

INTERNATIONAL JOURNAL OF THE ACADEMIC BUSINESS WORLD

Contents

Intention to Quit Among Warehouse Workers: An Extension of Past Research in A Unique Organizational Setting <i>Jeremy Stafford & Jana Beaver</i>	7
Anticipating and Managing Resistance in Organizational Information Technology (IT) Change Initiatives <i>Jodine Burchell</i>	19
Exploring Relationships between Project Characteristics and Reduced Functionality in Software Projects <i>Denise Williams & David Williams</i>	29
Workplace Violence: A Discussion and Ongoing Study <i>R. Bryan Kennedy, Eddy Burks, Susan Calhoun, Michael Essary, Susan Herring, Laura Lynn Kerner, & Ana Machuca</i>	35
The SHCA Case: A Retrospective Look at a Net-Based Customer Service System Launch <i>David W. Palmer, Arthur Allaway, Giles D'Souza, & Alexander E. Ellinger</i>	41
A Case Study in Leadership and Staff Empowerment <i>Irma S. Jones & Olivia Rivas</i>	53
Constructing a Model for the Diffusion of IT/IS in Public Service Organizations <i>Mahmoud M. Watad</i>	59
Exploring the Differences in Quality Practices in Developing Countries <i>Gioconda Quesada, Marvin E Gonzalez, Carlo Mora-Monge, & Mark F. Hartley</i>	71
Unleashing the Cracken: Does Internet Financial Reporting matter in Africa? <i>Nacasius U. Ujah & Collins E. Okafor</i>	87
A Cross-National Empirical Study Investigating the Role of Purchasing Purpose has on the Country-of-Origin Effect <i>Kevin O'Mara, Kathryn Cort, & Gary Palin</i>	99

**INTERNATIONAL JOURNAL OF THE
ACADEMIC BUSINESS WORLD**

**JW PRESS
MARTIN, TENNESSEE**

Board of Reviewers		
Copyright ©2011 JW Press	Akdere, Mesut—University of Wisconsin-Milwaukee	Kephart, Pam—University of Saint Francis
	Allen, Gerald L.—Southern Illinois Workforce Investment Board	King, David—Tennessee State University
	Arney, Janna B.—The University of Texas at Brownsville	Korb, Leslie—Georgian Court University
	Awadzi, Winston—Delaware State University	Korzaan, Melinda L.—Middle Tennessee State University
	Barrios, Marcelo Bernardo—EDDE-Escuela de Dirección de Em- presas	Kray, Gloria Matthews—University of Phoenix
	Bello, Roberto—University of Lethbridge	Lee, Minwoo—Western Kentucky University
	Benson, Joy A.—University of Wisconsin-Green Bay	Leupold, Christopher R—Elon University
	Boswell, Katherine T.—Middle Tennessee State University	Lim, Chi Lo—Northwest Missouri State University
	Cano, Cynthia M.—Augusta State University	Lin, Hong—University of Houston-Downtown
	Carey, Catherine—Western Kentucky University	Lowhorn, Greg—Pensacola Christian College
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the publisher.	Carlson, Rosemary—Morehead State University	Mayo, Cynthia R.—Delaware State University
	Case, Mark—Eastern Kentucky University	McManis, Bruce—Nicholls State University
	Chan, Tom—Southern New Hampshire University	McNelis, Kevin—New Mexico State University
	Coelho, Alfredo Manuel—UMR MOISA-Agro Montpellier	Meyer, Timothy P.—University of Wisconsin-Green Bay
	Collins, J. Stephanie—Southern New Hampshire University	Mitchell, Jennie—Saint Mary-of-the-Woods College
	Cunningham, Bob—Grambling State University	Moore, Bradley—University of West Alabama
	Deng, Ping—Maryville University Saint Louis	Morrison, Bree—Bethune-Cookman College
	Dennis, Bryan—Idaho State University	Mosley, Alisha—Jackson State University
	Durden, Kay—University of Tennessee at Martin	Neumann, Hillar —Northern State University
	Dwyer, Rocky—Athabasca University	Newport, Stephanie—Austin Peay State University
Published by	Fausnaugh, Carolyn J—Florida Institute of Technology	Nixon, Judy C.—University of Tennessee at Chattanooga
	Fay, Jack—Pittsburg State University	Oguhebe, Festus—Alcorn State University
	Festervand, Troy A.—Middle Tennessee State University	Packer, James—Henderson State University
	Finlay, Nikki—Clayton College and State University	Patton, Barba L.—University of Houston-Victoria
	Fleet, Greg—University of New Brunswick in Saint John	Petkova, Olga—Central Connecticut State University
	Fontana, Avanti—University of Indonesia	Petrova, Krassie—Auckland University of Technology
	Fry, Jane—University of Houston-Victoria	Phillips, Antoinette S.—Southeastern Louisiana University
	Garsombke, Thomas—Claflin University	Russell, Laura—Faulkner University
	Greer, Timothy H.—Middle Tennessee State University	Sarosa, Samiaji—Atma Jaya Yogyakarta University
	Griffin, Richard—University of Tennessee at Martin	Schuldt, Barbara—Southeastern Louisiana University
JW Press	Hallock, Daniel—University of North Alabama	Shao, Chris—Midwestern State University
	Haque, MD Mahbubul—Pepperdine University	Smith, Nellie—Rust College
	Harper, Brenda—Athens State University	Smith, J.R.—Jackson State University
	Harper, Betty S.—Middle Tennessee State University	St Pierre, Armand—Athabasca University
	Harper, J. Phillip—Middle Tennessee State University	Steerey, Lorrie—Montana State University-Billings
	Hedgepeth, Oliver—University of Alaska Anchorage	Stone, Karen—Southern New Hampshire University
	Henderson, Brook—Colorado Technical University	Talbott, Laura—University of Alabama at Birmingham
	Hills, Stacey—Utah State University	Tanguma, Jesús—The University of Texas-Pan American
	Hillyer, Jene—Washburn University	Tanigawa, Utako—ITEC International LLC
	Hinton-Hudson, Veronica—University of Louisville	Totten, Jeffrey—Southeastern Louisiana University
P.O. Box 49	Hollman, Kenneth W.—Middle Tennessee State University	Udemgba, A. Benedict—Alcorn State University
	Houghton, Joe—University College Dublin	Valle, Matthew “Matt”—Elon University
	Iyengar, Jaganathan—North Carolina Central University	Wahid, Abu—Tennessee State University
	Iyer, Uma J—Austin Peay State University	Wanbaugh, Teresa—Louisiana College
	Jackson, Steven R.—University of Southern Mississippi	Wasmer, D.J.—Saint Mary-of-the-Woods College
	Jennings, Alegra—Sullivan County Community College	Watson, John G.—St. Bonaventure University
	Jones, Irma S.—The University of Texas at Brownsville	Wilson, Antoinette—University of Wisconsin-Milwaukee
	Joyner, Edd R—Baker College	Zhou, Xiyu (Thomas)—University of Alaska Fairbanks
	Kennedy, Bryan—Athens State University	Ziems, Wendy—Stautzenberger College
Printed in the United States of America		

The JW Press Family of Academic Journals

Journal of Learning in Higher Education (JLHE)

ISSN: 1936-346X (print)

Each university and accrediting body says that teaching is at the forefront of their mission. Yet the attention given to discipline oriented research speaks otherwise. Devoted to establishing a platform for showcasing learning-centered articles, JLHE encourages the submission of manuscripts from all disciplines. The top learning-centered articles presented at ABW conferences each year will be automatically published in the next issue of JLHE. JLHE is listed in Cabell's Directory of Publishing Opportunities in Educational Psychology and Administration.

Individuals interested in submitting manuscripts directly to JLHE should review information at <http://jwpress.com/JLHE/JLHE.htm>.

Journal of Academic Administration in Higher Education (JAAHE)

ISSN: 1936-3478 (print)

JAAHE is a journal devoted to establishing a platform for showcasing articles related to academic administration in higher education, JAAHE encourages the submission of manuscripts from all disciplines. The best articles presented at ABW conferences each year, that deal with the subject of administration of academic units, will be automatically published in the next issue of JAAHE. JAAHE is listed in Cabell's Directory of Publishing Opportunities in Educational Psychology and Administration.

Individuals interested in submitting manuscripts directly to JAAHE should review information on their site at <http://jwpress.com/JAAHE/JAAHE.htm>.

International Journal of the Academic Business World (IJABW)

ISSN 1942-6089 (print)

ISSN 1942-6097 (online)

IJABW is a new journal devoted to providing a venue for the distribution, discussion, and documentation of the art and science of business. A cornerstone of the philosophy that drives IJABW, is that we all can learn from the research, practices, and techniques found in disciplines other than our own. The Information Systems researcher can share with and learn from a researcher in the Finance Department or even the Psychology Department.

We actively seek the submission of manuscripts pertaining to any of the traditional areas of business (accounting, economics, finance, information systems, management, marketing, etc.) as well as any of the related disciplines. While we eagerly accept submissions in any of these disciplines, we give extra consideration to manuscripts that cross discipline boundaries or document the transfer of research findings from academe to business practice. International Journal of the Academic Business World is listed in Cabell's Directory of Publishing Opportunities in Business.

Individuals interested in submitting manuscripts directly to IJABW should review information on their site at <http://jwpress.com/IJABW/IJABW.htm>

Editor

Dr. Edd R. Joyner
Edd@JWPress.com

INTENTION TO QUIT AMONG WAREHOUSE WORKERS: AN EXTENSION OF PAST RESEARCH IN A UNIQUE ORGANIZATIONAL SETTING

Jeremy Stafford, Ph.D.

University of North Alabama
Florence, Alabama

Jana Beaver, Ph.D.

University of North Alabama
Florence, Alabama

ABSTRACT

Logistics organizations frequently experience high levels of turnover among various occupational groups within the industry. Until recently, the vast majority of the turnover research had focused on intention to quit among material transport workers, but had all but ignored material handling personnel. Of the studies that were conducted, variables predicting various satisfaction dimensions and intention to quit were examined either within a narrow person-organization fit or broad-based demographic, organizational, occupational, and individual framework. Furthermore, the findings in each of these studies reflected the aggregated scores of worker attitude surveys from multiple organizations spread out across multiple states and even geographic regions. The current study examined the combined influence of person-organization fit and demographic variables on intention to quit among warehouse workers (N = 134) from a single logistics operation, and examined the influence of previously untested predictor variables. Results observed partial support for previous findings, and provided new insights into intention to quit among an occupational group that continues to be overlooked by organizational behavior researchers.

INTRODUCTION

Among logistics organizations, frequent turnover is a perennial concern (see Richardson, 1989) because high rates of turnover severely restrict a logistics organization's ability to maintain often continuous operations. And due to the nature of the work itself, turnover rates in logistics related occupations can be quite substantial. For example, Keller and Ozment (1999) reported the average turnover among transport drivers as 100%, and many turnover rates as high as 300% have been reported. Among warehousing industry workers the average rate of turnover can also be excessively high (see Gooley, 2001; Mullins, 2002).

Given that the excessive rate of turnover in logistics related jobs has been a long standing issue, and because the number of workers in the transportation and warehouse industry is expected to increase by 11% over the next decade (U.S. De-

partment of Labor, 2009) it is surprising at how little research has been conducted to investigate its antecedents. Furthermore, of those studies that have been conducted in the past decade, the vast majority had focused almost exclusively on the factors contributing to turnover of trucking and logistics management personnel (Autry & Daugherty, 2003). This is unfortunate in that a significant proportion of the logistics industry workforce had been all but ignored until Autry et al., (2003) initially examined the influences of turnover and coping among warehouse distribution workers. In their study, relationships between both cognitive and affective dimensions of person-organization 'fit' with job satisfaction, intention to quit, and coping were examined. The key findings in the author's study were those workers' expectations about the agreement between their perceptions and the characteristics of their company and their supervisor influenced their job satisfaction. Increased job satisfaction

among employees was also associated with more positive behavioral intentions such as decreased intention to quit and absenteeism, and increased work effort and willingness to seek additional training.

Despite the call for more research by Autry et al., (2003), an exhaustive search of current literature on the ABI/Inform database yielded only one published study that examined turnover influence of warehouse workers since Autry et al., (2003). Specifically, Min (2009) examined broad-based relationships between demographic, organizational, occupational, and individual variables and attitudes towards, job alternative, job satisfaction, and turnover. While each of these studies represented significant initial steps towards understanding and predicting turnover intention among warehouse workers, each of these studies employed aggregated survey response data of warehouse workers from a number of different organizations spread out among various states and even geographic regions. Presumably, each of the host organizations in these authors' studies would have shared a host of similarities; however, they would also be expected to have had differences in culture, demographics, policies, and external influences such as the local labor market and cost of living etc. Thus, while the results of these authors' studies represent a significant contribution to a severely underdeveloped body of knowledge, generalizing the practical implications of the results to an individual logistics organization is difficult at best.

As such, the aims of the current study were two-fold. First, the primary intent of the current study was to add to the body of knowledge by replicating in part key aspects of Autry et al., (2003) and Min's (2009) research, but within a specific logistics organization. The other aim was to introduce two previously untested independent variables (i.e., employment history and perceived organizational support) into the framework for predicting intention to quit among warehouse workers.

STUDY VARIABLES AND HYPOTHESES

As previously noted, the current research was undertaken to replicate key aspects of both Autry & Daugherty (2003) and Min's (2009) studies in a unique organizational setting, to include pre-

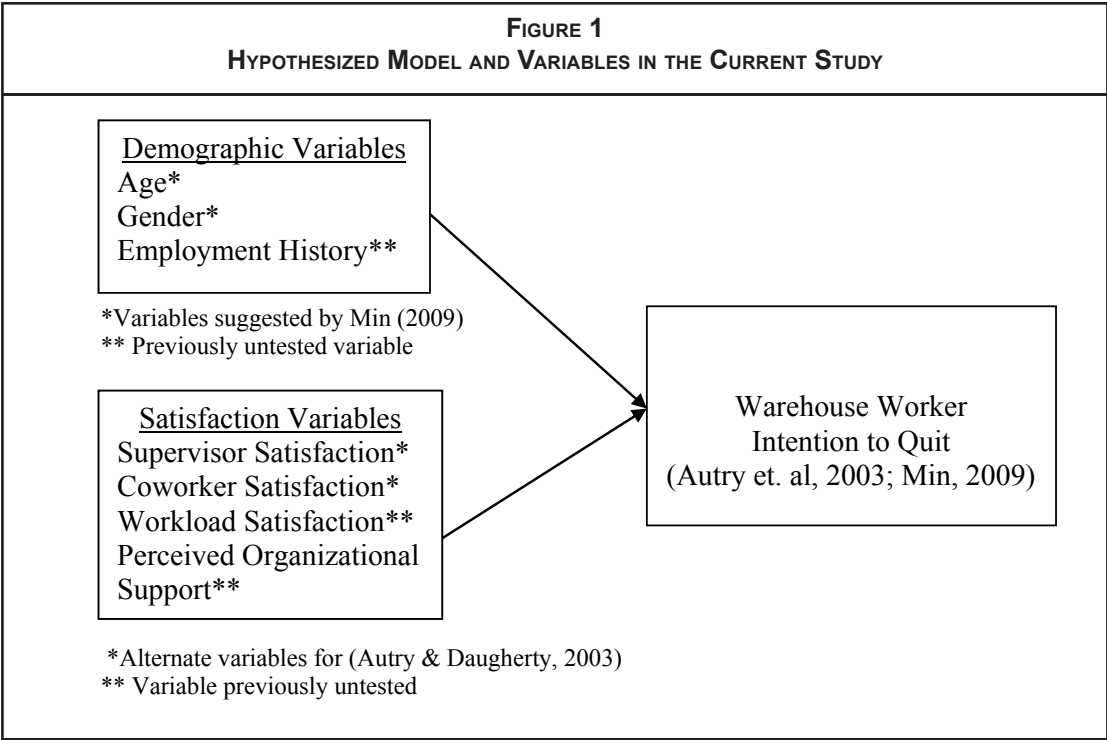
viously untested predictor variables, and to address the call for more research by Min (2009). An overall summary of the current research and hypothesized relationships is shown in Figure 1.

Employment History and Gender

When assessing relationships among worker attitudes and behavioral outcomes in formal research, inclusion of some form of biodata in the analysis is commonly seen. Specifically, biodata such as employment history has long been viewed as a salient predictor of organizational behavior and outcomes, and has demonstrated its predictive ability in numerous individual (e.g., Harold, MacFarland, & Weekley, 2006; Schoenfeldt, 1999) and meta-analyses (e.g., Schmidt & Hunter, 1998). This is primarily because the underlying theory of biodata is that the best predictor of future behavior is past behavior. While Min's (2009) study included an occupational variable (i.e., work experience), Autry and Daugherty (2003) did not. We therefore felt that any replication of these studies should include some form of biodata, particularly variables that may influence turnover intention.

After a thorough review of the body of employee turnover research, and considering the characteristics of the host organization in the current study, we decided to include worker employment history as opposed to Min's (2009) 'work experience' as the primary occupational variable. Ghiselli (1974) and Veiga (1981) noted that for many individuals in traditionally high turnover industries, intentions among workers to remain with a current job for only a limited amount of time may be the result of conscious decisions motivated by a general wanderlust. Ghiselli (1974, pg. 81) even went so far as to coin the term the "hobo syndrome". More recent studies have focused on what has become to be known as a 'turnover culture' (e.g., Abelson, 1993; Iverson & Deery, 1997) where the underlying motivation is that individuals believe their commitment to an employer is primarily normative, and in general lacks any affective attachment.

Normative commitment, as opposed to either affective or continuous commitment (see Meyer, Allen, & Smith, 1993), may also be common among those that believe that upward mobility



requires continuous and strategic job hopping in order to take advantage of increasing opportunities, experience, and pay. Others may believe that all the work that is available to them is generally the same and the only way to satisfy their need for job variety and change during their career is to move from one job to another as their current position becomes stale and routine. In either case, individuals may not enter into a new job with an intention to remain with a particular employer for an indefinite period of time.

In fact, many of these individuals may enter into a new job only to begin searching for a new one shortly afterwards. On the other hand, many of those already in a job quit the job before securing another (Chew, 1996), ostensibly under the assumption that there are always going to be available alternatives (e.g., Lee, Mitchell, Holtom, McDaniel, & Hill, 1999; Price & Mueller, 1986). Therefore, we generalized these findings to the current study and proposed that the number of jobs held by an employee over a three year time period prior to employment with the host organization in the current study would be an important predictor of intention to quit.

H1: The number of previously held jobs (over a 3 year period prior to employment with the current organization) by workers will be positively related to their intention to quit.

Finally, Min (2009) suggested that future studies should examine the influence of demographic variables such as age and gender. In his study, Min (2009) observed partial support for worker experience as an influence on intention to quit in that some warehouse jobs, worker experience was negatively related (i.e., forklift operators and pickers) to intention to quit and others (i.e., directors and supervisors) were not. However, worker age and gender were not assessed as predictors of intention to quit in either his or the Autry et al., (2003) study. In response to the call for more research on the influence of demographic variables, the current study included both age and gender as predictors of intention to quit among warehouse workers. Specifically, we suspected that older workers would be less prone to quit their current job because of the potential loss of seniority status which is often a consideration for more desirable job assignments and compensation.

H2: Worker age will be negatively related to their intention to quit.

Regarding gender, we were unable to find an established theory or published study to use for guidance on how gender might influence intention to quit specifically among warehouse workers. However, two studies were found that provided some indication of what the nature of the relationship might be between gender and workers in low paying labor intensive occupations such as warehouse operations. Huang, Lin, & Chuang (2006) hypothesized that male workers of a Taiwanese construction company would retain their jobs longer than females; however the results observed contradicted their hypothesis (i.e., females stayed longer). Also, in a study of part-time workers in a hospital setting where females were substantially more represented than males, Sightler and Adams (1999) found that males were more likely to leave. Thus, given what scant empirical guidance was available, we adopted a general hypothesis that male warehouse workers would be more likely to quit than females.

H3: Male workers will have higher intention to quit than female workers.

Supervisor, Coworker, and Workload Satisfaction

While both Autry et al., (2003) and Min (2009) both included organizational variables in their studies, the nature of those variables was substantively different. Specifically, Min (2009) conceptualized organizational influence as being related to the size of the workforce, the physical layout of the operations facility, and the atmosphere of the work environment. On the other hand, Autry et al., (2003) conceptualized organizational influence as being related to worker perceptions of fit with supervision, coworkers, and the organization itself. The current study also focused on examining the influence of specific organizational variables on turnover intention; however, given that intention to quit is primarily an attitudinal construct, we adopted the general view of Autry et al., (2003) and examined worker satisfaction with supervisors, coworkers, and the work itself.

Job satisfaction has long been associated with a worker's overall positive mood (see George & Brief, 1992) and attitude towards their job (Witt,

1991). Previous research has shown outcomes such as overall job satisfaction and intention to quit to be influenced by attitudinal factors such as satisfaction with supervision (e.g. Dutton, Dukerich, & Harquail, 1994; Kottke & Sharafinski, 1988; Levinson, 1965, Raabe & Beehr, 2003) and relationships with coworkers (Raabe et al., 2003). More recently, Cullen, Silverstein, and Foley (2008) noted a positive relationship between the amount of physical work performed and burnout, and a negative relationship between workload and job satisfaction. Thus, because the nature of warehouse work is highly labor intensive, and unlike both Autry et al., (2003) and Min (2009), we included workload satisfaction as a central predictor variable in the current study.

H4: Worker satisfaction with supervisor will be negatively related to intention to quit.

H5: Worker satisfaction with coworkers will be negatively related to intention to quit.

H6: Worker satisfaction with workload requirements will be negatively related to intention to quit.

Perceived Organizational Support

Finally, we felt that the “family friendly atmosphere” of Min’s (2009, p. 385) conceptualization was more useful for understanding the influence of intention to quit than the conceptualization of Autry et al., (2003) regarding cognitive and affective assessment of company ‘fit’. However, we also felt that Min’s (2009) conceptualization was too broad for it to have practical utility, particularly when turnover intention among warehouse workers had been shown to have both cognitive and affective influence (Autry et al., 2003). We also felt that the characteristics of the host organization used in this study were not represented adequately by this view. Thus, we incorporated the general view of organizational culture in the current study, but felt that the ‘perceived organizational support’ construct would be a more appropriate organizational influence variable for an examination of worker attitudes when those workers were all from the same organization.

Perceived organizational support (POS) is a well established construct in organizational behavior research as it has demonstrated high internal reliability (see Eisenberger, Huntington, Hutchison, & Sowa, 1986) and is related to, yet independent of, constructs such as affective organizational commitment (e.g., Eisenberger et. al, 1986; Settoon, Bennett, & Liden, 1996; Rhoades, Eisenberger, & Armelli, 2001; Shore, McFarlane, & Sandy, 1993) and continuance commitment (Shore et al., 1993). Furthermore, according to Rhoades and Eisenberger (2002), workers who have an emotional investment in their organization tend to have less intention to quit and are less prone to demonstrate negative organizational behaviors in general. Such emotional investment in the organization to a large degree comes from the mutual exchange of valued resources, assets, and effort between the worker and the employer. These authors also noted that when a worker puts forth effort and organizational citizenship, they expect the employer to reciprocate by (among others) rewarding increased productivity and to demonstrate a concern for their personal well being. Thus, we felt that the POS construct was conceptually a better choice for predicting intention to quit than the company-related person-organization fit dimension used in the Autry et al., (2003) study or the workplace atmosphere view of Min (2009).

H7: Perceived organizational support will be negatively related to employees’ intention to quit.

METHODOLOGY

Setting and sample

Participants for this study (*N* = 134) consisted of warehouse operations workers employed by a large national retail warehouse and distribution facility located in the southeastern United States. This organization was experiencing a turnover rate well above 90%, and the average time a new worker remained with the organization before quitting was less than 3 months. In addition, workers used in the current study were assigned to one of three operational units including order filling, stocking, and shipping. In terms of the work volume, environmental conditions,

materials, data, and physical requirements necessary for successful job performance, there were no real differences between either of these units. The hourly rate of pay offered by the host organization was approximately \$1.50 per hour less than the offerings of other organizations in the area for similar jobs.

Despite the relatively lower pay, the host organization did offer an employee benefits package that was considerably more comprehensive than what was offered by other area organizations; however, every new employee was required to complete a 90-day probationary period before being eligible for the benefits. It is also important to note that the data in this study were obtained *prior to* the global economic instability that resulted in significant downsizing and job losses in many industries and in the region in which this company operates. Therefore, it is highly unlikely that there were any external threats to the validity of the results of this study.

Participants (*N* = 134) were twenty-six percent male and seventy-four percent female with an average age of 33 years. Workers reported that they had held an average of 1.7 jobs in the 3 years prior to being hired by the employer.

Procedure

Workers of the host warehouse facility (*N* = 134) were asked to complete the survey and were informed that their participation was voluntary, and that no compensation, rewards, or preferential treatment would be offered as a result of their participation. All participants were provided with an information disclosure statement that contained contact information for the lead researcher, a statement about the purpose of the survey, and an assurance that the information they provided would remain completely confidential. Participants were given thirty minutes to complete the survey during their scheduled work shift.

Measures

Intention to quit. A 2-item scale used in prior research (Firth, Mellor, Moore, & Loquet, 2004; Siong, Mellor, Moore, & Firth, 2006) was used in the current study to assess worker quitting inten-

tion. These items were “How often do you think of leaving your present job?” and “How likely are you to look for a new job within the next year?” Firth et al., (2004) observed an internal reliability estimate for the 2-item scale of $\alpha = .75$ whereas Siong et al., (2006) reported a reliability estimate of $\alpha = .90$. Cronbach’s alpha for the worker sample in this study was $\alpha = .82$.

Previous employment. Participants reported number of jobs held in a 3-year period prior to working for the organization in this study. No distinction was made between full or part-time status or job type.

Perceived organizational support. Three items from Rhoades and Eisenberger’s (2002) 8-item short-form measure of perceived organizational support were used in the current study. Cronbach’s alpha for the 3-item measure used in this study was $\alpha = .72$.

Supervisor, coworker, and workload satisfaction. Twelve items from the Index of Organizational Reactions (Dunham, Smith, & Blackburn, 1977) were used to measure specific dimensions of overall job satisfaction. These included *supervisor satisfaction* (four items), *satisfaction with coworkers* (four items), and *workload satisfaction* (four items). Previous studies using the IOR have reported internal reliability estimates for each of these scales ranging from .82 to .83 (e.g., Covin, Sightler, Kolenko, & Tudor, 1996; McLain, 1995; Taylor, Tracy, Renard, Harrison, & Carroll, 1995). In this study, the Cronbach’s alpha for the supervisor, coworker, and workload

satisfaction scales were $\alpha = .88$, $\alpha = .78$, $\alpha = .75$ (respectively).

RESULTS

Tests of Hypotheses

Hypotheses 1, 2, 4, 5, 6, and 7 were all tested using hierarchical regression. Hypothesis 3 was tested using a *t*-test. Variance inflation scores (*VIFs*) were also used to assess the degree of multicollinearity in the regression function. All variable *VIF* scores in this study fell below 1.64 indicating that the coefficient tolerances were acceptable. Means, standard deviations, inter-correlations, and coefficient alphas for the study variables are reported in Table 1. All multiple regression analysis results are presented in Table 2.

Hypothesis 1 suggested that the number of jobs workers held over a 3 year period prior to securing their current position would be positively related to their intention to quit. This hypothesis was supported in that *previous employment* was positively related to intention to quit ($\beta = .28$, $p < .05$) for this sample. Hypothesis 2 predicted that worker *age* would be negatively related to intention to quit, and although the relationship was in the direction predicted, it failed to reach significance ($\beta = -.01$, $p > .05$). Therefore, the hypothesis was not supported.

Hypothesis 3 predicted that *gender* would influence the work relationship in that male workers would report greater intention to quit than fe-

TABLE 1 MEANS, STANDARD DEVIATIONS, INTERCORRELATIONS, AND COEFFICIENT ALPHAS OF STUDY VARIABLES										
Variable	M	SD	1	2	3	4	5	6	7	
1. Intention to quit	5.63	2.83	(.82)							
2. Previous employment	1.70	1.63	.23**	(-)						
3. Age	32.75	10.90	-.10	-.18**	(-)					
4. Gender	.77	.42	-.13	-.19*	.13	(-)				
5. Supervisor satisfaction	12.31	2.14	-.42***	.04	.02	-.05	(.88)			
6. Coworker satisfaction	13.10	2.13	-.48***	-.08	.10	-.02	.50***	(.78)		
8. Workload satisfaction	13.23	2.72	-.48***	-.10	.04	.12	.39***	.49***	(.75)	
7. Perceived org. support	12.79	3.11	-.55***	-.13	.04	.13	.43***	.43***	.51***	(.72)
Note. N = 134. Coefficient alphas are reported on the diagonal.										
* $p < .05$, ** $p < .01$, *** $p < .001$										

TABLE 2 RESULTS OF HIERARCHICAL REGRESSION ANALYSIS	
Variable	Worker Sample (N = 134) β
Step 1:	
Age	-.01
Previous Employment	.28*
ΔR^2 after Step 1	.06*
Step 2:	
Supervisor Satisfaction	-.16
Coworker Satisfaction	-.19*
Workload Satisfaction	-.17*
ΔR^2 after Step 2	.32***
Step 3:	
Perceived Organizational Support (POS)	-.21***
ΔR^2 after Step 3	.05***
Overall R^2	.43
Overall R^2_{Adj}	.40
Overall F	15.82***
Note. N = 134. β is the unstandardized regression coefficient.	
All β values are from the final model. All tests are two-tailed.	
* $p < .05$ *** $p < .001$	

negatively related to intention to quit. Based on the results observed ($\beta = -.17$, $p < .05$) this hypothesis was supported.

Finally, hypothesis 7 examined the influence of *perceived organizational support* and, as predicted, was shown to be negatively related to worker intention to quit ($\beta = -.21$, $p < .00$).

DISCUSSION

It was previously noted that past research has shown that those who have a higher tendency to ‘job hop’ may enter a new position predisposed to quit that position. The results observed in the current study for hypothesis 1 reflect previous findings, and provides sufficient evidence to conclude that such a phenomenon is prevalent among warehouse operations workers.

While the results of the current study showed that male warehouse workers were more inclined to quit than female workers, the generalizability of these results may be severely limited due to the overwhelming majority of females in the sample. Similar sample composition and analysis results were observed by Sightler and Adams (1999), and these authors strongly cautioned against generalizing the influence of gender on intention to quit under similar sample constraints. We share these authors’ concern and also caution against making any specific inferences based on our results. Still, the fact that we observed a significant difference does warrant consideration and should be the primary focus a future study.

males. Results showed that males ($M = 6.5$, $SD = 2.73$) did in fact report a higher intention to quit than females ($M = 5.3$, $SD = 2.76$), $t(152) = 2.32$, $p = .05$. Thus, hypothesis 3 was supported.

Hypotheses 4 through 6 tested the relationships between supervisor, coworker, and workload satisfaction (respectively) with intention to quit. Hypothesis 4 predicted that *supervisor satisfaction* would be negatively related to intention to quit; however, the results observed for this sample ($\beta = -.16$, $p > .05$) did not support the hypothesis. As predicted in hypothesis 5, *coworker satisfaction* was negatively related to intention to quit ($\beta = -.19$, $p < .05$). Hypothesis 6 stated that *satisfaction with workload* requirements will be

Why supervisor satisfaction was not related to intention to quit among workers was somewhat surprising, and may be the result of a chilling effect caused by organizational policy. Specifically, all workers were placed on probationary status (90 days) upon entering the organization. It may therefore have been that supervisors withheld their overt support for the workers until the probationary period was over. However, given that the average turnover occurred at less than 90 days, the workers in the current study may have not been in the position long enough to have observed or experienced a positive change in their supervisor’s outward attitudes and interest towards them. In other words, supervisors may have initially taken a neutral approach towards relationship forming and supervision of workers

until they had successfully made it through the probationary period. Thus, workers might have sought and received guidance and support from coworkers, in effect marginalizing the influence of their attitude towards their supervisor on their intention to quit. Future studies are therefore encouraged to investigate whether supervisors adopt a neutral position and attitude towards workers who are in a probationary employment status.

The same line of reasoning that might explain the results observed for hypothesis 4 may also help explain results for hypothesis 5 which may have been due to the average length of time a new worker remained on the job, and the possibility that supervisors withheld meaningful interpersonal interaction until the probationary period had ended. It is therefore feasible that workers simply did not have enough time to form a satisfaction judgment regarding their supervisor, but would not have been the case with coworkers. Finally, it should be pointed out that the results observed in the current study were contrary to those observed by Autry et al., (2003). As previously discussed, the primary rationale for the current study was to examine intention to quit among workers of a specific warehouse operation. Because Autry et al., (2003) used an aggregate of attitudinal data from workers from a number of different organizations. Thus, it is not surprising that the current study observed a different result.

Finally, the results of hypothesis 6 suggested that warehouse operations workers place some value on their relationship with the employer and have certain expectations that define that relationship. Clearly, employer efforts to realize workers' perceptions of organizational support (POS) are critical for reducing turnover. This brings to the fore an issue that many organizations struggle with and or may overlook. Specifically, organizations must consider the central issues of how and when to communicate and demonstrate its support for workers. For example, organizational support expectations may be based on the workers' psychological contracts with the employer (see Aselage & Eisenberger, 2003; Rousseau, 1989, 1990; Rousseau & McLean-Parks, 1993), their employment schema (see Rousseau, 2001), or information gleaned through employee referrals.

In any case, organizations often attempt to demonstrate its support of workers through a variety of initiatives such as open door policies, career development programs, and reward and recognition ceremonies. However, managers and supervisors should make efforts to communicate and demonstrate the organization's support for workers at each point of contact, not just during recruitment and orientation. In addition, because turnover among warehouse and logistics workers is typically high, it is unlikely that variably scheduled worker reward and recognition events will have a positive influence on worker perceptions of organizational support simply because they might not be there to experience these events or take advantage of other programs.

Overall, the current study supported key relationships identified by Autry and Daugherty (2003) and introduced a new predictor variable as an alternative to company satisfaction, and responded to the call by Min (2009) for the inclusion of additional demographic variables. The results of the current study also demonstrated the validity of a previously untested predictor variable and underscored the need for future research to apply this line of research to individual organizations. Furthermore, despite the relatively few number of variables in the current study, a significant amount of variance in intention to quit was explained by the regression function ($R^2_{adj} = .40$).

LIMITATIONS

Because participants completed the survey during their work day, the time available for data collection was limited. As such, all measures were collected at one time and therefore the possibility for common method bias must be considered. Also, because the survey was administered as part of a broader turnover study being conducted at the facility, workers may have been aware of the study and there was a potential for responder bias.

CONCLUSIONS

Based on the results of this study, several suggestions are offered for reducing worker intention to quit. First, recruiters and applicant screeners must continue to be aware of the potential for increased turnover due to applicants' work history.

This is of particular relevance to organizations that must conduct their human resource planning within a limited or shallow labor pool.

Second, supervisors and top management should take an active role in demonstrating the company's values through positive and meaningful interactions with all workers. Third, workers must have the opportunity to be informed that their coworkers are doing a good job and are a positive benefit to the company as a whole, even if the employee may not know the coworker(s) personally. Formal recognition programs of worker effort and achievement such as awards ceremonies and individual recognition during all-hands meetings are recommended. In addition, workers must be provided with opportunities to socialize, and be encouraged to do so. These are especially important for organizations seeking to promote and reinforce a team-oriented workforce in a high turnover environment.

Lastly, logistics organizations must take steps to ensure that organizational support is communicated and reinforced during the recruitment, hiring, initial socialization, and all phases of workers' employment. This may be most effectively achieved by incorporating some form of realistic job preview into the applicant screening or initial interview process in order to initially clarify applicants' expectations of the employee-employer relationship, the company, and the work itself. If applicants are left to form expectations on their own, they may become more motivated towards intention to quit and absenteeism as they compare and contrast the expectations they develop during their entry into the organization to what they actually observe and experience once on the job.

REFERENCES

- Abelson, M.A. (1993). Turnover cultures, *Research in Personnel and Human Resource Management*, 11, 339-376.
- Aselage, J., & Eisenberger, R. (2003). Perceived organizational support and psychological contracts: A theoretical integration, *Journal of Organizational Behavior*, 24, 491-509.
- Autry, C.W., & Daugherty, P.P. (2003). Warehouse operations employees: Linking person-organization fit, job satisfaction, and coping responses, *Journal of Business Logistics*, 24, 171-193.
- Chew, R. (1996). Excessive labour turnover: A case of clerical staff in Singapore, *International Journal of Manpower*, 14, 32-40.
- Covin, T.J., Sighler, K.W., Kolenko, T.A., & Tudor, R.K. (1996). An investigation of post-acquisition satisfaction with the merger, *The Journal of Applied Behavioral Science*, 32, 125-143.
- Cullen, J.C., Silverstein, B.A., & Foley, M.P. (2008). Linking biomechanical workload and organizational practices to burnout and satisfaction, *Journal of Business Psychology*, 23, 63-71.
- Dunham, R.B., Smith, F.J., & Blackburn, R.S. (1977). Validation of the index of organizational reactions with the JDI, the MSQ, and faces scales, *Academy of Management Journal*, 20, 420-433.
- Dutton, J.E., Dukerich, J.M., & Harquail, C.V. (1994). Organizational images and member identification, *Administrative Science Quarterly*, 39, 239-263.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support, *Journal of Applied Psychology*, 71, 500-507.
- Firth, L., Mellor, D.J., Moore, K.A. & Loquet, C. (2004). How can managers reduce employee intentions to quit? *Journal of Managerial Psychology*, 19, 170-87.
- George, J.M., & Brief, A.P. (1992). Feeling good-doing good: A conceptual analysis of the mood at work-spontaneity relationship, *Psychological Bulletin*, 112, 310-329.
- Ghiselli, E.E. (1974). Some perspectives for industrial psychology, *American Psychologist*, Feb., 80-87.
- Gooley, T. B. (2001). How to keep good people, *Logistics Management & Distribution Report*, 40, 55-60.
- Harold, C.M., McFarland, L.A. & Weekley, J.A. (2006). The validity of verifiable and non-verifiable biodata items: An examination

- across applicants and incumbents, *International Journal of Selection and Assessment*, 14, 336-346.
- Huang, I.C., Lin, H.C., & Chuang, C.H. (2006). Constructing factors related to worker retention, *International Journal of Manpower*, 27, 491-508.
- Iverson, R.D., & Deery, M. (1997). Turnover culture in the hospitality industry, *Human Resource Management Journal*, 7, 71-42.
- Keller, S.B., & Ozment, J. (1999). Managing driver retention: Effects of the dispatcher, *Journal of Business Logistics*, 20, 97-119.
- Kottke, J.L. & Sharafinski, C.E. (1988). Measuring perceived supervisory and organizational support, *Educational and Psychological Measurement*, 48, 1075-1079.
- Lee, T.W., Mitchell, T.R., Holtom, B.C., McDaniel, L.S., & Hill, J.W. (1999). The unfolding of voluntary turnover: A replication and extension, *Academy of Management Journal*, 42, 450-462.
- Levinson, H. (1965). Reciprocity: The relationship between men and organization, *Administrative Science Quarterly*, 9, 370-390.
- McLain, D.L. (1995). Responses to health and safety risk in the work environment, *Academy of Management Journal*, 38, 1726-1744.
- Meyer, J.P., Allen, N.J., & Smith, C.A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization, *Journal of Applied Psychology*, 78, 538-551.
- Min, H. (2009). Examining sources of warehouse employee turnover, *International Journal of Physical Distribution & Logistics Management*, 37, 375-388.
- Mullins, B. (2002). Computer-assisted tool, job analysis help slash turnover, *Distribution Center Management*, 37, 1-2.
- Price, J.L., & Mueller, C.W. (1986). *Absenteeism and turnover of hospital employees*. JAI Press, Inc.
- Raabe, B., & Beehr, T.A. (2003). Formal mentoring versus supervisor and coworker relationships: Differences in perceptions and impacts, *Journal of Organizational Behavior*, 24, 271-293.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature, *Journal of Applied Psychology*, 87, 698-714.
- Rhoades, L., & Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support, *Journal of Applied Psychology*, 86, 825-836.
- Richardson, H. L. (1989). Vanishing human resources, *Transportation & Distribution*, 30, 18-20.
- Rousseau, D.M. (1989). Psychological and implied contracts in organizations, *Employee Rights and Responsibilities Journal*, 2, 121-139.
- Rousseau, D.M. (1990). New hire perceptions of their own and their employer's obligations: A study of psychological contracts, *Journal of Organizational Behavior*, 11, 389-399.
- Rousseau, D.M. (2001). Schema, promise, and mutuality: The building blocks of the psychological contract, *Journal of Occupational and Organizational Psychology*, 74, 511-541.
- Rousseau, D.M., & McLean-Parks, J. (1993). The Contracts of individuals in organizations, in L.L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*, (pp. 1-47), Greenwich, CT: JAI Press.
- Schoenfeldt, L.F. (1999). From dust bowl empiricism to rational constructs in biographical data, *Human Resource Management Review*, 9, 147-167.
- Schmidt, H.L., & Hunter, J.E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings, *Psychological Bulletin*, 124, 262-275.
- Settoon, R.P., Bennett, N. & Liden, R.C. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity, *Journal of Applied Psychology*, 81, 219-228.
- Shore, L., McFarlane, W., & Sandy, J. (1993). Commitment and employee behavior: Comparison of affective commitment and continuance commitment with perceived organizational support, *Journal of Applied Psychology*, 78, 774-781.
- Sightler, K.W., & Adams, J.S. (1999). Differences between stayers and leavers among part-time workers, *Journal of Managerial Issues*, 1, 110-125.
- Siong, Z.M., Mellor, D., Moore, K.A., & Firth, L. (2006). Predicting intention to quit in the call centre industry: Does the retail model fit? *Journal of Managerial Psychology*, 21, 231-243.
- Taylor, M.S., Tracy, K.B., Renard, M.K., Harrison, J.K., & Carroll, S.J. (1995). Due process in performance appraisal: A quasi-experiment in procedural justice, *Administrative Science Quarterly*, 40, 495-524.
- U.S. Department of Labor. (2009). Career guide to industries, 2010-2011, *Bureau of Labor Statistics*, Retrieve from <http://www.bls.gov/oco/cg/cgs021.htm#outlook>
- Veiga, J.F. (1981). Do managers on the move get anywhere? *Harvard Business Review*, March-April, 20-28.
- Witt, L.A. (1991). Exchange ideology as a moderator of job-attitudes-organizational citizenship behaviors relationships, *Journal of Applied Social Psychology*, 21, 1490-1501.

ANTICIPATING AND MANAGING RESISTANCE IN ORGANIZATIONAL INFORMATION TECHNOLOGY (IT) CHANGE INITIATIVES

Jodine Burchell
Walden University

ABSTRACT

Employee resistance can be a complex issue in organizational change. While many change leaders recognize resistance when it happens, many do not know how to anticipate or diagnose potential resistance accurately prior to the start of a change initiative. One type of change common within organizations involves Information Technology (IT) changes, which can manifest as either an IT-specific project or as a change initiative that must involve IT in order to be successful. Regardless, IT changes can impact employees' work and work life in numerous and sometimes unanticipated ways. The purpose of this paper is to discuss concepts around the role of IT in change, provide an understanding of issues of employee resistance specific to IT change initiatives, and present an application of these concepts in order to help change leaders develop a plan to effectively diagnose and manage employee resistance.

INTRODUCTION

The functionality and usefulness of Information Technology (IT) in organizations is multifaceted. IT is responsible for the creation, acquisition, planning, implementation, operation, and maintenance of all the organization's systems including software, databases, hardware, networks, and data management. IT usually provides needed information for the decision-making process in organizations and adopts a support role for the day-to-day operations of the business including external customers or internal customers such as the sales and finance functional units. It is through the strategic use of IT that business operations can improve efficiency and effectiveness and ultimately enhance the organization's competitive advantage. Clearly, the power of IT must be used to support an organization's corporate strategy (Lai & Mahapatra, 2004).

Organizations may utilize Information Technology (IT) in different strategic ways based on their goals. For example, according to Easton (1988), the objective may be to reduce costs, improve productivity, improve support, or enhance the organization. Cost savings may mean the need for less people to do the same work or ability to create and store documents digitally rather than in physical space. Improving productivity may

mean improving software programs so they will run faster or by making systems more effective and less error-prone. Improved support involves improving the quality of information available for decision-making in support of meeting business objectives. Enhancing the organization involves the innovative use of IT in order to meet objectives or creating new objectives that were not possible before. Regardless of which is appropriate, these benefits of utilizing IT can be either tangible or intangible and indicate that the main areas of benefit are through either the optimization of resource usage or the enhancement of work (Easton, 1988).

Because it is so ingrained in all aspects of planning and achieving organizational strategic objectives, Information Technology (IT) must also be involved in all aspects of organizational change initiatives. There are multiple roles performed by IT and IT personnel in organizational change. According to Lai & Mahapatra (2004), top IT management support must identify the strategic use of IT and manage resistance for the successful implementation of change initiatives. IT also plays a supportive role in the form of training and technical support in order to minimize resistance and facilitate the adoption of the new system or processes. Another role involves the formulation of strategies to improve

the use of resources, identifying the strategic use of IT, and the integration of an IT plan with the business plan. Because technology changes rapidly, technical skills have to be kept current, thus one of the roles within IT is for management to choose staff that is competent and to retrain IT employees as needed. Another role of IT is to provide technical support to users and take steps to make sure the relationship between IT and users is positive so that the overall environment is positive, which will ultimately lower resistance. Finally, one of the more important roles of IT and IT personnel involves the IT infrastructure. The effectiveness and efficiency of the systems, networks, hardware, and software must be monitored, maintained, and periodically improved. Software and hardware must be upgraded in order to have the needed IT infrastructure to remain functional and competitive (Lai & Mahapatra, 2004).

Information Technology (IT) is related to organizational change in two fundamental ways. There are organizational change initiatives that are considered IT-specific projects and then there are those projects that are not specific to IT, but must involve IT in order to be successful. On a smaller scale, continuous improvement of business processes to reduce costs or increase efficiency in order to remain competitive requires continuous evaluation of the current systems and potentially may require modifications or upgrades. In addition, examples of smaller IT-specific change projects may include the upgrade of hardware across the organization or the need to create new software programs in order to handle the specific needs of a customer.

Any major organizational change will obviously also involve Information Technology (IT). For example, a major business process re-engineering project will heavily involve IT as would a project to add a new operations facility. A merger or acquisition will likely call for the evaluation of the current IT infrastructure of both organizations for a potential consolidation of systems. In this case, because many major change initiatives can occur in stages, the IT portion of the merger may be treated as its own IT change project occurring after the physical merger has been completed. Other IT-specific major change initiatives might include an Enterprise Resource Planning (ERP)

project, an infrastructure change, a total system conversion, the addition of business intelligence and data warehousing, or the creation of a disaster recovery system. Regardless of the type of IT change, leaders will likely encounter some form of resistance. Whether originating from the end-users or management, leaders will need to deal with resistance as effectively as possible.

RESISTANCE IN IT ORGANIZATIONAL CHANGE

Resistance related to Information Technology (IT) organizational change occurs for many of the same reasons as organizational change in general. As Lawrence (1954) argued, what employees usually resist is not the technical change itself, rather its social change such as a loss or alteration in their relationships. "Changing mindsets and behavior are clearly more difficult than altering structures and systems" (Dampney, McGrath, & More, 1998, p. 109). In IT organizational change, some of the potential outcomes of importance to employees or stakeholders include pay, working conditions, power, involvement, satisfaction, challenge, status, recognition, the ability to utilize or increase skills, security, and so on. Any of these outcomes can be used as an indication of employees who may resist change. Thus, part of the challenge of managing resistance is in the change leader's ability to determine which outcomes are important to the stakeholders involved (Hayes, 2002).

The first reason for employee resistance, according to Kotter and Schlesinger (1979, 2008), is parochial self-interest or the fear of a loss of something of value. In IT organizational change, new automation may cause employees to fear the loss of their job. Added efficiency may mean less people are required for the job causing them to have to move to another position. Added efficiency may also present a threat of higher quotas or expectations from management. Employees may be unsure whether they will be able to learn the new technology, which could potentially result in a loss of status or lowered performance appraisals. Additionally, if they suspect change efforts are a result of problems with the organization, employees may feel vulnerable and "a loss of personal control over important things like job security" (Austin, Reichers, & Wanous, 1997, p. 50).

At the manager or supervisor level, IT changes may represent change in the status quo, which may cause them to voice opposition or procrastinate in their participation in the process. In addition, managers may be concerned with how the changes affect them over the needs of the organization and thus, act politically in either loud and vehement or subtle ways.

The second reason for employee resistance, according to Kotter and Schlesinger (1979, 2008), is misunderstanding and lack of trust. Employees who are confused and do not understand the reason for IT change or its implications to the organization's future may resist learning or using the new technology (Austin, et al., 1997). Employees who do not completely understand the potential benefits of the changes to their job may resist. Additionally, an organization's history of failed change may cause employees to be cynical and doubt the likelihood of future success (Austin, et al., 1997). If an organization has had major job or personal changes associated with major historical IT change initiatives, then employees will likely resist due to a lack of trust and anticipated negative actions.

The third reason for employee resistance, according to Kotter and Schlesinger (1979, 2008), is a low tolerance for change. Many times employees develop habits and find it hard to change them. Employees who are accustomed to specific systems or to doing work in a manual manner may be afraid that they cannot develop the new skills needed after implementation. Employees may feel that they are losing control of their processes and the IT change will "devalue tried-and-true practices or years of personal investment and commitment to proven ways of doing things" (Dampney, et al., 1998, p. 109). In addition, if the IT change happens too quickly, the employee may be overwhelmed.

The fourth reason for employee resistance, according to Kotter and Schlesinger (1979, 2008), is differing assessments of the situation. Employees and management may have different perceptions of the costs and benefits resulting from the modification of the current systems or the addition of a new technology. Additionally, employees may feel that management does not have all the information or a good understanding of how the IT change will affect the employees or their

job processes. In either case, employees may resist because they feel the change is not in their own best interest or that of the organization.

DEALING WITH RESISTANCE

Kotter and Schlesinger (1979, 2008) also developed six main methods to deal with resistance. In practical terms, education and communication involves helping the stakeholders to understand the reason behind the Information Technology (IT) change which is especially relevant when there is a need for user buy-in. Participation and involvement involves utilizing the stakeholders in the process of IT change in order to facilitate the gathering of information or assistance in stages of the change initiative such as implementation and testing. This method is especially important for planning and design of new systems. Facilitation and support are an option when there are higher levels of fear and anxiety usually associated with IT changes that will greatly affect the employee's job security. Negotiation and agreement usually involves the need for stakeholder acceptance and cooperation where there is a bargaining situation such as union contracts as an example. Manipulation and co-option uses underhanded or manipulative methods to influence the stakeholders. An example of this type of method might involve upper management making promises of promotions or pay raises upon successful technical implementation and the promises are never realized. Finally, explicit and implicit coercion involves the change leader threatening the stakeholder in some way if there are signs of resistance (Kotter & Schlesinger, 1979, 2008).

Many times change leaders will have a favored method to deal with resistance regardless of the size and scope of the change. However, Kotter and Schlesinger (2008) argued that managers should create a strategic plan for dealing with employee resistance. Change strategy can be viewed as a continuum or spectrum, where one method calls for a quick change and implementation with a defined plan of action and little or no involvement of employees. This method tends to overcome resistance in a more coercive manner. On the other end of the spectrum is a slower change that involves a less clear or more dynamic plan and includes the involvement of employees.

This method tends to attempt minimizing resistance through participation.

Kotter and Schlesinger (1979, 2008) maintained that, most of the time, managers do not operate at either end of their spectrum, rather they operate somewhere in the middle. This means that there are situational factors that need to be taken into consideration. For example, managers need to be able to anticipate the amount and kind of resistance that they will encounter. The greater the anticipated resistance, the less likely that coercive methods will work and methods to reduce resistance are more likely to be effective. Another situational factor is the level of power that the change initiator has over the resistors. In other words, the more power the initiator has over the resistors, the more likely they can successfully take a more coercive stance. Additionally, the more that the change initiator needs commitment and involvement from others the less they will affectively be able to use more coercive methods over more participatory methods. The method needed to overcome resistance is also dependent on the stakes involved. The greater the short-term potential of risk to survival of the organization, the more the manager will be required to use coercive methods (Kotter & Schlesinger, 1979, 2008).

A CONTINUUM FOR RESISTANCE AND IT CHANGE

In expanding these concepts, there are many elements that fit on a continuum for IT change initiatives and potential resistance (see Appendix for IT Change and Resistance Continuum). For example, on the left end is a directive and top-down style of leadership whereas the opposite end calls for more participative and bottom-up style of leadership. If the IT change calls for less analysis and less involvement on the part of the stakeholders, then a directive, top-down approach may be more appropriate. However, if the IT change calls for gathering information and extensive analysis of the current systems in order to determine appropriate IT strategy as well as involvement of the stakeholders in the implementation, then a participative and bottom-up approach will likely be more beneficial and effective.

The directive, top-down approach on the left side of the continuum is more appropriate with IT changes involving a sense of urgency, a greater short-term potential risk, where the change must be implemented very quickly, the change is less complex, there is a clear plan of action, or the end result has already been decided. In addition, in looking at the human aspects, there is little participation or collaboration needed, little information needed, high stakeholder perceptions of the need for the IT change, a high stakeholder perception of the advantages of the change, and the change is not a surprise to the stakeholders. In this scenario, the fact that the change leaders have low anticipated resistance issues or there is an urgent, risky nature to the change, then the resistance strategy calls for the need to quickly overcome any resistance rather than manage it. Thus, an appropriate resistance strategy might include rapid and direct communication, especially regarding the urgency and the critical need for the upcoming change, and the offer of support while pushing the IT change forward. If resistance occurs, then the change leaders may have to result to coercive methods, but only if, as Kotter and Schlesinger (1979, 2008) suggested, the change leader has sufficient power over the stakeholders.

The participative, bottom-up approach on the right side of the continuum is more appropriate with IT changes that involve more complexity, there is less urgency or short-term risk, the implementation is not immediately needed, a plan of action needs to be developed, or the end result in not fully defined. In looking the human aspects, not all the information is currently available, the stakeholders input and participation is needed, the need for the change is relatively unknown or not understood, or the advantages of the change are not understood. In this case, the fact that the change leaders may anticipate a higher level of resistance or there is a less urgent need for immediate change paired with the need for more information, then the strategy calls for change leaders to effectively manage resistance rather than just overcoming it quickly. Thus, an appropriate resistance strategy might include constant, consistent communication with the stakeholders, enlisting cooperation in the form of analysis of their use of current systems and the planning of new systems, and participation in implementation and testing

efforts. In addition, coordination efforts may be needed in order to offer training for the new systems as well as eliciting feedback throughout the process.

Both ends of this continuum represent extreme situations in IT change. In all likelihood, the IT change generally will not fit 100% at either end. Rarely is a planned change in IT urgent and critical where no participation or collaboration is needed. Usually, under these circumstances, this type of IT change involves putting out fires such as systems crashing, the failure of hardware components, or the realization that the current systems are inadequate to cope with some other recent changes like the addition and needs of a new customer base. On the other hand, in IT change initiatives, rarely is the end result completely unknown or reliant on the information provided by the stakeholders. Rarely is time a nonexistent factor. In well planned IT change, preliminary information is gathered and alternatives are presented prior to the executive leaders deciding on an IT change that is in line with the organizational strategic objectives. Consequently, it is apparent that an IT change will likely fit somewhere in the middle of the continuum for each of the factors (see Appendix for It Change and Resistance Continuum), and likely not at the same place for all factors. Thus, it is crucial that change leaders take potential resistance into consideration at all steps of the process and create a strategy for dealing with resistance issues at each stage of the project.

It is important to note that Kotter and Schlesinger (1979, 2008) indicated that creating a strategy for dealing with resistance can be a risky endeavor. Incorrect assessments of potential resistance can have negative effects on a successful Information Technology (IT) projects. Coercive methods can backfire and have considerable negative effects on the change initiatives and to the organization itself. Thus, it is important that managers are able to accurately assess and diagnose potential resistance and create an effective plan to overcome it as painlessly as possible (Kotter & Schlesinger, 1979, 2008).

THE STAGES OF IT CHANGE INITIATIVES

Assuming that Information Technology (IT) change will likely occur between the two extremes discussed previously, the goal for most organizations is a well-planned initiative that is implemented successfully with little resistance. Most major IT change initiatives occur over an extended period of time and in stages. The number of stages may vary based on the organization, the type of change, and the complexity of the change. Davis (as cited Ginzberg, 1981) suggested that there are three main stages including the definition stage, the physical design stage, and the implementation state. Within the definition stage, the activities are based on making decisions regarding what the system will need to do. In the physical design stage, the information collected and the decisions made during the definition stage are used to translate those decisions into a design that will meet the needs of the organization strategic goals. The implementation stage focuses on actually bringing the design to fruition (Davis, as cited in Ginzberg, 1981).

Benjamin and Levinson (1993) theorized that within the planning stage, change leaders must determine if the organization has the energy for change, is ready for the change, and whether the change is supported by the stakeholders. After the planning stage, the implementation stage follows and then institutionalization which, according to Benjamin and Levinson, is similar to Kurt Lewin's concept of freezing the change into the organization's culture (Benjamin & Levinson, 1993).

Other theorists break Information Technology (IT) change tasks into more stages. Cooper and Zmud (1990) identified six stages including initiation, adopting, adaptation, acceptance, routinization, and infusion. Initiation includes examining problems and opportunities in order to look for a feasible IT solution. Once the solution has been identified, the adoption stage will call for leaders to seek organizational backing and gather resources. In the adaption stage, the new system is developed and installed so that organization's processes are modified in order to take advantage of the new benefits. In the acceptance stage, operators will begin to use the new systems. Routinization involves the operators becoming comfortable with the new systems and incorporating

them into their daily work. In the infusion stage, the organization finally realizes the benefits from the efficiency of the new systems. Of course, infusion will never occur unless the IT change initiative is successful at all stages of the process (Brown, Chervany, & Reinicke, 2007).

While the stages are labeled differently, their descriptions are similar and the associated tasks are similar as well. In general, the change leaders and appropriate team members evaluate the current system and the organization's needs, examine the options, choose a feasible solution, design the new system, and implement the new system. The stages of the change initiative can be this simple, or in the case of a larger complex change, broken down into manageable projects. In other words, there may be multiple iterations of stages. As an example, if the IT change spans multiple functional units or geographical locations, then the change leaders may create a plan for change within each unit in the form of different projects where each has its own set of stages. Then, once the current or more urgent project is complete or near completion, the next project will start.

However, IT change is not just concerned with technology; it is also concerned with the human beings. "Technology is important, but managing change means attending to the rights and responsibilities of organizational members. Success with a new system should also focus on employees and their behavior" (Carson & Griffith, 1990, p. 52). Part of focusing on employees and their behavior also means anticipating and managing resistance. Thus, supporting Kotter and Schlesinger's (1979, 2008) assertions, change leaders should have a plan to diagnose resistance and deal with it effectively.

A PLAN TO DIAGNOSE AND MANAGE IT CHANGE RESISTANCE

For each Information Technology (IT) change initiative, change leaders should perform an analysis of potential resistance which is primarily comprised of the following questions:

1. Which stage is under consideration? Each stage of the IT change initiative may need participation and commitment from different stakeholders and

for different reasons; consequently, each stage needs to be considered separately.

2. Which functional units will be affected? The IT change may effect a specific department such as sales or finance, an operations facility, a division, vendors, customers, the entire organization, or multiple functional units.
3. Who are the stakeholders? Generally, the stakeholders are the persons who will be using the new systems such as employees or business partners. The stakeholders can also include the managers and supervisor of the functional units. By answering this question, the change leader is determining who will ultimately be affected by the IT change.
4. What is the change needed? The answer to this question will likely be very general. Some examples might include the need to create a new system to handle changing requirements from the finance department, install new scanner hardware in the receiving area and create the software needed to use it, create new systems so that sales information is immediately available to other support areas, installing the needed software to electronically link and share information with vendors, or the creation of a disaster recovery system.
5. Which processes will be affected? The answer to this question should be very specific. It may include both the physical processes that an employee performs and the systems that they use. For example, when receiving product, the physical processes might include counting and moving incoming product into the building. The systems process might include scanning the barcodes and entering the product data into the system. Either of these processes might be affected as the result of an IT change initiative. Other examples of processes

might include an accounts payable check run process that the employee runs every Monday, manifesting packages for shipping, or modification of the background sales processing programs that affects the how and when employees view and process data. Even within each of the processes, there are likely to be multiple sub-processes, some of which may be affected by the IT change and others may not.

6. What are the perceived benefits? This question is complex and may be challenging to answer. The operator may see the change as simply making their job easier, but the supervisor may also see a benefit in reduced processing time, which usually means a cost savings. The cost savings may indicate lowered operating costs for the department which may lead to better performance appraisals, increase in status, and increases in pay or bonus amounts. Other perceived benefits may include more control over the processes, an enhanced reputation, or the change to learn something new. The benefits to employees and management will likely be different, but both are relevant. In some cases, there may not be a perceived benefit to employees at all. An example might be changes made to background programs and processes or servers. It is also important to determine if the expected benefits match the employees' perceived benefits. If there is a disconnect in this area, then change leaders will likely need to communicate the benefits more heavily in the initial stages of the IT change initiative. Change leaders can use the results of this question as talking points when communicating with employees.
7. What is the expected resistance and why? The answer to this question is also complex; however, accurate diagnosis is very important (Kotter & Schlesinger,

1979, 2008). If leaders want to deal with resistance, "it is important to identify and analyze it; clarify the change's real or perceived negative consequences and then seek to weaken the apparent link between the two; and reduce resistance by a range of measures" (Dampney, et al., 1998, p. 110). Some potential resistance issues associated with IT change may involve diagnosing or anticipating employee reactions such as the fear of not being able to use the technology, the fear of the unknown nature of the change, or the fear of loss of responsibility (Kotter & Schlesinger, 1979, 2008). Many times the fear is not transparent. For example, if the IT change involves moving manual processes to automated processes, after implementation, there may be an anticipated reduction in the number of employees needed to do the job. In other words, increased efficiency is generally viewed as a positive change, but it also may cause a fear of loss of job security in employees. The challenge is to accurately diagnose potential resistance that may be either apparent or subtle. The first response from management might be excitement at the idea of IT changes making employees' jobs easier, a reduction in process time, or a cost savings; but how will those changes realistically affect the employees? In addition, more automation that means fewer employees are needed may also mean fewer supervisors or managers are needed or changes made to their responsibilities. Thus, there may be resistance at the supervisor or manager level if there is anticipated potential restructuring or loss of control.

8. What efforts are needed to gain commitment from the stakeholders? Once the perceived resistance has been diagnosed, then the change leaders determine what is needed to gain commitment from the stakeholders. Achieving

employee involvement and participation can have a double benefit in IT change initiatives including gathering valuable information at each stage of the process and the increase of user buy in. Brown, Chervany, and Reinicke (2007) suggest creating a liaison position where an IT person physically works in the functional units and with key personnel in order to gain valuable knowledge about the business processes and build IT-user relationships. If the nature of the change does not involve the need to gather information about processes or user buy-in is not realistic, then participation may not be a viable alternative. According to Benjamin and Levinson (1993), the change leader also needs to determine the employees' capability and readiness to change. If the capability and readiness levels are low, then the change leader may need to provide training to help the employees. If capability levels are high, then providing training may still be needed, but will likely not be critical in terms of addressing resistance. If the employees' readiness to change is high as well as the perceived benefits of the change, then less communication may be needed. Otherwise, change leaders would need to provide frequent, consistent communication in multiple formats as well as making themselves available for discussing issues and offering support. Additionally, if the IT change is likely to affect the employees dramatically, then more communication is needed or employees will likely feel abandoned. Additionally, as discussed earlier, more coercive methods may be used if the need for change and the need for commitment are both urgent and the change leader's level of power over the employees is high. Again, change leaders should be aware that these types of manipulative or coercive methods

can backfire causing negative reactions which will also have to be managed.

In sum, once the stages have been identified, the specific changes can be determined as well as the functional units and stakeholders that will be affected. The change leader can ascertain how the changes will affect employees in both positive and negative ways. Then, the expected resistance can be established which, upon analysis, will help in determining what specific actions are needed to gain commitment from the employees. Once all of this information has been gathered, then the change leader can create an action plan to deal with resistance including a timeline that compliments the stages of the Information Technology (IT) change and its timeline. It is important to note that even though the resistance plan and timeline may be determined during the initial stages of planning the IT change, just like the plan for the IT change will likely have to be periodically revisited and adjusted, the resistance plan must also be revisited and reevaluated at each stage to ensure that it is still relevant and effective.

CONCLUSION

In today's business environment, Information Technology (IT) is likely one of the biggest influences in organizational change. Whether it is the primary cause for the change initiative or just one component of the change, IT undoubtedly plays an important role in the success of change initiatives. In addition to managing the IT change process, change leaders must also be able to accurately anticipate and diagnose employee resistance that manifests within and because of the change process. Once the factors of employee resistance have been identified, utilizing Kotter and Schlesinger's (1979, 2008) concepts of dealing with resistance, a plan of action and timeline may be created that complements the IT change. Effective planning and realistic, achievable timelines will help assure the successful implementation of IT change initiatives and meeting the organization's strategic objectives, which will in turn help ensure the organization's ability to remain healthy, viable, and competitive.

Appendix

IT Change and Resistance Continuum



REFERENCES

- Austin, J., Reichers, A., & Wanous, J. (1997). Understanding and managing cynicism about organizational change. *Academy of Management Executive*, 11(1), 48-59.
- Benjamin, R., & Levinson, E. (1993). A framework for managing IT-enabled change. *Sloan Management Review*, 40(1), 22-34.
- Brown, S., Chervany, N., & Reinicke, B. (2007). What matters when introducing new information technology. *Communications of the ACM*, 50(9), 91-96.
- Carson, K., & Griffeth, R. (1990). Changing a management information system: Managing resistance by attending to the rights and responsibilities of employees. *Employee Responsibilities and Rights Journal*, 3(1), 47-58.
- Dampney, C., McGrath, G., & More, E. (1998). A structured approach to conflict prediction in information systems strategy implementation. *International Journal of Intelligent Systems in Accounting, Finance, & Management*, 7, 107-124.
- Easton, K. (1988). *Information Technology and Organisational Change*. New York, NY: Taylor & Francis.
- Hayes, J. (2002). *The Theory and Practice of Change Management*. New York, NY: Palgrave.
- Kotter, J., & Schlesinger, L. (1979). Choosing strategies for change. *Harvard Business Review*, 57(2), 106-114.
- Kotter, J., & Schlesinger, L. (2008). Choosing strategies for change. *Harvard Business Review*, 87(7/8), 130-139.
- Lai, V., & Mahapatra, R. (2004). Correlating business process re-engineering with the information systems department. *International Journal of Production Research*, 42(12), 2357-2382.

EXPLORING RELATIONSHIPS BETWEEN PROJECT CHARACTERISTICS AND REDUCED FUNCTIONALITY IN SOFTWARE PROJECTS

Denise Williams

The University of Tennessee at Martin
Martin, Tennessee

David Williams

The University of Tennessee at Martin
Martin, Tennessee

ABSTRACT

Distinct from most prior explorations of IT project success that relied on case studies or survey methodologies, this research applied linear regression to a data set encompassing over 300 software projects. Analysis of this data focused on various project characteristics hypothesized to impact or influence IT project success, specifically explored were: project size, requirements analysis, internal versus external development, and the extent of change of the project. This research explored relationships between these independent variables and the reduction of functionality in software projects. Demonstrated to be positively significant at 5% was project size. Extent of change (enhancements) proved significant and positively signed also. While the former result was anticipated, the latter result was surprising. Requirements analysis and internal versus external development failed to be demonstrated as significant. While the results of this exploration were not entirely in accord with our expectations, the suggested overall model relating selected project characteristics to software project success was demonstrated to be significant at 1%.

INTRODUCTION

The goal of this paper is to explore the risk that expected functionalities in software projects may be reduced. While not all software or IT projects fail to deliver all of their intended functionalities, lack or reduction of the originally intended functionality has been associated with IT project failure. This research poses questions about certain software project characteristics hypothesized to impact the risk of reduced functionalities.

While we understand that project requirements might change over the course of a project, the reduction of functionalities for a project might result from a need to cut the functionalities of a project to manage budget or scheduling problems. Our concern is that projects may be reduced to meet deadlines or avoid budget overruns. Our work here seeks to explore project characteristics which could influence the likelihood that project functionalities may be reduced.

This initial exploration poses the following question: what impact do certain project characteristics have on reduced functionality for software projects? We chose to consider only certain independent variables that are associated with the project. For the most part, these variables represent characteristics such as extent of change or newness that are not open to choice. Despite the fact that organizations cannot change some of these variables, awareness of their potential impact on the likelihood of reduced functionality for software projects could be useful for project management.

While many researchers have sought to better understand IS projects and their associated risks, most prior research has been in the form of case studies or survey methodologies. Our work, rather, used actual project data; the authors would like to thank the International Software Benchmarking Standards Group for the use of their data. For this paper, we applied linear regression to a set of over 300 projects to test our hypotheses

and identify significant independent variables associated with reductions in project functionalities.

THEORETICAL FOUNDATIONS AND PROPOSED MODEL

Many software projects fail, either in whole or in part. While project failure is not foreign to any industry, IT and IS projects seem particularly vulnerable (Keil, et al., 2003; Zmud, 1980). Illustrating the extent of the problem is a 2005 survey of 13,522 IT projects which found that almost two projects out of three at least partially failed (Nelson, 2005).

Many researchers have attempted to identify those factors most likely to encourage project success and discourage project failure (Barki, et al., 2005). While not all researchers are in complete accord, some factors identified in the literature include project size (McFarlan, 1981; Nelson and Ravichandran, 2004) and project team experience (McFarlan, 1981), the newness or novelty of the technical dimensions of the project and its applications (Barki, et al, 2005), various industry-specific dimensions (Batiste and Jung, 1984; Rockart, 1979), and a fundamental misunderstanding of the project's scope and requirements (Keil, et al, 2002).

For our proposed model of reduced project functionality, we considered what project characteristics would be likely to affect reduced functionality. Our model uses the percentage of deleted function points for the dependent variable. Preliminary models explored the operationalization of our dependent variable using deleted function points. A better model was obtained, however, by using the percentage of deleted function points. The independent variables include size of the project, requirements analysis, internal versus external, and extent of change of the project.

There is ample support in the literature for the proposition that project size is related to project success (McFarlan, 1981; Nelson and Ravichandran, 2004). In our model, project size is operationalized as the number of adjusted function points of the project. Preliminary models explored the use of work effort for the size of the project, but these models were inferior to the model ultimately chosen.

Requirements analysis is the identification of those requirements (services and resources) necessary for project success (Hoffer, et al., 1999; Nelson, 2007; Yadav, et al., 2009). The significance of requirements analysis to project success is supported by the literature (Hoffer, et al., 1999; Mathiassen, et al., 2007; Nelson, 2007; Yadav, et al., 2009) In our model, requirements analysis is the reported percent of effort spent on requirements analysis.

Whether a project is developed internally or externally may impact project success, with both internal and external development having both positive and negative dimensions. It is thus no surprise that the literature has explored this topic (Dibbern, et al., 2008; Gefen, et al., 2008; He and King, 2008; Nath, 2008). In our model, internal versus external is a dummy variable indicating internal projects.

The novelty of newness of a project may play a part in the reduction of functionality (Barki, et al, 2005). Extent of change is operationalized as dummy variables to indicate whether a project is a new development, a re-development, or an enhancement. We considered using linear regression through the origin and including all three dummy variables for extent of change, but those efforts did not improve the model's performance. Instead, the dummy variables for enhancement and new development were used.

Preliminary models also included the industry of the organization using dummy variables. While industry is considered to be a relevant dimension of success in the literature (Batiste and Jung, 1984; Montealegre and Keil, 2000; Nelson and Ravichandran, 2004; Rockart, 1979), those preliminary models did not demonstrate industry to be significant. Thus, the model ultimately chosen does include the industry variables.

Our first hypothesis was that project size is an independent variable that influences the likelihood of reduced functionality. The literature demonstrates that project size is associated with project success. We expected the coefficient for this variable to be positively related to reduced functionality reflecting the findings that larger projects are more difficult to manage and less likely to be successful.

Our second hypothesis was that the portion of the project allocated to requirements analysis will impact whether project functionality will be reduced. This independent variable was operationalized as the amount of time used for requirements analysis as a percentage of the total amount of work time for the project. We anticipated that this variable would have a negatively signed coefficient reflecting that careful requirements analysis would result in fewer reductions of functionality.

Our third hypothesis was that reduction of project functionality is influenced by whether the project is internal or external in terms of development. We hypothesized that internal projects may be easier to manage and staff. Internal projects may benefit from the project team's familiarity with the organization, the needs and processes of the organization, and relevant knowledge about the industry of the project organization. Additionally, internal projects may benefit from internal accountability for the project. However, internal projects may suffer from the lack of knowledge of team members about the technologies to be used, or non-project related demands on the time of project team members. Additional problems may include issues of leadership style, misplaced self-confidence, and a lack of effective communication (Purvis, et al, 2009), as well as an unwillingness to firmly act on or publicly recognize project failure (Keil, et al, 1994; Park, et al., 2008).

External projects, on the other hand, may benefit from team members' knowledge or experience with similar types of projects. Members of external project teams may also benefit by being able to focus their time solely on the given project. External teams may also suffer less than internal teams with respect to organizational politics. It is therefore not surprising that external development is a growing trend (Poston, et al, 2009), that has been extensively studied in the literature (Kern, at al, 2002; Ross and Beath, 2006; Rottman and Lacity, 2004).

Nonetheless, external teams may have members who lack knowledge of a particular industry as well as knowledge specific to the client organization. We hypothesized that the internal versus external variable will be significant, but did speculate about what sign the coefficient might have.

Our fourth hypothesis was that extent of change impacts the reduction of project functionality. We anticipated that the greater the extent of change or newness of a project, the more likely the project would have reduced functionalities associated with that project. We expected new development projects to be more likely to suffer from reduced functionality given that the projects have greater extent of change than enhancement projects. We anticipated that enhancement projects would be less likely to experience reduced functionality. These hypotheses were the questions we sought to explore through this research.

ANALYSIS AND CONCLUSIONS

As described in prior sections, we applied linear regression to explore the impact of various project characteristics on reduced functionality in software projects. Our analysis included 363 projects. The F-test for our model calculated an F-value of 4.85, a value significant for 1% and 5%. Thus, the proposed model was demonstrated to fit the data sufficiently well at those levels of significance.

Size, expected to prove significant and positively signed, indeed was significant and positively signed at 5%.

Extent of change (enhancement) proved significant at 5%, but its positive sign was surprising. We expected projects to benefit from knowledge of the project area.

Not significant at 5% were internal vs. external, requirement analysis, and extent of change (new development).

While we were surprised that only two of the independent variables were demonstrated to be significant, our results do support the general proposition that larger projects are harder to manage.

The purpose of this work was to explore project characteristics hypothesized to impact the likelihood of reduced functionality in software projects. After exploring multiple preliminary models, we analyzed the results for our last model. We were surprised to learn that only two of our independent variables were significant, but other research into IS project success supports the significance of these two variables.

In conclusion, while our results were not in complete accord with our expectations, we find the overall model statistically significant. The expected effect of project size on the reduction of project functionalities is supported, while the effect of extent of change (enhancement) is unexpected. The implication for practice is that large projects require awareness of the associated risks. Additionally, enhancement projects may impact the likelihood of reduced functionalities for a project despite the prior knowledge of the project area. Other variables were not demonstrated to be significant, despite expectations.

REFERENCES

- Barki, H., Oktamis, S., and Pinsonneault, A. 2005 "Dimensions of ERP Implementations and their Impact on ERP Project Outcomes." *Journal of Information Technology Management* (XVI), pp. 1-9.
- Batiste, J. and Jung, J. 1984 "Requirements, Needs, and Priorities: A Structured Approach for Determining MIS Project Definition." *MIS Quarterly* (8:4), pp. 215-227.
- Dibbern, J., Winkler, J., and Heinzi, A. 2008 "Explaining Variations in Client Extra Costs Between Software Projects Offshored to India." *MIS Quarterly* (32:2), pp. 333-366.
- Gefen, D., Wyss, S., and Lichtenstein, Y. 2008 "Business Familiarity as Risk Mitigation in Software Development Outsourcing Contracts," *MIS Quarterly* (32:3), pp. 531-551.
- He, J., and King W. 2008 "The Role of User Participation in Information Systems Development: Implications from a Meta-Analysis." *Journal of Management Information Systems* (25:1), pp. 301-331.
- Hoffer, J., George, J., and Valacich, J. 1999 *Modern Systems Analysis and Design*, USA: Addison Wesley.
- Keil, M., Mixon, R., Saarinen, T., and Tuunainen, V. 1994 "Understanding Runaway Information Technology Projects: Results from an International Research Program Based on Escalation Theory." *Journal of Management Information Systems* (11:3), pp. 65-85.
- Keil, M., Tiwana, A., and Bush, A. 2002 "Reconciling User and Project Manager Perceptions of IT Project Risk: a Delphi Study." *Information Systems Journal* (12), pp. 103-119.
- Keil, M., Rai, A., Mann, J. C., and Zhang, G. P. 2003 "Why Software Projects Escalate: The Importance of Project Management Constructs." *IEEE Transactions on Engineering Management* (50:3), pp. 251-261.
- Kern, T., Willocks, L., and Lacity, M. 2002 "Application Service Provision: Risk Assessment and Mitigation." *MIS Quarterly Executive* (1:2), pp. 113-126.
- Mathiassen, L., Tuunan, T., Saarinen, T., and Rossi, M. 2007 "A Contingency Model for Requirements Development." *Journal of the Association for Information Systems* (8:11), pp. 569-577.
- McFarlan, F. W. 1981 "Portfolio Approach to Information Systems." *Harvard Business Review* (59:5), pp. 142-150.
- Montealegre, R., and Keil, M. 2000 "De-escalating Information Technology Projects: Lessons From The Denver International Airport." *MIS Quarterly* (24:3), pp. 417-447.
- Poston, R., Kettinger, W., and Simon, Judith. 2009 "Managing the Vender Set: Achieving Best Pricing and Quality Service in IT Outsourcing." *MIS Quarterly Executive* (8:2), pp. 45-58.
- Nath, D., Sridhar, V., Adya, M., and Malik, A. 2008 "Project Quality of Off-Shore Virtual Teams Engaged in Software Requirements Analysis: An Exploratory Comparative Study." *Journal of Global Information Management* (16:4), pp. 24-45.
- Nelson, M. and Ravichandran, T. 2004 "Repeating Failure in Large-scale Government IT Projects: A Taxing Story." *Proceedings of the Tenth Americas Conference on Information Systems*, New York, New York.
- Nelson, R. 2005 "Project Retrospectives: Evaluating Project Success, Failure, and Everything In Between." *MIS Quarterly Executive* (4:3), pp. 361-372.
- Nelson, R. 2007 "IT Project Management: Infamous Failures, Classic Mistakes, and Best Practices." *MIS Quarterly Executive* (6:2), pp. 67-78.
- Park, C., Im, G., and Keil, M. 2008 "Overcoming the Mum Effect in IT Project Reporting: Impacts of Fault Responsibility and Time Urgency." *Journal of the Association for Information Systems* (9:7), pp. 409-431.
- Purvis, R., Henry, R., Leigh, W., and McCray, G. 2009 "Are You Managing an 'Everest' Project? A Case Study Considering Issues for Project Managers Born from Tragedy." *Communications of the Association for Information Systems* (24:44), pp. 777-784.
- Rockart, J. F. 1979 "Chief Executives Define their Own Data Needs." *Harvard Business Review* (57:2), pp. 81-93.
- Ross, J. and Beath, C. 2006 "Sustainable IT Outsourcing Success: Let Enterprise Architecture be Your Guide." *MIS Quarterly Executive* (5:4), pp. 181-192.
- Rottman, J. and Lacity, M. 2004 "Twenty Practices for Offshore Sourcing." *MIS Quarterly Executive* (3:3), pp. 117-130.
- Yadav, V., Adya, M., Sridhar, V., and Nath, D. 2009 "Flexible Global Software Development GSD: Antecedents of Success in Requirements Analysis." *Journal of Global Information Management* (17:1) pp. 1-30.
- Zmud, R. W. 1980 "Management of Large Software Development Efforts." *MIS Quarterly* (4:2), pp. 45-55.

WORKPLACE VIOLENCE: A DISCUSSION AND ONGOING STUDY

R. Bryan Kennedy

Athens State University
Athens, Alabama

Eddy Burks

Troy University
Troy Alabama

Susan Calhoun

Athens State University
Athens, Alabama

Michael Essary

Athens State University
Athens, Alabama

Susan Herring

Athens State University
Athens, Alabama

Laura Lynn Kerner

Athens State University
Athens, Alabama

Ana Machuca

Kaplan University

ABSTRACT

This paper presents statistical information collected on violence in the workplace from an ongoing, six-year study conducted at Athens State University during 2005-2010. The results of the ASU survey are compared to statistical data from the Bureau of Justice Statistics National Crime Victimization Survey and the Bureau of Labor Statistics. The importance of developing and implementing policies and procedures for employee safety is discussed.

INTRODUCTION

A fired postal worker returns to her worksite with a gun and opens fire, killing six, then kills herself ("Six Dead in California," 2006). An Army psychiatrist kills 12 people and wounds 31 at a military processing center ("Fort Hood Shootings," 2009). A college professor takes a handgun to a faculty meeting and shoots six colleagues, killing three (Abcarian & Fausset, 2010). A man armed with a pistol shoots three people and himself outside of a hospital (Henry, 2010). Violence occur-

ring in the workplace is a serious, ongoing health and safety issue that cannot be ignored.

Workplace violence occurs in all types and sizes of organizations, impacts employee safety and morale, and costs millions of dollars in lost productivity every year. This paper focuses on the current status of research into workplace violence and compares national statistics with data from a survey on workplace violence conducted at Athens State University.

What is workplace violence? It has been defined in varying terms by several government agencies.

The National Institute for Occupational Safety and Health (NIOSH) defines workplace violence as “Any physical assault, threatening behavior, or verbal abuse occurring in the work setting,” and the Bureau of Labor Statistics defines workplace violence as “violent acts directed towards a person at work or on duty” including “physical assaults, threats of assault, harassment, intimidation or bullying.” (quoted in Matchulat, 2007, p. 14). The Occupational Safety and Health Administration (OSHA), defines it as “Violence or the threat of violence against workers. It can occur at or outside the workplace and can range from threats and verbal abuse to physical assault and homicide” (OSHA Fact Sheet, 2007). The Federal Bureau of Investigation defines workplace violence as “any action that may threaten the safety of an employee, impact the employee’s physical or psychological well being or cause damage to company property” (U.S. Federal Bureau of Investigation, 2004). On the other hand, the Bureau of Justice Statistics has a much narrower definition, focusing on violent acts including “rape, sexual assault, homicide, robbery, aggravated and simple assaults” (Matchulat, 2007).

These differing definitions make it difficult to determine the full extent of workplace violence. However, the Bureau of Labor Statistics Census of Fatal Occupational Injuries (CFOI) documents the prevalence of the most serious form of workplace violence. According to the CFOI, there were 516 workplace homicides in 2006 in the United States, out of a total of 5,703 fatal work injuries. This translates to 9% of workplace fatalities (U.S. Bureau of Labor Statistics, 2007).

In a special Bureau of Labor Statistics report released in 2001, Duhart stated that there were an average of 1.7 million incidents of non-fatal workplace violence annually between 1993 and 1999. Aggravated assault accounted for approximately 325,000 (18.6%) incidents annually, while simple assault accounted for 1,311,700 (75.2%). Approximately 900 cases of homicide were reported each year, which was less than 0.1% of the total incidents. Twenty percent of workplace crimes involved a weapon. More than 75% of workplace violence victims did not physically resist their assailant. Only 12% of the victims were injured, and slightly more than one-quarter of those required medical treatment. During this time pe-

riod, non-fatal workplace violence decreased by 44% while all violent crime in the U.S. decreased by 40% over the same period (Duhart, 2001).

As Muchinsky pointed out, “Prior to 1980 such terms as ‘violence in the workplace’ and ‘occupational homicide’ did not exist” (2000, p. 296). This is not to say that workplace violence or occupational homicide were non-existent prior to this point; however, the severity of the problem was not recognized by the public until 1986, when a postal worker killed 14 of his fellow co-workers in Oklahoma City. Media coverage of this incident, along with others, brought workplace violence into the forefront for the American public. From this and subsequent incidents involving postal workers and homicide, the phrase “going postal” entered the American lexicon and a myth was created (U.S. Federal Bureau of Investigation, 2004; Beck & Schouten, 2000; Temple, 2000).

This awareness brought forth a demand for research on violence in the workplace to provide the government and organizations with information to understand and prevent the problem. This demand for information and solutions continues today (Griffin & O’Leary-Kelly, 2004; U.S. Federal Bureau of Investigation, 2004; Allen, 2003; Lipscomb, Silverstein, Slavin, Cody, & Jenkins, 2002).

Some studies conclude that workplace violence is increasing in severity (Kelleher, 1996 as cited in Muchinsky, 2000). Other studies find that the increases are occurring in some sectors or areas while violence is decreasing overall (Lipscomb et al., 2002; Gilmore, 2006), and still others conclude that workplace violence is decreasing (Duhart, 2001; Beck & Schouten, 2000). The FBI, in a report titled “Workplace Violence: Issues in Response,” stated that a huge number of incidents are never reported, which means that statistical reports must be considered only a sketchy representation of the actual situation (Wade, 2004) and studies based on such reports may be inaccurate.

The research study discussed here was conducted to examine these trends by investigating the prevalence of workplace violence experience among a selected population and comparing the data gathered through this survey with data from the

Bureau of Justice Statistics National Crime Victimization Survey, the Bureau of Labor Statistics, and other studies.

STUDY METHODOLOGY

The authors developed a short survey instrument designed to gather data on the prevalence of individual experiences of workplace violence. The survey asked participants to identify whether they had seen or experienced any of the following in their place of work over the past three to five years:

- violence involving a deadly weapon (knife, gun, etc.)
- violence involving physical force (hitting, shoving, etc.)
- verbal violence or abuse (threats, yelling, harassment, etc.)
- deliberate damage to company property or equipment

Students in selected business classes at Athens State University from the 2005-2010 academic years completed the survey. Following a class segment on workplace violence which included readings and a lecture, students were asked to reflect on the class materials and complete the survey form.

STATISTICAL FINDINGS

A total of 859 students responded to the survey. Of these, slightly over 12% had witnessed violence with a deadly weapon present. Almost 27% of the respondents had witnessed instances of physical violence not involving a deadly weapon. Slightly over 54% had witnessed instances of harassment, threats, yelling, or other verbal abuse; and just over 20% had witnessed instances of deliberate damage to company equipment. The results are summarized in Table 1.

COMPARISON WITH NATIONAL DATA

The Athens State University survey utilized a convenience sample and the questions do not exactly replicate those of other reliable surveys, making a side-by-side comparison difficult. The

TABLE 1 ATHENS STATE UNIVERSITY WORKPLACE VIOLENCE SURVEY BREAKDOWN		
	Total No.	Total %
Number of Respondents	859	100.00%
Violence with Deadly Weapons Present	104	12.11%
Physical Violence (No Deadly Weapons Present)	230	26.77%
Harassment, Threats, Yelling, or other Verbal Abuse	466	54.25%
Damage to Company Property or Equipment	173	20.14%

wide range in definitions of workplace violence, discussed above, also makes comparison difficult.

However, the National Crime Victimization Survey (NCVS) utilizes two categories that invite comparison. The first, aggravated assault, is defined by Duhart as “a completed or attempted attack with a weapon, regardless of whether or not an injury occurred, and an attack without a weapon in which the victim is seriously injured” (2001, p. 12). This category is comparable to the current study’s category of “violence with deadly weapons present”. The second, simple assault, is defined as “an attack without a weapon resulting in either no injury, [or] minor injury (such as bruises, black eyes, cuts, scratches, or swelling)” (Duhart, 2001, p. 12), and is comparable to the current study’s category of “physical violence (no deadly weapons present).”

In the first comparison, 12.11% of Athens State University respondents had witnessed violence involving a deadly weapon, as compared with 18.6% nationwide who experienced aggravated assault. Considering the category of simple assault, 26.77% of the Athens State University respondents had witnessed or experienced physical violence with no deadly weapons present. An additional 54.25% had witnessed or experienced verbal abuse. This compares with 75.2% in Duhart’s report who experienced simple assault nationwide.

An online survey conducted by Workplace Bullying Institute/Zogby in 2007 showed more than 50% of American workers had experienced or witnessed verbal abuse or bullying in the workplace, and 37% had been bullied on the job (Cable, 2007). This compares closely with the results of the Athens State University survey, in which 54.25% had witnessed or experienced verbal abuse.

The survey category dealing with damage to company equipment or property cannot be compared to other statistics due to a lack of available information on the subject. Other than a statement in a special report from the Federal Bureau of Investigation (2004), which states that the loss from workplace violence to U.S. businesses is in the billions, no statistical data could be found. This indicates a need for further research to establish the extent and severity of economic loss to American business and industry from the destruction of company property and equipment resulting from workplace violence.

In viewing information from the Bureau of Justice Statistics on crime victimization between 1996 and 2003, statistics indicate that the percentage of workplace victimization has decreased slightly, ranging from a high of 16.8% in 1996 to a low of 14.7% in 2003. The total number of work-related homicides has decreased more than 50% from the high of 1,080 in 1994 to 516 in 2006. This indicates an overall continued decline in the total number of workplace violence incidents. At the same time, the total number of violent crimes nationwide decreased from a high of 8.3 million in 1996 to a low of 4.9 million in 2002, followed by a slight increase to 4.95 million in 2003 (U.S. Department of Labor, Bureau of Justice Statistics, 2002-2005).

The Bureau of Labor Statistics Survey of Workplace Violence Prevention showed that the percentage of workplace violence incidents increases with the size of an organization. While only 5.3% of establishments reported an incident of workplace violence in 2005, almost half (49.9%) of the establishments with more than 1000 employees reported incidents. Less than 2.5% of establishments with 10 or fewer employees reported incidents of workplace violence.

POLICIES, PROCEDURES AND PROTECTION

In recognizing workplace violence as a problem, many scholars, organizations, associations, and institutions state that the key to finding solutions to this problem lies in developing, implementing, and continuously improving policies and procedures for prevention of and managing workplace violence (Sem, 2007; Montgomery & Cook, 2005; Griffin & O'Leary-Kelly, 2004; Wade, 2004; U.S. FBI, 2004; DelBel, 2003; U.S. OSHA, 2002; Lipscomb et al., 2002; Smith, 2002; Beck & Schouten, 2000; Denenburg & Braverman, 1999; VandenBos & Bulatao, 1996). The Bureau of Labor Statistics' 2005 Survey of Workplace Violence Prevention indicated that larger organizations were far more likely to have a workplace violence prevention policy than smaller organizations, with over 86% of organizations of more than 1,000 employees having policies, compared with just of 20% with less than 10 employees. The Athens State University study indicated that slightly over three-quarters of respondents' employers (77.76%) had written policies on workplace violence.

According to Sarah J. Smith, such policies should include "the means to identify potential for violence; procedures to prevent the occurrence of violence; and, in the event that prevention fails, plans to respond to the incident and minimize further damage" (2002, p. 36).

What can employers do to help protect their employees? According to OSHA (2007), "the best protection employers can offer is to establish a zero-tolerance policy toward workplace violence against or by their employees." Other OSHA guidelines for employee protection include:

- Provide safety education for employees so they know what conduct is not acceptable, what to do if they witness or are subjected to workplace violence, and how to protect themselves.
- Secure the workplace. Where appropriate to the business, install video surveillance, extra lighting, and alarm systems and minimize access by outsiders through identification badges, electronic keys, and guards.

- Provide drop safes to limit the amount of cash on hand. Keep a minimal amount of cash in registers during evenings and late night hours.
- Equip field staff with cellular phones and hand-held alarms or noise devices, and require them to prepare a daily work plan and keep a contact person informed of their location throughout the day. Keep employer-provided vehicles properly maintained.
- Instruct employees not to enter any location where they feel unsafe. Introduce a "buddy system" or provide an escort service or police assistance in potentially dangerous situations or at night.
- Develop policies and procedures covering visits by home health-care providers. Address the conduct of home visits, the presence of others in the home during visits, and the worker's right to refuse to provide services in a clearly hazardous situation (OSHA, 2007, p. 1).

In addition, as Smith points out (2002), workplace violence policies and procedures can only be effective when they are shared with all employees and implemented consistently, fairly, and promptly.

Richard D. Sem reinforces the need for employee training, pointing out that all employees must be able to recognize the early indicators of potential violence and understand their responsibility to notify the appropriate person (Sem, 2007). A study by the American Association of Occupational Health Nurses indicated that, although almost 20% of employees had experienced or witnessed workplace violence, the majority could not identify common warning signs of violence, including mood changes, mental health issues, verbal threats, or past history of violence (Professional Safety, 2004, p. 1).

CONCLUSION

The study conducted at Athens State University, in which the majority of respondents reported experiencing some level of violence in their work environment, illustrates the continuing prevalence of workplace violence. This study and the

other research studies cited here also indicate the need for further research in several areas. The extent of economic loss to American businesses from the destruction of company property and equipment due to workplace violence does not appear to have been determined, but could be an important issue that warrants study. Further investigation of the effectiveness of employee training to recognize common warning signs of workplace violence is also needed.

Even though national statistics indicate a decrease in reported incidents of workplace violence, the number of violent incidents, the cost to individuals and businesses, and threats to the health and safety of the work environment remain serious problems in businesses of all sizes and types. According to the Department of Labor, "The *Occupational Health and Safety Act's* (OSH Act) General Duty Clause requires employers to provide a safe and healthful workplace for all workers covered by the *OSH ACT*" (U.S. OSHA, 2002). All employers should seek to provide a safe environment for their employees.

REFERENCES

- Abcarian, B., & Fausset, R. (2010, February 13). Three killed in shooting at Alabama campus. *Los Angeles Times*. Retrieved from <http://articles.latimes.com/2010/feb/13/nation/la-na-alabama-shooting13-2010feb13>
- Allen, Z. (2003, July 21). Unions demand protection from workplace violence. *New York Amsterdam News*, 94(27), 3-4.
- Beck, J. C., & Schouten, R. (2000, Winter). Workplace violence and psychiatric practice. *Bulletin of the Menninger Clinic*, 64(1), 36-48.
- Cable, J. (2007). Survey: Half of Americans have experienced workplace bullying. *Occupational Hazards*, 22.
- DelBel, J. C. (2003, September). De-escalating workplace aggression. *Nursing Management*, 34(9), 31-34.
- Denenburg, R. V., & Braverman, M. (1999). *The violence prone workplace: A new approach to dealing with hostile, threatening, and uncivil behavior*. Ithaca, NY: Cornell University Press.

- Duhart, D.T. (2001). *Bureau of Justice Statistics special report: National Crime Victimization Survey: Violence in the workplace, 1993-1999*. Retrieved July 27, 2006, from <http://www.ojp.usdoj.gov/bjs/pub/pdf/vw99.pdf>
- Fort Hood shootings. (2009). Retrieved from CNN website: <http://www.cnn.com/SPECIALS/2009/fort.hood.shootings/>
- Gilmore, J. (2006, May). Violence in the workplace. *Nephrology Nursing Journal*, 33(3), 254-255.
- Griffin, R. W., & O'Leary-Kelly, A. M. (Eds.). (2004). *The dark side of organizational behavior*. San Francisco: Jossey-Bass.
- Gupta, V. & Kleiner, B.H. (2005). How to recognize and handle potentially violent employees. *Management Research News*, 28(11/12), 60-69.
- Henry, D. (2010, April 19). Two dead in Tennessee hospital shooting. *New York Times*. Retrieved from <http://www.nytimes.com/2010/04/20/us/20tennessee.html>
- Lipscomb, J., Silverstein, B., Slavin, T. J., Cody, E., & Jenkins, L. (2002, Fall). Perspectives on legal strategies to prevent workplace violence. *Journal of Law, Medicine & Ethics*, 30 (Suppl.) (3), 166-172.
- Marchulat, J.J. (2007). Separating fact from fiction about workplace violence. *Employee Relations Law Journal*, 33(2), 14-22.
- Montgomery, J. G., & Cook, E. I. (2005). *Conflict management for libraries: Strategies for a positive, productive workplace*. Chicago: American Library Association.
- Muchinsky, P. M. (2000). *Psychology applied to work: An introduction to industrial and organizational psychology* (6th ed.). Belmont, CA: Wadsworth.
- Sem, R.D. (2007). Workplace violence: Prevention and response. *Security Technology and Design*, 17(9), 84-88.
- Six dead in California post office shooting. (2006, January 31). Associated Press. Retrieved from <http://www.foxnews.com/story/0,2933,183268,00.html>
- Smith, S. J. (2002, November). Workplace violence: 10 tips for a proactive prevention program. *Professional Safety*, 47(11): 34-43.
- Temple, P. (2000, October). Real danger and 'postal' mythology. *Workforce*, 79(10), 8.
- U.S. Department of Justice. Bureau of Justice Statistics. (2004). Table 64: Percent distribution of incidents, by victim's activities at time of incident and type of crime. *Criminal victimization in the United States - Statistical tables*. Retrieved July 27, 2006, from <http://www.ojp.usdoj.gov/bjs/pub/pdf/cvus/previous/cvus64.pdf>
- U.S. Department of Labor. Bureau of Labor Statistics. (Annual). *Cases involving assaults and violent acts by person(s)*. Retrieved July 27, 2006, from <http://www.bls.gov/iif/>
- U.S. Department of Labor. Bureau of Labor Statistics. (2007, August 9). *National census of fatal occupational injuries in 2006*. News release. Retrieved February 29, 2008, from <http://www.bls.gov/news.release/pdf/cfoi.pdf>
- U.S. Department of Labor. Bureau of Labor Statistics. (2005). *Survey of workplace violence prevention 2005*. Retrieved February 29, 2008, from http://www.bls.gov/iif/osh_wpvs.htm
- U.S. Federal Bureau of Investigation. Criminal Incident Response Group. (2004, March 1). *Workplace violence: Issues in response*. Retrieved July 27, 2006, from <http://www.fbi.gov/publications/violence.pdf>
- U.S. Occupational Health and Safety Administration. (2002). *OSHA fact sheet: Workplace violence*. Retrieved July 27, 2006, http://www.osha.gov/OshDoc/data_General_Facts/fact-sheet-workplace-violence.pdf
- VandenBos, G. R., & Bulatao, E. Q. (Eds.). (1996). *Violence on the job: Identifying risks and developing solutions*. Washington DC: American Psychological Association.
- Wade, J. (2004). Reducing the threat. *Risk Management*, 51(11), 10-18.
- Workplace violence: Employees don't recognize warning signs, survey finds. (2004). *Professional Safety*, 49(3).

**THE SHCA CASE:
A RETROSPECTIVE LOOK AT A
NET-BASED CUSTOMER SERVICE SYSTEM LAUNCH**

David W. Palmer

Assistant Professor of Marketing
Jacksonville State University
Jacksonville, Alabama

Arthur Allaway

James and Doris Nelems Research Fellow and Professor of Marketing
Culverhouse College of Commerce and Business Administration
The University of Alabama
Tuscaloosa, Alabama

Giles D'Souza

M.T. Collins Research Fellow and Associate Professor of Marketing
Culverhouse College of Commerce and Business Administration
The University of Alabama
Tuscaloosa, Alabama

Alexander E. Ellinger

Morrow Faculty Excellence Fellow and
Professor of Marketing and Supply Chain Management
Culverhouse College of Commerce and Business Administration
The University of Alabama
Tuscaloosa, Alabama

ABSTRACT

This case study describes the pre-launch, launch and adoption history of a new Net-based Customer Service System (NCSS). The NCSS was offered to dental offices by a moderately-sized insurance and third party claims administrator (TPA) in a southeastern U.S. state. The study and case cover a 185 week period in the early part of the last decade.

Research studies indicate that new Internet technologies are not always readily accepted by target users – especially by small companies. Drawing on adoption theory, this research assesses promotions and product completeness as factors affecting adoption of the NCSS and its continual use by small companies. Post-launch adoption data are utilized to examine the influences of these factors on adoption and usage of the NCSS by these small firms, particularly dental offices.

This case is unique in that, as far as can be determined, it is a longitudinal examination of NCSS adoption and usage across an entire customer base. Another unique aspect of the case is that the launch was only marginally successful, unlike other studies where successful firm activities are often discussed. This presents an opportunity for the reader to assess (and implement) additional activities that might have been undertaken to stimulate adoption and continued usage. In particular, the case points out that more involvement with the users in the launch and better follow-up with target user customers once they register for the system were important aspects omitted from this marginally successful launch.

INTRODUCTION

Southeastern Health Claims Administrators (SHCA)¹ is a third-party health claims administration company (TPA) serving over 100,000 insured group members in the southeastern United States. About 85,000 of these group members come from their biggest and most profitable client with whom they had built a very good long-term and profitable relationship. In 2000 this client was going to establish a new contract requirement that would necessitate better electronic interfaces for its insured group members and more connectivity with the medical doctors, dentists and eye-care professionals who provided health services to the group members. In order to maintain this contract and the long-term relationship, SHCA made a decision to pursue installing a web-based customer service site.

The senior management of the insurance company initiated a project to create a web-based interface for the company's customers, both insured members and healthcare providers. The company's primary goal was to offer up-to-date information about insured eligibility and claims status to their healthcare service providers. The company chose to provide this vital link through a net-based customer service system (NCSS). A NCSS is "a network-based computerized information system that delivers service to customers either directly (e.g., via a browser, PDA or cell phone) or indirectly (e.g., via a service representative or agent accessing the system)" (Piccoli, G., M.K. Brohman, R. T. Watson and A. Parasuraman, 2004). Many of SHCA's competitors were already using this type of technology to improve information sharing and communication with providers. The company felt this was integral to their ongoing success in the marketplace to have this type of system. SHCA chose to offer the system to their dental service providers first. Once the system was completed and accepted by the dentists they would make it available to other

healthcare providers and finally to the group members.

At the end of 2004, three-plus years after the project's inception, the NCSS had not been made available to the other types of healthcare providers, nor was the system open to use by group members. The problem was that only 200 (12.8% or 200/1569) of the company's dental providers were using the system on a regular basis, far below the company's expectations. Over 300 dental providers registered for the system but only 200 used it regularly. Regular usage was defined as signing onto the NCSS an average of at least one time per quarter after registration. The managers of SHCA were disappointed with the number of ongoing users and were trying to decide what happened with the launch of the NCSS and why its launch had been what they considered a "flop." They wanted to discover what caused the problems with this launch and create a plan that would prevent the same problems from occurring with the launch for the other healthcare providers and group members.

SCHA had created a committee comprised of information technology (IT) and claims administration personnel to be responsible for the project. Everyone on the committee thought a NCSS was a perfect tool for their healthcare providers. They had used systems like this for self-service in banking, bill payment and even FedEx Tracking™. One member of the group related a "rule" from Bill Gates' (1999) book "Business at the Speed of Thought" that companies in networked industries, like health insurance claims administration, needed to provide ways for customers to resolve their own problems. The company's web-site needed to be a bidirectional, self-service interface that essentially allowed the healthcare providers to carry out their own customer service by making a variety of support and data sources available to them 24/7. The committee felt this would be great for the customer and for the company, because it would allow customer service personnel to shift their focus from routine, low-value tasks (i.e., checking group member eligibility and claim status) to high value problem solving for customers who really needed it (Gates 1999).

The committee commissioned a survey to check on interest in the NCSS and check certain char-

acteristics of the dental offices, their initial target for the launch. The survey, from which primary questions are shown in Exhibit 1, was mailed to 1,000 to randomly selected dentists across their market in the southeastern United States. The survey was directed to a key employee, either a dentist or the office manager, in each dental practice. After three months, 391 of the surveys had been returned. One hundred forty-eight (37.9%) of the respondents had Internet connectivity in their offices. A quick calculation based on Internet connectivity showed there would be approximately 595 (.379 X 1569 total dental providers) dental offices with the potential to adopt and use the NCSS. One-hundred ninety-seven respondents said they would use the Internet to retrieve claims information. This was almost 40% more than those with Internet connectivity in their office and 15 times the number of respondents who had used NCSS-like systems in the past. Based on this response, the committee members expected the number of dentists with Internet connectivity to increase over time as access to broadband and high-speed Internet grew. SHCA chose to go ahead with the installation of the NCSS based on the confirming and positive results of the survey.

THE NCSS SYSTEM AND ITS RELEASE VERSIONS

The committee was tasked to create a plan of action and choose a provider or developer for the NCSS software. After nearly six months of setting system specifications, interviewing possible

software developers/suppliers, negotiating contracts and setting timelines, a system choice was made. Instead of creating their own web-based system, SHCA chose to install a system in development by a third party software company (developer) and signed a license agreement. The developer announced there would be a three stage release to complete the NCSS software project. Release 1 would include the backbone of the system, Release 2 would improve graphical user interfaces (GUI) and system fixes, and Release 3 would add the two-way customer interfaces for initiating communication and submitting claims.

Release 1 was essentially the foundation of the system on which everything else would be built. This release would include database constructs, file controls and an on-line data query. This interface was to be accessed by the system users to check claims status and the eligibility of policy holders. In September 2000 the company had accepted this first release of the system and began the process of installation, set-up and testing. Many of the other firms who bought the system were able to launch their system in mid-March, 2001. However, due to delays caused by testing and other issues, the system was not launched by SHCA until June 1, 2001. Release 2 of the software was made available by the developer in July, 2001. Following 4 months of testing, this release was put into production and made available to the providers. Upgrades to the graphical user interface (GUI) and more extensive information about claims, checks and insured eligi-

EXHIBIT 1 BASIC SURVEY RESULTS			
Basic Questions	Answered "yes"	% of 391 returned surveys	Of those with Internet
Do you have Internet in the office?	148	37.9%	
Have you used Electronic Data Interchange (EDI) to submit claims in the past?	227	58.1%	
Have you ever used the Internet to check on claims status, eligibility status or plan parameters?	13	3.3%	
Would you use the Internet to check claims status, eligibility status or plan parameters?	197	50.3%	139.7%

1 Southeastern Health Claims Administrators is not the real name of the company but one chosen by the authors to protect the interests of the firm. The case condenses the time frame from the end of the marketing campaign to the time of the analysis by these researchers for a more effective presentation of the case.

bility were included. This significant upgrade included GUI improvements, system fixes and enhancements requested by SHCA and other companies licensed to use the NCSS. Release 3, the final software upgrade included an interface for two-way communication between the claims administrator and the health services providers. SHCA received this release in February, 2002. After another 4 months of testing, the improvements were put into production and released to the providers. This was a very significant release of the software since it completed the technological functionality of the NCSS as proposed by the committee. The implementation of this release was completed 12 months after the initial launch of the system. Thus, within one year, and by Release 3 of the NCSS, dental provider customers could check insured eligibility, confirm claim processing status and submit claims over the Internet without intervention by the insurance company's customer service personnel.

The committee and software developer were very cognizant of making the system work effectively and efficiently for the healthcare providers. They concentrated on eliminating barriers that might inhibit or discourage use of the system by the dental provider offices. The system was free for access by the healthcare providers and only required a basic registration. There were no contracts, licenses or special agreements required for the providers to complete before using the system. The system was a web-based browser product compatible for use with any Internet browser (i.e., Windows Internet Explorer™). The NCSS required no special installation programs or software. Some of the dental provider offices already used similar NCSS software products. Many providers (58.1%) used electronic data interchange (EDI), a similar technology, with other claims administrators for claims submission. From these results SHCA determined there should have been very little need for training or specialized technological support.

The committee felt the new NCSS would create a true advantage for its healthcare provider customers, especially compared to waiting in a phone queue and the traditional method of claims inquiry, i.e., phone calls to customer service. The NCSS offered timely and accurate data, was a secure interactive environment, was easy

to use, and improved operating efficiency for the dentists. Dental providers could check insurance eligibility of enrollees, review claim status, determine if a claim had been paid and when it had been paid, and submit dental claims for payment on-line. In short, the NCSS was designed to create time saving advantages for the providers, thus leading to lower operating costs for both the company and healthcare providers.

After their review, the committee was confident there was very little if anything wrong with the NCSS software itself. The committee had also compared their system to the NCSSs of larger competitors and felt its features were comparable, if not better than the other companies' systems. SHCA was very pleased with the NCSS product they were offering to their healthcare providers. Some dental providers had also reported how much they liked the system and its interface.

THE PROMOTIONAL PLAN

The company made six basic promotional attempts, each of which corresponded with the releases of the upgraded versions of the NCSS. Exhibit 2 presents the six promotional activities, the methods of information dissemination, the corresponding announcements of NCSS functionality, and the number of NCSS users that registered for the system following each campaign. From Exhibit 2 we see the final adoption rate by system users was 12.8%.

LITERATURE REVIEW

There are two things at work in this case that make for an interesting *post hoc* analysis. First is the execution of the promotional activity and second is the effect of the system releases and stage of product completion on adoption.

First, the marketing literature indicates that suppliers' promotional activity has a significant effect on customer organizations' adoption decisions (Bao, 2009). Firms can typically experience a 20-40% customer base adoption rate for new online services based on their ability to prove the capabilities of the system (Marketing Leadership Council, 2004). Thus, the onus is on the company, like SHCA, to show their healthcare service providers that the new NCSS will provide rela-

tive advantages that exceed the financial, operational and social advantages compared to their old way of doing business, the status quo (Rogers, 1995). Initiator-suppliers of new Internet-based technologies must therefore make use of promotional activities to pursue recommendation strategies that actively communicate the benefits of new technologies and reduce risks associated

with using the NCSS. As an initiator-supplier of new Internet-based technologies SHCA must therefore make use of promotional activities to pursue recommendation strategies to communicate the benefits of the NCSS to their healthcare providers. This should in turn reduce the healthcare providers' perception of risk associated with using the system and get them to adopt the sys-

EXHIBIT 2 PROMOTIONAL CAMPAIGN AND ANNOUNCEMENTS OF NCSS FUNCTIONALITY OVER 185 WEEKS		
Promotional Activity, Week Initiated and Method of Information Dissemination	Announcements of NCSS Functionality	Cumulative Ongoing Users after Promotional Activity (in bold)
#1 - Basic Tabbed Tri-fold Brochure Week 1 – Tri-Fold Flyer available at Dental Association Meeting	System Release 1 Availability of Basic System	Through 8 weeks: 10 (0.4% of provider population)
#2 - Basic Tabbed Tri-fold Mailer Week 9 - Mailed to Dental Provider List	Availability of Basic System	Through 18 weeks: 10 (0.4% of provider population)
#3 - Basic Tabbed Tri-fold Mailer Week 19 -Mailed to Dental Provider List	System Release 2 Upgrade and Future Availability of On-line Claims Submission Processing	Through 51 weeks: 43 (2.7% of provider population)
#4 - Letter from VP of Administration and Professional Design Week 52 - Mailed to Dental Provider List	System Release 3 Upgrade and Availability of On-line Claims Submission Processing	Through 61 weeks: 86 (5.4% of provider population)
#5 - Change On-hold Message to encourage customers to use the web-page Week 62 - Call Management System “On-hold” Message Changed	Availability of System and On-line Claims Submission Processing	Through 122 weeks: 139 (8.9% of provider population)
#6 - Professional Design Week 123 - Mailed to Dental Provider List	Cash Flow Improvement Available by using On-Line Claims Submission Process	Through 185 weeks: 200 (12.8% of provider population)

tem (Iacouvou *et al.*, 1995; Woodside and Biemans, 2005).

Second, the literature deals with Adoption Theory and why organizations, like these dental providers, would adopt and use a new innovation like the NCSS (Rogers, 1995). The marketing and technology literature has shown that there is a relationship between product completeness and the adoption of technologies by organizations (Moore, 2002). In other words, the more complete a product is, the greater the likelihood of adoption by organizations. Diffusion of Innovations theory suggests that there are five classifications of adopter to help us understand why and when certain organizations adopt. These groups include (1) innovators, (2) early adopters, (3) early majority, (4) late majority, and (5) laggards (Rogers, 1995). The first three of these groups are most important to this study.

Innovators are generally defined as the first 2.5 percent of eventual adopters and are considered to be venturesome (Rogers, 1995). They are very eager to try new ideas and will accept products and services they may perceive to have factors of risk, i.e., system incompleteness. Expenses (or costs) related to trying a new product or service (like the NCSS) are not a problem because the innovator generally has enough financial resources to absorb the possible loss owing to extra costs incurred in adopting and using the new service. They also are willing to accept an occasional setback when the innovation does not work as expected or is incomplete in form.

Early adopters, the next 13.5 percent of eventual adopters, are usually the first group to truly adopt the new idea after its general release. Early adopters are often the opinion leaders of the social system or channel, and thus important to word-of-mouth and to the spreading information about the innovation. Compared to other channel members, early adopters have been described as well-integrated within the channel, enjoying above-average social status. This means they, like innovators, can absorb the cost of the failure of an innovation. Early adopters are often considered to be opinion leaders and key to “spreading the word” about new products and services. Thus, companies like SHCA should seek the early adopter category to be a local leader for

speeding the diffusion of information about the NCSS.

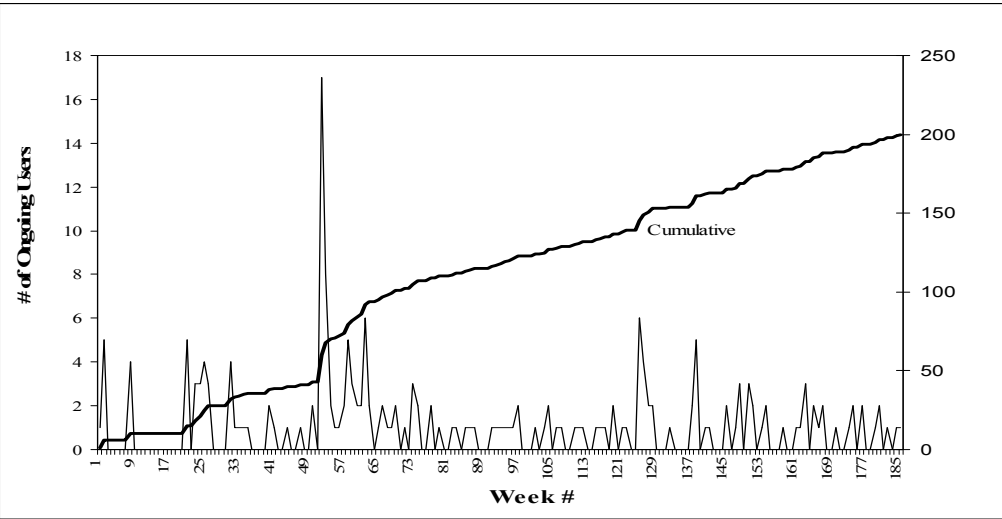
Finally, the early majority adopts innovations just before the average member of a social system. The early majority’s unique position between those that are early to adopt and those who are relatively late to adopt makes them extremely important to the spread of the product (diffusion). This group is cost-conscious, expects a complete product and is much more diligent in the adoption decision process than the innovators and early adopters. While innovators and early adopters will embrace a less than perfect product and may use it even though it lacks many of the expected features, the early majority adopters are more deliberate, risk averse and tend to wait to adopt until a product or service meets all their expectations.

Thus, adoption theory indicates that the early majority category of adopters differs in its expectations of product completeness to the innovator and early adopter categories. This is the beginning of the mainstream market and the key target group for new technologies (Moore, 2002). Companies like SHCA should target their innovation (NCSS), and promotional effort towards this group.

CASE ANALYSIS

Exhibit 3 presents the cumulative adoption of the NCSS over the 185 week period in review for this case. An analysis of this exhibit and Exhibit 2 shows that the launch of the NCSS product reached only the early adopters, less than 16% of potential user/adopters. Spikes in the graph around weeks 52 and 123 show that adoption by the NCSS users increased dramatically when these providers recognized that the NCSS was more complete and met more of their needs. As shown in Exhibit 3, the number of adopting NCSS users varied from zero in several weeks to as many as 17 in Week 52 following the fourth promotional activity. Thus, through visual analysis, we can see that SHCA’s six promotions had some effect on NCSS users’ adoption. Moreover, the promotions were aligned with the three system releases and thus, there is a two dimensional effect between the promotions and system completion.

EXHIBIT 3
WEEKLY AND CUMULATIVE NCSS USER ADOPTIONS IN WEEKS 1 TO 185



To analyze this effect the company sought the assistance of a nearby university to analyze their data and help determine the problems related to their lack of success in the NCSS launch. Since the company’s promotional activities were intentionally linked to the three stages of system completeness, the researchers determined that a multiple regression model would be a parsimonious way to show the effect on promotion and system completion on adoption by users of the NCSS. The researchers established a regression model to determine if the visual analysis of Exhibit 3 is supported statistically (see Appendix 1 for more in-depth analysis).

In this model the weeks following the promotional activities and system release stages were used as independent predictors of the number of NCSS users adopting the system. The results of the research and regression model are shown in Appendix 1 and confirm that promotional activities have some influence on adoption by NCSS users. However, this influence is far more pronounced for the promotions associated with System Release 3 than for System Releases 1 and 2. The promotional activities for System Release 3 yield highly significant increases in adoptions by NCSS users during the periods immediately following promotions. These findings, consistent with adoption theory, provide support that

system completeness has a strong influence on NCSS user adoption.

The regression analysis also shows that during the periods when there was no promotion, System Release 1 did not have a significant influence on NCSS user adoption. System Releases 2 and 3, the more completely featured systems, did influence adoption by NCSS users in these periods of no promotion. The three system releases show an impact on adoption that is not dependent on promotion (this can be assessed by examining the coefficients on the independent variables). For example, the coefficient of System Release 3 is 1.85 (b_{30}) which is 3 times greater than the coefficient for System Release 1, which is 0.58 (b_{10}). The coefficient of System Release 2 is 1.26 (b_{20}) is more than 2 times greater than that for System Release 1. Both are significantly greater and statistically important. These statistics, along with the peaks in numbers of ongoing users adopting the system (as shown in Exhibit 3) illustrate the effect of system completeness. Thus, the regression analysis (Appendix 1) and visual analysis of Exhibits 2 and 3 together demonstrate that system completeness, with some influence from promotional activities, positively influenced the adoption and usage of the NCSS by the dental providers.

DISCUSSION AND LESSONS LEARNED

From the regression analysis the researchers determined that the NCSS itself, when all features were completed, was not a deterrent to adoption by NCSS users. With that in mind, the weaker results for the promotional activities in the regression analysis show that the problem must be associated with the promotion and marketing plan used in the launch. Based on the unexpected shortfall in users of the system a consensus between the researchers and the SHCA committee concluded that the company had not created a marketing plan that was effective in reaching their customers. SCHCA failed to reach the early majority, the most important group in the adoption and diffusion process (Moore 2002). From their analysis the committee and academic researchers determined the relatively low number of adoptions by NCSS users could be associated with two specific things that were lacking in the promotional plan: 1) The lack of follow-up by SHCA to show potential users the benefits of the completed NCSS; and 2) A lack of involvement by SHCA with the potential users of the NCSS.

First, the relatively low number of NCSS users adopting the system can be associated with a lack of follow-up by the company. After the sixth promotional effort, when the product had reached completeness, SHCA discontinued its marketing plan. The reasons for this stoppage are not certain, but one reason mentioned by the committee was budgeting and costs. Thus, after finishing the initial launch of the system, there was somewhat of an expectation by the company that the obvious benefits of the NCSS would sell themselves to dental providers without any further promotion. From the number of NCSS users adopting the system this was certainly not the case. The reality was that most dental office customers were happy with the status quo in their offices and were not particularly enthusiastic about learning what the new system could do for them. What SHCA had not realized was that the value of the of the system and its capabilities were perceived by the NCSS user (dental provider user/adopter) and not conceived by the NCSS developer or the firm. Thus, the potential users should have been made aware of the benefits of the NCSS and its relative advantages over their traditional opera-

tional activities. By carefully explaining the advantages of the new technology and showing how it addresses weaknesses in current provider practices there could have been improved adoption by potential users of the NCSS. The mailing of a few promotional fliers is truly a minimal attempt at getting this done. A totally integrated marketing plan is needed to make this communicate the capabilities of the system. Companies that are excellent at communicating these capabilities include Microsoft who introduced the "Microsoft Big Days" initiative for launching new software, services and products in the late 1990s (Gates, 1999). These were very successful for Microsoft and SHCA could have hosted "parties" like them to explain the capabilities of the NCSS and get feedback from users. These parties in SHCA's market area may have generated higher levels of awareness for the healthcare providers, generated more word-of-mouth discussion, and diffused information about the advantages of the NCSS to providers and potential users.

Second, SHCA should have reached out to potential NCSS users with training teams, with focus groups, and by involving users in up-front design and planning (Rae-Smith and Ellinger, 2002). A proactive approach to visiting dental offices and explaining the capabilities of the NCSS should have been a priority. SHCA should have provided hands on training for the dentists, showing how the NCSS could help customers improve their operational performance. Focus groups with actual customer users would have provided feedback to determine the perceived advantages and disadvantages of the system. This also would have helped SHCA determine how well users understood the different aspects of the NCSS and how it was meeting their needs. If SHCA had gathered this information, it may have helped them better to tailor the system for training programs and promotional efforts directed to prospective users.

Even though this case is limited by its location and adopting group (southeastern U.S. dental offices) it gives a powerful message for companies wanting to set up Internet-based customer service systems for their channel partners. It takes more than a pre-launch survey and a few promotional mailings to get the majority of potential users, like healthcare providers, to adopt even the

best Internet technologies. A well-formulated and integrated marketing plan should be used to stimulate adoption by users. Firms launching an on-line customer support systems, like the NCSS, should be very involved with potential users, especially during the launch process. Companies must also recognize the importance of the early majority group of adopters by creating a product for them and communicating the benefits of the product to them. SHCA did not do this and got less than satisfactory results (12.8% adoption). As discussed earlier, the firm may have stopped its promotion activities for budgetary reasons. If they stopped their promotional effort after approximately two years (123 weeks) because of expenses, SHCA missed the chance for its greatest return on investment. By discontinuing their promotional efforts just as the early majority group began to adopt, SHCA missed an opportunity for exponential growth in adoption by their NCSS users.

REFERENCES

- Bao, Y. (2009), 'Organizational resistance to performance-enhancing technological innovations: a motivation-threat-ability framework', *Journal of Business and Industrial Marketing*, Vol. 24 No.2, pp. 119-30.
- Gates, W.H., III (1999), *Business at the Speed of Thought: Using a Digital Nervous System*, Warner Books, Inc., New York.
- Iacouvou, C.L., I. Benbasat and A.S. Dexter (1995), 'Electronic data interchange and small organizations: adoption and impact on technology', *MIS Quarterly*, Vol. 19 No. 4, pp. 465-85
- Marketing Leadership Council, a division of the Corporate Executive Board Company (2004), "Overview of B2B web-based self service", available at <http://www.marketingleadershipcouncil.com>, Retrieved 12/11/2005
- Moore, G.A (2002), *Crossing the chasm: marketing and selling high-tech products to mainstream customers*, HarperCollins, New York.
- Piccoli, G., M.K. Brohman, R. T. Watson and A. Parasuraman (2004), 'Net-based customer service systems: evolution and revolution in web site functionalities', *Decision Sciences*, Vol. 35 No. 3, pp. 423-55.
- Rae-Smith, J.B. and A.E. Ellinger (2002), 'Insights from the introduction of an on-line logistics service system', *Supply Chain Management – International Journal*, Vol. 7 No. 1, pp. 5-11.
- Rogers, E.M. (1995), *Diffusion of Innovations*, 4th ed., The Free Press, New York.
- Woodside, A.G. and W.G. Biemans (2005), 'Modeling innovation, manufacturing, diffusion and adoption/rejection processes', *Journal of Business and Industrial Marketing*, Vol. 20 No. 7, pp. 380-93.

APPENDIX 1

As presented in the following table the regression analysis examines the weekly totals of dental office adopting the NCSS. For classification of the promotional activities in the model, the three weeks immediately following the start week of each promotion are named “on promotion” periods. (Four weeks, inclusive of the promotion week, were chosen as the limit of post promotion effects based on visual inspection of the data.) Since there are six promotions and four weeks adoptions measured for each promotion, there are 24 promotional activity (“on promotion”) weeks in which the effects of suppliers’ promotional activity on user adoption can be assessed. The other 161 (185 minus 24) weeks are classified as “off promotion” periods. The three system releases are classified separately by their own dichotic variables, thus giving a 3 x 5 model for the regression analysis. In order to take into account a possible time trend a variable “W_t” or week of adoption is also included. Indicator variables “V_{it}P_{jt}” representing the system release and the corresponding promotion “P_{kt}” are also included. The subscript “j” defines the system release number (j=1, 2, 3). The subscript “k” defines the absence of a promotion (k=0) or the specific stage of promotion, “V_{iz}”, the start of the promotion (k=1) or the one to three weeks after (k=2, 3, 4). There are three system releases and there are five

stages of promotion: the four weeks of “on-promotion” and the “off-promotion” periods. Thus, the influence of promotional activity can be captured with 15 (3 x 5) dummy variables and the regression can be written symbolically as

$$Y_t = aW_t + b_{ij}V_{it}P_{jt}$$

Where t = 1,2,...185 represents number of weeks; i = 1, 2, 3 represents the System Release; j = 0 represents no promotion (“off promotion”), j=1,...,4 (i.e., 1=week of promotion (“on promotion”), 2 = first week after, etc.); Y_t = number of NCSS users adopting in week t; W_t = week t; V_{it} = System Release i in week t; and, P_{jt} = promotion level j in week t. The promotional effort in week “t”, is indicated by the interaction of the System Release version (V) and level of promotion (P).

In summary, “Y_t” is the dependent variable denoting the number of adoptions in week “t”, and the weeks (W_t) and the promotional activities (V_{it}P_{jt}) are denoted the same way. The coefficient “a” indicates the effect of the time trend on ongoing usage and the fifteen “b” coefficients indicate the effects of the promotional activities on ongoing usage. The effect of the three system releases are captured by “b_{j0}”, while the effect of the promotions are captured by “b_{j1}” to “b_{j4}”.

<i>Regression Model:</i> $Y_t = aW_t + b_{ij}V_{it}P_{jt}$ N = 185: ADJUSTED R-SQUARE: 0.46 (P-VALUE OF F STATISTIC: <0.0001)				
Effects of		System Release 1	System Release 2	System Release 3
Week 0 “on promotion” (j=1)	Coefficient	0.53	0.13	8.55
	SE	1.16	1.64	0.99
	Significance	0.645	0.936	<0.001*
Week 1 “on promotion” (j=2)	Coefficient	3.04	0.14	4.56
	SE	1.16	1.64	1.00
	Significance	0.009*	0.932	<0.001*
Week 2 “on promotion” (j=3)	Coefficient	0.05	5.15	3.57
	SE	1.16	1.64	1.00
	Significance	0.966	0.002*	<0.001*
Week 3 “on promotion” (j=4)	Coefficient	0.06	0.15	2.91
	SE	1.16	1.64	1.00
	Significance	0.962	0.925	0.004*
System Release (j=0) “off promotion” weeks	Coefficient	0.58	1.26	1.85
	SE	0.52	0.34	0.49
	Significance	0.069	<0.001*	<0.001*
Time (weeks)	Coefficient	-0.007		
	SE	0.004		
	Significance	0.069		
* p<= 0.05				

A CASE STUDY IN LEADERSHIP AND STAFF EMPOWERMENT

Irma S. Jones, Ed.D.

Department of Applied Business Technology
The University of Texas at Brownsville
Brownsville, Texas

Olivia Rivas, Ed.D.

Department of Educational Psychology and
Leadership Studies College of Education
The University of Texas at Brownsville
Brownsville, Texas

ABSTRACT

This case study describes how leadership and staff empowerment through a workplace staff development program was introduced into a student affairs division of a southern Texas university. This paper will discuss how leadership can effectively change work culture, how empowering staff with professional development can be implemented and how programs or models were created.

INTRODUCTION

A conventional perception about staff development as occurring infrequently at an off-site location has slowly been transforming into a concept where excellent staff development occurs in the workplace rather than in a workshop (DuFour, 2004). The concept of workplace staff development was introduced into the Student Affairs division of this southern university producing a change of culture through good leadership and employee empowerment. This paper will discuss how leadership can effectively change work culture, how empowering staff with professional development can be implemented and a description of the programs that were created to accomplish this.

“The research clearly shows that the sector of the workforce in which a practitioner is located... is the single most significant variable in determining professional development attitudes and issues, with each requiring different strategies” (Mackay, Burgoyne, Warwick & Cipollone, 2006). Organizational structures and cultures have also been shown to impede changes that are at the crux of professional development programs and thus must be changed. The essential

characteristic of effective professional development is that it involves continuous learning in collaborative problem-solving. Job-embedded staff development will move the focus of professional learning to the workplace. However, shifting to site-based staff development does not ensure improved learning for the participants (DuFour, 2004). To accomplish this collaborative learning, leadership must bring cohesiveness to organizations by establishing clear goals, coordinating efforts to achieve those goals, and sustaining the effort over an extended period of time (DuFour, 2004).

There are many different sources that indicate topics, practices, challenges or characteristics that describe leadership. In the *Five Practices of Exemplary Leadership* framework, Posner and Kouzes (2002) describe the five leadership practices as 1) modeling the way; 2) inspiring a shared vision; 3) challenging the process; 4) enabling others to act; and 5) encouraging the heart. “Findings have been relatively consistent across people, gender, ethnicity and cultural backgrounds, as well as across various organizational characteristics” (Posner & Kouzes, 2002). In his article entitled *How to Overcome Leadership Challenges*, Drew Stevens (2007)

identifies these eight prevailing challenges or topics that encourage good leadership 1) humility; 2) energy; 3) intuition; (4) vision; (5) perspective; 6) passion; 7) conviction; and 8) learning. The Brian Tracy College of Business and Entrepreneurship at Andrew Jackson University lists five leadership challenges anyone can overcome 1) creating and maintaining a diversified team; 2) inspiring others to share the leaders/organizational vision; 3) facilitating open and clear communication among coworkers; 4) empowering incumbents to take action; and providing inspiration to others (Andrew Jackson University, 2010). Yet another source for personnel improvement recommends establishing and understanding connections between supervision, staff development and evaluation, three distinct, yet connected dimensions of personnel improvement (McQuarrie & Wood, 1991). The *Motivational Framework for Culturally Responsive Teaching* respects different individual cultures and works at the same time to create a common culture in the learning situations that all adults can accept. This framework includes four motivational conditions that the instructor and the learners collaboratively create or enhance 1) establishing inclusion; 2) developing attitude; 3) enhancing meaning; 4) engendering competence (Wlodkowski, 2003). Many more publications can be found that explain and describe characteristics, topics, leadership skills and challenges to be used in staff development programs. The following section of this paper describes just one case study in leadership and staff development.

CASE STUDY

A successful leader realizes that the success to the organization, regardless of size, is the heart and spirit of its employees, the relationships among them and their shared sense of community and vision. A high performing and successful organization often has passion, purpose, and shared values. Kouszes and (2007) identify five practices common to most extraordinary leaders as listed in the introduction. The case study below describes several projects or programs which illustrate three of these practices: 1) inspiring a shared vision; 2) challenging the process; and 3) encouraging the heart. This case study came about as part of a university student affairs staff

development program in a medium sized university in southern Texas. Sample descriptions of the projects and their relevance to tried staff development experiences will be examined.

THE SERV PROJECT: INSPIRING A SHARED VISION

Finding a method to bring everyone in the organization to a common theme of interest or vision is often a challenging task. This common vision was accomplished by a staff development project entitled SERV (Staff Empowerment through Reading Ventures). A committee of volunteer staff ranging from the clerical to the professional ranks in a student affairs division of approximately 85 employees was formed to select a theme that aligned itself with the already established and agreed upon values of the organization. In the first year, the SERV committee was appointed by the Vice-President of Student Affairs (VPSA) from individuals expressing an interest in working on an innovative venture. In subsequent years, the SERV committee sought volunteers from the various departments comprising the division of student affairs. The task of the SERV committee was to identify reading materials that would be of interest to a wide range of individuals performing clerical and professional duties in the division of student affairs and that would be relative to the annual selected theme. Themes selected over the years ranged from the importance of customer service to understanding the foreign student educational experience to service learning. The reading materials selected by the committee often included short stories, journal articles, poems, cartoons, book excerpts, etc. The SERV committee was careful to include in the collection of readings something of interest to everyone in the division.

At the start of the academic year, a notebook containing the collection of readings was given to each employee along with a formal notice to attend a focus group meeting to be held in the spring of that academic year. Members of the SERV committee facilitated the various focus groups in the spring at which time the readings were discussed and debated. This year long project served to bring all in the organization, regardless of assignment, to come together and participate in common ground dialog and issues

relevant to the organization and the shared values of the community of employees. Attendance to these focus groups never dropped below 98% over a four-year period and the comments from the employees were positive as they felt uplifted and members of a greater good.

NEXT GENERATION ACADEMY: ENABLING OTHERS TO ACT

Recognizing the talent within and grooming those employees to take on greater challenges gives an organization depth and strengthens the very foundation of the enterprise. Good leaders surround themselves with good people and are not afraid to empower others. This empowerment insures the success of the organization and the retention of employees. To that end, this student affairs division created what became known as the Next Generation Academy.

The Next Generation Academy was a leadership development experience for employees who demonstrated a desire, along with a potential, to accept greater challenges and take on additional responsibilities in administrative/leadership roles. Participants could self-nominate or be nominated by their supervisor to be considered for this year-long experience. A cohort of ten (10) employees was selected annually. Participation in the academy involved two days a month attendance in a curriculum based leadership experience. Topics ranged from ethics, university budgeting, public relations, and conflict resolution to other related leadership practices. The academy was headed by the VPSA, who oversaw the curriculum, and included speakers ranging from the university president, the provost and various department heads.

An analysis of the Next Generation Academy participants over a five-year period found that many of these graduates had moved or been promoted into administrative positions such as Associate Vice-President for Enrollment Management, Associate Vice President of Student Affairs (at a local community college), Registrar, and Department Heads throughout the university. The growth of individuals in this program was recognized by a visiting team from a regional accreditation association (SACS) by awarding the university a commendation for this innovative

staff development practice. Participants in this program have consistently provided comments indicating how proud they felt being recognized as having potential to grow in their positions or be promoted to other positions.

GEM AND WOW! PROGRAMS: ENCOURAGING THE HEART

Often, it is the recognition among peers that is valued and prized by employees and in turn encourages the heart and fuels the passion and commitment to the enterprise. Two staff development models were designed to celebrate and recognize both individual and team accomplishments on a regular basis.

The first model, known as the GEM (Going the Extra Mile) award, was established to recognize individual meritorious efforts on an annual basis at the division level. Employees could self-nominate or be nominated for this award by their supervisors or peers. This award focused on work that went beyond the expected contributions of their job description. The GEM award was presented at the annual in-service convocation for staff where colleagues were given the opportunity to hear about the recipients' extraordinary work. Recipients were presented with a new university name tag which now had a small embedded faux diamond. Recipients proudly wore their name tag with the gem demonstrating that they were honored as a GEM awardee. In addition, the GEM recipient received a designated parking space for a period of one academic year. The space had a name plate with their name and a star above their name.

The second recognition model was the WOW! Award. Also recognized at the annual staff convocation, this award was given for team effort in designing and implementing extraordinary changes in the work environment that enhanced the performance of their unit thus providing efficiency and quality of service. The winning team was presented with a plaque that had their unit's name inscribed on it next to the year of the award. This was a traveling plaque they could proudly display in their unit for one year before passing it on to the following WOW! team or might perhaps continue in their unit if they were to win the award the following year. Winners of

the WOW! award were very proud to be recognized for their team effort and would often huddle hugging each other when receiving the award. Displaying the plaque in a prominent position was also a source of honor.

EMPLOYEE ORGANIZATION AND MENTORSHIP PROGRAMS: ACCOMPLISHING EXTRAORDINARY THINGS

Recognizing that organizations have culture and that culture is what sustains the enterprise, not structure, is one of the characteristics of good leadership. Organizational culture improves employee performance as it conveys shared vision, shared values, traditions and common expectations of commitment and passion for success. Good leaders establish solid programs of orientation for new employees to develop an understanding of shared values and vision.

This particular employee orientation program began with a welcome letter from the VPSA to new employees. Orientation sessions were conducted for new employees, once per semester, where they were given the division values, developed and affirmed by their peers; a history of the university; information on traditions and expectations of employees in the student affairs division; the strategic directions of the division; and other related information necessary to their successful entry into the job. All orientations were conducted by peers. Another staff development initiative was employee mentorship. While mentorship programs are found in many college faculty ranks, this university designed a mentorship program for all new staff from clerical to professional ranks. Each new employee was assigned a mentor from their respective unit who, in keeping with the spirit of the origin of the word mentor, took care of the new employee, offered advice, wisdom and assurance that they could succeed. Mentors were selected by compiling a list of volunteers from the division. Both mentor and mentee were recognized at the staff convocation held annually. Because the employee was new to the position, they felt that having a mentor was standard practice. The mentors, however, experienced professional growth as a result of the experience as they shared their knowledge they grew stronger and more confident in that knowledge. This was

a professional development experience for them as well as the new employee.

SUMMARY

Leadership and empowerment efforts by means of staff development projects described earlier create a sense of ownership and commitment in the enterprise for all employees throughout the organization. No one should try to neither manage nor control employees through systems, structures and processes, at least no one who wants to accomplish extraordinary things in their organization. The model projects described herein have been taken from a southern Texas and are applicable to other organizations regardless of the size of the enterprise. This workplace staff development program when designed with some of these leadership practices in mind is very cost effective rather than sending employees out of the workplace for training. Employees responded positively about each of these projects and the overall result was that the student affairs division at this university was a very cohesive and progressive group.

BIBLIOGRAPHY

- DuFour, R. (2004). Leading edge: the best staff development is in the workplace, not in a workshop. *Journal of Staff Development*, 25(2).
- Five challenges anyone can overcome. (2010). Retrieved from <http://btc.aju.edu/blog.asp?id=7>
- Kouzes, J. M., & Posner, B. C. (2007). *The leadership challenge*. San Francisco, CA: Jossey-Bass.
- Kouzes, J. M. & Posner, B. C. (2002). *The Five Practices of Exemplary Leadership*. The Student Leadership Challenge. San Francisco, CA: Jossey-Bass.
- Mackay, S., Burgoyne, U., Warwick, D., & Cipollone, J. (2006). Current and future professional development needs of the language, literacy and numeracy workforce. National Centre for Vocational Education Research (NCVER), Retrieved from <http://www.ncver.edu.au/publications/1671.html>

McQuarrie, F. O., & Wood, F. H. (1991). Supervision, staff development and evaluation connections. *Theory into Practice*, 30(2),

Peterson, Kent D., Deal, Terrence E., *The Shaping School Culture Field book*, 2009, second edition, Jossey-Bass, Publishers, San Francisco, CA.

Stevens, D. (2005). How to overcome leadership challenges. Ezine @rticles, Retrieved from http://EzineArticles.com/?expert=Drew_Stevens

Wlodkowski, R. J. (2003). *Fostering motivation in professional development programs*. New Directions for Adult and Continuing Education, 98.

CONSTRUCTING A MODEL FOR THE DIFFUSION OF IT/IS IN PUBLIC SERVICE ORGANIZATIONS

Mahmoud M. Watad

William Paterson University of New Jersey
Wayne, New Jersey

ABSTRACT

This article presents and discusses the results of a study that explored the organizational impacts associated with the introduction of IT/IS in public service organizations. Managers in these organizations perceive that most impacts of IT/IS are in the areas of task execution, service delivery, and productivity factors. Additionally, they perceive IT/IS as an organizational intervention aimed at improving environmental relationships such as accountability and quality of service. Managers do not perceive information technology as influencing the quality of employees' work life. One of the main conclusions of this research is that managers seek very little change in organizational structure and people attributes. Managers introduce IT/IS to reflect the existing structural arrangement and to enhance the structural status quo. This paper attempts to present the results by constructing a diffusion model that reflects the impact areas of IT/IS in public organizations.

INTRODUCTION

This paper studies the impacts of IT introduction in public service organizations in a period of fourteen years. The first phase of this study was conducted at a time when organizations were focusing on information management and productivity gains. The second phase was administered fourteen years later, in a time when most IT adoption efforts were mediated by strategic considerations. The focus of IT introduction has shifted to knowledge management focus and to enhancing managerial effectiveness.

The first phase of the study analyzed a total of 140 IT/IS projects that were introduced in organizations delivering services in the New York metropolitan area. Data were collected during 1992 and 1993. The follow-up phase of the study used interviews with 37 middle managers (none of them participated in the first phase) from various public service organizations during 2005-2007. All managers interviewed had been involved with IT efforts for more than five years. This research design represents a common form of ex-post facto analysis, in which the exploration of relationships between variables is the main focus. The questionnaire used in the first phase was self-administered in a report format, wherein managers were asked to describe (i) the

organizational context and problems; (ii) the IT intervention or managers' response to the problems; and, (iii) the benefits that resulted from the introduction of IT. In the follow-up phase, the interviews used a similar version of the survey, focusing on the same themes. However, the questions in the 2nd phase were not project specific as it was in the first phase, but they were general and related to the overall managers' experience with IT introduction.

The objective of this study was to determine how mid-level managers in public organizations perceive the relationship between the introduction of IT/IS and their business operations and, thereby, draw lessons aimed at increasing organizational learning for both researchers and managers. Mid-level management is part of the dominant coalition that introduces, approves, and manages planned change. They are in charge of the operational and tactical levels of decision making. As they manage the delivery systems and the production of services in the organization, we should consider mid-level managers' outlook as one of several suitable perspectives for assessing the organizational changes associated with the introduction of information technologies.

IT-ENABLED ORGANIZATIONAL CHANGE

Organizations invest in information technologies to produce benefits in information processing and, consequently, to improve individual and organizational performance (Drucker, 1988; Hammer, 1990; West, 2001; Watson, 2003). Another reason for organizations to adopt computing technologies may be associated with the idea of symbolizing commitment toward new ways of conducting business (Danziger and Kraemer, 1986; Raadschelders, 2005; Starks, 2006). In general, managers invest in information technologies because they attempt to achieve such ends as lowering the time and the cost involved in producing the goods and services they are responsible of. However, managers also are increasingly striving for other IT-enabled ends, such as the creation of a competitive advantage or gaining a strategic edge (Rocheleau, 2002; Holden, 2003; Bretschneider, 2003). Additionally, IT/IS tools are enabling new ways of conducting business, and are becoming an integral part of most organizational processes in all industries (Markus & Robey, 1988; Straub & Wetherbe, 1989; Davenport & Short, 1990; Watson, 2003; Holden, 2003).

The research framework of this study builds upon work in the fields of IT/IS and organizational change which sought to identify the organizational determinants and impacts associated with the introduction of IT (Rockart and Flannery, 1983; Attewell, 1984; Panko, 1990; Huber, 1990; Bretschneider, 2003), and to identify the organizational factors key to the successful introduction and implementation of IT in an organization (King and Kraemer, 1985; Kwon and Zmud, 1987; Bretschneider, 2003; Al-Gahtani, 2005; Watad, 2006).

The introduction of IT/IS in organizations can differ in many ways. Two primary ways to differentiate efforts are based on orientation and scope. The orientation of IT/IS may be in terms of use, such as using IT in: (i) report generation or online search and query; (ii) decision support, that is to employ analytical models to assist managers in making decisions; or (iii) expert systems, which replicate human expertise and are able to make intelligent decisions. The scope of IT/IS refers to whether IT use takes place by an individual user, a unit, the entire organization, or the entire sup-

ply chain of the organization. For example, at the organizational level, IT/IS has been implemented and used in various ways: integrated enterprise systems that cross the boundaries of departments; local area networks that may integrate one or more units; intranets, and extranets to include external users.

IDENTIFYING IMPACTS OF IT INTRODUCTION

The conceptual framework that guided this research categorized the impacts of IT into two groups: (i) changes in organizational elements, such as changes in the structure; and (ii) changes in organizational outcomes (Campbell, 1977), such as changes in productivity. An organization's elements, according to Leavitt (1965), include its structure, its technology, its people and its tasks. Leavitt's model helps simplifying the notion of an organization, and it tells us that a change in one element may result in changes in the others. For example, changing the technology by introducing IT may generate change in the other elements of the organization. Similarly, change in the basic tasks performed by an organization is almost inevitably accompanied by a change in technology, that is, a modification of the way tasks are accomplished. Leavitt's model was modified by Scott (1987), who replaced the element of task with that of goals and added the environment as a fifth, external element. This way he created a more comprehensive model of an organization. A brief discussion of organizational elements and outcomes follows.

Organizational Elements

Each of the elements can be briefly conceptualized as follows: Technology is the body of knowledge, methods, and tools employed in carrying out specific tasks. Tasks are units of work or specific activities that must be performed by the organization to realize its goals. Organizational structure includes the formal assignments of authority, patterns of communication, and design of activity, as well as the norms, values, and symbols that reflect the purpose and importance of organizational activities to employees. People refers to the individuals available to the organization, their capabilities, intentions, and commitment to the organization. Finally, the environment, as an external element,

includes the social, economic, and cultural factors that influence an organization's activity, other organizations and institutions, and the state of knowledge and technology.

Organizational Outcomes

Organizational outcomes are those factors related to the goals of the organization or to any other criteria an organization uses to assess its effectiveness. A thorough review of the IT/IS literature on the organizational impacts of IT identifies four major organizational outcomes: productivity, quality of work life (QWL), competitive advantage, and responsiveness (Watad, 2000). In this paper, to mirror the modified Leavitt model, the accountability of the organization toward the environment is considered as a fifth external outcome.

Each of these outcomes can be conceptualized as follows: Accountability can be defined as the capability of an organization to explain its actions to its constituencies, when being accounted for its deeds and performance. Quality of work life is concerned with employees' well being matters such as reducing the level of stress associated with their jobs, improving job satisfaction, and enhancing morale and confidence. Responsiveness involves delivering a product or service faster and providing information to customers. Competitive advantage implies seeking to secure customer loyalty by linking related services, introducing new products or services, and improving the quality of products or services. Increasing productivity can be interpreted as increasing output (while holding inputs constant), saving time, and reducing operating costs.

The following example illustrates the interconnection between a change in an organizational element and a change in an organizational outcome. If a manager perceives that time saved in performing a task is a result of introducing information technology, then "saving time" would be considered a component of the organizational **outcome** "productivity". However, changing the method of performing the task would be considered a change in the organizational **element** "task". A detailed scheme of organizational elements and outcomes is presented in Appendix 1.

RESEARCH APPROACH

The survey and the interviews used in this research included only open-ended questions. As a consequence, an important stage of the analysis consisted of converting the qualitative text format of the data into quantifiable units of analysis. This was done by constructing a coding scheme that was consistent with the theory used to identify themes for both elements and outcomes. Content analysis, a data-reduction process, was the appropriate technique to do this (Krippendorff, 1980). Advantages of using content analysis include the ability to apply both qualitative and quantitative operations on texts, and the analyst's inability to manipulate the source of the data. Therefore, content analysis yields unobtrusive measures (Webb et al, 1966). The fact that the questions were open-ended ensured a "natural setting" of data collection which allowed managers (the source of the data) to freely report on their projects rather than to be constrained by the researcher's conceptual framework (for more details about the coding scheme used to simplify the measurement process, see Watad, 2000).

It may be argued that for any given manager the particular choice of words he or she happened to put down determines which of the themes were used to code the data, even though the managers may have been thinking very similar things about the impact of their information system. While this may be a limitation of choosing a data collection technique that emphasizes a natural setting, the final analysis relies eventually in collapsing the separate themes into the theoretical categories which are conceptually very distinct. The validity of the analysis is strengthened by the meticulous process of data reduction which included expert consultation as well as the researcher's professional experience in the area of IT.

With respect to the generalizability of the study, the format of the questionnaire and the interviews were simple and limited in scope, factors necessary to encourage many individuals to report on their projects. For example, respondents were not asked to report the negative aspects of their projects. This obviously represents a limitation. Similarly, while the study's external validity was generated by collecting data from users in natural settings, and by a large sample, the latter was not random. It consisted of a set of projects which were volun-

tarily reported. It is possible (although improbable) that only motivated users reported on their projects and probably only reported the most successful ones. Despite these limitations the data collected was sufficient to explore the main objectives of this study.

**RESULTS:
THE ORGANIZATIONAL IMPACTS OF IT**

The main objective of the study was to explore managers' perception of the organizational impacts associated with the introduction of IT. The intention was simply to find where change took place from managers' points of view. Managers' perception regarding the organizational changes associated with the introduction of IT may be summarized according to how often changes were reported.

Results provide evidence to divide the impacts of IT into six groups. The most frequently reported group of changes consisted of the alteration in the methods of task execution, streamlining operations, and materialization of a new division of work between humans and machines. The average occurrence of the variables in this group was 95% (the frequencies are from the first phase and were validated in the 2nd phase). It seems that these changes are inseparable features that accompany the introduction of IT and may be treated as given attributes of the IT intervention. Furthermore, because of the high level of occurrence, one may consider them as proxies of the introduction of IT, and suggest that they be treated as an integral part of the IT intervention in the change process.

The second most frequently reported group of impacts consisted of changes in task related factors, organizational technology attributes, and productivity components. Specifically, these were: access to information, reducing processing time, ease of performing the task, and enhancing control over work. The average occurrence of variables in this group was 70% (the frequencies are from the first phase and were validated in the 2nd phase). The third group also consisted of components of the same organizational constructs as in the second group. These were: accuracy of performing task, enhancing knowledge-analysis capacity, altering the process, reducing opera-

tions cost, and improving decision-making ability. However, managers placed less importance on these variables as compared with those of the second group. The average occurrence of these variables in the 2nd phase was 50% as compared to 45% in the 1st phase.

Judging from the high frequency of occurrence of these factors, one may conclude that these were the most important factors that managers paid attention to. Additionally, one may conclude that these components represent where change actually took place as result of the introduction of IT in the organizations which were studied.

The fourth most frequently reported group of impacts consisted of components of responsiveness, competitive advantage, and environmental relations. These were: accountability to the environment, faster delivery of service or product, increasing output, providing information to customers, and improving the quality of service/product. The average occurrence of the variables in this group was reported as 26%. Since the common thread among these variables is the customer, I have placed them under one construct - the service oriented construct (see next section). In the 2nd phase managers stated that service oriented impacts are about 35%. One may conclude that this number still somewhat low considering the importance of service delivery in enhancing organizational performance.

The fifth group of impacts consisted of improving communication patterns, improving inter-organization relationships, and people's skills. The average occurrence of the variables in this group was only 16% in the 2nd phase compared to 12% in the 1st phase. The sixth group consisted of the entire quality of work life components. The average reported frequency was about 7% in the 2nd phase compared to about 3% in the 1st phase. The results show that very little change has happened in structural factors, people's variables, and quality of work life attributes and that these factors are affected the least by the introduction of IT. It seems that these factors are either not part of the attention structure of managers or IT actually had little impact on them.

One may hypothesize, based on these results, that when sufficient improvement takes place in the core processing components, managers shift

their attention to achieve improvements in the service oriented components. These results also provide moderate evidence regarding a potential paradigm shift in managerial thinking and focus as the process of change develops. The shift is from inward emphasis (focuses on the processing factors) to outward service oriented emphasis. Another hypothesis, which builds on the previous one, is that the impact of IT may reach the structure and people's attributes only later in the process, and eventually impact the quality of work life in the future. Indeed it may be that organizations have to mature in their use of IT in order for it to have a decisive impact on structural-people oriented characteristics of an organization.

**ALTERNATIVE CONCEPTUAL
FRAMEWORK OF THE IMPACTS OF IT**

It is possible based on the results discussed above to suggest alternative framework for conceptualizing the organizational impacts associated with the introduction of IT. The findings described above suggest four distinctive organizational impact areas as follows: Processing Related Factors (groups 2 & 3), Customer Service Related Factors (group 4), Structural and People Related Factors (group 5), the Quality of Work Life (group 6). These impacts area are listed in order of their respective perceived occurrence by managers from high to low.

Processing Related Factors: Most impacts reported were in the areas of task execution: access to information, ease of doing the task, accuracy of task execution, and control over work; technological factors such as altering the processes, acquiring knowledge, enhancing problem solving and decision making; and productivity factors such as reducing processing time and operations cost, and increasing output.

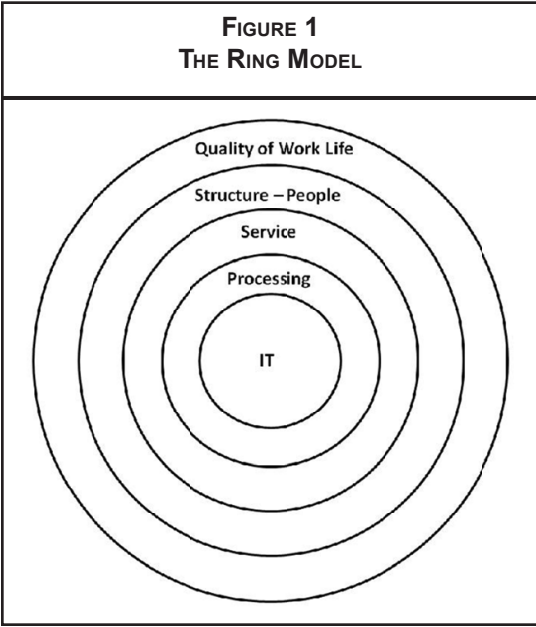
Customer Service Related Factors: Managers used or perceived IT as an organizational intervention aimed at improving their environmental relationships, specifically accountability to the environment, quality of service, delivering services, and providing information to customers.

Structural and People Related Factors: Managers for the most part perceived a very

weak impact of the introduction of IT on factors related to the organizational structure. They introduced IT to reflect the existing structural arrangement and to enhance the structural status quo. Similarly findings suggest weak associations between IT and people related factors. For example IT was perceived neither as a motivating factor nor as a force to upgrade workers' skills.

Quality of Work Life Related Factors: Managers for the most part perceived a very weak relationship between IT and quality of work life related factors. IT was not perceived as a source of comfort or stress relief.

In order to further highlight these results, the relationship among the various impacts of the introduction of IT can be conceptualized using a "ring model", wherein results are depicted in a graphical fashion (Figure 1). This model includes five concentric circles, namely: (i) *IT intervention* ring; (ii) *processing* ring, which hosts the second and third groups of factors (i.e., task, technology, and productivity related factors); (iii) *service* ring, which hosts the fourth group of factors (i.e., accountability, responsiveness, and competitive advantage related factors); (iv) *structure-people* ring, hosting the fifth group of factors; and, (v) *QWL* ring, which hosts the sixth group of factors (See Appendix 1 for more details on the specific components of the constructs). Note that the or-



dering of rings is determined by the frequency each cluster of variables was reported by the managers participating in the study.

Based on the “ring model”, two potential explanations can be drawn when attempting to understand the impact of IT on organizations. Firstly, it seems that organizations must go through the internal rings first if they want to reach the outer rings. It is important to emphasize that a time sequence is not implied, as change in all rings may take place simultaneously. Instead, a diffusion pattern may occur, wherein a high frequency of occurrence implies that the organizational dimension is more fitting for change. A second explanation could be that either the outer rings are not important to organizations at an earlier stage of IT introduction or that it is very difficult to achieve change in all organizational dimensions at the same time. Although the “ring model” is not meant to be normative, nor suggest causality and/or a temporal order for the diffusion of change in organizations, it is useful in conceptualizing the process of a possible sequence of changes in public organizations as perceived by their managers. Notwithstanding, a follow up study is needed to explore the question of whether there is a time order that governs the occurrence of impacts.

It is essential to understand the Ring Model in a theoretical context. There are two main streams of research that have attempted to explain the diffusion of IT applications and systems into organizations. The first stream relates to the Technology Acceptance Model (TAM) as advanced by Davis (1989), and the second relates to the theory of Diffusion of Innovations (DOI) as described by Rogers (1995).

TAM is a theoretical model that evaluates the effects of information systems characteristics on user acceptance (Rogers, 1989; Venkatesh, V., & Bala, H. 2008). TAM has been widely used to understand and predict the adoption and use of IT tools and applications. According to Davis, IT users and managers act rationally and use information in a systematic manner to decide whether to adopt, or not new IT tools in their organizations. TAM posits that there are three major determinants of technology acceptance and links them to the attitude toward using technology. These constructs are perceived usefulness, per-

ceived ease of use, and behavioral intention and attitude towards using technology.

In DOI, the diffusion of innovations is a “...process by which an innovation is communicated through certain channels over time among the members of social systems” (Rogers 1995). Rogers suggests measuring the following five perceived characteristics of innovations to explain the rate of innovation adoption: relative advantage; compatibility; complexity; trialability; and observability. According to him, the adoption of innovations is influenced by these five characteristics, which, in turn, can explain the rate of technology adoption. For example, Rogers suggests that the greater the perceived relative advantage, the faster the adoption.

While TAM and DOI deal with constructs and assumptions to explain user behavior and attitude towards the acceptance or rejection of the intervention, the ring model complements them by shedding light on the impacts of IT-enabled innovations on organizations. The ring model provides some evidence to support the DOI literature, which highlights the importance of perceptions of the relative advantage in determining the adoption of new technologies (Moore and Benbasat 1991; Rogers 1995). The ring models also provides some evidence to support the theory of TAM, which highlights the importance of perceived usefulness in determining successful IT adoption (Davis, Bagozzi and Warshaw 1989; Moore and Benbasat 1991).

The most important reason behind the adoption of IT applications is the desire to improve organizational performance, as understood by the dominant coalition responsible for introducing IT. As such, the desire to improve organizational performance becomes an enabler for organizational change. In this sense the theories of relative advantage underlying DOI and perceived usefulness underlying TAM may provide the rationale for the adoption of IT-enabled innovations in public service organizations. Managers in these organizations adopted new IT applications they perceived facilitated both a greater relative advantage and increased usefulness. These technologies enabled change in organizational elements and outcomes that were important to managers, as they perceived to enhance organizational performance.

THE RESULTS IN PERSPECTIVE

There are several hypotheses concerning the question of why managers reported certain components more often than others. First, if a theme or variable was reported to have occurred many times, it may indicate either that this theme was very important to managers, or that it was most apparent in the attention structure of the organizational leadership. Second, the recurring components may also indicate managers’ desire to highlight their accomplishments, or what they are most proud of among the various competing dimensions in the reward structure in their organizations. Third, it may indicate which components managers perceived to help them justify the rationale behind the introduction of IT. In this case, a recurring theme will be a part of the legitimization structure of what organizations seek to accomplish. Fourth and finally, the recurrence of a particular theme may be an indication of what actually happened. This would suggest that managers are able to carefully monitor their operations, and have the tools to isolate the impacts of the introduction of IT from other factors that may affect the relationship between IT and its impacts.

While the first three explanations focus on the subjective aspect of management’s perceptions or intentions, the fourth focuses on the objective reality to which managers’ perception is directed. It is most likely that each of these explanations provides some understanding of why managers reported certain components more often than others. These reasons help place in context the impacts public managers perceived as they introduced new technology in their organizations. Yet this study is based on the assumption that the reported benefits do represent a relatively “rational” account of what managers perceived to have happened as they engaged in their projects.

The recurrent pattern in management’s perceptions regarding processing and service related factors suggests that the introduction of IT in public service organizations was very pragmatic and directed to fit a technocratic mentality. The less recurrent pattern of perceptions regarding structural factors suggests that managers may have created an attention structure focusing less on the structural redesign and more on task related factors. It seems that managers were concerned with showing immediate gains through the introduction of IT,

which implies a possible lack of long-term planning.

The absence of QWL and people related impacts suggest that IT was not viewed as a factor that can influence these dimensions. One explanation may be that managers’ attention was reduced because it is productivity what helps legitimize the introduction of IT. Another explanation could be that it takes time for IT to influence these factors. Organizations may have to mature in the use of IT to reap such benefits. Nevertheless, the findings do suggest that managers focus more on the technical aspects (the technical subsystem) rather than on the human aspects of the production system of their organizations.

Another potential explanation is that managers in these organizations may perceive themselves as having no influence or control over the human aspects of the production system. They may perceive that tasks and processes can be changed much easier than people’s attributes. For example, they may believe benefits and promotions for workers are designed in a rigid manner and follow predetermined agreement between unions and organizations. Therefore, change in the production system has to come through the technical subsystem. Assuming that people will do their jobs, consequently, if managers improve the technical subsystem then the production capacity will increase with the same level of input of the human resources.

SUMMARY

This article presents and discusses the results of a study that explores public managers’ perception of the organizational impacts associated with the introduction of IT. It summarizes the main findings of a study that was conducted in two phases, within a period of fourteen years. The paper attempts to link the findings to a broader theoretical perspective dealing with the role IT introduction plays in enabling organizational change. It concludes, at large, that the dynamics of impacts have not changed from a time sequencing perspective. However, some impacts are reported to be higher mainly in the service oriented impacts area, but still behind the core processing impacts area. One may conclude that the ring model is a valid framework for studying and understanding

IT-based enabled changes in public service organizations.

Managers perceive that most impacts are in the areas of task execution, technological and productivity factors, which are all processing related factors. Additionally, managers perceive IT as an organizational intervention aimed at improving environmental relationships such as accountability and quality of service. Managers, for the most part, perceive a very weak impact of the introduction of IT on factors related to QWL, people, and organizational structure.

Under the assumption that the reported benefits represent a rational account of what managers perceive to have happened as they engaged in their projects, one may conclude that public managers mainly introduce IT to reflect the existing structural arrangement and to enhance the structural status-quo. Most impacts reported were pragmatic in terms of making the production system work more effectively in the context of service orientation. This pragmatism, however, represents a double-edged sword: it may produce an attention structure responsive to the immediate organizational objectives and tactical constituency needs, but it is clearly shortsighted. Sound designs and a continuous focus on both structural and people aspects may be more difficult and time consuming and show fewer immediate results, but, it may produce long-term benefits greater than the ones achieved with the pragmatic approach. If managers overtake the task of continuously rethinking these difficult aspects, they will eventually learn how to change them effectively in a shorter period of time.

References

Al-Gahtani, S.S. (2004). Computer Technology Acceptance Success Factors in Saudi Arabia: An Exploratory Study. *Journal of Global Information Technology Management*, Vol. 7, Iss. 1, p. 5-29 (25 pp.)

Attewell, P. and Rule J., (1984). Computing and Organizations: What we Know and What we Don't Know. *Communications of the ACM*, Vol. 27, No. 12.

Bretschneider, S. (2003). Information technology, e-government, and institutional change.

Public Administration Review, Vol. 63, Iss. 6, p. 738-741.

Campbell, J.P. (1977). On the Nature of Organizations Effectiveness, in P.F. Goodman, J.M. Pennings, and Associates, *New Perspectives on Organizational Effectiveness*, San Francisco: Jossey-Bass, pp. 36-39.

Danziger, J.N. and Kraemer K. (1986). *People and Computers: The Impact of Computers on End Users in Organizations*. NY: Columbia University Press.

Davenport, T.H. & Short, J.E. (1990). The New Industrial Engineering: Information Technology and Business Process Redesign. *Sloan Management Review*, 31 (4): 11-27.

Davis, F.D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, *MIS Quarterly*, Vol. 13, No. 3, pp. 319-340.

Davis, F.; Bagozzi, R. & Warshaw, P. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models, *Management Science* 35(8): 982-1003.

Drucker, P.F. (1988). The Coming of the New Organization." *Harvard Business Review*, January-February.

Hammer, M. (1990). Reengineering Work: Don't Automate, Obliterate." *Harvard Business Review*, July-August.

Holden, H.S. Norris, D.F. & Fletcher, P.D. (2003). Electronic government at the local level: Progress to date and future issues. *Public Performance & Management Review*, Vol. 26, Iss.4, p. 325-344.

Huber, P.H. (1990). A Theory of the Effects of Advanced Information Technologies on Organizational Design, Intelligence, and Decision Making." *Academy of Management Review*, Vol. 15, No. 1, 47-71.

King, J.L. & Kraemer, K. (1985). *The Dynamics of Computing*. New York: Columbia University Press.

Krippendorff, K. (1980). *Content analysis: An Introduction to its Methodology*. Beverly Hills, CA: Sage.

Kwon, T. & Zmud R. (1987). Unifying the Fragmented Models of Information Systems Implementation. in R. J. Boland, Jr., and R. A. Hirschheim, eds., *Critical Issues in Information Systems Research*. John Wiley & Sons.

Leavitt, H.J. (1965). Applied Organizational Change in Industry: Structural, Technological and Humanistic Approaches. *Handbook of Organizations*, pp. 1144-70, ed. James G. March. Chicago: Rand McNally.

Markus, M.L. and Robey D. (1988). Information Technology and Organizational Change: Causal Structure In Theory and Research. *Management Science*, Vol. 34, No. 5.

Moore, G.C., and Benbasat, I. (1991). Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation, *Information Systems Research*, Vol. 2, No. 3, pp. 192-222.

Panko, R. R. (1990). Is Office Productivity Stagnant? *MIS Quarterly*, 15(2), 191-203.

Raadschelders, J.C. (2005). Government and Public Administration: Challenges to and Need for Connecting Knowledge. *Administrative Theory & Praxis*, Vol. 27, Iss. 4, p. 602-627 (26 pp.)

Rocheleau, B. & Wu, L. (2002). Public versus private information systems: Do they differ in important ways? A review and empirical test. *American Review of Public Administration*, Vol. 32, Iss. 4, p. 379-397 (19 pp.)

Rockart, J.F. and L.S. Flannery. (1983). The Management of End User Computing. *Communications of the ACM*, 26 (10):776-784.

Rogers, E. (1995). *Diffusion of Innovations*. New York: Free Press.

Straub, D.W. & Wetherbe, J.C (1989). Information Technologies for the 1990's: An Organizational Impact Perspective. *Communications of the ACM*, Vol. 32, No. 11.

Scott, W.R. (1987). *Organizations: Rational, Natural, and Open Systems*. Englewood Cliffs, NJ: Prentice-Hall.

Starks, G.L. (2006). The Evolution and Adoption of a Supply Chain Focus in Public.

Organizations Contract Management. Vol. 46, Iss. 5, p. 36-41 (6 pp.)

Venkatesh, V., & Bala, H. (2008). Technology Acceptance Model 3 and a Research Agenda on Interventions. *Decision Sciences*, 39(2), 273-315.

Watad, M. (2000). Information Systems Assessment in Public Service Organizations. *Int. J. Services Technology and Management*. Vol. 1, No 4.

Watad, M. & Perez, C. (2006). Managers' Perceptions of the Role of IT in Organizational

Change. *Academy of Information and Management Sciences Journal*. Vol. 9, No 2.

Watson, E., Vaught, S., Gutierrez, D. & Rinks, D. (2003). ERP implementation in state Government. *Annals of Cases on Information Technology*. Vol. 5, p. 302-218 (17 pp.)

Webb, E.J., D.T. Campbell, R.D. Schwartz and L. Sechrist. (1966). *Unobtrusive Measures: Nonreactive Research in the Social Sciences*. Chicago: Rand McNally.

West, J. & Berman, E. (2001). The impact of revitalized management practices on the adoption of information technology: A national survey of local governments. *Public Performance & Management Review*, Vol. 24, Iss. 3, p. 233-253 (21 pp.)

Appendix 1
Scheme of Impact Constructs and Variables

Organizational Elements Constructs

People and People’s Skills

- Upgrading people’s skills (more tasks, more training)
- Stimulating the ability to think abstractly (work becoming abstract)
- Increasing workers’ initiative and interest

Environmental Relationships

- Decreasing human contact between environment and organization
- Forging new relations with customers and suppliers
- Improving inter-organization’s communications

Technology

- Enhancing analysis, knowledge and understanding of problems
- Altering or simplifying process/operation (relationship among tasks)
- Enhancing decision making capability and planning
- Streamlining routine activities and existing tasks

Structure

- Altering division of work between machines and humans
- Altering work flow (processing system organization)
- Creating new pattern of communications and interaction
- Allowing centralization of control over decision-making
- Allowing decentralization of control over decision-making
- Substituting direct supervision by impersonal control
- Allowing shift of power (altering control of information) among organizational actors

Task Related Variables

- Tasks become easier to do
- Changing methods of performing tasks
- Enhancing flexibility in scheduling (doing) tasks of workers
- Allowing more accuracy in tasks’ execution
- Allowing more consolidation in tasks
- Providing better and faster access to information
- Enhancing control over work

Organizational Outcomes Constructs

Productivity

- Increasing output (holding inputs constant)
- Reducing processing (saving) time
- Reducing operations’ cost

Quality of Work Life (QWL)

- Altering mental health (less stress/less job pressure/frustration)
- Improving job satisfaction
- Enhancing morale and confidence

Responsiveness

- Delivering product/service faster (faster response)
- Maintaining updated knowledge about customers
- Providing more information to more customers

Competitive Advantage

- Linking related services (for clients)
- Improving quality of product/service
- Introducing new service/product

Accountability

- Increasing organization’s accountability toward the environment

EXPLORING THE DIFFERENCES IN QUALITY PRACTICES IN DEVELOPING COUNTRIES

Gioconda Quesada

School of Business

Department of Marketing and Supply Chain Management

College of Charleston

Charleston, South Carolina

Marvin E Gonzalez

School of Business

Department of Marketing and Supply Chain Management

College of Charleston

Charleston, South Carolina

Carlo Mora-Monge

New Mexico State University

Las Cruces, New Mexico

Mark F. Hartley

School of Business

Department of Marketing and Supply Chain Management

College of Charleston

Charleston, South Carolina

ABSTRACT

Companies around the world are moving towards outsourcing some or all of their operations in order to remain in business or to gain a competitive edge. However, one of the dilemmas that companies face is that even though quality is now considered an order qualifier instead of an order winner, quality practices might not be embedded into operations in other regions of the world. Therefore, from a strategic and operational perspective, it is paramount to identify if differences exist among countries traditionally considered candidates for outsourcing from a quality practices perspective. In this research, we investigate the quality practices and the outcomes of these practices in three countries located in different regions of the world: Taiwan, Costa Rica and Mexico. The main purpose of the study is to find out the similarities and differences in quality practices and results among the countries previously mentioned. Based on previous research in the Quality Management area, several constructs representing quality management practices and quality results were conceptualized to develop a survey instrument. Data was analyzed using a number of different statistical techniques, including MANOVA, ANOVA and t-tests. The research findings indicate important differences with regards to quality practices and results, which are analyzed and discussed. Implications for decision-makers considering outsourcing and/or joint ventures with international companies as strategic alternatives are also discussed.

INTRODUCTION

Despite the fact that quality is not longer considered an order winner but rather an order qualifier, it continues to generate interest from prac-

tioners and researchers alike for a number of reasons. First, a quality product and/or service implies that the organization has spent enough resources/efforts to minimize waste which implies that practices within the organization are

constantly monitored and evaluated in order to continuously reduce costs while at the same time improve quality. Second, free trade agreements have created tremendous potential for outsourcing worldwide, but at the same time demands for a global knowledge of quality practices in an international context ((Quesada 1999); (Solis, S.S. Rao et al. 1998); (Hoang, Igel et al. 2006); (Yoo, Rao et al. 2006); (Vecchi and Brennan 2009)). Third, to remain competitive in today’s market environment, companies not only are required offer low cost – high quality products and services, but they also have been flexible enough to adapt to the continuous changes in the marketplace and ultimately exceed customer expectations. In turn, this is closely tied to quality excellence that along with a strong customer orientation, are prerequisites to achieve real business excellence (Hill 2000; Klefsjö, Bergquist et al. 2008).

The Total Quality Management (TQM) philosophy identifies a number of key components that can help companies become world class leaders, including: customer-driven quality strategies and operational performance indicators including quality results, leadership, human resources development, quality assurance, strategic quality planning, quality intelligence, supplier quality, customer orientation and social responsibility, among others. The right mix of these factors can minimize potential negative impacts of manufacturing difficulties that arise from current dynamic and uncertain environments and significantly improve product quality and manufacturing performance (Karim, A. J. R. Smith et al. 2008)).

Developing countries are rapidly gaining more relevance around the world mainly because of free trade and advances in Information Technology (IT). This brings new opportunities and challenges to companies considering shifting some or all of their operations to these countries in hopes of cutting costs or gaining other competitive advantages. In fact, there is an increasingly growing importance of having world-class suppliers which is causing Multinational Corporations (MNCs) to place less emphasis on low wages and putting more emphasis on a mix of elements such as infrastructure, labor skills, geographical location, etc., when choosing foreign sites (Mora-Monge, S. S. Rao et al. 2007). For

example, countries like South Korea, Taiwan, Singapore, and Thailand have shown sustained growth rates of over 7 percent a year in the recent years (Rao, T. S. Ragu-Nathan et al. 1997). Similarly, some Latin American countries such as Mexico and Costa Rica have been able to attract MNCs from different industries (e.g. automotive, pharmaceutical, high-tech, etc.) due to a number of factors including highly skilled labor, strategic geographical location, and relatively low wages. Hence, exploring the situation of quality practices in developing countries is useful from the perspective of both MNCs as well as developed interested in attracting foreign capital.

The research of quality practices and theory development of TQM has remained relevant in both developed and developing nations as evidenced by the number of studies published in the last two decades (see Table 1 for a sample).

TABLE 1 SUMMARY OF EMPIRICAL STUDIES ON QUALITY PRACTICES	
Authors	Country (ies) Analyzed
(Samson and Sohal 1990); (Terziovski 2006); (Prajogo and Brown 2004); (Dean and Terziovski 2001)	Australia
(Baldinger 1990); (Green 1990)	China
(Theodorakioglou, Gotzamani et al. 2006)	Greece
(Lam 2007)	Hong Kong
((Sarkar 1990))	India
(Fynesa and Búrca 2005) ; (Fynes and Voss 2002)	Ireland
(Romano and Vinelli 2004)	Italy
(Knotts and Tomlin 1994)	Mexico
(De Vries and Water 1992); (Blauw and During 1990)	Netherlands
(Antunes 2008)	Portugal
(McLean and Taylor 2007); (McLean, E. Atkins et al. 2005) (McLean, E. Atkins et al. 2005)	Scotland
(Sohal and Wirth 1989)	Singapore
(Gustafsson and Nilsson 2003)	Sweden

(Solis, S.S. Rao et al. 1998)	Taiwan
(Jung-Lang 2007)	Taiwan
(Sousa and Voss 2007) ; (Smith, Wright et al. 2004)	United Kingdom
(Flynn, S. Sakakibara et al. 1995); (Richardson 1993) ; (Benson, J. V. Saraph et al. 1991) ; (Wojcik 2007); (Prybutok and Ramasesh 2005); (Nadia and Nadeem 2005); (Goldstein and Naor 2005); (Jones, T. L. Knotts et al. 2005) ; (Tan and Wisner 2003); (Raju and Lonial 2002); (Kuratko, J. C. Goodale et al. 2001)	United States
(Flynn 1992); (Reitsperger and Daniel 1999); (Hull, K. A. Azumi et al. 1988); (Rogers 1993)	Japan and USA
(Solis, Ragu-Nathan et al. 2000)	United States & Mexico
(Rao, T. S. Ragu-Nathan et al. 1997)	India, China, & Mexico
(Madu, K. Chu-hua et al. 1995)	United States & Taiwan
(Dahlgaard, G. K. Kanji et al. 1990)	Japan, Korea, & Denmark
(Parast, Adams et al. 2006)	United States & Mexico
(Schniederjans, M. M. Parast et al. 2006)	United States, Mexico, & India

As evidenced from Table 1, most of the empirical studies on quality practices have been done in a single country with a few exceptions. Furthermore, most of these studies have been done in developed nations leaving developing nations unexplored; now comparisons among developing and developed countries are uncommon. Only until recently studies on quality practices in developing nations have gained attention from researchers (Solis, Ragu-Nathan et al. 2000; Parast, Adams et al. 2006; Schniederjans, M. M. Parast et al. 2006). Additionally, no study that we are aware of has focused solely on comparing quality practices in developing nations. There is a need to understand commonalities and differences of

quality drivers and practices in developing countries for a number of reasons. First, such insights would be beneficial to companies considering outsourcing their operations to such countries. Second, by studying the quality drivers and practices in developing nations researchers are able to improve and adapt theories and models of quality management practices in an international context.

The present research is an attempt to enhance this understanding by comparing the quality practices in three developing countries, Taiwan, Costa Rica, and Mexico. Due to the differences in culture, political beliefs, economic environment, and other country specific characteristics, organizations in different countries will be in dissimilar environments. Contingency theory suggests that environmental factors will influence the working and hence the management of organizations (Burns and Stalker 1961; Miller 1972; Huber 1984). Hence, we expect that the level of quality management practices will be different in different countries. Based on the above considerations we investigate whether quality practices differ across the three countries.

LITERATURE REVIEW

Quality management practices have been identified and discussed by various authors in the quality literature (Garvin 1983; Saraph, Benson et al. 1989; Flynn, R. G. Schroeder et al. 1994; Rao, T. S. Ragu-Nathan et al. 1997; Rao, L. E. Solis et al. 1999); (Rao, L. E. Solis et al. 1999);(Zu 2009); (Nair 2006); (Sanchez-Rodriguez and Martinez-Lorente 2004);). For this study, we followed the quality management practices and quality results developed by Rao and colleagues (1997; 1999) because it is the only quality management model that has been developed and tested at the international level. This model considered a number of dimensions described below and summarized in the Appendix.

Quality Leadership

Top management support has been found to be a key component for the success of any implementation project in an organization, and the implementation of quality practices is not the exception (Shiramizu and Singh 2007). Literature

confirms that not only top management support but also top management leadership are crucial for the improvement of quality results and quality practices (Deming 1982; Leonard and Sasser 1982; Garvin 1983; Juran 1988; Peters 1988; Gibson 1990; Gilbert 1990; Gryna 1991; Steeples 1992; Puffer and McCarthy 1996). Top management support is related with creating and sustaining clear and visible quality values along with a management system to guide all activities of the company toward quality excellence. Top management support is represented, among other things, in terms of behavioral patterns which show senior management's personal involvement in the quality improvement process, acceptance of responsibility for quality performance, visibility in developing and maintaining an environment of quality excellence, and sharing the vision and quality goals with the entire company.

Quality Intelligence

Advances in Information Technology (IT) are constantly changing the way organizations conduct business. Therefore, organizations must focus on the best way of handling efficiently and effectively information. It is important not only the existence of quality data, but also the analysis used to convert that data into meaningful information that helps in the decision making process. Organizations must provide their employees access to the data important for their specific functions and also they must give them training for analyzing the data. Data quality includes measuring and analyzing the data, parsing the data, standardizing, ensuring accuracy, enhancing the data, running a matching operation and consolidating the duplicates (Dravis 2006).

Maintenance of quality requires continuous flow of accurate information about processes that generate a company's products. Information from various constituencies like workers, agents, vendors, and customers is also important for maintaining and improving quality a product and or service (Deming 1982; Ishikawa 1985; Juran 1986). Analysis of this information allows management to make effective decisions in managing quality. Important attributes of quality intelligence are: timely and accurate information for process control (Flynn, R. G. Schroeder et al. 1994); availability and usage of information

where it is needed for immediate action; and usage of quality related data at all levels in the organization (Rao, T. S. Ragu-Nathan et al. 1997).

Strategic Quality Planning

Strategic Quality Planning represents the integration of quality management and customer orientation in the organizational strategic and operational plans, which requires a long-term quality vision, and the deployment and understanding of quality goals and policy within the organization.

Improving quality is a long-term competitive strategy (Juran 1988; Peters 1988; Lascelles and Dale 1989; Tillery and Rutledge 1991; Barclay 1993). Hence, organizations must carefully draft the planning process for achieving world-class quality and how to integrate quality improvement strategies into the overall business planning strategy. In a study by the Ernst & Young and American Quality Foundation (Harrington 1996) in four developed countries (USA, Canada, Germany and Japan) it was found that strategic quality planning had significant positive effects on organizational performance measures. Strategic quality planning is measured in terms of the integration of quality management and customer orientation in the organizational strategic and operational plans, the organization's long-term quality vision, and the deployment and understanding of quality goals and policy within the organization.

Human Resources Management

TQM philosophy emphasizes the importance of merging together organizations and individuals through teams and processes (Deming 1982; Leonard and Sasser 1982; Garvin 1984; Gibson 1990; Gilbert 1990; Choppin 1991; Gryna 1991; Harber, F. Marriot et al. 1991; Stratton 1991; Steeples 1992). These teams and processes jointly developed, brought a new perspective on training and human resources in the organizations. TQM is actually the integration of organizational, technological and human resource management systems. We measure in this construct: a) the continuous training and education in work-related and statistical techniques, b) management empowerment and involvement of the workforce in quality-related decisions, and c) provision of

the resources and environment conducive to the realization of the full potential of the workforce.

Quality Assurance

The continuous improvement process proposed in TQM uses as a backbone, the Deming's cycle of the Plan-Do-Check-Action. This system must be deeply embedded within the organization, and should involve a continuous assessment of customers' needs. This cycle assures the organizational learning from results and the improvement of operations and outputs obtained from that learning. The processes that produce good results are then standardized and documented. If an organization lacks this standardization, then improvements are not consistent and efficient.

It is our purpose to measure the existence of procedures for design and introduction of new or improved products and services, the design of process that meets and exceeds product/service quality requirements and error and failure prevention activities along the value-added chain.

Supplier Quality

Traditional approaches of supplier relations have been characterized by being indifferent and hostile. TQM philosophy proposes to have a few good suppliers rather than many potential suppliers competing to give the cheapest price, without worrying about quality. The impact of defective supplies on quality performance has raised the importance of quality of procured materials, parts, and services, and has made supplier relationships a major component of business relationships (Flynn, R. G. Schroeder et al. 1994). Those few good suppliers become partners that work together with the organization with the objective of improving the quality of their products and their processes. Thus, companies are selecting their suppliers according to their capability of delivering consistently quality products or services, instead of selecting them just for low price. Therefore, in a way, the suppliers must also be immersed in the TQM philosophy and that is where trading partners work closely together (Crosby 1979; Garvin 1984; Ishikawa 1985; Lascelles and Dale 1989; Steeples 1992). Aside from the supplier selection process, we measure the number of suppliers and exchange of technical

and economical information, along with the supplier involvement in new product development and continuous improvement efforts.

Customer Orientation

TQM emphasizes the importance of having a customer perspective in all the operations of a business, thus, for example, manufacturing can be considered engineering's customer, marketing production's customer, and so on. The internal providers produce for other departments and they must satisfy the quality requirements of their internal customers. In the same way, the final entity of the supply, the one that provides the final service or product to the final customer, must worry about not only satisfying its customers' expectations, but exceeding them by being innovative. The concepts of internal and external customer are crucial in developing quality systems, therefore it is critical to consider a series of quality chains instead of an independent organizations or departments. This concept is similar to the proposed by supply chain management (Handfield, G. Ragatz et al. 1999). The ability to meet customers' expectations is critical not only between two different organizations but within the same organization between different departments or work stations.

In the international survey, we try to measure the organization's commitment to satisfy customers, the integration of customer orientation in a company's vision and goals, the knowledge of customer needs and expectations, the usage of customer feedback in new product design, the monitoring of customer orientation and the responsiveness to customer complaints, and the level of interaction with customers.

Social Responsibility

(Solis, S.S. Rao et al. 1998) state that increasingly worldwide we are seeing a fundamental paradigm change in the interrelated fields of environmental management, regulation and policy. More and more stakeholders are demanding excellence in environmental performance. Moreover, there is a trend inside companies towards the integration of environment, health and safety regulations into traditional business operations. This new paradigm has significant implications for

companies trying to gain access in international markets, particularly for companies in developing countries.

This construct measures the level of consideration of public health, safety and environmental issues as company's responsibility and the extension of a company's quality leadership to the external community. Social responsibility practices may still be scarce in some companies, but initiatives such as responsible care and sustainable development are gaining wide-ranging support (Florida 1996) (Salomone 2008)

Quality Results

TQM manifests its improvements in the long run instead of the short term. This means that since it is a continuous process, the results of its influence in the organization will be viewed on a long term basis. However, once the organization starts experiencing the benefits of TQM, their profits will increase undoubtedly. Effects of proper quality management practices are reflected in improved quality levels of internal operations, customer orientation, and market and financial performance (Deming 1982; Garvin 1984; Ishikawa 1985; Stratton 1991; Steeples 1992). When quality goes up, costs go down and profits and productivity increase. We perceive quality results in two ways: internal quality results (scrap levels, rework levels, warranty costs, customer complaints, productivity, throughput time and costs) and external quality results (competitive position, market share, survival dependent on quality and profits). Previous studies have shown a significant relationship between quality practices and organizational performance and suggest that investments in quality should indeed result in higher performance and profits (Antunes 2008). A list of the quality practices and results items used in the questionnaire is included in the appendix.

The remainder of this paper is organized as follows; a description of possible differences and similarities between the pairs of countries considered in this study. Following this description, we describe the hypotheses to be tested in this paper. After that, the research methodology is explained in detail follow by the analysis of results and conclusions.

RESEARCH HYPOTHESES

Costa Rica and Mexico are expected to have similarities in quality practices because of a number of reasons, including similar cultures and geographical locations, labor union regulations, similar trends towards globalization and free market economies, relatively similar export-oriented economies, governments who support free trade as evidenced by free trade agreements of both countries with developed nations (e.g. NAFTA and CAFTA). Because of this, foreign investment has become a common practice in both countries and they have become export-oriented economies. However, we also expect to see some differences also due to differences in quality implementation programs and quality position within the countries. Additionally, there are differences in the literacy rate between the countries (Costa Rica - 96% vs. Mexico 90%), infrastructure (Mexico has a far more superior transportation infrastructure than Costa Rica); factors that could lead to differences in the quality practices between the countries.

Taiwan and Costa Rica, despite their obvious geographical and cultural differences, share some characteristics. First, they have a similar literacy rate (Taiwan – 94% vs. Costa Rica 96%), and they share the fact that education is compulsory and free education until the age of 15. Second, both countries are continuing their efforts of liberalizing and opening their economies in the last decade or so. Third, communication infrastructure is similar although Taiwan, not including technological aspects. With regards to differences, the most obvious difference besides, culture and geography, it is the fact that Taiwan is more developed compared to Costa Rica with regards to technology and industry developments. The previous discussion leads to hypothesize that these two countries will be expected to have some similarities in quality practices but not at a greater level than the country pair Mexico–Costa Rica.

Similar to the pair of countries described above, Mexico and Taiwan also have obvious differences with regards to geography and culture. From an educational perspective, Taiwan's literacy rate is considerable higher (94%) than Mexico (90%) and Taiwan has an edge on education developments. From a transportation infrastructure standpoint, both countries have similar capabilities.

ties. On the technology side, Taiwan has an edge. Overall, we expect some differences between these two countries.

Based on the previous discussions, we propose the following research hypotheses:

- H 1: There are significant differences in quality practices and results between SMEs and large companies in Mexico.
- H 2: There are significant differences in quality practices and results between SMEs and large companies in Taiwan.
- H 3: There are significant differences in quality practices and results between SMEs and large companies in Costa Rica.
- H 4: There are significant differences in quality practices and results among SME's Costa Rican, Taiwanese and Mexican companies.
- H 5: There are significant differences in quality practices and results among large Costa Rican, Taiwanese and Mexican companies.

RESEARCH METHODOLOGY

A cross-sectional large scale questionnaire was used to collect information about quality practices and results in the countries included in the study. Because of the nature of quality practices and results, multi-dimensional scales were used to measure these dimensions. Also, a five-point Likert scale was used for both quality practices and quality results. The instrument used is part of an international research on quality initiated by (Rao, T. S. Ragu-Nathan et al. 1997) and published elsewhere (Rao, T. S. Ragu-Nathan et al. 1997; Solis, S.S. Rao et al. 1998; Rao, L. E. Solis et al. 1999; Solis, Ragu-Nathan et al. 2000). Since the original instrument was developed in English, it had to be translated into Chinese and Spanish. The process to achieve this is as follows: first, it was translated by a native of China and Mexico, who had sufficient knowledge of quality and good proficiency in both English and Chinese, and English and Spanish. The original English version was compared to the translated versions and modifications were done for the im-

provement of the measurement instrument. The final Chinese version was used for collecting data from Taiwan. The Spanish version was used in Mexico and later slightly modified to fit the manufacturing jargon of Costa Rica. The translation process was based on previous recommendation made in cross-national research studies (Cado-gan, A. Diamantopoulos et al. 1999; Soutar, Grainger et al. 1999). The collected data from Costa Rica done was merged with the database previously gathered by Rao and his colleagues for Taiwan and Mexico (Rao, T. S. Ragu-Nathan et al. 1997; Solis, S.S. Rao et al. 1998; Rao, L. E. Solis et al. 1999).

Data Collection and Demographics

The final version of the self-administered, structured questionnaire was mailed to quality managers/senior executives in the three countries included in this study. In cases where the questionnaire was sent to senior executives (President, VP for manufacturing etc.), they were requested to get the questionnaire filled out by appropriate quality personnel. Only one response was solicited from each organization. Respondents were asked to indicate the type of industry their organization belonged to (electronics, auto-parts, etc.), their job title, and other personal and company information.

In Mexico, a mailing list from the Monterrey Institute of Technology was used for sending 200 questionnaires. Out of the total surveys sent, 100 usable responses were obtained for a response rate of 50%. In Taiwan, the top 1000 manufacturing enterprises list published by the Commonwealth Magazine and the list of manufacturing and service enterprises published by the Chinese Productivity Center was used and 126 questionnaires were returned from the initial 500 mailed questionnaires, for a response rate of 25.2%. In Costa Rica, a mailing list from the Universidad Latina of Costa Rica and a mailing list from the Institute of Technology of Costa Rica were used for sending 300 questionnaires for a final sample of 100 (33% response rate).

The type of industry is very important in approaching the generalizability of the study. As seen in Table 2 most of the companies in the sample of the three countries fall under the manufac-

turing industry, therefore the results obtained by further analysis can be used in the generalization for all manufacturing firms.

RESULTS

To test the hypotheses posited in this paper, multivariate analysis of variance (MANOVA) and analysis of variance (ANOVA) techniques were used to establish if significant differences were present among the countries and also between SME’s and large companies. MANOVA results (Wilks lambda = 0.886, p-value = 0.007) indicate that significant differences exist in size by country for one or more of the quality practices under investigation. Further univariate analyses are performed to further explore the differences.

Size by Country

As shown in Table 3, there are no significant differences between SMEs and large companies in Mexico, thus H1 is not supported. With regards to Taiwan, results indicate significant differences between SMEs and large companies, except for strategic quality planning, supplier quality and customer orientation. Taiwanese SMEs have many improvement opportunities in areas such as quality leadership, quality intelligence, human resources management, quality assurance, and social responsibility in order to improve their quality results. These results lead to partially support H2. Finally, we found significant differences between SMEs and large companies in Costa Rica for quality intelligence, customer orientation, social responsibility and quality results. On the other hand, not statistical differences were found in human resources management, quality assurance and quality leadership practices, therefore H3 is partially supported.

Country by Size

In Table 4, ANOVA results comparing countries individually for SMEs and large companies are presented. The results indicate that only quality practice that is significantly different in SME’s is social responsibility. Therefore, we have to study in more detail this construct to determine the countries that are significantly different and then, analyze the item level. With regards to

large companies, there are six quality practices and results that are significantly different: quality leadership, human resources management, quality assurance, customer orientation, social responsibility and quality results. It is our next step to determine the countries in which the differences among constructs are significant in order to analyze the item level. It is interesting to notice that the construct quality leadership was significantly different in the ANOVA analysis, where we analyzed the combined effects of the countries. However, independent analyses show no significant differences for any combination of countries for the construct quality leadership.

In Table 5, we show Tuckey’s results of those constructs found to be significantly different among the countries. The purpose of this analysis is to determine which pair of countries have significant differences for the quality practices and results constructs. The results of this table indicate that SMEs in Taiwan have significantly higher scores than Costa Rican SMEs in Social Responsibility. Also, large companies in Taiwan have significantly higher scores than Mexican large companies in human resources, quality assurance, social responsibility and quality results. Finally, Costa Rican large companies present significantly higher scores than Mexican large companies in customer orientation.

CONCLUSIONS AND RECOMMENDATIONS

The international study presented in this paper has important implications for both practitioners and researchers in the quality field. As indicated earlier, to the best of our knowledge, this is one of the first efforts that compare quality practices and results in developing countries. With regards to the hypotheses, one was fully supported (H2), two partially supported (H3 and H5) and two rejected (H1 and H4).

H1: There are significant differences in quality practices and results between SMEs and large companies in Mexico. (not supported)

The empirical results showed no significant differences in quality practices and results between SMEs and large Mexican companies.

TABLE 2 SAMPLE CHARACTERISTICS					
Industry	Size	Country			Total
		Mexico	Taiwan	Costa Rica	
Manufacturing	SME	45	45	56	146
	Large	24	73	13	110
	Total Mfg	69	118	69	256
Service	SME	24	7	17	48
	Large	7	1	14	22
	Total Service	31	8	31	70
Grand Total		100	126	100	326

TABLE 3 ANOVA RESULTS COMPARING SMALL/MEDIUM AND LARGE COMPANIES BY COUNTRY.									
Construct Mean (Construct Standard Dev.)	Mexico		p-value	Taiwan		p-value	Costa Rica		p-value
	SME	Large		SME	Large		SME	Large	
Quality leadership	3.58 (0.941)	3.70 (0.993)	0.57	3.57 (0.908)	4.09 (0.739)	0.00*	3.54 (0.733)	3.74 (0.831)	0.25
Quality Intelligence	3.18 (0.923)	3.38 (0.990)	0.32	3.30 (0.730)	3.78 (0.695)	0.00*	3.21 (0.912)	3.64 (0.818)	0.04*
Strategic quality planning	3.72 (0.896)	3.68 (0.984)	0.83	3.75 (0.828)	4.00 (0.724)	0.07	3.66 (0.987)	3.74 (0.922)	0.71
Human resources management	2.83 (0.916)	3.05 (0.862)	0.26	3.03 (0.940)	3.49 (0.742)	0.00*	3.08 (0.886)	3.30 (0.748)	0.25
Quality assurance	3.43 (0.787)	3.41 (0.763)	0.90	3.58 (0.878)	3.98 (0.672)	0.00*	3.36 (0.834)	3.70 (0.971)	0.08
Supplier Quality	3.11 (0.952)	3.07 (0.835)	0.82	3.15 (0.660)	3.36 (0.743)	0.10	3.17 (0.928)	3.53 (0.821)	0.09
Customer orientation	3.51 (0.846)	3.46 (0.837)	0.80	3.60 (0.696)	3.83 (0.724)	0.08	3.39 (0.885)	3.99 (0.866)	0.00*
Social Responsibility	3.13 (0.926)	3.40 (1.075)	0.20	3.48 (0.843)	3.90 (0.818)	0.01*	2.95 (0.883)	3.73 (0.831)	0.00*
Quality Results	3.29 (0.960)	3.35 (0.909)	0.76	3.46 (0.787)	3.82 (0.654)	0.01*	3.13 (0.910)	3.63 (0.924)	0.03*
*Significant at alpha = 0.05									

TABLE 4 ANOVA RESULTS COMPARING COUNTRIES BY SIZE.								
Construct Mean (Construct Standard Dev.)	SMEs			p-value	Large			p-value
	Mexico	Taiwan	Costa Rica		Mexico	Taiwan	Costa Rica	
Quality leadership	3.58 (0.941)	3.57 (0.908)	3.54 (0.733)	0.95	3.70 (0.993)	4.09 (0.739)	3.74 (0.831)	0.04*
Quality Intelligence	3.18 (0.923)	3.30 (0.730)	3.21 (0.912)	0.74	3.38 (0.990)	3.78 (0.695)	3.64 (0.818)	0.07
Strategic quality planning	3.72 (0.896)	3.75 (0.828)	3.66 (0.987)	0.86	3.68 (0.984)	4.00 (0.724)	3.74 (0.922)	0.13
Human resources management	2.83 (0.916)	3.03 (0.940)	3.08 (0.886)	0.22	3.05 (0.862)	3.49 (0.742)	3.30 (0.748)	0.03*
Quality assurance	3.43 (0.787)	3.58 (0.878)	3.36 (0.834)	0.34	3.41 (0.763)	3.98 (0.672)	3.70 (0.971)	0.00*
Supplier Quality	3.11 (0.952)	3.15 (0.660)	3.17 (0.928)	0.92	3.07 (0.835)	3.36 (0.743)	3.53 (0.821)	0.08
Customer orientation	3.51 (0.846)	3.60 (0.696)	3.39 (0.885)	0.37	3.46 (0.837)	3.83 (0.724)	3.99 (0.866)	0.03*
Social Responsibility	3.13 (0.926)	3.48 (0.843)	2.95 (0.883)	0.01*	3.40 (1.075)	3.90 (0.818)	3.73 (0.831)	0.03*
Quality Results	3.29 (0.960)	3.46 (0.787)	3.13 (0.910)	0.14	3.35 (0.909)	3.82 (0.654)	3.63 (0.924)	0.02*
*Significant at alpha = 0.05								

TABLE 5
TUKEY TESTS FOR QUALITY PRACTICES AND RESULTS BY SIZE.

Size	Dependent Variable	Country (i)	Country(j)	Mean Difference (i-j)	p-value
SMEs	Social Responsibility	Mexico	Taiwan	-0.36	0.07
			Costa Rica	0.17	0.47
		Taiwan	Costa Rica	0.53	.00*
Large	Quality leadership	Mexico	Taiwan	-0.39	0.07
			Costa Rica	-0.04	0.98
		Taiwan	Costa Rica	0.35	0.14
	Human resources management	Mexico	Taiwan	-0.45	0.02*
			Costa Rica	-0.25	0.42
		Taiwan	Costa Rica	0.19	0.50
	Quality assurance	Mexico	Taiwan	-0.57	0.00*
			Costa Rica	-0.30	0.29
		Taiwan	Costa Rica	0.28	0.24
	Customer orientation	Mexico	Taiwan	-0.37	0.02*
			Costa Rica	-0.52	0.40
		Taiwan	Costa Rica	-0.16	0.59
	Social Responsibility	Mexico	Taiwan	-0.50	0.08
			Costa Rica	-0.33	0.03*
		Taiwan	Costa Rica	0.17	0.63
	Quality Results	Mexico	Taiwan	-0.46	0.02*
			Costa Rica	-0.28	0.33
		Taiwan	Costa Rica	0.18	0.65

*Significant at alpha = 0.05

H2: There are significant differences in quality practices and results between SMEs and large companies in Taiwan. **(supported)**

Regarding Taiwanese SMEs and Large companies, we found no statistical significance in some of the quality practices, namely strategic quality planning, supplier quality, and customer orientation. Conversely, there is a statistical difference in the following quality practices: quality leadership, quality intelligence, human resources management, quality assurance, social responsibility and quality results. In general, we found that quality practices scores for both SMEs and large companies in Taiwan were relatively high, suggesting that Taiwanese companies foster a culture of quality in their business practices.

H3: There are significant differences in quality practices and results between SMEs and large companies in Costa Rica. **(partially supported)**

Costa Rican large companies performed significantly better than SMEs in quality intelligence, customer orientation, social responsibility and quality results. It is worth noting that most of the SMEs showed high scores for this quality prac-

tices, except for social responsibility. This allows us to conclude that there is a big opportunity for improvement for Costa Rican SMEs in improving their support to safety, health and environmental issues along with their leadership in their communities.

H4: There are significant differences in quality practices and results among SME's Costa Rican, Taiwanese and Mexican companies. **(not supported)**

Cultural similarities and geographical location along with literacy rates could explain the similarities found in SMEs when comparing Costa Rica, Mexico and Taiwan. The only quality practice that presents significant differences is social responsibility, where again, Costa Rica's SMEs need to emphasize on improving their social responsibility.

H5: There are significant differences in quality practices and results among large Costa Rican, Taiwanese and Mexican companies. (partially supported)

There are no significant differences in the following quality practices and results among large companies in Costa Rica, Taiwan and Mexico:

quality intelligence, strategic quality planning, and supplier quality. Large companies in Taiwan, Costa Rica and Mexico present significant differences in quality leadership, human resources management, quality assurance, customer orientation, social responsibility and quality assurance practices. Taiwan shows higher quality practices than Mexico in human resources management, quality assurance, customer orientation and quality results. On the other hand, large Mexican companies perform better social responsibility practices than Costa Rican large companies.

RECOMMENDATIONS FOR MANAGERS

This study represents a contribution for researchers, as an international perspective in quality management practices, and for managers, in making decisions that involve quality. In this sense, we can summarize the recommendations to managers as follow:

It is important to emphasize on the effective implementation of quality programs in the organizations. Managers should consider the variables presented in this empirical research to measure how is their status in quality compared to other companies in different countries or in their own country.

The issue that SMEs did not present significant differences among the three countries means that there is no impact based on the country. If managers would need to decide in selecting SME suppliers among Costa Rica, Taiwan and Mexico, they should consider other aspects rather than quality itself, such as politics, social aspects, etc. Taiwan is a better target for large companies, since their practices show better results than the other countries. If managers want to invest in any company, or look for partnership in large companies, they should think about Taiwan, due to its superiority in quality practices in large companies.

REFERENCES

Antunes, G., A. Pires, et al. (2008). "Economics aspects of quality and organizational performance - a study in Setúbal care homes for el-

derly persons." *Total Quality Management & Business Excellence* 17(1/2): 79-89.

Baldinger, P. (1990). "An SGS tour of quality control in China." *China Business Review* 14-15.

Barclay, C. A. (1993). "Quality strategy and TQM policies: empirical evidence." *Management International Review* 33(87-98).

Benson, P. G., J. V. Saraph, et al. (1991). "The effects of organizational context on quality management: an empirical investigation." *Management Sciences* 17(4): 1107-1124.

Blauw, J. N. and W. E. During (1990). "Total Quality Control in Dutch Industry." *Quality Progress* February: 50-52.

Burns, T. and G. M. Stalker (1961). *The management of innovation*. London, Tavistock Publications.

Cadogan, J. W., A. Diamantopoulos, et al. (1999). "A Measure of Export Market Orientation: Scale Development and Cross-cultural Validation." *Journal of International Business Studies* 30(4): 689-707.

Choppin, J. (1991). *Quality, through people - A blueprint for proactive total quality management*. San Diego, Pfeiffer & Company.

Crosby, P. B. (1979). *Quality is Free - The Art of Making Quality Certain*, McGraw-Hill.

Dahlgaard, J. J., G. K. Kanji, et al. (1990). "A comparative study of quality control methods and principles in Japan, Korea and Denmark." *Journal of Total Quality Management* 1(1): 132-155.

De Vries, J. and H. V. D. Water (1992). "Quality circles, the production function and quality of working life: Results of a study in seven large companies." *International Journal of Quality and Reliability Management*, 9(4): 30-45.

Dean, A. and M. Terziovski (2001). "Quality practices and customer/supplier management in Australian service organizations." *Total Quality Management* 12(5): 611-621.

Deming, W. E. (1982). *Quality, Productivity, and Competitive Position*. Cambridge, MA, MIT Institute for Advanced Engineering Study.

- Dravis, F. (2006). "Data Quality: Horizontal or Vertical." *DM Review* 16(8): 25-27.
- Florida, R. (1996). "Lean and green: the move to environmentally conscious manufacturing." *California Management Review* 39: 80-105.
- Flynn, B. B. (1992). "Managing for quality in the US and in Japan." *Interfaces* September-October(69-80).
- Flynn, B. B., R. G. Schroeder, et al. (1994). "A framework for quality management research and an associated measurement instrument." *Journal of Operations Management* 11: 339-366.
- Flynn, B. B., S. Sakakibara, et al. (1995). "Relationship between JIT and TQM: Practices and performance." *Academy of Management Journal* 38(5): 1325-1360.
- Fynes, B. and C. Voss (2002). "The moderation effect of buyer-supplier relationship on quality practices and performance." 22(6): " *International Journal of Operations & Production Management* 22(6): 589-613.
- Fynesa, B. and S. d. Búrca (2005). "The effects of design quality on quality performance." *International Journal of Production Economics* 96(1): 1-14.
- Garvin, D. A. (1983). "Quality on the line." *Harvard Business Review*(September-October): 65-75.
- Garvin, D. A. (1984). "Japanese quality management." " *The Columbia Journal of World Business* 19: 3-12.
- Gibson, T. C. (1990). "Helping leaders accept leadership of total quality management." *Quality Progress*: 45-47.
- Gilbert, R. J. (1990). "Are you committed or committed?" *Quality Progress*: 45-48.
- Goldstein, S. M. and M. Naor (2005). "Linking publicness to operations management practices: a study of quality management practices in hospitals." *Journal of Operations Management* 23(2): 209-228.
- Green, K. (1990). "The uphill climb toward quality: China's quality control levels are slipping." *China Business Review*: 10-13.
- Gryna, F. M. (1991). "The quality director of the '90s." *Quality Progress*: 51-54.
- Gustafsson, A. and L. Nilsson (2003). "The role of quality practices in service organizations." *International Journal Service Industry Management* 14(2): 232-244.
- Handfield, R., G. Ragatz, et al. (1999). "Involving Suppliers in New Product Development." *California Management Review* 42(1): 59-82.
- Harber, D., F. Marriot, et al. (1991). "Employee participation TQC: An integrative review." *International Journal of Quality and Reliability Management*, 8(5): 24-34.
- Harrington, H. J. (1996). "National traits in TQM principles and practices." *The TQM Magazine* 8(4): 49-54.
- Hill, T. J. (2000). *Manufacturing Strategy Text and Cases*.
- Hoang, D. T., B. Igel, et al. (2006). "The impact of total quality management on innovation: Findings from a developing country." *International Journal of Quality and Reliability Management*, 13(9): 1092-1117.
- Huber, G. P. (1984). "The nature and design of post-industrial organizations." *Management Sciences* 30(8): 928-951.
- Hull, F., K. A. Azumi, et al. (1988). "Suggestion rates and socio-technical systems in Japanese versus American factories: Beyond quality circles." *IEEE Transactions on Engineering Management*: 11-24.
- Ishikawa, K. (1985). *What is total quality control?*
- Jones, S. C., T. L. Knotts, et al. (2005). "Selected Quality Practices of Small Manufacturers." *Quality Management Journal* 12(1): 41-53.
- Jung-Lang, C. (2007). "Comparative Study of Local and Transnational Enterprises in Taiwan and their Implementation of Six Sigma." *Total Quality Management & Business Excellence* 18(7): 793-806.
- Juran, J. M. (1986). "Quality trilogy." *Quality Progress*: 14-24.
- Juran, J. M. (1988). *On planning for quality*. New York.
- Karim, M. A., A. J. R. Smith, et al. (2008). "Empirical relationships between some manufacturing practices and performance." *International Journal of Production Research* 46(13): 3583-3613.
- Klefsjö, B., B. Bergquist, et al. (2008). "Quality management and business excellence, customers and stakeholders: Do we agree on what we are talking about, and does it matter?" *TQM Magazine* 20(2): 120-129.
- Knotts, R. and S. Tomlin (1994). "A comparison of TQM practices in U.S. and Mexican companies." *Production and Inventory Management Journal* 35(1): 53-58.
- Kuratko, D. F., J. C. Goodale, et al. (2001). "Quality Practices for a Competitive Advantage in Smaller Firms." *Journal of Small Business Management* 39(4): 293-311.
- Lam, T. Y. M. (2007). "The validity of quality practices on performance of outsourced professional housing services." *TQM Magazine* 19(6): 590-603.
- Lascelles, D. M. and B. G. Dale (1989). "A review of the issues involved in quality improvement." *International Journal of Quality & Reliability Management* 5(5): 76-94.
- Leonard, F. and W. E. Sasser (1982). "The incline of quality." *Harvard Business Review* September-October(163-171).
- Madu, C. N., K. Chu-hua, et al. (1995). "A Comparative Analysis of Quality Practice in Manufacturing Firms in the U.S. and Taiwan." *Decision Sciences* 26(5): 621-635.
- McLean, K. and W. Taylor (2007). "Identifying the barriers to implementing a quality initiative in primary care: the views of practices in Scotland on the Quality Practice Award." *Quality in Primary Care* 15(6): 353-359.
- McLean, T., E. Atkins, et al. (2005). "Quality Practice Award and teamwork: the perceptions of Primary Health Care Team members in Scotland." *Journal of Inter-professional Care* 19(2): 149-155.
- Miller, J. G. (1972). "Living systems: The organization." *Behavioral Science* 17(1): 171-182.
- Mora-Monge, C. A., S. S. Rao, et al. (2007). "Strategic Considerations of Advanced Manufacturing Technologies in two Developing Countries: A Coalignment Analysis." *International Journal of Services and Operations Management* 444-459.
- Nadia, B. and A. Nadeem (2005). "A case study of a quality system implementation in a small manufacturing firm." *International Journal of Productivity & Performance Management* 54(3): 172-186.
- Nair, A. (2006). "Meta-analysis of the relationship between quality management practices and firm performance - implications for quality management theory development." *Journal of Operations Management* 24(6): 948-75.
- Parast, M. M., S. G. Adams, et al. (2006). "Comparing Quality Management Practices between the United States and Mexico." *Quality Management Journal* 13(4): 36-49.
- Peters, T. (1988). "Facing up to the need for a management revolution." *California Management Review* 30: 8-38.
- Prajogo, D. I. and A. Brown (2004). "The Relationship Between TQM Practices and Quality Performance and the Role of Formal TQM Programs: An Australian Empirical Study." *Quality Management Journal* 11(4): 31-42.
- Prybutok, V. R. and R. Ramasesh (2005). "An action-research based instrument for monitoring continuous quality improvement." *European Journal of Operational Research* 166(2): 293-309.
- Puffer, S. M. and D. J. McCarthy (1996). "A framework for leadership in a TQM context." *Journal of Quality Management* 1(1): 109-130.
- Quesada, G. (1999). A Comparative Study of Quality Practices and Results in Taiwan, Mexico and Costa Rica. *Information System and Operations Management*. Toledo, University of Toledo. MBA: 350.
- Raju, P. S. and S. C. Lonial (2002). "The impact of service quality and marketing on financial performance in the hospital industry: an empirical examination." *Journal of Retailing & Consumer Services* 9(6): 335-348.

- Rao, S., T. S. Ragu-Nathan, et al. (1997). "A comparative Study of Quality Practices and Results in India, China and Mexico." *Journal of Quality Management* 2(2): 235-250.
- Rao, S. S., L. E. Solis, et al. (1999). "A framework for international quality management research: Development and validation of a measurement instrument." *Total Quality Management* 10(7): 1047-1075.
- Rao, S. S., L. E. Solis, et al. (1999). "A framework for international quality management research: Development and validation of a measurement instrument." *Total Quality Management* 10(7): 1047-1075.
- Reitsperger, W. D. and S. J. Daniel (1999). "A comparison of quality attitudes in the USA and Japan: empirical evidence." *Journal of Management Studies* 28: 585-599.
- Richardson, J. (1993). "Restructuring supplier relationships in U.S. manufacturing for improved quality." *Management International Review* 33: 53-67.
- Rogers, R. E. (1993). "Managing for quality: current differences between Japanese and American approaches." *National Productivity Review* 12(4): 503-517.
- Romano, P. and A. Vinelli (2004). "Quality management in a supply chain perspective: Strategic and operative choices in a textile-apparel network." *International Journal of Operations & Production Management* 21(4): 446-460.
- Salomone, R. (2008). "Integrated management systems: experiences in Italian organizations." *Journal of Cleaner Production* 16(16): 1786-1806.
- Samson, D. A. and A. Sohal (1990). "The strategic status of quality: an Australian perspective." *International Journal of Technology Management* 5(3): 292-307.
- Sanchez-Rodriguez, C. and A. R. Martinez-Lorente (2004). "Quality management practices in the purchasing function: an empirical study." *International Journal of Operations & Production Management International Review* 24(7): 666-687.
- Saraph, J. V., P. G. Benson, et al. (1989). "An instrument for measuring the critical factors of quality management." *Decision Sciences* 20: 810-829.
- Sarkar, B. (1990). "Status of quality control in Indian industries: a survey." *Total Quality Management* 1(1): 133-146.
- Schniederjans, M. J., M. M. Parast, et al. (2006). "Comparative Analysis Baldrige National Quality Award Criteria: An Empirical Study of India, Mexico, and the United States." *Quality Management Journal* 13(4): 7-21.
- Shiramizu, S. and A. Singh (2007). "Leadership to Improve Quality within an Organization." *Leadership & Management in Engineering* 7(4): 129-140.
- Smith, L., A. Wright, et al. (2004). "Achieving practice participation in a quality agenda: The Somerset Practice Quality Programme 1998-2003." *Quality in Primary Care* 12(4): 251-258.
- Sohal, A. S. and A. Wirth (1989). "Total quality control in an Asian division of a multinational corporation." *International Journal of Quality & Reliability Management* 6(6): 60-74.
- Solis, L., T. S. Ragu-Nathan, et al. (2000). "A regional study of quality management infrastructure practices in USA and Mexico." *International Journal of Quality & Reliability Management* 17(6): 597-613.
- Solis, L., S.S. Rao, et al. (1998). "Quality Management practices and quality results: a comparison of manufacturing and service sectors in Taiwan." *Managing Service Quality* 8(1): 46-54.
- Sousa, R. and C. A. Voss (2007). "Operational implications of manufacturing outsourcing for subcontractor plants: An empirical investigation." *International Journal of Operations & Production Management* 27(9): 974-997.
- Soutar, G. N., R. Grainger, et al. (1999). "Australian and Japanese Value Stereotypes: A Two Country Study." *Journal of International Business Studies* 30(1): 203-212.
- Steeple, M. M. (1992). *The corporate guide to the Malcolm Baldrige National Quality Award*. Homewood, IL.
- Stratton, A. D. (1991). *An approach to quality improvement that works: Implementing quality improvement in the 90s*. Milwaukee, WI.
- Tan, K. C. and J. D. Wisner (2003). "A study of operations management constructs and their relationships." *International Journal of Operations & Production Management* 23(12): 1300-1325.
- Terziovski, M. (2006). "Would you please contact him and tell him to send (as quickly as he can) statements of teaching, professional development, and service along with his letters of recommendation." *Management Research News* 29(7): 414-424.
- Theodorakioglou, Y., K. Gotzamani, et al. (2006). "Supplier management and its relationship to buyers' quality management." *Supply Chain Management* 11(2): 148-159.
- Tillery, K. R. and A. L. Rutledge (1991). "Quality-strategy and quality-management connections." *International Journal of Quality & Reliability Management* 8(1): 71-77.
- Vecchi, A. and L. Brennan (2009). "Quality management: a cross-cultural perspective"
- Wojcik, J. (2007). "Quality still falling short at many hospitals: Survey." *Business Insurance* 41(39).
- Yoo, D. K., S. S. Rao, et al. (2006). "A comparative study on cultural differences and quality practices - Korea, USA, Mexico, and Taiwan." *International Journal of Quality and Reliability Management* 23(6): 607-624.
- Zu, X. (2009). "Infrastructure and core quality management practices: how do they affect quality?" *International Journal of Quality and Reliability Management*, (26): 2.

APPENDIX

QUALITY PRACTICE AND RESULTS FACTORS SHOWING CHRONBACH'S ALPHA

Construct	Item Description	Reliability
Quality Leadership	Top management assumes responsibility for quality performance	0.931
	Major department heads accept responsibility for quality	
	Top management participation in quality improvement processes	
	Top management's objectives for quality performance	
	Extent to which quality goals are made specific within the company	
	Top management's importance given to quality in relation to cost and schedule objectives	
	Amount of review of quality issues in top management meetings	
Quality Intelligence	Availability of quality data (error rates, defect rates, scrap, rework, returns, etc)	0.898
	On-time availability of necessary quality data	
	Quality data availability to managers and supervisors	
	Quality data usage by top management in decision making	
	Quality data usage by middle management in planning and controlling	
Strategic Quality Planning	Quality data usage by hourly workers in their daily operations	0.874
	Quality management is considered in the company/division strategic plan	
	Customer satisfaction is considered in the company/division strategic plan	
	Top management's support for long-term quality improvement process	
Human Resources Management	Understanding of quality goals and policies within the company/division	0.924
	Quality-related training is given to hourly-employees throughout the company	
	Training in basic statistical techniques is provided in the company as a whole	
	Availability of resources for employee training in the company/division	
	Employee involvement programs are implemented in the company/division	
	Hourly/nonsupervisory employees participate in quality decisions	
	Employees are held responsible for the output of their processes	
Quality Assurance	Quality awareness among employees is an ongoing process	0.923
	Measurement of employee morale and satisfaction within the company/division	
	New product/service design is reviewed before it is produced	
	Clarity of product/service specifications	
	Clarity of product/service procedures	
	Implementation/productibility is considered in product/service design processes	
Supplier Quality	Acceptance sampling and SPC techniques are used in the production process	0.864
	Process design minimizes the chances of employee errors	
	Clarity of work or process instructions given to employees	
	Suppliers are selected based on quality rather than price	
	The company relies on few dependable suppliers	
	The company provides technical assistance to suppliers	
Customer Orientation	The supplier is involved in product development process	0.944
	Long term relationships are built with suppliers	
	Clarity of specifications provided to suppliers	
	The company is totally committed to create satisfied customers	
	The company's goals exceed the customers' expectations	
	Executives demonstrate with their actions that customer satisfaction is important	
	Employees are aware of attributes that the customers value the most of their products/serv.	
	Customer information is used in designing products/services	
	Top management frequently contacts customers	
	Customers' complaints are resolved	
Social Responsibility	Employees are encouraged to satisfy customers	0.895
	Best practices are studied to get ideas about how to do things better	
	Benchmarking of current quality levels against competitors	
	Benchmarking of current quality levels against world class leaders	
	Benchmarking of process quality levels against competitors	
Quality Results	Public health issues are considered as company responsibility	0.963
	Public safety issues are considered as company responsibility	
	Environmental issues are considered as company responsibility	
	Extend of the organizational quality leadership to the external community	
	Training in specific work-skills is given to hourly employees (technical and vocational)	
	Employees are recognized for superior quality performance	
	Scrap levels have been reduced due to TQM	
	Rework levels have been reduced due to TQM	
	Warranty costs have been reduced due to TQM	
	Customer complaints have been reduced due to TQM	
	Enhanced competitive position due to TQM	
	Increased market share due to TQM	
	TQM has contributed to keep the company/division in business	
	Improved productivity due to TQM	
	Reduced manufacturing throughput time due to TQM	
	Increased profits due to TQM	
	Reduced costs due to TQM	

UNLEASHING THE CRACKEN: DOES INTERNET FINANCIAL REPORTING MATTER IN AFRICA?

Nacasius U. Ujah

A.R. Sanchez, Jr. School of Business
Texas A&M International University
Laredo, Texas

Collins E. Okafor

A.R. Sanchez, Jr. School of Business
Texas A&M International University
Laredo, Texas

ABSTRACT

With the ever present advancement of modern technology, and in order to stay competitive, organizations across nations are equipping themselves with vital tools to strengthen their competitive advantage. The availability of resourceful information for investors is highly advocated in the western business world. In recent times, this phenomenon has begun to gain momentous attention in the African countries. This paper empirically tests the impact of internet financial reporting for African firms; the result suggests that size and firms' efficiency are important determinants of voluntary disclosure of financial statements via the internet.

INTRODUCTION

In recent times, the internet has seen its fare growth. Although most of the fast pace growth took place in developing regions, yet most developing countries has not been extensively reached. On the other hand, developed societies like USA, Canada, England etc citizens are enjoying the benefit of information brought closest to their doors without stepping out of the comfort of their homes. Even though one can go on and on to pontificate about the growth of the internet and its adaptability in countries, this paper deals exclusively with the impact of the internet usage by financial firms. Specifically, this study measures if internet financial disclosure has an impact on financial firms that are located in Africa by considering firm's size, profitability, efficiency, and stock market usage.

Internet Financial Reporting (IFR) is defined as the distribution of corporate financial and performance information using internet technologies such as the World Wide Web (IASC, 1999; Ashbaugh et al., 1999; FASB, 2000). This practice is expected to grow to the extent that financial reporting in the near future will move

entirely from the current primarily print-based mode to using the internet as the primary information dissemination channel (Bagshaw 2000). While these great phenomenon is redefining the business landscape with so many articles positing the determinants of IFR, like (Lau 1992; Cooke 1993; Owusu-Ansah 1998; etc), none seem to perform a test for multiple countries to understand what indicators may impact the usage of IFR in countries, and how does IFR interplay in these countries. The aforementioned scholars have contributed to this work by laying a foundation stating the indicators that are significant determinants of internet financial reporting.

Here we find that after addressing issues of multicollinearity of variables which may be highly correlated, that distinctive variable that measure firm size and stock market performance are primarily significant in determining the usage of the IFR positions of firms within African countries. Unlike size and performance, profitability indicators were found not to be significant. The rest of the paper discusses the history behind this cracken known as IFR, the research steps taken to adequately construct and address the issue in this paper and the economic contribution of each

statistical significant variables were highlighted. For instance, we find that a one standard deviation increase in the indicator Stock Market turnover increases Internet Financial Reporting by over 100%. Then, we proceed to offer limitations, implications, and conclusion.

MOTIVATION AND LITERATURE REVIEW

For over thirty years, internet financial reporting has been given consideration to support the position of organizations that mainly desire to have a national, regional, as well as global presence. The primary foundation of our IFR framework is the notion of information asymmetry between management and ownership, espoused by Berle and Means (1932). According to their view, the level of information asymmetry is an important driver of investor uncertainty. Modern corporations have adopted various mechanisms, including voluntary disclosure, to mitigate the adverse effects of information asymmetry. Empirical studies on voluntary disclosure suggest that managers voluntarily enhance the transparency of their firms' financial profiles to do three things. First, reduce agency costs or contracting costs (Chow and Wong-Boren, 1987). Yet, scholars like Hossain et al (1995) stated that benefits of disclosure increase with agency cost. Second, reduce its cost of capital (Botosan, 1997; Sengupta, 1998) Larger companies are vulnerable to political costs, such as regulation, nationalization, expropriation, or the breakup of the entity or industry (Cooke 1989; Wallace and Naser 1995). Third, enhance the value of the firm (King et al., 1990; Yeo and Ziebart, 1995; Frankel et al., 1999). These studies have identified certain characteristics of the firm that can increase or reduce certain firm costs. They show that disclosure can individually or simultaneously reduce agency and contracting costs, costs of capital, and/or increase the firm value.

Other scholars and organizations have offered structures to categorize IFR; these include International Accounting Standards Committee (IASC) 1999, Ashbaugh et al (1999), Trites (1999), and the Financial Accounting Standards Board (FASB) 2000. Firms are engaging in IFR when they provide in their websites a comprehensive set of financial statements, a link to their annual report elsewhere on the internet, or a link

to the security and exchange commission electronic data gathering, analysis and retrieval system (Ashbaugh et al. 1999).

IASC (1999, p. 53) divides IFR purposes into three stages: first, the organizations use of the internet solely as a distribution channel. Second, organizations disclose information in an acceptable means that web browsers and search engine could find. And finally, organizations provide the same standard information via web technology that would be expected if they were printing the information. FASB (2000, Chapter 2) described IFR in terms of content (organization information available to read and download), and presentation (are the information on par with the print format). Others have found association between profitability and IFR: disclosures are used by managers of profitable firms to signal the firm's profitability to investors and to help support management's continuation and compensation (Malone et al. 1993; Owusu-Ansah 1998).

Internet reporting improves and provides users' with access to vital investment information. By allowing non-sequential access to information to investors and clients through the use of websites, more information is accorded to people than what would be otherwise available. In this paper, we pay attention to readily available information provided by organizations in Africa to their clients.

RESEARCH HYPOTHESIS

While the likes of Daves and Kelly 1979, Hossain et al. 1995; Cooke 1989; Ahmed 1996, did find significant correlation to the degree at what IFR impact a set of selected developed and developing countries, this study tend to focus of the African nations. Perhaps a cogent choice would be to give audience to developed societies because of availability of micro data: like industry specific and macro data. The emergence of organizations and countries within the developing world has led a host of scholars to analyze and understand the impact of various investments forms and business strategy. For African countries, micro and macro data may be lacking for various hypothesize; and example would be a country's fear of disclosing information that would jeopardize its competitive advantage

Size

Perhaps a consensus among most scholars would be that the scale of most firms helps in the acceleration of their presence globally. Where most firms may not have physical presence, the internet offers these set of companies an extensive reach to vast audience at a low cost. This in turn helps promote and allow these audience and prospectors the opportunity to experience their culture, product, and service. Scholars like Pirchegger and Wagenhofer (1999) finds that IFR in Austria was related to their company's size as measured by sales and equity ownership. Hence disclosure over the internet is likely to increase with the size of firms, therefore, we hypothesize that:

H1: There is a positive association between company size and Internet Financial Reporting

Profitability

Subramanian and Raja (2010) stated that size, profitability, foreign listing and industry types are some of the determinants to disseminate more financial and nonfinancial information on the internet. As such, we hypothesize that:

H2: There is an association between profitability and Internet Financial Reporting

Efficiency

To raise capital for future expansion or transactions, firms can source for funds in two ways: loan from bank(s) or equity (sale of shares). Recent trends show that the stock market is a viable means of raising required fund toward asset expansion and investment transactions. Though the African stock market has suffered in past years, at present, the volume of trade and number of stocks published at various national stock exchange markets tends to be increasing. The most active stock markets by stocks traded and market capitalizations normalize by the gross domestic product and turnover ratio of African countries are shown in Appendix 1. Therefore we posit that:

H3: There is a positive association between market efficiency and Internet Financial Reporting.

RESEARCH DESIGN

Since this study encapsulates a set of African, having firm data for all countries may prove daunting and challenging. We employ a culmination of macro datasets for selection of countries in the analysis following the methodology itemized: First, all African countries that have financial industry data with BANKSCOPE were extracted, as such it reduced the number of countries in the pool from fifty-four (54) to forty-seven (47). BANKSCOPE collects and publishes data for private and public traded companies in numerous countries. Second, by using the datasets extracted from BANSKOPE, we focus our analysis on the top three ranked financial institutions by assets for each country.

Third, the financial institutions were measured for: having a website and having a partial or full downloadable financial statement from years 2005 (that is, for top three ranked financial institutions in each country that has downloadable financial reports ending at 2004 or lesser years were not included in this analysis). Thus, the number of countries that data were collected for shrunk to thirty-six (36) countries as shown in Appendix 2. Fourth, we employ a binary regression model to test the impact that IFR in the countries aforementioned in Appendix 2.

Finally, the data from BANSKOPE is merged with data sets for country extracted from the Financial Development and Structure Datasets created by Beck and Demirguc-Kunt (2009). According to Beck et al (1999), this dataset unites varieties of indicators that measure the size, activity, and efficiency of financial intermediaries and markets. For the purpose of this paper, we focus on firms that are registered in the selected African countries as subsidiaries or indigenous organizations.

Variables

The dependant variable had two versions, all coined from further research using company web addresses. The versions were a binary and a

numeric valuation attached to all countries. For the countries that its firms had all downloadable reports was given a score of two. Our independent variables were extrapolated from Financial Development and Structure Datasets updated by Beck and Demirguc-Kunt (2009). Since this study aims at showing the impact of internet financial reporting in Africa, we pay most attention to the financial industry because they are the economic engine for most developing nations. The datasets are categorized into size, efficiency, profitability, and miscellaneous.

Size Variables include: Liquid Liabilities to GDP (llgdp), Financial Systems Deposits to GDP (fdgdp), Bank Deposit to GDP (bdgdp), Domestic Money Banks Assets to GDP (dbagdp), Bank Credit to Bank Deposit (bcbd) . These variables show and evaluate the depth of the financial sector, resources available for lending, and the weight of financial sector as an intermediary for economic activity.

Efficiency Variable include: Stock Market Capitalization, Value Traded and Turnover (stmtcap, stvaltraded, and stturnover), and Listed Firm to Population (listco_pc). While the first two variables gauge the size of the equity market, the later

affirms to the number of firms listed on a country’s stock market.

Profitability Variable include: Return on equity (roe) and Return on Assets (roa)

Miscellaneous Variable include: Private Credit by Deposit Money Banks and Private Credit by Deposit Money Banks and Other Financial Institutions (pcrdbgdp and pcrdbofgdp) both are normalize by the gross domestic product of the country.

Prior works did emphasize what categorical variables impact internet financial reporting, but none of the past authors did perform same test as we did, as such, we initially began with a total of eighteen right hand side variables or indicators that we considered based on the categorical outlays of variables that were suggested to impact IFR, but as you can guess, the more the number of the right hand side variable, the higher the tendency of correlation. As perceived, the correlation matrix in Appendix 3 shows all right hand side variables, some were highly correlated amongs themselves, we apply other estimation and regression tools analysis to help pontificate a statistically robust model with its economic con-

EXHIBIT 1					
DESCRIPTIVE STATISTICS OF ALL INDICATORS CONSIDERED					
Variable	Obs	Mean	Std. Dev.	Min	Max
llgdp	365	.3364405	.2376836	.041192	1.279547
dbagdp	367	.273134	.2467308	.0063104	1.096359
bdgdp	367	.2712955	.2179968	.0166332	1.054198
fdgdp	367	.27329271	.2182455	.0166332	1.054198
bcbc	398	.7121281	.2978535	.1337486	1.573992
Roa	340	.0225037	.0442969	-.1046652	.6722796
Roe	340	.1961106	.219077	-.93546	1.187371
Stmktcap	209	.3162566	.4607924	.0071997	3.084334
Stvaltraded	206	.0709654	.2312319	.0000111	1.973998
Stturnover	211	.0843837	.1136058	.0001473	.5961697
Listco_pc	219	.0536598	.0824995	.0006201	.712746
Pcrdbgdp	367	.1876953	.1751329	.0055132	.8101209
Pcrdbofgdp	367	.2143237	.2508987	.0055132	1.624224
Ccorrupt	396	-.518468	.5809792	-1.809907	1.070796

tribution as analysed. Exhibit 1 gives the descriptive nature of all variables.

From Exhibit 1, we can infer that the statistical tests to be performed in this paper will be imploded by missing data. Also, as earlier stated, some indicators are highly correlated, therefore to reduce the number of variable, lessen the impact of highly correlated variables, and offer a robust model, we performed a backward and a forward stepwise regression shown in exhibit 2. We chose to perform both stepwise regression methods as a way to double check any variable that may be included by one method and may not by the other.

Although some authors like Steyerberg et al (1999) posit that stepwise selection causes bias in estimated regression coefficients, others like Cordell and Clayton (2002) argue that stepwise regression generate tests with few degrees of freedom that are likely to be powerful for detecting primary etiological determinants. Since this regression method is not our final analysis to posit our findings from, we find it to be an acceptable method. Moreover, by performing other diagnostic test and post estimation test, the findings in this study are intended to be robust and greatly reduced effect of collinearity among variables. Hence, my final regression model is given below:

$$\begin{aligned} \text{Log IFRnt} = & \alpha + \beta_1 \text{llgdpnt} \\ & + \beta_2 \text{bcbdnt} \\ & + \beta_3 \text{roent} \\ & + \beta_4 \text{stmktcapnt} \\ & + \beta_5 \text{stturnovernt} \\ & + \beta_6 \text{listco_pcnt} \end{aligned}$$

From the stepwise regression models given above as exhibit 2, we can see that the profitability as measured by the return on asset and equity were not included in the final output of both models. Since stepwise forces each indicators to fit within the set of parameters, which in this case only variables that are within 0.20 significance level are included in the final output.

Results and Explanations

The choice of a binary regression is used here to confirm the impact of IFR in countries that have viable stock exchange and a well diversified financial system as these are measured by size, efficiency, and profitability variables. Although, the

stepwise regression did show that profitability variables are not factors that necessitate the usage and adoption of the internet to report financial performance, statement, and other pertinent information for investors, client, and the general public by financial firms in Africa, we still included it among our variables. Our results are ro-

EXHIBIT 2		
BACKWARD AND FORWARD		
STEPWISE REGRESSION RESULTS		
Independent Variables	Backward Stepwise Regression	Forward Stepwise Regression
In both method		
STTURNOVER	-49.55 (18.33)	-54.08 (39.04)
STVALTRADED	276.29** (91.42)	310.24 (193.25)
BDGDP	4221.75*** (1079.89)	4242.04*** (1094.22)
FDGDP	-4150.31*** (1066.95)	-4182.08*** (1084.18)
DBAGDP	100.28** (35.48)	101.88** (36.19)
LISTCO_PC	-39.42** (14.47)	-38.97 (14.35)
LLGDP	-44.99* (18.33)	-47.40 (19.14)
PCRDBOFGDP	-170.58*** (50.77)	-202.38 (5.59)
Not in both method		
PCRDBGDP		46.29 (128.22)
BCBD		-2.77 (5.36)
Constant	9.71*** (2.79)	12.38** (5.59)
N	169	169
Pseudo R2	0.736	0.738
LR chi2(8) (10)	157.99	158.33
Note: Standard Errors in paranthesis. Regression performed at 95% significant level. + indicates .10, * indicates 0.05, ** indicates 0.01, *** indicates 0.001 level of statistical significance.		

bust and tested for presence of multicollinearity. ‘COLDIAG’ was used for the collinearity test, and each model had a condition number below 5.0. Belsley et al (1980) indicated that collinearity exist when the condition number of the matrix is larger or equal to 30.

The logistic regression models are reported in Exhibit 3. Exhibit 3 is broken into four models. Each of the models posits result for the categorical variables. Here, model 1 put forward for size, model 2 for efficiency, model 3 for profitability

and miscellaneous, and model 4 is the pool logistic regression output.

The pooled result indicates that among the three categorical variables, two were statistically and economically significant: size as measured by Liquid Liabilities to GDP (LLGDP) and efficiency as measured by Stock Market Value Traded (STVALTRADED). Profitability was not statistically significant. Also, control of corruption (CCORRUPT) was introduced in the pooled regression to see how the other variables for Africa interact with corruption. A miscellaneous vari-

Exhibit 3 Logistic Regression Results				
	Model 1	Model 2	Model 3	Model 4
LLGDP	0.1042 (0.4588)			11.7530** (3.8761)
BCBD	0.8851* (0.3716)			-0.0425 (1.4843)
STVALTRADED		8.5942 (7.3355)		38.0169*** (10.1086)
STTURNOVER		-2.2523 (3.8791)		5.4548 (5.8053)
LISTCO_PC		-5.1333*** (1.4565)		-2.0119 (2.3426)
ROE			0.2779 (0.6419)	0.4363 (1.2879)
ROA			2.6524 (6.0561)	-6.7255 (11.7156)
PCRDBGDP			-1.6187 (1.5677)	
PCRDBOFGDP			2.2748* (0.9945)	-23.2366*** (5.8772)
CCORRUPT				1.1016** (0.4204)
CONSTANT	-1.2046*** (0.3410)	0.8141*** (0.2278)	-0.6718** (0.2464)	1.5858 (1.4630)
OBSERVATION	365	206	318	162
Pseudo R2	0.0116	0.0718	0.0193	0.3311
Note: Standard Errors in paranthesis. Regression performed at 95% significant level. + indicates .10, * indicates 0.05, ** indicates 0.01, *** indicates 0.001 level of statistical significance.				

able, private credit by deposit money banks and other financial institutions (PCRDBOFGDP) is found to be statistically significant as well.

While we can assume from the statistically significant variables based on their positive or negative co-efficient that, to increase the usage of internet by firms in Africa, the control of corruption has to improve, number of private credit issued by deposit money banks and other financial institutions has to reduce, number of value trades by the stock market has to increase etc, we cannot at this point unequivocally state the magnitude of these variables to their economies. As, unlike ordinary least square models, logistic regression result has to go through another step for re-estimation to easily interpret and offer an economic impact for each of the statistically significant variables. This is explained by a change in one standard deviation of each independent variables impact on the dependent variable: here: Internet Financial Reporting. The results are shown in Exhibit 4.

In Exhibit 3, four models are shown. We chose this method to understand the interplay of each categorically variable to each other once we finally reach the pooled stage. As started earlier, all results are robust and issues of multicollinearity were addressed. The initial model begins with variables that measures size of the financial industry as well as profitability, then, the rest models is included with three distinctive variables that measures efficiency.

While volatility may be an issue of concern, being that Africa’s stock market are still new, volatility of such market is bound to occur because it is still attracting pool of investors: where most are in the market for short run (quick gain and leave) others may be there for a long haul. The volatility of such market would be for a while until the

market stabilizes itself. Thus, for financial firms to attract the right investors, publishing up to date financial statements on their website would be useful. In Exhibit 4, it shows the economic impact of a change of each variable by a standard deviation. As such, a one standard deviation higher for liquid liabilities of financial firms in Africa, the application and usage of the internet for financial reporting would increase by 1000%.

Conclusion

This study explains and provides some vital variables that should be considered by African firms when providing their financial statements online via their company’s website. It shows that profitability of the company may not be important but the companies size, its performance in the equity market is vital for IFR to become a household adopted phrase, thus no longer a cracken unleashed to their detriment. From the results, it shows that the reduction of debt (liabilities) of these firms, the increase in stock market turnover meaning higher volatility of the market thus higher possible returns for investors would cause firms within the financial industry to publish their financial reports online.

Although I would consider this as a first step to initial posit the impact of internet financial reporting in Africa, this study has its short comings. For example, because of lack of available data on which firms are the top ranked in each countries, this study focus on the top most ranked firms, hence ignoring the fourth, fifth etc ranked firms within each country. Also, the constraint on lack of macro financial data does militate and impede highly robust analysis for African firms.

EXHIBIT 4 ECONOMIC IMPACT OF STATISTICALLY SIGNIFICANT INDEPENDENT INDICATORS	
Variables	Change in Odds
LLGDP	1549.8%
STVALTRADED	
PCRDBOFGDP	-100.00%
CCORRUPT	95%

REFERENCES

- Ahmed, K. 1990. Disclosure Policy Choice and Corporate Characteristics: A Study of Bangladesh. *Asia-Pacific Journal of Accounting*, 183-200.
- Ashbaugh, H., K. M. Johnson, and TD. Warfield. 1999. Corporate reporting on the Internet. *Accounting Horizons* 13 (3): 241-257.
- Bagshaw, K. 2000. Financial Reporting on the Internet. *Accountants' Digest*, Issue 429.
- Belsley, D. A., Kuh, E., and Welsch, R. E. (1980). *Regression Diagnostics: Identifying Influential Data and Sources of Collinearity*. New York: John Wiley
- Berle, A. A. and Means, G. C. 1932. *The Modern Corporation and Private Property*. Macmillan Company, New York.
- Beck, T. and Demirguc-Kunt, A. (2009). *Financial Institutions and Markets Across Countries and Over Time: Data and Analysis*. World Bank Policy Research Working Paper No. 4943.
- Beck, T., Demirguc-Kunt, A., and Levine, R. (1999). A New Database on Financial Development Structure. *Financial Sector Discussion World Bank*, Paper 2.
- Berle, A. A. and Means, G. C. (1932). *The Modern Corporation and Private Property*. Macmillan, New York.
- Botosan, C. A. (1997). Disclosure level and the Cost of Equity Capital. *Accounting Review* 72 (3): 323-349.
- C.W. Chow and Wong-Boren, A. (1987). Voluntary financial disclosure by Mexican Corporations. *The Accounting Review* 62 (3) pp. 533-541.
- Cooke, T. 1989. Voluntary Corporate Disclosure by Swedish Companies. *Journal of International Financial Management and Accounting* 1: 171-195.
- Cordell, H. J. and Clayton, D. G. (2002). A Unified Stepwise Regression Procedure for Evaluating the Relative Effects of Polymorphisms within a Gene Using Case/Control or Family Data: Application to HLA in Type 1 Diabetes. *American Journal of Human Genetics*, 70 (1): 124-141.
- Daves, R. and G. Kelley. 1979. The Quality of Annual Report Disclosure in Australia and its Relationship to Corporate Size. *Management Forum*, 259-273.
- Debreceny, R., G. L. Gray, A. Rahman. 2002. The Determinants of Internet Financial Reporting. *Journal of Accounting and Public Policy* 21: 371-394.
- FASB (Financial Accounting Standard Board) 2000. *Business Reporting Research Project: Electronic Distribution of Business Information*.
- Frankel, R., Johnson, M., and Skinner, D. J. (1999). An Empirical Examination of Conference Calls as a Voluntary Disclosure Medium. *Journal of Accounting Research*, 37 (1): 133-150.
- Hossain, M., M. H. B. Perera, and A. R. Rahman. 1995. Voluntary Disclosure in Annual Reports of New Zealand Companies. *Journal of International Financial Management and Accounting* 6, 69-85.
- IASC. 1999. *Business Reporting on the Internet*. International Accounting Standards Committee, London.
- King, R., Pownall, G., and Waymire, G. (1990). Expectation Adjustment via Timely Management Forecasts: Review Synthesis and Suggestions for Future Research. *Journal of Accounting Literature*, 9
- Lau, A. 1992. Voluntary Financial Disclosure by Hong Kong Listed Companies. *Hong Kong Manager* May/June, 10-19
- Malone, D., C. Fries, and T. Jones. 1993. An Empirical Investigation of the Extent of corporate Financial disclosure in the Oil and Gas Industry. *Journal of Accounting, Auditing and Finance* 8, 249-273.
- Owusu-Ansah, S. 1998. The Impact of Corporate Attributes on the Extent of Mandatory Disclosure and Reporting by Listed Companies in Zimbabwe. *The International Journal of Accounting* 33: 605-631.
- Oyelere, P., F. Laswad, and R. Fisher. 2003. Determinants of Internet Financial Reporting by New Zealand Companies. *Journal of International Financial Management and Accounting* 14 (1): 26-63.
- Sengupta, P. (1998). Corporate Disclosure Quality and the Cost of Debt. *Accounting Review* 73 (4): 459-474.
- Steyerberg, E. W., Eijkemans, M. J. C., and Habbema, J. Dik F. (1999). Stepwise Selection in Small Data Sets: A Simulation Study of Bias in Logistic Regression Analysis. *Journal of Clinical Epidemiology*, 52 (10): 935-942.
- Subramanian, R. and Raja, J. B. (2010). An Empirical Study of the Financial Information Disseminated on the Internet and the Perceived Usefulness for Shareholders and Regulators. *International Journal of Accounting and Finance*, 2 (1): 49-66.
- Trites, G. 1999. *The Impact of Technology on Financial Reporting and Business Reporting*. Canadian Institute of Chartered Accountants, Toronto.
- Wallace, R. S. O., and K. Naser. (1995). Firm Specific Determinants of Comprehensiveness of Mandatory Disclosure in the Corporate Annual Reports of Firms on the Stock Exchange of Hong Kong. *Journal of Accounting and Public Policy*, 14 311-368.
- Yeo, G. H. H. and Ziebart, D. A. (1995). An Empirical Test of the Signaling Effect of Management's Earnings Forecasts: A Decomposition of the Earnings Surprise and Forecast Surprise Effects. *Journal of Accounting, Auditing & Finance*, 10 (4): 787-802.

APPENDIX 1					
TOP TEN AFRICAN STOCK MARKETS BY CAPITALIZATIONS, VALUE TRADED, AND TURNOVER RATION					
Country	Market Capitalization	Country	Total Value Traded	Country	Turnover Ratio
South Africa	192.35	South Africa	83.88	South Africa	46.42
Zimbabwe	53.06	Egypt	18.28	Egypt	32.29
Egypt	51.39	Morocco	9.85	Morocco	17.94
Morocco	46.74	Zimbabwe	8.46	Zimbabwe	14.26
Mauritius	40.38	Nigeria	2.76	Tunisia	13.60
Botswana	25.77	Mauritius	2.41	Nigeria	13.25
Kenya	25.13	Kenya	2.15	Zambia	9.36
Cote d'Ivoire	17.84	Tunisia	1.74	Malawi	7.08
Nigeria	17.62	Botswana	0.86	Kenya	6.71
Ghana	17.11	Malawi	0.54	Mauritius	6.30
Note: Stock Market Capitalization, Value Traded, and Turnover Ratio data were extracted from World Bank Development Indicators for the years 1998-2008. The average for the selected year range was computed by the authors.					

APPENDIX 2		
LIST OF SELECTED AFRICAN COUNTRIES		
Algeria	Gabon	Nigeria
Angola	Gambia	Senegal
Benin	Ghana	Seychelles
Botswana	Kenya	South Africa
Burundi	Lesotho	Sudan
Cameroon	Madagascar	Swaziland
Congo Republic	Malawi	Tanzania
Congo D. R.	Mali	Togo
Cote d'Ivoire	Mauritius	Tunisia
Egypt	Morocco	Uganda
Ethiopia	Mozambique	Zambia
	Namibia	Zimbabwe
	Niger	

APPENDIX 3							
PAIRWISE CORRELATION MATRIX							
Appendix 3: Pairwise Correlation Matrix							
	financ~s	llgdp	dbagdp	bdgdp	fdgdp	bcbd	roa
financials	1.0000						
llgdp	0.0093	1.0000					
dbagdp	0.0608	0.9359*	1.0000				
bdgdp	0.0422	0.9827*	0.9634*	1.0000			
fdgdp	0.0330	0.9832*	0.9640*	0.9993*	1.0000		
bcbd	0.1844*	-0.0220	0.1716*	0.0015	0.0024	1.0000	
roa	0.1391*	-0.1094*	-0.1081*	-0.0833	-0.0756	0.0142	1.0000
roe	0.1241*	-0.1460*	-0.1746*	-0.1236*	-0.1207*	-0.1457*	0.4818*
stmkcap	0.1432*	0.3546*	0.5705*	0.5011*	0.4948*	0.2823*	-0.0074
stvaltraded	0.1679*	0.2204*	0.4745*	0.3822*	0.3776*	0.2920*	-0.0144
stturnover	0.1603*	0.4995*	0.6591*	0.5885*	0.5878*	0.2610*	-0.0210
listco_pc	-0.1403*	0.6012*	0.6298*	0.6682*	0.6620*	0.0993	-0.0350
pcrdbgdp	0.1400*	0.7361*	0.8562*	0.7844*	0.7872*	0.4882*	-0.1344*
pcrdbofgdp	0.1643*	0.5796*	0.7699*	0.6660*	0.6687*	0.4931*	-0.0855
ccorrupt	0.1202*	0.5466*	0.5834*	0.5950*	0.5954*	0.2165*	0.0617
	roe	stmkcap	stvaltr~d	stturn~r	listco~c	pcrdbgdp	pcrdbo~p
roe	1.0000						
stmkcap	0.0385	1.0000					
stvaltraded	-0.0056	0.9352*	1.0000				
stturnover	-0.0241	0.8091*	0.8195*	1.0000			
listco_pc	-0.0513	0.2493*	0.1366*	0.1770*	1.0000		
pcrdbgdp	-0.2006*	0.6408*	0.5466*	0.6851*	0.5973*	1.0000	
pcrdbofgdp	-0.1568*	0.8435*	0.7857*	0.7972*	0.4623*	0.9278*	1.0000
ccorrupt	-0.0200	0.2912*	0.2424*	0.1877*	0.4440*	0.5669*	0.5349*
	ccorrupt						
ccorrupt	1.0000						

A CROSS-NATIONAL EMPIRICAL STUDY INVESTIGATING THE ROLE OF PURCHASING PURPOSE HAS ON THE COUNTRY-OF-ORIGIN EFFECT

Dr. Kevin O'Mara

Elon University
Elon, North Carolina

Dr. Kathryn Cort

North Carolina A&T State University
Greensboro, North Carolina

Mr. Gary Palin

Elon University
Elon, North Carolina

ABSTRACT

This study contributes to the Country-of-Origin (COO) literature by developing a large cross-national study of 794 participants from every region of world to investigate the influence of COO in their purchasing decision across three different risk scenarios - buying an everyday product, buying an expensive, quality product for themselves, and buying a special gift for someone else. The findings support the hypotheses that people from different parts of the world are universal in their purchasing behaviors with respect to risk. Financial risk and "face" risk were shown to influence purchasing decisions.

INTRODUCTION

Globalization is reconfiguring industries throughout the world. CEOs are faced with the prospect of leading organizations into arenas that have never before existed and many are willingly admitting grappling with an uncomfortable level of uncertainty (Stewart, 1999). Are companies "going global" or are they actually becoming a "global company" (Doremus, Keller, Pauly, and Reich, 1998)? What is the difference? Is there a difference? To be successful in the near future organizations must consciously decide what kind of business they want to be, on what basis they intend to compete on, and where they plan on competing. The status quo isn't an option because not changing doesn't shield an organization from new global forces and competitors.

The stakes are very high. It is not unfair to suggest that the opportunities currently available for firms have never been greater nor have the challenges ever been as complex. Communication technology has enabled firms, suppliers, and customers access to each other as never before. The

world of business has certainly shrunk or become 'flat' (Friedman, 2005). The almost universal movement towards free trade among nations has opened up huge potential markets throughout the world. These trading blocks, such as NAFTA and the European Union, provide the political framework necessary to support free trade. Just consider the changes over the past two decades regarding where goods are produced and sold. Incredible advances in information and communication technology, combined with today's global logistics infrastructure, enable firms to gain substantial supply chain improvements in cost reduction and speed. As a result of these sweeping changes, customers are benefiting enormously by receiving an unprecedented amount of choice, often only a few clicks away. In economic terms, choice leads to competition and competition leads to lower prices. And, all of this is happening on a global scale. In a borderless world, the landscape is defined by customers and economics much more than by nations and governments (Ohmae, 1995).

Yet, only those firms that understand the implications inherent in these new global dynamics and act on that understanding will survive. The opportunities outlined above are available for anyone capable of developing a plan aligned with this new marketplace. The concept of “Country of Origin” (designated “COO” for the remainder of the paper) came into the vocabulary of corporations and academic researchers (Usunier & Cestre, 2008) as firms pursue cost reductions by shifting manufacturing to lower cost countries and attempt to increase revenues by expanding their offerings into new countries. The explosion of globalization, along with the rise in the number and scope of the multi-nationals, off-shoring, outsourcing, global market segmentation, and innovative branding techniques has increased the complexity of business exponentially. It has been argued that an understanding of the role and implication of COO may provide opportunities for those possessing this knowledge (Ahmed & d’Astous, 1996; Ahmed, Johnson, Ling, Fang & Hui, 2002).

LITERATURE REVIEW

COO is among the most researched concepts over the past 35 years (Han, 2010). Initially, COO was singularly aligned with the idea of where the product was made. It was synonymous with the “made in” label. However, researchers have delineated the COO concept into narrower dimensions to reflect the different ways firms are incorporating global opportunities into their operations. There are now research streams addressing areas of “country of manufacturing (COM), “country-of-manufacturing/assembly” (COM/A), “country-of-design (COD), and “country-of-brand” (COB) (Han, 2010). The common thread among the sub-areas is the recognition that countries have reputations that may or may not be attached to a product or service being worked on in that country (Roth & Romeo, 1992). Consumers may hold different appraisals for products containing elements from different countries, thus impacting - negatively or positively - their purchasing intent (Schooler, 1971).

In theory, the COO concept assumes a number of roles. Han (1989) identified COO as providing a “halo effect” or a “summary effect” around

a product or service. At its core, COO serves as a proxy when additional pertinent information is either unavailable or unknown in order to reduce the purchase risk. There are, at least, three types of risks a purchaser tries to avoid during most purchases. First, a “financial risk” may exist of poorly spending one’s money due to incomplete or erroneous information regarding the functionality of the product or service. Second, a “quality risk” of purchasing a poorly designed or constructed product that ultimately becomes a product failure. Finally, a “social risk” of having a purchase stigmatizes the consumer because the purchase signals that the consumer either lacks a commonly accepted level of knowledge or projects poor judgment through the choice of a purchase. In a COO study on wine purchasing behaviors by Chinese subjects, it was found that their choices differ greatly depending if the purchase was for personal, at-home use, to be given as a gift, or to be consumed in public. If the purchase was for personal, private reasons only, price was the most important factor influencing the purchase decision. However, if the purchase was to be given as a gift or if others would observe the choice, then COO became the primary factor influencing the choice (Hu, Li, Xie, & Zhou, 2008). The authors pointed to the Chinese cultural aspect of “Face” as the likely root cause of this behavior. A second study of Chinese wine purchasing also found COO to be most influential factor (Balestrini & Gamble, 2006). The Chinese consumer could either be controlling the “loss of face” by making a poor or embarrassing choice, or, perhaps, attempting to build “personal equity” through the association of a quality choice and the individual making the choice. Related to “face” is a concept of coined “initial trust” by McKnight (1998) and its linkage with COO. In a study on Polish services offerings, Michaelis, Woisetschlager, Backhaus, & Ahlert (2008) found that COO was not important to the purchase decisions, except in the case where the decision was considered “risky”. This result is completely consistent with the notion that COO is a tool being used as a signal to indicate the amount of risk the purchase may entail, or a way to mitigate risk.

COO has often been compared with, or in competition with, the concept of a “brand”. The literature is inconsistent with respect to the rela-

tionship. Some research shows COO to be more important in the purchase decision, while other research points to the importance of the brand. For instance, in a study on luxury handbag purchases by 203 Taiwanese women, COO was clearly the driving purchasing force (Han, 2010).

However, other studies indicate a supportive relationship exists between the COO and brand concepts (Aiello, Donvito, Godey, Pederzoli, 2009). Regardless of the actual relationship, it is clear the two concepts are closely related and both serve as a way for the consumer to either reduce their risk and uncertainty regarding the purchase or provide “personal equity” by the association.

Research has also explored the role that context plays in relationship with COO. In their work on New Zealand’s efforts to build their brand in the broadly-defined agricultural industry, Beverland and Lindgreen (2002) contend that contextual factors shape the value of the COO concept. They cite a study that list individual characteristics associated with those people who apply COO: the elderly, the less educated, those politically conservative, and the novice. They conclude that not only is context important but COO is not a stagnant concept, but rather a dynamic concept that evolves over time as consumers become more knowledgeable about the product, increase their trust in the firm or product, or acquire a sufficient level of personal experience with the product.

Two important points from the COO literature review form the basis for the empirical research study outlined below:

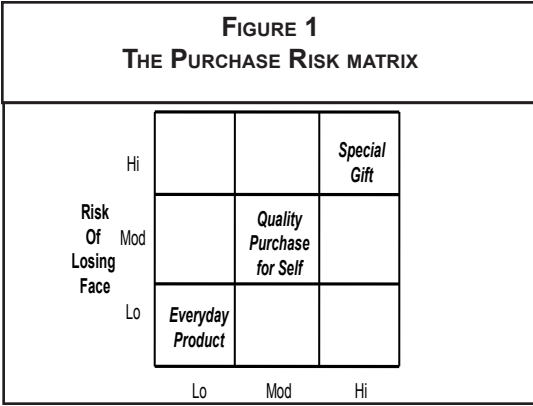
- 1. There is a need for large sample, cross-national research on how different parts of the world perceive the value of products (and services) coming from other parts of the world. While the COO literature has many empirical studies, most of them are limited to one country or region. We feel a contribution could be made by surveying individuals from around the world on the same questions about other parts of the world.

- 2. While the COO impact on the purchase decision is well-researched, the area of “for what purpose is the consumer purchasing?” is less explored. The view that COO is a signal to avoid the risks of a financial loss or a product failure is well established, but the notion that the consumer may be concerned about the risk of “losing face” is fascinating and worthy of study. What is the role of “personal equity” and its relationship with COO.

RESEARCH STUDY

In order to explore the two points immediately discussed above, it was crucial that a mechanism was discovered to reach out across the globe to access the opinions of individuals from different parts of the world. Without the varied perspectives and experiences of those from different countries, the goal of the research could not be reached. We were able to scale this hurdle by utilizing a large international email list that one of the authors has accumulated over the past decade.

The second consideration was how to tap into the reason “why” someone is making a purchase to see if COO had an influence on a decision based on the “purpose” of the purchase. A matrix based on two of the risks, “financial risk” and “loss of face risk”, was developed (see Figure 1 “Purchase Risk Matrix”). These two risks were selected as the key distinguishing dimensions since they are cited in the literature as related to COO and its risk-reduction nature. The design involved finding three increasingly risky scenarios placing the



survey participants into a particular context as to the purpose of the purchase. The first scenario, “Everyday”, describes a purchase of a product that is both inexpensive and has very little opportunity for personal equity. A poor or “failed” choice has very little negative implications either financially or regarding “face”. The second scenario, “Quality Purchase for Self”, like “Everyday” is used solely by the purchaser but, in this case, it is an important or expensive item. Therefore, the product failure risk has a financial impact. The final scenario, “Special Gift”, elevates the risk to “High” along both dimensions. The financial risk is obvious - it’s expensive. But the “Loss of Face” risk is also “High” because others are judging whether this gift is excellent, good, or inappropriate. The purchaser’s personal equity is at stake, either way. An excellent choice, as perceived by the recipient, would make others look favorably upon the purchaser. An inappropriate gift would put the judgment or sophistication of the purchaser into question by those deeming the gift to be inappropriate. These three scenarios became the heart of the survey questionnaire.

Hypotheses Generation:

The first hypothesis focuses on whether a special gift to another would influence the role that COO may play in the purchase decision. Our expectation that the high risk along both dimensions would make COO a significant factor in all regions of the world.

H1: If the item being purchased is an expensive item to be given as a “Special Gift” or at a special occasion, the COO will be an important factor in the selection decision (“GIFT”).

The second hypothesis lowers the risks by limiting the audience judging the ultimate value of the gift to just the purchaser. Our expectations are that COO would still have an important role but moderated by other contextual factors. While still a significant factor, it will be less intense than if the purchase was a special gift or a public purchase.

H2: If the item being purchase is an expensive item to be solely used by the purchaser,

the COO will be an important factor in the selection decision (“SELF”).

The third hypothesis focuses on a very low risk decision on both dimensions. The purchase decision is private and it is of low economic risk. In this case, we would expect COO to be marginally important, if at all, in the purchasing decision.

H3: If the item being purchased is an inexpensive “everyday” item, the COO will not be a meaningful factor in the selection decision (“EVERYDAY”).

Research Methodology

Subjects

An important goal of this research was to overcome the criticisms leveled at past COO studies for being too narrow in terms of the subjects or too antidotal. Critics (Josiassen & Harzing, 2008) have questioned the ability to make anything but very limited conclusions from the studies. Therefore, a questionnaire was sent out to a large international mailing list asking possible participants to complete it using an online method. We received a total of 794 useable responses. The survey gathered a number of important descriptive information about each participant.

Participants were asked to identify their home country or region. We were interested in the geographic spread of our participants so we could test for possible cross-cultural anomalies.

TABLE 1 REGIONAL DISTRIBUTION OF RESPONDENTS	
Home Country or Region	%
Asia (China, Emerging Asia, India, Japan)	5.2%
Mexico/Central America/South America	2.8%
EU (established and new)	20.0%
USA	71.9%
Other	7.9%

Age plays a part in the use of COO as a proxy (Anderson & Cunningham, 1972). Participants selected one of 6 age categories:

TABLE 2 AGE DISTRIBUTION OF RESPONDENTS	
Age	%
<25	12.3%
25-34	9.9%
35-44	22.2%
45-54	25.9%
55-64	23.0%
>65	6.2%

Gender is well-established as a factor in the buying decision literature.

TABLE 3 GENDER DISTRIBUTION OF RESPONDENTS	
Gender	%
Females	43%
Males	57%

TABLE 4 RESIDENCE DISTRIBUTION OF RESPONDENTS	
Number of Countries Lived in for More than Two Years	%
1-2 countries	85%
3-4 countries	11%
> 4 countries	3%

Research Results:

The results of the survey proved to be quite interesting.

H1: If the item being purchased is an expensive item to be given as a “Special Gift” or at a special occasion, the COO will be an important factor in the selection decision (“GIFT”).

Table 5 indicates that the major industrialized countries/regions (USA, Established European Countries, and Japan) are viewed more positively in terms of “made in” when choosing a Special Gift for Someone. “Made in” does not add value for a Special Gift occasion when the gift is made in China, India, Emerging Asian, Central America, South America and Mexico. The New

Table 5 Responses (in percentages) to the survey question: “If choosing a <i>SPECIAL GIFT</i> for <i>SOMEONE</i> , the fact that it was “made in” this country or region adds value to this gift.”					
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
China	3	6	21	34	36
India	3	10	34	34	20
Emerging Asia	2	9	35	34	20
Japan	16	37	29	12	7
Est. EU	29	40	22	5	4
New EU	4	18	50	22	7
Central America	3	11	41	33	12
South America	4	16	44	27	10
Mexico	3	8	37	38	14
USA	25	38	25	8	5

European Countries seem to be positioned in the neutral area. This might be due to the fact that the respondents of this survey do not have a firm perception of products originating from this region of the world.

Ordinal regression was conducted using the dependent variable, special gift and the independent variables of gender, age, ethnic, and “home” (native) country/region that you consider as your “home” or native country or region.

Overall results of the ordinal regression are revealed in Table 6 on the following page.

The interpretation is that one’s gender, age, ethnicity and “native” country have an influence on choosing a ‘Special Gift for Someone’ from one of the above countries/regions adds value to the gift. In eight out of the ten regions/countries in this study, significant ordinal regressions were found based on demographic variables. ‘Special Gifts for Someone Else’ that were ‘made in’ South America and USA did not show an overall significant ordinal regression. Since a large percentage of the respondents were from the United States, it can be viewed that they see USA ‘Made In’ products for special gift giving occasions as the norm and not an issue when buying for someone else. Therefore, adding value is a moot point for

TABLE 6 OVERALL RESULTS OF THE ORDINAL REGRESSION			
Country/Region	Ordinal Regression Significance level	Country/Region	Ordinal Regression Significance level
China Special Gift	.002	New EU Special Gift	Not significant
India Special Gift	.001	Central America Special Gift	.05
Emerging Asia Special Gift	.000	South America Special Gift	Not significant
Japan Special Gift	.000	Mexico Special Gift	.000
Established EU Special Gift	.000	USA Special Gift	Not significant

the buyers. It seems that people generally do not have a good perception of products that originate from South America; therefore, decisive perceptions cannot be obtained.

Bivariate regression analysis was conducted with the dependent variable “If choosing a SPECIAL GIFT for SOMEONE, the fact that it was ‘made in’ this country or region adds value to the gift” and the independent variables “gender, age, ethnic, native country”. Table 7 lists the significant relationships found between the dependent variable and the independent variables.

Based on the respondent’s demographic composition certain demographic variables significantly influenced respondents’ responses to the statement “If choosing a SPECIAL GIFT for SOMEONE, the fact that it was “made in” this country or region adds value to the gift. In this analysis it was found that some of the demographic variables were significantly related to the dependent variable.

H2: If the item being purchase is an expensive item to be solely used by the purchaser, the COO will be an important factor in the selection decision (“SELF”).

Table 8 reveals the results (in percentages) to the survey question related to H2.

Similar results are revealed in H2 as in H1. The highest percentage of disagreement to this statement comes from products “made in” Japan, USA, and Established European countries. The highest percentage of agreement to the above statement comes from products “made in” China (62%), India (54%), Emerging Asia (53%), Central America (52%) and Mexico (52%).

Fewer significant ordinal regression relationships exist between the above statement and the independent variables: gender, age, ethnic and “native”/home country. The countries and regions that significant ordinal regression relationships were found are Japan (.010), Established European Union Countries (.022), Central America

TABLE 7 SIGNIFICANT RELATIONSHIPS										
	China	India	Asia	Japan	EST EU	NW EU	Central America	South America	Mexico	US
Gender				.000		.011	.000	.001	.026	
Age				.018			.028			.027
Ethnic	.014	.002	.002	.000						
Native		.026		.000	.015	.015			.000	

Table 8 Responses (in percentages) to the survey question: “If purchasing a product for <i>YOURSELF</i> , you <u>might hesitate</u> purchasing a <i>VERY EXPENSIVE</i> product “made in” this country or region.”					
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
China	33	29	17	14	7
India	22	32	24	15	6
Emerging Asia	21	32	27	15	6
Japan	6	9	19	40	27
Est. EU	4	8	16	41	30
New EU	6	27	40	21	6
Central America	15	37	31	12	6
South America	11	34	35	14	6
Mexico	16	36	30	12	6
USA	6	7	16	35	35

(.016), Mexico (.042) and USA (.000). Further analysis showed that no one particular demographic variable was found in the majority of the significant relationships between the dependent and independent variable. However, demographic variables are important factors in the decision-making process in the purchasing situation.

H3: If the item being purchased is an inexpensive “everyday” item, the COO will not be a meaningful factor in the selection decision (“EVERYDAY”).

Table 9 reveals the results (in percentages) to the survey question related to H3.

Table 10 reveals that when the scores for strongly agree and agree are combined that no country or region has a score that is 50 or greater. And the disagree score for all countries and regions are in the 30s. Certainly the importance of COO is not as important as in the two previous buying scenarios.

More in-depth analysis through ordinal regression analysis using the above statement “If

TABLE 9 Responses (in percentages) to the survey question: “If purchasing <i>EVERYDAY</i> products, you <u>might hesitate</u> buying these type of products “made in” this country or region.”					
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
China	11	21	20	34	13
India	7	20	26	34	11
Emerging Asia	6	18	30	36	11
Japan	4	6	19	38	33
Est. EU	3	4	17	38	37
New EU	2	10	37	38	13
Central America	5	18	35	33	10
South America	4	15	36	35	10
Mexico	5	18	33	33	11
USA	3	3	14	31	49

purchasing EVERYDAY products, you might hesitate buying these type of products “made in” this country or region” as the dependent variable revealed that even fewer significant relationships exist between the dependent variable and the independent variables of age, gender, ethnic, and “native” country. Significant ordinal regression relationships were found only for Japan (.005), India (.003), and Established EU (.028).

TABLE 10 STRONGLY AGREE AND AGREE RESPONSES COMBINED	
Country/Region	Combined Agreement Score
China	33
India	27
Emerging Asia	24
Central America	23
Mexico	23
South America	19
New EU	12
Japan	10
Est EU	7
USA	6

Using the independent variables of age, gender, ethnic and “native” country in a bivariate regression analysis revealed that age was a significant factor for purchasing “inexpensive, everyday products” from the following countries/regions: India, Japan, New EU, Central America, and South America. The only age groups that are significant in further analysis are those in age categories of ‘Under 25 years’ and ‘25-34’. Ages 35 and upward do not have a significant relationship with the dependent variable. Individuals thirty-four years and younger seem to be the ones that consider the COO when purchasing “inexpensive, everyday products”.

Overall, the results are consistent with our expectations and confirm all three hypotheses. As the risks, both financial and “face”, decrease so is the likelihood of choosing a product based on its COO. However, when the risk is substantial, COO is a very important factor in the decision making of consumers in those circumstances. This was witnessed in the analyses as fewer significant analytical relationships existed between the dependent and independent variables as the analysis moved from H1 to H3.

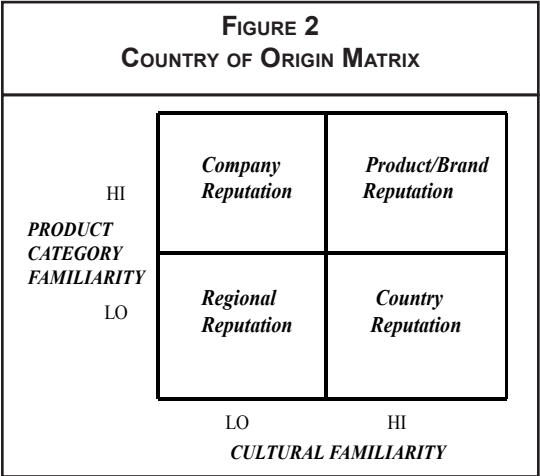
MANAGERIAL IMPLICATIONS

The COO literature has historically called for managers to consider the implications of COO when making decisions. It seems particularly relevant in today’s world when firms are quickly moving production facilities around the globe in search of lower costs and also tapping into new markets by utilizing the internet and other new opportunities. What should not be lost while making these financial calculations is people in different parts of the world perceive products differently depending on their experiences, perspectives, and knowledge. If a firm intends on opening a new market in the future, they should strongly consider the origins of where that product will be made. With available global manufacturing facilities and capabilities, it may not be in the best interest of the firm to use the lowest price facility if the ultimate customer may question the quality of that particular product origin.

The matrix in Figure 2, is a guide for managers to consider when deciding on which aspect of global image management they want to pursue.

The matrix suggests a firm has four strategic alternatives to deal with the market entry decision based on the level of product category familiarity of the targeted purchaser, as well their level of cultural familiarity of the country of origin being considered.

The upper-left quadrant, Product/Brand Reputation, provides the firm with greatest flexibility since the purchasing decision will be greatly swayed on the basis of the reputation of the company and the product itself. For instance, if the offering is a well-known product that Sony



is selling (e.g., a television), a combination of the Sony brand and its reputation for making quality televisions, along with a high familiarity with the cultural region, will be the primary determinants of the consumer’s perception of the product. The mere fact that Sony has put its name and reputation behind the product offering comforts the purchaser regarding all three forms of risk: product, financial, and “face” risk. The consumer has little apprehension of the product or where it was manufactured so other aspects of the product will drive their decision. The consumer feels Sony will insist on a quality manufacturing process regardless of where exactly the product is being manufactured. Not only is this a huge advantage for the manufacturer but it is also limited to established world-class companies and brands.

The upper-left quadrant, Company Reputation, also has great flexibility for the company with a global reputation. In this case, the consumer is not familiar with the cultural region of manu-

facturing so they are leery of the purchase, particularly for an “expensive gift” or a “special gift for someone else”. However, if a global brand is behind the product some of the hesitation can be allied. This quadrant also indicates that a brand extension is also possible since the key factor is not the product or the cultural region but the company reputation itself. Again, this quadrant is limited to those companies that have a global brand or is a regional brand that is well regarded by the consumers. Without such a reputation, a firm is taking a chance by associating their product with a region that is unfamiliar to its targeted customers. This risk is particularly relevant if the product is purchased as a “special gift for someone else” or is expensive.

The lower-right quadrant, Country Reputation, indicates market risks for the offering. This quadrant involves products that are somewhat unfamiliar to the consumer in terms of their ability to discern quality differences in the product itself. They need, or are looking for, a signal to certify this is a quality product. The country of origin can have an impact on how a product is perceived, one way or the other. French wines benefit from being associated with France. However, Australian wines may have an association of lower quality due to the global expansion of their lower-end Yellow Tail brand. The stronger wineries that try to compete at higher levels of the wine market are significantly hurt by the association. What can they do? Perhaps form a trade association alliance to market the country to the world market in an effort to re-define (or, in some cases, define) a country’s reputation. It would be next to impossible for a single company to transform the reputation of an entire country so a pooling of interests might make sense. The hope is to educate the global consumer that a country produces a stratified quality product and not to lump all firms together.

Finally, the lower-left quadrant, Regional Reputation, indicates a market in which the consumer possesses low knowledge of the product categories characteristics and also the region in which the offering is being manufactured. The consumer is presented with potentially significant risk across all three dimensions (i.e., financial, quality, “face”) when considering an offering. The purchase reason will have a substantial in-

fluence on their behavior. An attempt to entice a consumer for a high-end product from this region will be quite difficult without a significant price break. However, an “everyday, inexpensive” product may do just fine as consumers will not care as much where the product came from. A firm may have to develop collectively with other companies a regional strategy to promote a region for the benefit of all competitors. If the region is weak, perhaps the strategy could target the specific country of origin and try to promote why a product from that country should be considered in isolation from the region. If a firm has a strong global identity, it may want to trade on its reputation and allow its reputation to serve as a proxy for quality, regardless of where the product is actually produced. Finally, if a firm has a particularly strong brand, the market entry should focus on that element of the offering and that alone.

CONCLUSION

This paper sought to expand the literature on Country of Origin by addressing two aspects that appeared to be lacking in the literature to date. First, the sample used in this study is much broader and global than other COO studies which enabled the results to have a more robust interpretation than previous studies. Second, this study attempted to test how the reason for a purchase might impact how a particular product from different origins would be perceived by the purchaser. Both aspects of this research proved to provide interesting insights into how the country of origin plays into the purchase decision.

Future research should attempt to continue the practice of compiling responses from a broad population of the world. COO is a global concept that needs to collect the opinions of people throughout the world. Future research might consider focusing on specific regions to see how that region considers offering originating for various parts of the world. It would be quite interesting and important for companies to understand which areas of the world are open to products from other specific areas but would attach a negative reaction to another specific area. Given the strategy of a firm, this information would be useful for both locating manufacturing facilities and for the domestic content considerations.

Future research should continue to explore the impact of the role that the purpose of the purchase has on the COO dimension. This research may open up flexibility of off-shoring and outsourcing decision for certain types of products while also limiting this same decision for products marketed using a different value proposition.

REFERENCES

- Ahmed, S., and d'Astous, A (1996), "Country-of-origin and brand effects: A multi-dimensional and multi-attribute study." *Journal of International Consumer Marketing*, Vol. 9, Iss. 2, pg. 93-115.
- Ahmed, S., Johnson, J., Ling, C., Fang, T., and Hui, A. (2002), "Country-of-origin and brand effects on consumers' evaluations of cruise lines", *International Marketing Review*, Vol. 19., pg. 279-302.
- Aiello, G., Donvito, R., Godey, B., Pederzoli, D. (2009), "An international perspective on luxury brand and country-of-origin effect", *Journal of Brand Management*, Vol. 16, Iss. 5-6, pg. 323-37.
- Anderson, T. and Cunningham, W. (1972). "Gauging foreign product promotion", *Journal of Advertising Research*, Vol. 12, No. 1, pg. 29-34.
- Balestrini, P., and Gamble, P., (2006), "Country-of-origin effects on Chinese wine consumers", *British Food Journal*, Vol. 108, Iss. 5, pg. 396-412.
- Doremus, P.; Keller, W.; Pauly, L.; and Riech, S., *The Myth of the Global Corporation*, Princeton University Press, 1998.
- Friedman, T.H. (2005). *The world is flat*. New York : Farrar, Straus and Giroux.
- Han, C. (1989), "Country image: halo or summary construct?", *Journal of Marketing Research*, Vol. 26, pg. 222-29.
- Han, H. (2010), "The investigation of country-of-origin effect - using Taiwanese consumers' perceptions of luxury handbags as examples, *Journal of American Academy of Business*, Vol. 15, Iss. 2, pg. 66-73.
- Hu, X., Li, L., Xie, C., Zhou, J. (2008), "The effects of country-of-origin on Chinese consumers' wine purchasing behaviour", *Journal of Technology Management in China*, Vol. 3, Iss. 3, pg. 392
- Josiassen, A. and Harzing, A. (2008). "Descending from the ivory tower: Reflections on the relevance and future of country-of-origin research", *European Management Review*, Vol. 5, pg. 264-270.
- Michaelis, M., Woisetschlager, D., Backhaus, C., and Ahlert, D. (2008), "The effects of country of origin and corporate reputation on initial trust; An experimental evaluation of the perception of Polish consumers", *International Marketing Review*, Vol. 25, Iss. 4, pg. 404.
- Ohmae, K (1995), "Putting Global Logic First", *Harvard Business Review*, January-February.
- Powell, C. (1999), "UK's Stuffy Image Costs Business Dear", *The Sunday Times*, London, September 26, 1999.
- Reece, D. (1999), "A Tonic for Scotch", *The Sunday Telegraph*, London, November 21, 1999.
- Roth, M., and Romeo, J. (1992), "Matching product category and country image perception: a framework for managing COO effects", *Journal of International Business Studies*, Vol. 23, Iss. 3, pg. 477-97.
- Schooler, R. (1971), "Bias phenomena attendant to the marketing of foreign goods in the US.", *Journal of International Business Studies*, Vol. 2, Iss. 1, pg. 71-80.
- Stewart, T. (1999), "Getting Real About Going Global", *Fortune*, February 15, 1999.
- Usunier, J. and Cestre, G (2008), "Further consideration on the relevance of country-of-origin research", *European Management Review*, Vol. 5, Iss. 4, pg. 271-275.

JOINT CONFERENCE
May 23rd, 24th and 25th 2012 in
Nashville, TN at the Holiday Inn Vanderbilt

**Academic Business World
International Conference
(ABWIC.org)**

**International Conference on
Learning and Administration in
Higher Education
(ICLAHE.org)**

The aim of Academic Business World is to promote inclusiveness in research by offering a forum for the discussion of research in early stages as well as research that may differ from 'traditional' paradigms. We wish our conferences to have a reputation for providing a peer-reviewed venue that is open to the full range of researchers in business as well as reference disciplines within the social sciences.

Business Disciplines

We encourage the submission of manuscripts, presentation outlines, and abstracts pertaining to any business or related discipline topic. We believe that all disciplines are interrelated and that looking at our disciplines and how they relate to each other is preferable to focusing only on our individual 'silos of knowledge'. The ideal presentation would cross discipline borders so as to be more relevant than a topic only of interest to a small subset of a single discipline. Of course, single domain topics are needed as well.

Conferences

Academic Business World (ABW) sponsors an annual international conference for the exchange of research ideas and practices within the traditional business disciplines. The aim of each Academic Business World conference is to provide a forum for the discussion of research within business and reference disciplines in the social sciences. A secondary but important objective of the conference is to encourage the cross pollination of disciplines by bringing together professors, from multiple countries and disciplines, for social and intellectual interaction.

Prior to this year, the Academic Business World International Conference included a significant track in Learning and Administration. Because of increased interest in that Track, we have promoted Learning and Administration to a Conference in its own right. For the full call for papers and more information go to <http://ABWIC.org> and <http://ICLAHE.org>

All too often learning takes a back seat to discipline related research. The International Conference on Learning and Administration in Higher Education seeks to focus exclusively on all aspects of learning and administration in higher education. We wish to bring together, a wide variety of individuals from all countries and all disciplines, for the purpose of exchanging experiences, ideas, and research findings in the processes involved in learning and administration in the academic environment of higher education.

We encourage the submission of manuscripts, presentation outlines, and abstracts in either of the following areas:

Learning

We encourage the submission of manuscripts pertaining to pedagogical topics. We believe that much of the learning process is not discipline specific and that we can all benefit from looking at research and practices outside our own discipline. The ideal submission would take a general focus on learning rather than a discipline-specific perspective. For example, instead of focusing on "Motivating Students in Group Projects in Marketing Management", you might broaden the perspective to "Motivating Students in Group Projects in Upper Division Courses" or simply "Motivating Students in Group Projects" The objective here is to share your work with the larger audience.

Academic Administration

We encourage the submission of manuscripts pertaining to the administration of academic units in colleges and universities. We believe that many of the challenges facing academic departments are not discipline specific and that learning how different departments address these challenges will be beneficial. The ideal paper would provide information that many administrators would find useful, regardless of their own disciplines

Conferences

Prior to this year, Learning and Administration was a primary track of the annual Academic Business World International Conference. Because of increased interest, we have promoted Learning and Administration from a Track to Conference in its own right. For the full call for papers and more information go to <http://ICLAHE.org> and <http://ABWIC.org>.

