future is bright for Oman no doubt and many jobs will be created.

## **8.0 RECOMMENDATIONS**

Considering the foregoing we recommend as follows in Oman:-

- a. Companies and government ministries needed to recruit logistics and supply chain graduate trainees as a long term strategic development plan to ensure a flow of high calibre high breed labour to service industrial needs long term. If industry is asking for experienced personnel it must be reminded that experience does not come from a supermarket shelf like groceries but must be given by the same companies themselves through recruitment and training of fresh graduates. The companies themselves are the solution. Moreover local labour so trained is permanent and does not go anywhere like expatriates, but will serve the country permanently thus creating a huge network and payback effect. It is also reduces external remittances required if expatriate labour is employed thereby positively contributing to stabilisation and balancing of Balance Of Payments (BOP). This exercise also ensures compliance with government Omanisation or job localisation policy and resonates well with society, government and graduating students throughout the country. It also solves unemployment, poverty, misery and the dependency syndrome and releases much needed government resources for other national programmes rather than supporting unemployed graduates and their families. An employed graduate also supports the rest of the family and frees government from that burden. It also gives the graduate personnel trust, dignity and confidence in the economy and country, as well as their families. Graduate employment also increases tax revenues and aggregate demand for government and companies as the graduates spends their salaries in the economy. Increased aggregate demand creates even more employment and fresh investment with a multiplier effect on the economy. Increased government revenues strengthen government and expand government financial muscle to the natural benefit of the national economy through more public programmes and

- projects. This is the natural route to go. The Oman government can now create a jobs galore and bid farewell to local unemployment.
- b. More smart partnerships between industry, academia and government are required;
  - c. More infrastructure development and localization of SCM skills in the form of Omanisation;
  - d. Hold more workshops on shipping and forwarding to train industrialists and share ideas on industrial realities;
  - e. Consolidate the Oman Logistics Association and establish a secretariat to support industry and speak with one voice for effective lobby and advocacy.
  - f. The port authorities at Sohar Port in Sohar and the Ministry of Industry & Commerce should address the concerns of players in the shipping industry expeditiously to smooth out operations and eliminate any unnecessary delays, congestion, demurrage charges and inconvenience to the shipping industry and downstream industries.
  - g. Oman must operationalize the One Stop Shop Concept to make investment as investor friendly as possible and reduce investment processing fees to match regional competitors.
  - h. Technology Parks needed to be ramped up and operationalized with full funding.
  - i. Financing of research must be increased in Oman to meet the 3% of GDP which is the standard for most developed countries. Research prizes are required which compete well with regional peers like UAE where the highest annual research prize given to the best researcher is OMR100 000 while in Oman it is OMR1500. In Germany it is US\$2 million while in the USA it is US\$5 million. Academics and researchers are human beings and economic animals who always ask the question, "What is in it for me?" Low research prizes and incentives discourage research maximisation. That has been proven the world over.
  - j. Labour needed to be given more free movement by eliminating NOCs (No Objections Certificates) as is the case in UAE and rest of the GCC. This would provide health competition and position Oman in line with GCC trends. Removal of NOCs would automatically punish companies with bad conditions of service to reform their remuneration and conditions of service package as they are deserted by skilled labour. Once freed like this the labour market can automatically help government in improving and perfecting conditions of service, thus freeing Ministry of Manpower from salary and conditions based grievance issues. That time can better be spend on job creation and competitiveness measures which are more important for the nation naturally. Employers who fear losing employees to better paying companies do not need protection, but should improve their bad conditions of service which drive away good competitive employees. It is well known in human resources and economic theory that people always run away from employers to other companies escaping unacceptable conditions of service like low salaries, overworking, stressful working environment, bullying bosses and an unsupportive frustrating environment. Why should such employers who do this be protected anywhere in the world or else they simply need to change their conditions of service for the better, which is good for employees, government and society? They do not need any legal protection at all.

## FUTURE RESEARCH

Research in this area is quite virgin and more research is definitely required. Since full throttle diversification took off in Oman recently, the researchers believe that this break-through research will inspire other researchers to explore many related sub-areas like logistics clusters in the Arabic sphere given the unique culture here, skills development and logistics clusters, partnerships with academia, technology parks in logistics clusters, port operations, Customs reform, operationalising the One Stop Shop Concept in Oman, government policies and logistics clusters and maximising investment in logistics clusters. These are clear candidates for future and further research in Oman.

## REFERENCES

### Journals

- Alon, I., & McIntyre, J. R. (2008). 'Business education in emerging economies.' *International Journal of Business and Globalisation*, 2(1), 5-27
- Bianchi, C., & Saleh, A. (2010). 'On importer trust and commitment: a comparative study of two developing countries.' *International Marketing Review*, 27(1), 55-86
- Chang, H. H., Tsai, Y., & Hsu, C. (2013). 'E-procurement and supply chain performance.' *Supply Chain Management: An International Journal*, 18(1), 34-51
- Ellram, L. M., Tate, W. L., & Feitzinger, G. (2013). 'Factor-Market Rivalry and Competition for Supply Chain Resources.' *Journal of Supply Chain Management*, 49(1), 29-46
- Fischer, C. (2013). 'Trust and communication in European agri-food chains.' *Supply Chain Management: An International Journal*, 18(2), 208-218
- Grubic, T., Bastl, M., Fan, I., Harrison, A., & Templar, S. (2010). 'Towards the integrative supply chain model.' *International Journal of Logistics Research and Applications*, 13(1), 59-73
- Kimball, D. C., Baumgartner, F. R., Berry, J.M., Hojnacki, L., Leech, B. L. & Summary, B. (2012). 'Who cares about the lobbying agenda?' *Interest Groups & Advocacy*, 1(5-25)
- Kunaka, C., Antoci, M. A., & Sáez, S. (2013). 'Trade dimensions of logistics services: a proposal for trade agreements.' *Journal of World Trade*, 47(4), 925-950
- Leat, P., & Revoredo-Giha, C. (2013). 'Risk and resilience in agri-food supply chains: the case of the ASDA PorkLink supply chain in Scotland.' *Supply Chain Management: An International Journal*, 18(2), 219-231
- Mellat-Parast, M. (2013). 'Supply chain quality management: An inter-organizational learning perspective.' *International Journal of Quality & Reliability Management*, 30(5), 511-529
- Mishra, S., Modi, S. B., & Animesh, A. (2013). 'The relationship between information technology capability, inventory efficiency, and shareholder wealth: A firm-level empirical analysis', *Journal of Operations Management*, 31(7-8), 298-312
- Otsuki, T., Honda, K., & Wilson, J. S. (2013). 'Trade facilitation in South Asia', *South Asian Journal of Global Business Research*, 2(2), 172-190
- Pass, M. W., Evans, K. R., Lastovicka, J. & Schlacter, J. L. (2012). 'Manufacturers' representative-principal relationship management: a principal leadership style and support perspective.' *Journal of Relationship Marketing*, 11(3), 125-148
- Radaev, V. (2013). 'Market power and relational conflicts in Russian retailing.' *Journal of Business & Industrial Marketing*, 28(3), 167-177
- Setia, P. & Patel, P.C. (2012). 'How information systems help create OM capabilities: consequents and antecedents of operational absorptive capacity.' *Journal of Operations Management*, 31(7-8), 409-431
- Tsendsuren, D., & Batnasan, N. (2015). 'Ways to modernise customs risk management in Mongolia', *World Customs Journal*, 9(2), 24

- Woo, S., Pettit, S. J., & Beresford, A. K. C. (2013). 'An assessment of the integration of seaports into supply chains using a structural equation model.' *Supply Chain Management: An International Journal*, 18(3), 235-252
- Wu, Y. J., Huang, S. K., Goh, M., & Hsieh, Y. (2013). 'Global logistics management curriculum: perspective from practitioners in Taiwan.' *Supply Chain Management: An International Journal*, 18(4), 376-388.
- Sun, S. L., & Lee, R. P. (2013). 'Enhancing innovation through international joint venture portfolios: from the emerging firm perspective.' *Journal of International Marketing*, 21(3), 1-21
- Ukrayinchuk, N., & Jayet, H. (2011). 'Immigrant location and network effects: the Helvetic case', *International Journal of Manpower*, 32(3), 313-333
- Williams, B. D., Roh, J., Tokar, T., & Swink, M. (2012). Leveraging supply chain visibility for responsiveness: the moderating role of internal integration: *Journal of Operations Management*, 31(7-8), 543-554
- Yang, C. and Wei, H. (2013). 'The effect of supply chain security management on security performance in container shipping operations.' *Supply Chain Management: An International Journal*, 18(1), 74-85
- Zhao, L., Huo, B., Sun, L., & Zhao, X. (2013). The impact of supply chain risk on supply chain integration and company performance: a global investigation.' *Supply Chain Management: An International Journal*, 18(2), 115-131.

### Online journals

- Libing, W. (2016). 'Strengthening customs cooperation of BRICS countries: improving people-oriented capacity building strategies to achieve mutual recognition of Accredited Operator programs.' *The Internet World Customs Journal*, 10(1). Retrieved from <http://worldcustomsjournal.org/Archives/Volume%2010%2C%20Number%201%20%28Mar%202016%29/1796%2002%20WCJ%20v10n1%20Wei.pdf> (Accessed 1st September, 2016).

### Books

- Blumenstyk, G. (2015). *American higher education in crisis: what everyone needs to know*. Oxford, England: Oxford University Press.
- Dittmann, J. P. (2013). *Supply chain transformation, building and executing an integrated supply chain strategy*. USA: McGraw-Hill.
- Dominick, C., & Lunney, S. R. (2012). *The procurement game plan, winning strategies and techniques for supply management professionals*. USA: J. Ross Publishing.
- Friedman, L. T., & Mandelbaum, M. (2011). *That used to be us: how America fell behind in the world it invented and how we can come back*. New York, N.Y. 10010: Friedman, L. T. & Mandelbaum, M.
- Egbert, J., & Sanden, S. (2014). *Foundations of education research*. New York: Routledge.
- McKeller, J. M. (2014). *Supply chain management demystified*. USA: McGraw-Hill.
- Panda, T. K., & Sahadev, S. (2012). *Sales and distribution management*, 2<sup>nd</sup> ed., Oxford, England: Oxford University Press.
- Sheffi, Y. (2014). *Logistics clusters, delivering value and driving growth*. Massachusetts: The MIT Press.
- Slone, R. E., Dittmann, J.P., & Mentzer, J.T. (2010). *The new supply chain agenda, the five steps that drive real value*. Boston: Harvard Business Press.

### Online books

- Handfield, R. (2013). *What is supply chain management?* [e-book]. Retrieved from <http://scm.ncsu.edu/scm-articles/article/what-is-supply-chain-management>

**Online papers**

- Shah, D. (2015). *Ten challenges for future leaders in procurement*. Retrieved from <http://www.procurementleaders.com/blog/my-blog--guest-blog/ten-challenges-for-future-leaders-in-procurement-528642>
- Martin, J and Samels, J. E. (2012). *The rise of the polytechnic university*. Retrieved from <http://www.universitybusiness.com/article/polytech-renaissance>
- Pierce, F. (2012). *The challenges of managing a global supply base*. Retrieved from <http://www.supplychainedigital.com/procurement/2141/The-Challenges-of-Managing-a-Global-Supply-Base>.

**APPENDICES****Appendix 1**

Das, R. Hasan & Al Lawati, S. Only (2016, February 6). Only 47% of graduates get jobs in Oman. The Times of Oman. Retrieved from <http://timesofoman.com/article/76950/Oman/Education/More-than-50-per-cent-Omani-graduates-unable-to-get-employment>

**Appendix 2**

Prins, E. (2016, February 24). Courses in Oman fail to meet job market needs. Times of Oman. Retrieved from <http://timesofoman.com/article/78209/Oman/Education/'Courses-at-universities-and-private-colleges-in-Oman-fail-to-meet-the-requirements-of-the-job-market>

**Appendix 3**

Shaiban, S. (2016, February 6). Oman is facing possibility of local, expatriate brain drain. Retrieved from <http://timesofoman.com/article/76944/Opinion/Columnist/Oman-is-facing-possibility-of-local-expatriate-brain-drain>

**Appendix 4**

Al Haremi, T. Z. (2016, August 28). Omanisation impedes investment: OCCI chairman. Retrieved from <http://timesofoman.com/article/91232/Oman/Omanisation/'Omanisation-is-obstacle-to-economic-growth-in-Oman'>

# OPENING HEALTH CARE CLINICS IN THE DEVELOPING WORLD

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## ABSTRACT

*Opening a new health care clinic in the developing world is challenging. Existing research has explored strategies and new technologies for improving health care in low- to-middle income countries, but the operational steps needed to create sustainable clinics are difficult to find. Our study explains those steps, explores the actions necessary to plant successful clinics in the developing world and confirms the success with a patient satisfaction survey. We describe one university – health care provider partnership in establishing new clinics.*

Key Words: global health, opinion leadership, supply-chain, sustainability, patient satisfaction

## INTRODUCTION

The developing world's inhabitants need more and better healthcare services to lead socially and economically productive lives (Bale, 2008). Everything from treatment for communicable diseases, to medicines, vaccines, and technology, is in short supply (WHO, 2018). Approximately 1.3 billion people have little or no access to health care. Low-to-medium income countries have 93% of the world's diseases, but just 18% of world income and 11% of healthcare spending worldwide (Bale, 2008).

Research into opening clinics in low- to-medium income countries has focused on high-level vision and strategies, or on low-level implementation details. The operations work needed to start a new clinic is missing or fragmented. In addition, we know of no descriptions of collaboration between universities and healthcare organizations exploring best practices in planting clinics. Our research describes one university – health care relationship, the operational aspects of successfully starting new clinics (Baker & Orton, 2010), and patient satisfaction regarding those clinics.

The proportion of university students participating in study-abroad programs has increased significantly since the 1990s (Lewin, 2009). Some of those programs focus on health care, where the students are observers (Fennell, 2009). However, students from the University of South Dakota (USD) actively gather research data. That data makes partnering with health systems both possible and desirable. Sanford Health and USD have worked together to discover how to improve health care in Ghana. USD faculty oversee the research, provide expert analysis and explanations to Sanford's decision-makers. USD regularly offers faculty-led programs where graduate and undergraduate students travel abroad, gather data to provide market feedback. Sanford World Clinics has used that knowledge to build treatment centers. Also, USD has performed studies of health care cost, access, and quality in Ghana. Those studies provide essential information for Sanford Health to meet the needs of the communities they serve.

## RELEVANT LITERATURE

Research on meeting the needs of the developing world has focused on high-level vision and strategies, or on low-level implementation details, to deliver better healthcare. Strategies include introductory resources for: expanding primary care (Mossman, Bhattacharyya, McGahan, & Mitchell, 2017), building a hospital (Nah & Osifo-Dawodu, Establishing Private Health Care Facilities in Developing Countries, 2007), starting international clinics (Collins, 2014), quality assurance (Hurst, 2012) (O'Rourke, Jeugmans, Sonin, Dashzeveg, & Batsuury, 2001), family planning (K4Health, 2018), in-country research (Csaszar & Lal, 2004), and finance (OPIC, 2013). Low-level descriptions include technological and practical advances, such as medical imaging (Kramer, 2018), medical clinics in a shipping container (Meinhold, 2009), and solar-powered medical lighting (Aronson & Stachel, 2018).

Existing research in patient satisfaction covers many aspects of health service delivery. For example, ambulatory health care services (Dansky & Miles, 1997), family doctors (Marcinowicz, Chlabicz, & Grebowski, 2009), medical imaging departments (DiGiacinto, Gildon, Keenan, & Patton, 2016), faculty practice (McNiell, Mackey, & Sherwood, 2004), and nurse practitioner managed clinics (Cole, Mackey, & Lindenberg, 2001), have all described one or more facet of satisfaction with health delivery. The motivation for surveys is to improve services. However, surveys also provide a metric for the likelihood of repeated patient use. We measured patient sentiment with a survey instrument administered by students in a study-abroad course to find out whether patients planned to continue to use the clinic. We shared our results with Sanford Health, the clinic operator.

### Challenges

Several barriers make opening new clinics in the developing world difficult. Infrastructure is often inadequate or missing. Suitable facilities must be rented or constructed; resources are difficult to procure, transport, secure and distribute. Cultural understanding can be too weak to support effective collaboration (South-Winter, Dai, & Porter, 2015). Gauging success is taxing and can miss the mark. Failure to create a sustainable clinic may do more harm than good (Kargbo, 2017).

### Research-based Recommendations

Research shows that though there are challenges, some can be mitigated, and others avoided, by following a few simple steps. First, the benefits of primary care (Starfield, Shi, & Macinko, 2005) mean that the greatest return on investment will occur at a location where basic health services are not met (Mossman, Bhattacharyya, McGahan, & Mitchell, 2017). Second, work with an indigenous liaison familiar with the local culture and government (South-Winter, Dai, & Porter, 2015). Third, gain the support of government officials and opinion leaders (South-Winter, Dai, & Porter, 2015). Fourth, hire and train residents to staff the clinic (Hongoro & Normand, 2006). Fifth, establish the complete supply chain before opening the clinic (Ivanov, 2010). Sixth, use management controls to keep operating costs low (Wild, 2017). Seventh, use telemedicine where possible (Wootton, 2001). Eighth, focus on quality to ensure patient satisfaction (Peabody, Taguiwalo, Robalino, & Frenk, 2006). There are introductions on to how to begin (Collins, 2014), but caution must be exercised to ensure long-term sustainability (Kargbo, 2017).

## EXPERIENCE IN OPENING CLINICS

In 2011, Sanford Health Systems announced that it would fund construction and operation of a ten-clinic network in Ghana to be complete in three years. In January 2012, Sanford opened its first clinic in Cape Coast, Ghana. The Cape Coast clinic sees over 900 patients per week. By May 2014, Sanford World Clinics had four clinics providing general health care services (e.g., treatment for malaria, diarrhea, and respiratory issues). In July 2014, Sanford Health announced they would build 300 clinics in Ghana over a six-year period. The Ghana clinics will be a linked telehealth network and be able to reach rural areas with modern care for the first time. Investors include the government of Ghana, with locals serving as medical staff. The mission, vision, and values are a part of the organically-grown staff in the clinics where research is conducted. Sanford plans to invest \$30 million over ten years; each clinic is expected to break even within two years.

Location should be selected based on demographics, resource availability, security, government stability, and support. However, the most important criterion is to find a location where the unmet medical needs of the community can be met with basic health services. Regional facilities are best equipped to treat complex conditions. For Sanford Health, with its focus on children's health, basic services fit their mission well. Sanford Health has used those factors to open clinics in Ghana. Sanford knew some factors beforehand and discovered others during the construction and operation process. Training can best ensure cultural understanding and hiring indigenous professionals. Ideally, indigenous personnel will have spent significant time within your organization, as close as possible to where you make initiative-related decisions. That experience bridges both worlds in ways that are difficult to match with other arrangements. Sanford Health partnered with Kojo Benjamin Taylor to facilitate their interactions with Ghanaians. Skilled managers are needed at each stage from clinic construction to clinic operation. American members of Sanford Health's new-clinic team play an important role, but to be sustainable, Ghanaians are integral to staff and manage the clinics. Training medical personnel takes time, and developing countries are unlikely to have personnel possessing the required skills without being trained by the sponsor. Plan to train the staff both in skills and mission.

Cultural sensitivity necessitates the successful recruitment of local formal and informal opinion leaders (South-Winter, Dai, & Porter, 2015). Without the support of opinion leaders, the new clinic will be unused. Kojo Benjamin Taylor is an essential conduit for accurate information transfer between Ghanaians and Sanford Health's new-clinic team. Sanford Health's global focus is on children's health, and in Ghana, mothers are the principal players in children's health. Providers must reach mothers first to reach the children.

Even successful completion of the tasks above can be insufficient. Patients must come to the clinic. Early results for Sanford Health showed that a clinic's presence, without the support of opinion leaders, was an empty clinic. However, once Sanford gained opinion leader support, patients came. The next step is to ensure that patients have a satisfactory experience.

### Survey

We evaluated satisfaction with a survey of Ghanaian patients in three clinics using fifteen Likert items (see Table 1).



Table 1  
*Independent variable statistical significance  
 and Spearman's  $\rho$  correlation coefficient*

Clinic Features	Spearman's $\rho$	$p$ -value
Waiting Area	0.135	0.128
Registry	0.076	0.393
Vitals	0.301	< 0.001
Consulting Rooms	0.157	0.076
Treatment Room	0.060	0.499
Pharmacy	0.111	0.211
Laboratory	0.179	0.043
Ante-Natal	0.042	0.636

Clinic Characteristics	Spearman's $\rho$	$p$ -value
Value for Price	-0.001	0.990
Quality	0.505	< 0.001
Usage Experience	0.266	0.002
Ability to Meet Needs	0.212	0.016
Design and Appearance	0.295	< 0.001
Overall Satisfaction	0.313	< 0.001

We chose those items to record patient perceptions of their experience with the clinic, and to identify the important factors in patients' decisions to use the clinic. We also wanted to predict which patients were likely to return. We used Spearman's Rank Correlation Coefficient (Spearman's  $\rho$  (rho)) (Spearman, 1904) to identify the independent variable or variables most likely to predict patient satisfaction. We chose  $\rho$  because we measured a monotone ordinal association between each independent variable and the response "Will you use any of the services at this facility in the future?" The close correspondence between  $\rho$  and the Pearson Product-Moment Correlation Coefficient also make  $\rho$  attractive (Hauke & Kossowski, 2011). Values closer to 1 indicate a positive or direct relationship between independent variable rank and response rank. Conversely, values closer to -1 are indicative of a negative or inverse relationship.  $\rho$  is a nonparametric measure that does not make normality, linearity or interval-scale assumptions about the data.

To strengthen the results, we divided patients into two groups. The first group included only those who answered the question "Will you use any of the services at this facility in the future?" with "Definitely." The second group comprised those who answered "Probably" or "Probably Not" or "Definitely Not" or "Not Sure."

The survey's null hypothesis was that half or fewer of clinic patients definitely will use the clinic again. The alternative hypothesis was that more than half definitely will use the clinic again. We chose a one-tailed sign test for a proportion, with effect size 0.15, confidence level 0.95, and power 0.9. Based on an apriori analysis, our sample size required at least  $N = 93$ ; it was  $N = 128$ . Given the number of students administering the questionnaire and the number of translators

available, we estimated that students could complete approximately one hundred interviews during the time the students had for interviews.

The sample comprised 128 subjects, and 2,560 sample points, with 202 missing. We imputed values for the missing data using observation similarity, breaking ties by randomly choosing one of the candidate values. We used a two-step analysis. In the first step, we identified and verified the significance of the independent variable correlation. *Satisfaction with Quality of Service Provided* (Quality) had the greatest positive correlation, with  $\rho = .51, p < .001$ . The sample proportion estimate that clinic patients definitely will use the clinic again was 0.93, 95% CI [0.88, 0.97]; see Figure 1.

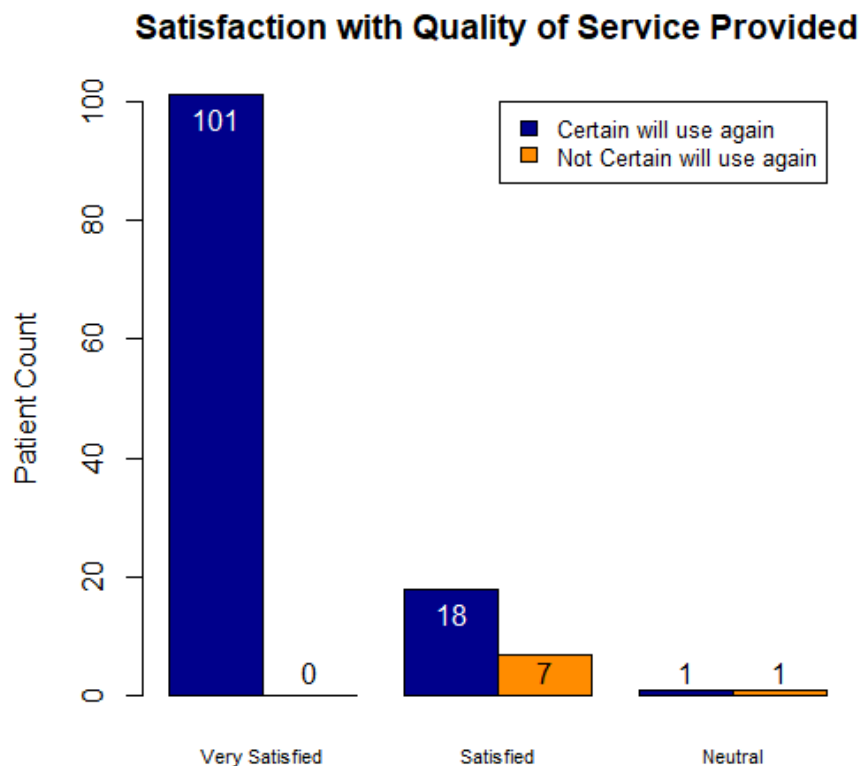


Figure 1

The second step used the first step's results to construct a predictive model using logistic regression (Cox, 1958). We compared the predictive model to a null hypothesis model to evaluate accuracy.

We constructed logistic regression models using a 70/30 training/validation split and 1,000 bootstrap iterations for each (Efron & Tibshirani, 1993). We used Forward Stepwise Selection (James, Witten, Hastie, & Tibshirani, 2013) beginning with each statistically significant independent variable (IV) (*Vitals, Laboratory, Quality, Usage Experience, Ability to Meet Needs, Design and Appearance, Overall Satisfaction*) and building until the models by adding one IV at a time. We choose the best model based on *Akaike's Information Criterion* (AIC) (Akaike, 1974). Quality had the lowest AIC of all the models.

We tested the Quality model by comparing it to a model based on the survey's null hypothesis. We created an evenly balanced response by replicating the eight "Not Definite"

observations fourteen times for a total of 120. Using 120 “Definite” responses and 120 The null model used an evenly balanced response, and randomized predictor data for each observation. See Table 2.

Table 2  
*Patient Use Expectations*

Predicted	Actual			
	Quality		Null	
	Not Definite	Definite	Not Definite	Definite
Not Definite	0.01	0.04	0.35	0.14
Definite	0.01	0.94	0.15	0.36

Quality is 95% accurate, while the null model is 71% accurate. The results demonstrate that Quality is a good predictor of patient intent to continue to use clinic services. Our results are consistent with other research conducted in the developing world. E.g., Hanefeld et al., Andaleeb, Haddad & Fournier, Reerink & Sauerborn all found that perceptions of quality drive health service utilization (Hanefeld, Powell-Jackson, & Balabanova, 2017) (Andaleeb, 2001) (Haddad & Fournier, 1995) (Reerink & Sauerborn, 1996). *Disease control priorities in developing countries* is a helpful description of quality improvement in developing countries (Peabody, Taguiwalo, Robalino, & Frenk, 2006).

## DISCUSSION AND FUTURE RESEARCH

After initial setbacks in the first Sanford Health clinic, Sanford opened three clinics in Ghana using the research-based recommendation steps above. Hiring and training indigenous professionals ensured cultural understanding. Ideally, indigenous personnel will have spent significant time within your organization. That experience bridges both worlds in ways that are difficult to match with other arrangements. Sanford Health partnered with Kojo Benjamin Taylor, a native of Ghana, to facilitate Sanford’s interactions with Ghanaians.

Cultural sensitivity is a requirement for the successful recruitment of local opinion leaders, both formal and informal (South-Winter, Dai, & Porter, 2015). Without the support of opinion leaders, the new clinic will be unused. Taylor was, and is, an essential conduit for accurate information transfer between Sanford Health and Ghanaians. In Ghanaian society, women have the primary responsibility for child care. If all other stakeholders endorse the clinic, and mothers have access to the clinic, so will children.

Logistics planning requires identifying how resources will be procured in a developing country, including the transportation and storage of everything from medicine and bandages to office supplies and light bulbs. Sanford uses local sourcing where possible, as long as it is not cost prohibitive, which builds local goodwill. Vendors must be scrutinized and chosen on a case-by-case basis. Careful supply chain management is essential, requiring managerial skill throughout the process.

Skilled managers are needed at each stage from clinic construction to clinic operation. American members of Sanford Health’s new-clinic team played an important role, but to be sustainable, clinic staff and management has to be Ghanaian. Training medical personnel takes time, and developing countries are unlikely to have personnel possessing the required skills

without being trained by the sponsor. Plan to train the staff both in skills and mission. Without training, quality will suffer, resulting in clinic failure.

There are several technological advances that warrant further research. Perhaps the most attractive development is the potential of smartphones to improve healthcare outcomes (Kahn, Yang, & Kahn, 2010). Though telemedicine (Wootton, 2001) has existed for at least twenty years, its cost-effectiveness has been difficult to quantify (Håkansson & Gavelin, 2000). However, its efficacy in developing countries may be greater than in the developed world (Edworthy, 2001). For example, tele-electroencephalography (tele-EEG) has worked well when a resident clinical neurophysiologist is not available (Coates, Clarke, Davison, & Patterson, 2012) (Lasierra, et al., 2009). Monitoring the effectiveness of telemedicine can be included in the ongoing tasks of cost, access and quality assessments.

## CONCLUSION

To open a successful clinic, find a location where basic medicine is unavailable. Create relationships with stakeholders from national government officials to informal community leaders. Staff the clinic with trained indigenous people. Recruit women, because as caregivers for children, they are the means through which children access health care services. Maximize your resources by leveraging the benefit-to-cost ratio through low-risk, high-return, health care services; leave complex or expensive treatments to regional centers. Partner with university study-abroad programs because they are a resource multiplier. Students benefit from this of type research and the industry partnership. It allows university students to develop a greater knowledge of global healthcare, cultural competencies, and the importance of opinion in healthcare. Focus on quality; it is the most important predictor of repeated use.

## REFERENCES

- Akaike, H. (1974). A new look at the statistical model identification. *IEEE Transactions on Automatic Control*, 19(6), 716–723. doi:10.1109/TAC.1974.1100705
- Andaleeb, S. S. (2001). Service quality perceptions and patient satisfaction: a study of hospitals in a developing country. *Social Science & Medicine*, 1359–1370.
- Aronson, H., & Stachel, L. (2018, February 4). What we do. Retrieved from We Care Solar: <https://wecaresolar.org/impact/stories/>
- Baker, E. L., & Orton, S. N. (2010). Practicing management and leadership : Vision, strategy, operations, and tactics. *Journal of Public Health Management and Practice*, 16(5), 470-471.
- Bale, H. E. (2008). Proposal - Improving Access to Health Care for the Poor, Especially in Developing Countries. Retrieved September 3, 2018, from Global Economic Symposium: <http://www.global-economic-symposium.org/knowledgebase/the-global-society/financing-health-care-for-the-poor/proposals/improving-access-to-health-care-for-the-poor-especially-in-developing-countries>
- Coates, S., Clarke, A., Davison, G., & Patterson, V. (2012, July 11). Tele-EEG in the UK: a report of over 1,000 patients. *Journal of Telemedicine and Telecare*, 18(5), 243-246.
- Cole, F. J., Mackey, T. A., & Lindenberg, J. (2001, October). Wait Time and Satisfaction with Care and Service at a Nurse Practitioner Managed Clinic. *Journal of the American Academy of Nurse Practicioners*, 467-472. Retrieved September 2, 2018, from <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1745-7599.2001.tb00008.x>
- Collins, E. M. (2014, April 1). Developing Health Care Clinic Partnerships in Resource-Limited Regions. Retrieved from AAP News & Journals Gateway: <http://pediatrics.aappublications.org/content/133/4/574>

- Cox, D. R. (1958). The Regression Analysis of Binary Sequences. *Journal of the Royal Statistical Society. Series B (Methodological)*, 20(2), 215-242. Retrieved from <https://www.jstor.org/stable/2983890>
- Csaszar, M., & Lal, B. (2004). Improving Health in Developing Countries. *Issues in Science and Technology*, 21(1). Retrieved September 3, 2018, from [https://issues.org/21-1/p\\_csaszar/](https://issues.org/21-1/p_csaszar/)
- Dansky, K. H., & Miles, J. (1997). Patient satisfaction with ambulatory healthcare services: Waiting time and filling time. *Hospital & Health Services Administration*, 165-177. Retrieved September 1, 2018, from <https://search.proquest.com/docview/206721060?pq-origsite=gscholar>
- DiGiacinto, D., Gildon, B., Keenan, L. A., & Patton, M. (2016, May 19). Review of Patient Satisfaction Research to Improve Patient Surveys in Medical Imaging Departments. *Journal of Diagnostic Medical Sonography*, 32(4), 203-206.
- Edworthy, S. M. (2001, September 8). Telemedicine in developing countries may have more impact than in developed countries. *The BMJ*, 323 (7312), 524-525. Retrieved September 4, 2018
- Efron, B., & Tibshirani, R. J. (1993). *An Introduction to the Bootstrap*. Chapman and Hall/CRC.
- Fennell, R. (2009, September 22). The impact of an international health study abroad program on university students from the United States. *Global Health Promotion*, 16(3), 17-23.
- Haddad, S., & Fournier, P. (1995, March). Quality, cost and utilization of health services in developing countries. A longitudinal study in Zaïre. *Social Science & Medicine*, 40(6), 743-753.
- Håkansson, S., & Gavelin, C. (2000). What do we really know about the cost-effectiveness of telemedicine? *Journal of Telemedicine and Telecare*, 133-136.
- Hanefeld, J., Powell-Jackson, T., & Balabanova, D. (2017). Understanding and measuring quality of care: dealing with complexity. *Bulletin of the World Health Organization*, 95, 368-374.
- Hauke, J., & Kossowski, T. (2011). Comparison of Values of Pearson's and Spearman's Correlation Coefficients on the Same Sets of Data. *Quaestiones Geographicae*, 30(2), 87-93.
- Hongoro, C., & Normand, C. (2006). Health Workers: Building and Motivating the Workforce. In *Disease Control Priorities in Developing Countries* (Second ed., p. 71). Washington, DC. Retrieved December 30, 2017, from <https://www.ncbi.nlm.nih.gov/books/NBK11730/>
- Hurst, K. (2012). Developed and developing country QA issues. *International Journal of Health Care Quality Assurance*, 25(3). doi:<https://doi.org/10.1108/ijhcqa.2012.06225caa.001>
- Ivanov, D. (2010, July). An adaptive framework for aligning (re)planning decisions on supply chain strategy, design, tactics, and operations. *International Journal of Production Research*, 48(13), 3999-4017.
- James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). *An Introduction to Statistical Learning*. New York: Springer.
- K4Health. (2018). *Family Planning - A Global Handbook for Providers*. Baltimore, MD: Johns Hopkins Center for Communication Programs. Retrieved from <https://www.fphandbook.org/>
- Kahn, J. G., Yang, J. S., & Kahn, J. S. (2010, February). 'Mobile' Health Needs And Opportunities In Developing Countries. *Health Affairs*, 254-260. Retrieved from <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2009.0965>
- Kargbo, S. (2017, June 6). Why health clinics may hinder developing countries' efforts. Retrieved from World Economic Forum: <https://www.weforum.org/agenda/2017/06/why-health-clinics-may-hinder-developing-countries-efforts>
- Kramer, C. M. (2018, August 29). Potential for Rapid and Cost-Effective Cardiac Magnetic Resonance in the Developing (and Developed) World. *Journal of the American Heart Association*, 7(17). doi:<https://doi.org/10.1161/JAHA.118.010435>
- Lasierra, N., Alesanco, A., Campos, C., Caudevilla, E., Fernandez, J., & Garcia, J. (2009). Experience of a real-time tele-EEG service. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society* (pp. 5211-5214). Minneapolis, MN: IEEE. doi:10.1109/IEMBS.2009.5334076
- Lewin, R. (2009). *The Handbook of Practice and Research in Study Abroad: Higher Education and the Quest for Global Citizenship* (1st ed.). Routledge.
- Marcinowicz, L., Chlabicz, S., & Grebowski, R. (2009, April 16). Patient satisfaction with healthcare provided by family doctors: primary dimensions and an attempt at typology. doi:<https://doi.org/10.1186/1472-6963-9-63>

- McNiel, N. O., Mackey, T. A., & Sherwood, G. D. (2004). Quality and customer service aspects of faculty practice. *Nursing Outlook*, 189-196. Retrieved September 2, 2018, from <https://doi.org/10.1016/j.outlook.2004.04.006>
- Meinhold, B. (2009, October 30). Shipping Container Health Clinics For Developing Countries. Retrieved from Inhabitat: <https://inhabitat.com/shipping-container-health-clinics-for-developing-countires/>
- Mossman, K., Bhattacharyya, O., McGahan, A., & Mitchell, W. (2017, June 6). Expanding the Reach of Primary Care in Developing Countries. *Harvard Business Review*. Retrieved from <https://hbr.org/2017/06/expanding-the-reach-of-primary-care-in-developing-countries>
- Nah, S.-H., & Osifo-Dawodu, E. (2007). Establishing Private Health Care Facilities in Developing Countries. Retrieved September 3, 2018, from Open Knowledge Repository: <https://openknowledge.worldbank.org/bitstream/handle/10986/6600/464570PUB0Box3101OFFICIAL0USEONLY1.pdf;sequence=1>
- Nah, S.-H., & Osifo-Dawodu, E. (2007). Establishing Private Health Care Facilities in Developing Countries : A Guide for Medical Entrepreneurs. The World Bank. doi:<http://hdl.handle.net/10986/6600>
- OPIC. (2013, April 4). Improving health care in Africa one clinic at a time. Retrieved from OPIC Blog: <https://www.opic.gov/blog/impact-investing/improving-health-care-in-africa-one-clinic-at-a-time>
- O'Rourke, M., Jeugmans, J., Sonin, S., Dashzeveg, G., & Batsuury, R. (2001). Developing quality health systems in Mongolia. *International Journal of Health Care Quality Assurance*, 212-217. doi:<https://doi.org/10.1108/EUM0000000005641>
- Peabody, J. W., Taguiwalo, M. M., Robalino, D. A., & Frenk, J. (2006). Improving the Quality of Care in Developing Countries. In D. T. Jamison, J. G. Breman, A. R. Measham, M. Claeson, D. B. Evans, A. Mills, & P. Musgrove (Eds.), *Disease Control Priorities in Developing Countries* (Second ed., p. 70). Washington D.C.: The International Bank for Reconstruction and Development / The World Bank. Retrieved December 26, 2017, from <https://www.ncbi.nlm.nih.gov/books/NBK11790/>
- Reerink, I. H., & Sauerborn, R. (1996, January 1). Quality of Primary Health Care in Developing Countries: Recent Experiences and Future Directions. *International Journal for Quality in Health Care*, 8(2), 131-139.
- South-Winter, C., Dai, W., & Porter, J. (2015). Health Care in Ghana: A Study of Health Care Opinion Leadership. *GSTF Journal of Nursing and Health Care*, 3(1), 79-87. Retrieved from <http://dl6.globalstf.org/index.php/jnhc/article/view/1446>
- Spearman, C. (1904). The proof and measurement of association between two things. *American Journal of Psychology*, 15, 72-101.
- Starfield, B., Shi, L., & Macinko, J. (2005). Contribution of Primary Care to Health Systems and Health. *The Milbank Quarterly*, 457-502. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2690145/>
- WHO. (2018, September 3). Global Health Observatory (GHO) data. Retrieved from World Health Organization: <http://www.who.int/gho/en/>
- Wild, T. (2017). *Best Practice in Inventory Management* (3rd ed.). London: Routledge.
- Wootton, R. (2001, September 8). Telemedicine. *BMJ*, 557-560.