Letter from the Editor

BY ALBERT J. MILLS

Welcome to the fall edition of 2016. In this issue we feature four articles and a case. The first article is an original submission to the journal and the remaining three articles and case study are from the proceedings of the 2015 annual conference of the Atlantic Schools of Business, held in Fredericton in September (25-27) and hosted by the University of New Brunswick, under Conference Chair Basu Sharma.

In this issue we roam far and wide in making sense of business knowledge and the various research practices at work in the Atlantic Region. Our first article draws on industrial and organizational psychology to make sense of "workplace mistreatment." The second article moves us to the realm of entrepreneurship in assessing "graduate entrepreneurial intentions." In the third article we enter the world of finance and discussion of the use of a "financial condition index tool to measure municipal financial condition". The fourth and final paper utilizes "rhetorical history" to study "Ocean Clusters" in Nova Scotia. In our case study section, we move to an exploration of family business and the potential paradoxes and problems faced between the notion of family and of business.

I. Workplace Mistreatment: Prevalence, Predictors, Potential Consequences, and Interventions

Our opening article examines the vexing and seemingly widespread problem of workplace mistreatment. The authors – Camilla Holmvall and Alycia Damp (both of Saint Mary's University, originally, and Damp currently at University of Toronto) – include under this heading "abusive supervision, workplace bullying, social undermining, and interpersonal conflict" but, for the purposes of the paper, they focus on abusive supervision and workplace bullying. Reviewing studies of these two forms of workplace mistreatment, Holmvall and Damp conclude that workplace mistreatment is "more prevalent than we might think (especially with respect to verbal and psychological aggression and incivility), and is associated with a wide range of significant deleterious outcomes for employees and their organizations." As such workplace mistreatment "should be taken seriously to ensure the productive and healthy functioning of employees and their organizations."

II. The impact of Culture on individual entrepreneurial orientation and the moderating role of entrepreneurial competencies on graduate entrepreneurial intentions: A cross sectional survey of Uganda

Our second article moves us from organizational/industrial psychology to entrepreneurship, and from Canada to Uganda. In this article by Isaac Wasswa Katono and David Priilaid (of the University of Cape Town) and Gert Human (Stellenbosch University), the authors explore whether the low graduate entrepreneurial start-up in Uganda is due to "variability in cultural perception of risk and pro-activeness." Drawing on Hofstede's (1980, p.25) notion of culture "as the collective programming of the mind which distinguishes the members of one human group from another," the authors carried out a cross section survey of graduate students in Uganda. They conclude that the low start-up of entrepreneurial activity in Uganda "can be explained by the impact of cultural orientation on two dimensions of the entrepreneurial orientation construct, namely risk and pro-activeness." They point to a link between masculinity, power distance and low uncertainty avoidance in the "the variance in entrepreneurial intention through proactiveness, while collectivism accounts for the least variance in entrepreneurial intent through proactiveness." They also conclude that "risk seems to be the major explanation for the low entrepreneurial intent in [their] study and that entrepreneurial competencies, "moderates the relationship between proactiveness and intention for all cultural variables. They go on to concluded that low startup of graduates in this mainly collective country is attributed to a high perception of risk."

III. Using a financial condition index tool to measure municipal financial condition

In this paper Lynn MacLean and Patrick Delamirande (of the Shannon School of Business, Cape Breton University) explore "the concept of using a financial condition index tool to measure the financial condition of a municipal unit." To that end, the authors review the use value of the Province of Nova Scotia's Financial Condition Index (FCI) by comparing FCI date reports "for three recently dissolved" Nova Scotia towns. In the process they uncovered a number of problems that need to be taken into account when applying the FCI. These include the fact that "financial statements are historic" (are generated on expenditures that not only occcured but were finalized six months earlier – thus affecting the predictive value of the FCI). Similarly the FCI's reliance on comparative "analysis requires more than comparable data" rather it needs to be performed on a like-situated cohort (e.g., comparing a small town with other small towns, etc.). They conclude that in taking a financial reading of a given town or city "adequate and appropriate contextual knowledge is necessary in assessing the financial condition of a town.

IV. Rhetorical history and regional advantage: An ANTi-History of "The Oceans Cluster" in Nova Scotia, Canada

In the final of our four papers Ryan MacNeil (Acadia University) uses an approach called `ANTi-History' to study the impact of histories of Nova Scotian `ocean clusters' on the industry's development between 1960 and 2012, in particular competitive advantage. By analysing three particular histories that were developed in 1960, 1980, and 2012, MacNeil discovered three different, or multiple, accounts – accounts that were both valid and contradictory. However, MacNeil found that none of the three histories manage to enroll or recruit sufficient number of actors to survive over time. He goes on to provide clues to the recruitment process and the potentially successful use of history.

V. FIT 2 Excel? Family. Business and Family Business

In our case segment Robert A. MacDonald, Heather Steeves and Ben C. Wistrom from Crandall University bring us a case aimed at upper level undergraduate course in entrepreneurship and family business. Basically the story is one of married co-owners of a family-run business where they have to manage the stress of "operating their own fitness and rehabilitation firm" while wrestling with "pertinent questions regarding business, family, and the relationship between the two entities."

We are confident that this collection of four papers and a case provide a glimpse not only into the excellent research that goes on in the region but also the links between scholars within and outside of the Atlantic region. Meantime the 2016 Atlantic Schools of Business conference has just wrapped up in Halifax – hosted by the Sobey School of Business. The conference included 28 sessions and around 70 papers and cases. If you were part of the conference, we ask you to consider publishing your paper and/or case in the Workplace Review. We are a peer reviewed journal and we are also very interested in receiving papers that were not presented at the ASB conference. Either way, to submit a paper for review please contact Ellen Shaffner, Managing Editor: Ellen.Shaffner@smu.ca

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WORKPLACE MISTREATMENT: PREVALENCE, PREDICTORS, POTENTIAL CONSEQUENCES AND INTERVENTIONS

A co-worker fails to consult with you on something over which you have responsibility; a customer yells at you for having to wait for his food; your boss takes every opportunity she can to criticize you in public; a group of coworkers tries to sabotage your work and tarnish your reputation; a patient hits you when you are trying to administer medication. What do all of these incidents have in common? They all reflect workplace mistreatment, and unfortunately, the prevalence of actions like these might be higher than you think.

Over the last two or so decades, there has been growing research interest in interpersonal mistreatment in the workplace. Although media accounts tend to highlight the more sensational acts of violence (e.g., see LeBlanc & Kelloway, 2002; Schat & Kelloway, 2005), mistreatment reflects a much broader range of behaviours than physical acts of aggression. Indeed, a growing research literature has sought to understand the nature, prevalence, causes/predictors, and consequences of workplace mistreatment. Such an understanding is necessary in order to target, and hopefully reduce, such negative experiences in the work environment.

The purpose of this paper is to provide a brief snapshot of work in this area. Thus, the current review is not meant to be comprehensive but rather highlights some key findings in the domain of workplace mistreatment. It is our hope that this knowledge will stimulate organizational interest in building healthier work environments and that our review will highlight some tools to consider in such efforts.

Workplace Mistreatment Defined

What probably comes to mind when thinking about mistreatment at work is the concept of workplace aggression. Aggression, as defined in the research literature, reflects "behaviour by an individual or individuals within or outside an organization that is intended to physically or psychologically harm a worker or workers and occurs in a work-related context" (Schat & Kelloway, 2005, p. 191). Aggression is typically conceptualized as comprising two types of behaviours: (a) physical acts of violence, which would include such behaviours as kicking or punching an employee or injuring them with a weapon, and (b) non-physical acts of psychological or verbal aggression, which would include such actions as yelling or swearing at an employee or calling an employee incompetent (Schat & Kelloway, 2005).

Whereas aggression is thought to be intended to cause physical or psychological harm, the intentions behind uncivil actions are much less clear. Indeed, incivility is defined as "low intensity deviant behaviour with *ambiguous intent* to harm the target, in violation of workplace norms for mutual respect" (Andersson & Pearson, 1999, p. 457). Individuals may be uncivil in an attempt to disrespect a colleague, for example, or their behaviour may be the result of ignorance or oversight (Andersson & Pearson, 1999). Uncivil behaviours are generally less intense than aggressive behaviours and would include such actions as dismissing your opinions, doubting your judgment on something over which you have responsibility, condescending comments, ignoring you, interrupting you while you are on the phone, not consulting with you on decisions you would normally provide input on, being slow in responding to emails/messages without good reason, and so on (Cortina, Magley, Williams, & Langhout, 2001; Martin & Hine, 2005). But don't let the lower intensity of the behaviours fool you; being the recipient of uncivil treatment can have significant negative consequences (for a review see Porath & Pearson, 2013) and may be the starting point for interactions that escalate into higher intensity aggressive exchanges. Indeed, in many cases, aggression does not spontaneously occur but rather may result from a series of tit-for-tat exchanges that begin with incivility (Andersson & Pearson. 1999).

Researchers have examined employee exposure to aggression and incivility from multiple sources at work (e.g., coworkers, supervisors, customers; Chang & Lyons, 2012; Hershcovis & Barling, 2010; Wilson & Holmvall, 2013). Research has also examined the nature and consequences of specific patterns of interactions over time including distinguishing the goals of the behaviour (e.g., social undermining reflects attempts to damage an employee's reputation, relationships, and work success; Duffy, Ganster, & Pagon, 2002), the specific perpetrators, and the time-frame involved. For example, researchers have examined such phenomenon as abusive supervision, workplace bullying, social undermining, and interpersonal conflict (for a review see Hershcovis, 2011). For the purposes of this paper, we focus primarily on the former two patterns of mistreatment.

Abusive Supervision "…refers to subordinates' perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact" (Tepper, 2000, p. 178). Thus, research in this area focuses specifically on abuse from those in formal positions of power (in this case supervisors) and excludes examinations of physical violence. Behaviours considered abusive would include: ridiculing employees, giving them the silent treatment, telling them they are incompetent, putting them down in front of others, invading their privacy, and blaming employees to save themselves (the boss) embarrassment (Tepper, 2000). Most of these behaviours would reflect incivility and psychological/verbal aggression, and are not isolated occurrences.

A related area of research examines workplace bullying, which contains a number of defining features. Bullying occurs when a person is exposed repeatedly to negative behaviours (e.g., abuse, exclusion, teasing and sarcasm) that persist over a period of time. There is a power-imbalance between the parties such that the targets feel unable to defend themselves (Einarsen, 2000; Hershcovis, 2011). Power is not necessarily gained by one's formal role, although it could be. That is, power may, for example, be derived from one's position, social influence, interdependence, or the target's characteristics or personality (e.g., gender, weakened self-esteem; Coleman, Kugler, Mitchinson, & Foster, 2013; Einarsen, 2000; Einarsen, Hoel, Zapf, & Cooper, 2011; Raven, Schwarzwald, & Koslowsky, 1998). Perpetrators of bullying then can be anyone in the work environment so long as a power-imbalance exists and the behaviours are persistent. Indeed, as noted by Einarsen (2000), if the two parties are similar in power and the negative exchange is a one-time occurrence, then this would not constitute bullying. The behaviours indicative of bullying vary depending on the specific situation but would include such actions as: withholding information which impacts an employee's performance, having opinions ignored, repeated reminders of errors and mistakes, spreading of gossip and rumours about the employee, excessive teasing and sarcasm, shouting at the employee, threats of violence, and actual physical abuse (Einarsen, Hoel, & Notelaers, 2009).

Prevalence Estimates

In a sample of US workers, over a 12 month period, 6% reported incidents of violence and 41.4% reported incidents of psychological aggression (Schat, Frone, & Kelloway, 2006). In a sample of Canadian public-sector employees, 69% had experienced verbal aggression (Pizzino, 2002, as cited in Schat et al., 2006). Research has found that most violence is enacted by those outside the organization, either with no legitimate business with the organization (e.g., in the course of a robbery) or with legitimate business with the organization (e.g., clients/customers; see Barling, Dupre, & Kelloway, 2009; Calnan, Kelloway, & Dupre, 2012; Schat et al., 2006). In terms of incivility, prevalence rates are generally higher. For example, in one study, 71% of public sector employees reported experiencing incivility in a 5-year time frame (Cortina et al., 2001). Perhaps even more staggering, some leading researchers in this area note that in the course of their research they have questioned thousands of employees over more than 10 years, and 98% reported experiencing incivility (Porath & Pearson, 2013).

Based on a summary of research on workplace bullying (using samples from 24 different countries and one multinational sample), it is also estimated that approximately 14.6% of employees are exposed to bullying (Nielsen, Matthiesen, & Einarsen, 2010) and 13.5% of the US workforce reported encountering aggression from a supervisor or boss, which provides a rough estimate of the prevalence of abusive supervision (Schat et al., 2006).

Potential Consequences of Mistreatment

Perhaps not surprisingly, research suggests that exposure to mistreatment at work is associated with a wide array of detrimental employee and organizational outcomes. Indeed, mistreatment has the potential to impact the well-being and productive functioning of employees both inside and outside of the workplace, as well as more broad organizational functioning (e.g., Mackey, Frieder, Brees, & Martinko, 2015; Zhang & Liao, 2015). Research suggests a somewhat complex link between the source of the mistreatment (e.g., whether aggression comes from supervisors, cowokers, or members of the public) and employee outcomes. For example, in their meta-analysis, Hershcovis and Barling (2010) found that being the target of aggression from one's supervisor was more strongly associated with reduced job satisfaction as compared with receiving aggressive treatment from coworkers or those outside the organization (e.g., customers). However, when it came to outcomes like psychological distress and emotional exhaustion, aggression from all sources (i.e., supervisors, coworkers, outsiders) predicted these outcomes equally strongly. Nevertheless, a vast research literature has amassed linking mistreatment to a wide range of outcomes. Such outcomes can be grouped into three categories:

psychological well-being, physical well-being, and workplace attitudes and behaviours. We review research within each of these categories below.

Psychological Well-being

A significant volume of research, including multiple summaries of the research literature (i.e., meta-analyses), has demonstrated links between exposure to a wide variety of forms of workplace mistreatment including injustice, incivility, aggression, bullying, and abusive supervision, and various forms of psychological harm (e.g., Hershcovis & Barling, 2010; Mackey et al., 2015; Nielsen & Einarsen, 2012). To illustrate the potential negative impact of workplace mistreatment, some studies have also obtained qualitative accounts from employees who have been exposed to such incidents. For example, in a study on injustice in the workplace, Harlos and Pinder (2000) highlight one employee's experience:

> "There are good days, mostly when he [the boss] is not in…I think things are picking up, maybe I'm starting to fit in, maybe I was imagining all the bad stuff and don't have to look for a new job…But then the next day is terribly bad and I just scream in my car on the way home." (p. 255)

Another example is highlighted in work by Strandmark and Hallberg (2007), who examined employee experiences of workplace bullying:

> "I tried to do my work but was completely isolated. When they saw that I was unable to cope with the situation and had to go home to get away from everyone, they increased the pressure on me. They made a rule among themselves forbidding anyone to talk to me or greet me." (p. 9)

As is demonstrated in these first-hand experiences, one of the most commonly cited outcomes in research that investigates workplace bullying (e.g., Hauge, Skogstad, & Einarsen, 2010; Nielsen & Einarsen, 2012; Nielsen, Hetland, Matthiesen, & Einarsen, 2012), workplace incivility (Lim & Lee, 2011; Miner, Settles, Pratt-Hyatt, & Brady, 2012), workplace aggression (e.g., Hershcovis & Barling, 2010; Schat & Kelloway, 2003) and abusive supervision (e.g., Mackey et al., 2015; Zhang & Liao, 2015) is psychological distress. To assess psychological distress, researchers often use instruments that measure symptoms of anxiety and depression in employees (e.g., Mikkelsen, & Einarsen, 2002; Nielsen et al., 2012). The largely ubiquitous finding from this collection of studies is that greater exposure to workplace mistreatment is adversely linked to employees' psychological well-being, which is evidenced by heightened feelings of anxiety and depression. An interesting study highlighting the potential enduring impact of being exposed to mistreatment is one conducted by Nielsen and colleagues (2012). These researchers found that exposure to workplace bullying predicted symptoms of anxiety and depression in employees up to two years after the experience. Similarly, a study by Kivimäki and colleagues (2003) found that compared to non-bullied employees, victims who were repeatedly exposed to bullying were significantly more likely to report future depression.

Additional research also supports the sustained negative effects of workplace mistreatment as it identifies the relationships between delayed stress and emotional reactions and exposure to mistreatment. For example, in their review of the workplace bullying literature, Nielsen and Einarsen (2012) found that bullying was associated with symptoms of post-traumatic stress. Post-traumatic stress reflects a pattern of late stress reactions that manifest through re-living traumatic experiences via memories or dreams over a long period of time (Leymann & Gustafsson, 1996). These findings further highlight workplace bullying as a cause for concern as a result of the sustained negative influence it can have on victims' psychological well-being. Burnout and, more specifically, emotional exhaustion have also been consistently linked with exposure to workplace bullying (Einarsen, Matthiesen, & Skogstad, 1998; Nielsen & Einarsen, 2012), workplace incivility (Kern & Grandey, 2009; Sliter, Jex, Wolford, & McInnerney, 2010), workplace aggression (Hershcovis & Barling, 2010), and abusive supervision (Mackey et al., 2015; Zhang & Liao, 2015).

Some additional work has shown that negative links to psychological health are seen even for those who witness or hear about the mistreatment of others (e.g., Dupre, Dawe, & Barling, 2014). Moreover, the impact of workplace mistreatment may transfer or cross over to family members. For example, a study by Haines and colleagues (2006) found that the partners of those who report greater workplace aggression experience greater psychological distress.

Physical Well-being

Multiple meta-analyses have demonstrated that employees who are subjected to various forms of workplace mistreatment (e.g., workplace bullying, workplace aggression, abusive supervision) may also exhibit diminished physical well-being (Hershcovis & Barling, 2010; Mikkelsen & Einarsen, 2002; Nielsen & Einarsen, 2012; Schat & Kelloway, 2003; Zhang & Liao, 2015). For example, research has found that employees who are exposed to mistreatment at work are more likely to report experiencing physical symptoms such as back- and head-aches, stomach pains, musculoskeletal disorders, and loss of sleep, to name a few (e.g., Hogh, Mikkelsen, & Hansen, 2011; Schat & Kelloway, 2003; Zhang & Liao, 2015). Impaired physical functioning as a result of workplace bullying (Mikkelsen & Einarsen, 2002; Nielsen & Einarsen, 2012), workplace aggression (Hershcovis & Barling, 2010), and abusive supervision (Zhang & Liao, 2015) may be due to the prolonged stress that employees experience when they are victimized. Specifically, when employees feel repeatedly victimized as a result of sustained mistreatment, the chronic stress that is experienced may manifest via physical ailments (Mikkelsen & Einarsen, 2002). Health impairments such as these are not only damaging to the individual, but can also extend to the organization via outcomes such as impaired job performance, absenteeism, or turnover (Hauge et al., 2010; Nielsen & Einarsen, 2012). In a related vein, other studies have demonstrated how feeling unfairly treated at work influences heart functioning. Specifically, one longitudinal study found that employees who experienced unfair treatment at work exhibited greater incidence of coronary events (De Vogli, Ferrie, Chandola, Kivimäki, & Marmot, 2007). Taken together, these studies indicate that being exposed to mistreatment in the workplace can take a significant toll on employees' physical health.

Workplace Attitudes and Behaviours

Research that investigates the relationships between workplace mistreatment and employees' work-related attitudes and behaviours tells a similar story to that of psychological and physical well-being. Commonly studied employee attitudes in the literature include job satisfaction, commitment to one's organization, and intention to leave one's organization. Organizational commitment, often studied in terms of affective commitment, is evidenced when employees identify with and feel attached to members of their organization and the organization as a whole (Allen & Meyer, 1996). Employees who are exposed to mistreatment in the workplace, whether it be bullying, incivility, aggression, or abuse from supervisors, are more likely to be dissatisfied with their jobs, feel lower levels of affective commitment to their organization, and express greater intentions to leave their organization (Cortina et al., 2001; Hershcovis & Barling, 2010; Lim & Teo, 2009; Mackey et al., 2015; Nielsen & Einarsen, 2012; Schat & Kelloway, 2003; Zhang & Liao, 2015). Being exposed to workplace mistreatment may also trigger behaviours such as absenteeism, and actual turnover (Hauge et al., 2010; Zhang & Liao, 2015). In one study, healthcare workers' exposure to workplace bullying predicted actual turnover one year later (Hogh, Hoel, & Carneiro, 2011). More specifically, the researchers found that the risk of turnover was three times as likely for those employees who were frequently bullied, and 1.6 times as likely for employees who were occasionally bullied, compared to their non-bullied counterparts.

In addition to turnover, when employees are exposed to mistreatment, they may be more likely to engage in various deviant behaviours, also known as counterproductive work behaviours (Penney & Spector, 2005; Mackey et al., 2015; Nielsen & Einarsen, 2010; Zhang & Liao, 2015). These behaviours may be directed towards coworkers, a supervisor, or the organization as a whole. Indeed, summaries of the literature on workplace bullying (Nielsen & Einarsen, 2010), workplace incivility (Schilpzand, De Pater, & Erez, 2016) workplace aggression (Hershcovis & Barling, 2010) and abusive supervision (Zhang & Liao, 2015) reveal that when employees are exposed to workplace mistreatment, they are more likely to engage in deviant behaviours directed at the individuals within the organization and at the organization as a whole. Behaviours such as leaving work intentionally for other employees to do or blaming a co-worker for mistakes reflect individual/interpersonal deviance, and behaviours such as taking undeserved breaks or vandalizing office supplies reflect organizational deviance (Robinson & Bennett, 1995; Williams & Anderson, 1991). An interesting study by Eschleman, Bowling, Michel, and Burns (2014) found that greater deviance was likely in response to high levels of abusive supervision when employees perceived that their supervisor's abuse was intentional. Specifically, employees who perceived that their supervisor engaged in abusive behaviour either to harm them or to try to motivate them, were more likely to engage in deviant behaviour.

Employees who are exposed to workplace mistreatment might also exhibit lower levels of job performance (e.g., Herschovis & Barling, 2010; Nielsen & Einarsen, 2010; Porath & Erez, 2007; Zhang & Liao, 2015). In-role job performance is one aspect of performance that is studied, which refers to performance on specific tasks that are required of an employee to perform his/her job (Rotundo & Sackett, 2002). One interesting finding from Zhang and Liao's (2015) analysis of the literature regarding the relationship between mistreatment and job performance is that when mistreatment takes the form of abusive supervision, not only might it lead to impaired employee performance at the individual level, but it might also lead to impaired performance at the group level. Another study examining aggression from members external to the organization found that when employees experienced aggression from customers, they were more likely to exhibit impaired memory and task performance (Rafaeli et al., 2012).

Extra-role performance is another aspect of job performance, usually referred to as organizational citizenship behaviour, which involves discretionary behaviours that are not required of an employee but benefit coworkers and the organization (e.g., helping another employee with his/her work; Rotundo & Sackett, 2002). Although less studied than in-role performance, summaries of the literature on abusive supervision have identified a negative relationship between mistreatment and extra-role performance (Mackey et al., 2015; Zhang & Liao, 2015). One specific empirical study, for example, found that employees who were subjected to abuse from their supervisors exhibited fewer organizational citizenship behaviours than their non-abused counterparts (Zellars, Tepper, & Duffy, 2002). Additionally, experimental research conducted by Porath and Erez (2007) examined rudeness at work (i.e., incivility) and helpfulness. They found that individuals who were exposed to rudeness were less likely to engage in helping behaviours compared to individuals who were not exposed to rudeness.

Predictors of Workplace Mistreatment

In light of the documented associations between exposure to mistreatment and a host of detrimental outcomes for both employees and their organizations, understanding the predictors of such behaviour takes on especially important meaning.

Research by LeBlanc and Kelloway (2002) highlights some job-related risk factors that are associated with greater likelihood of encountering violence from members of the public (albeit some of these factors may also be associated with higher risk for intra-organizational mistreatment). For example, greater reports of violence were found for employees who: are responsible for the physical or emotional care of others, work alone, go to clients' homes, make decisions that impact others' lives, discipline others, deny services or requests, handle weapons, deal with valuables, and have contact with those using alcohol or illegal drugs or taking medication.

With respect to personality predictors of engaging in mistreatment (i.e., dispositional factors relating to mistreating others), there is evidence for such traits as trait anger and negative affectivity (Hershcovis et al., 2007), and narcissism (Burton & Hoobler, 2011). As reviewed by Hershcovis and colleagues, trait anger refers to an individual's proclivity to respond to situations with anger and hostility. The authors note that those with high trait anger are more likely to be frustrated by situations and respond in turn with anger. Negative affectivity refers to one's tendency to experience negative emotions, and those with high negative affectivity may be more sensitive and reactive to negative situations (see Hershcovis et al., 2007). As reviewed by Burton and Hoobler, narcissism refers to an individual's tendency to hold a grandiose or heightened view of themselves. Because narcissists have an unstable sense of self, they tend to be more responsive to threats and may respond in turn with aggression or incivility (Rasmussen, 2016). Generally speaking, personality often influences how employees respond to potential environmental triggers (e.g., perceived unfairness). That is, in terms of understanding acts of mistreatment, it seems that an interplay between characteristics of the employee and the surrounding situation offer the most prediction (e.g., Burton & Hoobler, 2011).

With respect to situational factors, as one might expect, various sources of stress in one's work environment are associated with the mistreatment of others. For example, feeling that aspects of one's work environment do not uphold standards of fairness may be associated with greater enactment of mistreatment. For example, a meta-analysis by Herschcovis et al. (2007) suggests that perceiving that organizational decision-making procedures are unfair (e.g., are subject to bias, do not allow voice) and receiving disrespectful and inconsiderate treatment from supervisors are particularly strongly associated with engaging in aggression at work, especially toward supervisors. Relatedly, being the recipient of poor leadership, including abusive supervision (e.g., Hershcovis et al., 2007) is associated with enacted aggression, as are various situational constraints encountered on the job (e.g., lacking job resources; Hershcovis et al., 2007). Stressors related to one's work role with respect to role overload (i.e., high workload; Francis, Holmvall, & O'Brien, 2015), role conflict, and role ambiguity (e.g., Taylor & Kluemper, 2012) have also been associated with greater enacted mistreatment.

Interestingly, research has also demonstrated what are termed "trickle-down effects" such that mistreatment by those higher up in the organization predicts mistreatment down the line. For example, supervisors' views of the dignity and respect received from their managers predicts employees' views of the dignity and respect received from supervisors (e.g., Wo et al., 2015). Such findings underscore the need for interventions starting at the highest levels of the organization.

Possible Interventions to Target Mistreatment

In our review of the research literature, we could find very few studies evaluating the effectiveness of specific organizational interventions to reduce mistreatment at work. Below, we draw on what research exists, but also propose some possible avenues to consider based on additional past research and theory.

A recent paper by Calnan, Kelloway, and Dupre (2012; see also Schat & Kelloway, 2006) summarizes some possible changes that could be made in work environments related (mostly) to dealing with violence encountered from members of the public (for a review of violence intervention effectiveness studies see Wassell, 2009). One such intervention refers to target hardening, which reflects changing the physical work environment so that employees are less likely to be harmed. For example, interventions might include installing surveillance cameras, protective glass, curved mirrors, and having security personnel present. Efforts might also involve improving visibility with respect to lighting and the removal of sight barriers. These researchers also highlight the potential utility of engaging in training initiatives to help employees identify imminent risk of violence. That is, providing training in understanding assault cycles (i.e., escalation patterns in interactions from aggression to violence) may help employees to stop negative interactions from spiraling to more extreme forms. The researchers also highlight tertiary interventions (to help employees cope after specific incidents of violence), for example, through access to Employee Assistance Programs (EAPs) and Cognitive Behavioural Therapy.

Broadly speaking, engaging in organization-wide training efforts regarding forms and consequences of mistreatment might also be useful for highlighting the importance of a respectful work environment. Such efforts may work particularly well with combating incivility, which is argued to be more ambiguous in nature (Andersson & Pearson, 1999), and thus may be less at the forefront of an individual's mind to monitor. Indeed, as highlighted in a paper from Johnson and Indvik, (2001, p. 458) a "U.S. News and World Report survey found that 89 percent of the people interviewed said incivility and rudeness is a serious problem…But 99 percent of the respondents said their own behavior was civil". Thus, it is certainly possible that we may be engaging in actions that are perceived as rude and uncivil without being fully aware that our actions may be detrimental to others.

As reviewed earlier, to the extent that encountering stressors on the job may be associated with greater enactment of mistreatment (e.g., Hershcovis et al., 2007), targeting and reducing stressors in the work environment may prove helpful. For example, some research has found that greater amounts of autonomy in one's job is associated with less exposure to customer aggression (Ben-Zur & Yagil, 2005). Having managers provide greater clarity surrounding job roles, and addressing conflict within roles, may also be useful (e.g., Taylor & Kluemper, 2012) as might reducing unusually high workloads (Francis et al., 2015).

Similarly, knowing that perceptions of injustice may also precipitate mistreatment (e.g., Hershcovis et al., 2007), selling organizations on the importance of fairness in the workplace may also prove beneficial. Research supports the idea that training managers in improving decision-making and effective communication reaps benefits for employees' perceptions of their workplaces as more fair (e.g., Skarlicki & Latham, 1997). Such training efforts should arguably be extended to employees' interactions with coworkers, as research suggests that coworkers can also be a source of unfairness at work (e.g., Suurd & Holmvall, 2016).

More broadly speaking, providing training in more effective leadership approaches, for example, transformational leadership (Judge & Piccolo, 2004) and ethical leadership (Brown, Trevino, & Harrison, 2005), may prove beneficial. Transformational leadership involves such components as: showing consideration and concern for followers' needs, acting as a mentor or coach when needed, asking for input from employees, being inspiring and pushing employees to be innovative, acting in ways that promote identification with the leader, and providing a vision for the future and a sense of meaning for tasks (e.g., Bass, 1985; Judge & Piccolo, 1994). A review of the literature by Judge and Piccolo (1994) supports the postive links between transformational leadership and a host of employee and organizational outcomes (e.g., satisfaction with the leader, follower motivation). Ethical leadership is defined as "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making." (Brown et al., 2005; p. 120). Ethical leadership has also been associated with a number of beneficial outcomes including employees' willingness to report problems or discuss issues with their supervisors (Brown et al., 2005).

Interestingly, very little research has examined factors that may promote more beneficial forms of leadership, such as transformational leadership, and minimize less ideal forms such as abusive supervision. A recent study by Byrne and colleagues (2014) examined how depleted leader resources might relate to leadership behaviour. They found that factors such as leader anxiety, depression, and alcohol use were associated with lower levels of transformational leadership and higher levels of abusive supervision (and, in some cases, some exacerbating effects were found). A greater understanding of specific stressors and strains faced by leaders may hold promise in understanding the conditions under which more beneficial forms of leadership may be more likely and more detrimental forms may be less likely. More research is desperately needed in this area.

A relatively new area of research has also emerged examining Violence Prevention Climate (VPC). Building off of the research literature on safety climate, VPC "represents employee…perceptions of management concerns, policies, and practices about keeping employees safe from physical violence and verbal abuse" (Spector, Yang, & Zhou, 2015, p. 326; see also Kessler, Spector, Chen, & Parr, 2008; Spector, Coulter, Stockwell, & Matz, 2007). Violence prevention climate is typically assessed with reference to three facets: Having appropriate *policies and procedures* (e.g., detailed violence prevention policies); having appropriate *practices and responses (e.g.,* such that reports of workplace violence are taken seriously by management); and having *low pressure for unsafe practices* (e.g., ensuring that violence prevention policies do not need to be ignored in order for employees to complete work; Kessler et al., 2008). A study by Spector and colleagues (2015) found that higher scores for Time 1 assessments of VPC were associated with less likelihood of violence and abuse at Time 2, suggesting that building such a climate may be efficacious in reducing mistreatment.

Research on workplace conflict more broadly (Gilin Oore et al., 2015) suggests a number of factors and avenues that may promote more effective handling of conflicts in the work environment. As Gilin Oore and colleagues review, the research literature suggests that better outcomes of workplace conflict are found, for example, for those who are able to engage in perspective taking (i.e., are able to cognitively put themselves in others' shoes; Davis, 1983). Indeed, evidence suggests that those with dispositionally high perspective taking are less likely to employ aggressive or forcing means to address conflict; rather, they are more collaborative and problem-solving in their approach. Research also suggests that perspective taking is trainable (Gilin Oore et al., 2015). More broadly speaking, having the ability to be flexible and "zoom out" (p. 302) from conflict seems to promote conflict resolution. These researchers also highlight that having a balance in one's concern for one's own and others' goals and priorities promotes conflict resolution as does the ability to effectively regulate one's emotions. At a broader organizational level, these researchers suggest that having access to Alternative Dispute Resolution (ADR), which could involve conflict coaching, facilitated conversations, and mediation, might also show promise in promoting more efficacious handling of conflict.

One of the very few tested mistreatment interventions reflects the CREW (Civility, Respect, Engagement in the Workplace) Intervention. CREW was originally developed by the USA Veterans Hospital Administration. A group of researchers in Canada (Leiter, Spence-Laschinger, Day, & Gilin Oore, 2011) implemented a program based on this intervention in a sample of Health Care Workers in Canada. The intervention was designed not only to target and reduce uncivil interactions in units but also to increase civil interactions. Forty-one units expressed interest in the intervention from which eight were chosen to receive the 6-month intervention. The CREW activities varied across units (i.e., they were tailored to the specific issues identified) but all groups shared four common qualities: they all received information on civility and incivility in their unit at baseline; the overall goals were the same (e.g., setting goals and priorities surrounding respectful treatment); all received the same manuals and information; and all had similar formats for meetings. Results found that compared to control groups, units who received the intervention showed greater improvement after the 6-month intervention on a number of outcomes including: civility, respect, job satisfaction, as well as reduced supervisor incivility and cynicism. Thus, interventions such as these may be efficacious in improving the civility of workplace interactions.

Conclusions

As we hope is evident from this review, workplace mistreatment is perhaps more prevalent than one might think (especially with respect to verbal and psychological aggression and incivility), and is associated with a wide range of significant deleterious outcomes for employees and their organizations. Thus, issues of mistreatment should be taken seriously to ensure the productive and healthy functioning of employees and their organizations. Research points to various avenues for addressing mistreatment, albeit, much more research testing specific interventions is desperately needed.

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THE IMPACT OF CULTURE ON INDIVIDUAL ENTREPRENEURIAL ORIENTATION AND THE MODERATING ROLE OF ENTREPRENEURIAL COMPETENCIES ON GRADUATE ENTREPRENEURIAL INTENTIONS: A CROSS SECTIONAL SURVEY OF UGANDA

Abstract

This study seeks to establish whether the low graduate start- up in this country is attributed to variability in cultural perception of risk and proactiveness, (entrepreneurial orientation), and the extent to which entrepreneurial competencies (knowledge) moderate the relationship between entrepreneurial orientation on one hand and entrepreneurial intentions on the other. Phase one of the study was qualitative and is the basis upon which the study instrument was refined. Phase two of the study utilizes a cross sectional survey research design to collect data from a systematic sample of final year business students using this refined instrument. Data was factor analyzed followed by linear regression. Findings indicate that proactiveness predicts intention for all five cultural orientations namely masculinity, uncertainty avoidance, power distance, collectivism and individualism while risk only predicts intention for people with a high power distance cultural orientation. On the other hand, knowledge moderates the relationship between proactiveness and intention for all the cultural orientations, while it does not moderate the relationship between risk and intention for all cultural orientations. Other explanatory variables like optimism, filial piety and cultural tightness throw more light on the entrepreneurial orientation of this sample. Implications of these findings are discussed.

Introduction

The importance of entrepreneurship in the economies of developing and developed countries is well documented in the literature, and many of these states urge their citizens to pursue entrepreneurship (Chowdhurry, 2007). In spite of this, there is limited knowledge as to why there are varying rates of entrepreneurship in different countries, and why certain ideas are more successful in some countries than in others (Busenitz, Gomez & Spencer 2000, cited in Kollmann, Christofor and Kuckertz 2007). While many studies offer various explanations for these discrepancies, a growing body of literature posits that culture is a major determinant of entrepreneurship in any country (Kreiser et al. 2010) and hence a key explanatory variable for the above discrepancies. However, what has not been properly explained is the impact of culture on entrepreneurial behavior (Hayton, George & Zahra

2002 in Kreiser et al. 2010 p. 960). Following Kraus et al. (2005), as well as Kollmann et al. (2007), this study extends the cultural line of inquiry to an individual level in order to establish the extent to which cultural variables influence two of the dimensions of entrepreneurial orientation namely risk taking and proactiveness among graduate students in Uganda, and the extent to which this relationship accounts for the low start- up among them.

Further, following Sull (2004) who asserts that the critical task of entrepreneurship lies in managing uncertainty in something new, this study seeks to examine the extent to which uncertainty management tools (entrepreneurial competencies) namely knowledge, moderate the relationship between entrepreneurial orientation on one hand and entrepreneurial intentions on the other in order to throw more light on graduate start- up. This focus is in light of the high levels of unemployment in this region and the fact that entrepreneurship involves taking risks of some kind (McClelland 1960 cited in Kreiser et al. 2007 p.962).

In examining entrepreneurship and economic development, it should be noted that policies aimed at only enhancing quantity of entrepreneurship are questionable (Shane 2009 cited in Nystrom 2009), as an increase in the quality of new start-ups is vital (Nystrom 2009). In this regard, the aim of many entrepreneurship education programs is to increase both the quantity and quality of graduate start-ups, as well as improve societal attitudes towards entrepreneurship in the long run (Galloway & Brown 2002). However, not all graduates embrace entrepreneurship, hence policy makers and scholars should concentrate on the question: Why do some people pursue possible opportunities for profit, while others do not (McMullen & Shepherd 2006 cited in Begley & Boyd 1987)? Why do some people (graduates), develop the intention to start a business (and possibly eventually start a business) yet others do not (Tucker & Selcuk, 2009)?

In Uganda, the majority of entrepreneurs are not graduates, and do not even have a high school certificate (Walter et al. 2005). The Ugandan press is awash with stories of people who did not go far in the academic arena, but who have become millionaires through entrepreneurship (e.g. NewVison Pakasa column 02/04/12), while many graduates walk the streets in search of jobs. Of the 390,000 students who finish tertiary education each year in this country, only 8000 have the prospect of getting a job in the formal sector, thus the unemployment rate stands at 80% and underemployment stands at 17% (NCDC 2011). Both unemployment and underemployment would be drastically reduced if some of the graduate students embraced entrepreneurship by setting up their own businesses. However, *anecdotal evidence suggests that Ugandans regard white collar employment in government service or big business as the most prestigious form of employment. Self- employment has a comparatively low status, and is undertaken if only one has to* (Walter et al. 2005).

Given this scenario, it is not surprising that entrepreneurial activities are dominated by non-graduates which is a serious short coming in light of the need to improve the quality of entrepreneurship. Since entrepreneurial intentions are a precursor to performing entrepreneurial behaviors (Kolvereid 1986; Bird 1988), action in the absence of intention is unlikely (Lee & Wong, 2004).Thus low levels of intent to start up amongst graduates is of great concern (Wu & Wu, 2008) and remains a key research question (Nabi & Holden, 2008).

Low start up among graduates is attributed to the presence of perceived barriers in their environments. Some of these barriers are lack of start-up funds (Nabi, Holden & Walmsley, 2006), lack of skills (Galloway & Brown, 2002) negative societal attitudes towards entrepreneurship (Morrison 2000) and fear of social embarrassment or failure (Robertson et al. 2003) among others. McMullen and Shepherd (2006), propose a conceptualization of entrepreneurship in terms of uncertainty and argue that since the entrepreneurial process takes place overtime and the future is unknowable, then entrepreneurial action is inherently uncertain (Mises 1949 cited in McMullen & Shepherd 2006). Thus the rewards of entrepreneurship are unattainable without inherent risks (Sull 2004). However, uncertainty is subjective i.e. different individuals may experience different doubts in similar situations (Lipshitz & Strauss 1997 cited by McMullen & Shepherd 2006).*This subjectivity in the way uncertainty is viewed could be due to differences in risk perception or differences in attitude towards risk (Palich & Bagby 1995).*

Empirical evidence demonstrates that entrepreneurs' risk profiles or risk propensity are not different from those of wage earners (Wu & Knott 2006). However, even if they do not have a high risk propensity, individuals who perceive less risk than others may unknowingly take risky action (Simon, Houghton & Aquino 2008), i.e. Entrepreneurs start ventures because they do not perceive the risks involved, and not because they knowingly accept high levels of risks. Since risk perception influences the decision to start a venture, it is important to establish what leads to variations in risk perception (Simon et al 2008 p.114). Culture could probably provide an answer to the question of variability in risk perception and many authors high light the importance of culture in entrepreneurship (Frese and Wang 2005; Hayton, George & Zahra 2002): The influence of culture in entrepreneurship is unquestionable, since individuals' personalities and behaviors, environment as well as social norms are all influenced by the national culture. In other words culture gives rise to entrepreneurship potential (Lee & Peterson 2000 p.403).

Past research has shown both cross-cultural differences in risk choice and in risk perception (Hess & Weber 1998). This suggests that cross cultural differences in risk perception may be at the center of differences in the way members of different cultures choose among risky options. Put differently, actions and understandings about risk are informed by socially and culturally structured conceptions and evaluations of what the world should be and should not be (Boholm 1998 p.135). Hofstede (1980) as cited by Thomas and Mueller (2000 p.60) states, *"strategies for dealing with uncertainty are rooted in culture and are reinforced by basic institutions such as family, school and state."* In line with these assertions, cultural values, beliefs and norms are key variables in influencing entrepreneurship since they are the immediate sources of legitimation (moral approval) that endorses an activity in a society (Etzioni, 1987p.9). Another line of argument is that of risk avoidance. Some scholars suggest that since the social embeddedness of African culture emphasizes social order, Africans maintain order by avoiding unnecessary risks (Onuejeougwu, 1995) and restrain actions that might disrupt the traditional order (Munene *et al.*, 2000); Lastly, research findings have confirmed the cultural dependence of proactive behaviors (Kreiser et al 2007). For example, proactive cultures emphasize entrepreneurial initiative by encouraging their members to pursue and participate in new markets (Lee & Peterson 2000 p.406).

Some researchers (e.g. McGrath, et al.1992) assert that entrepreneurial orientation (proactivity, risk taking and innovativeness) is associated more with individualistic cultures than collective ones. However, Rao (2004) cited by Ahmad (2007) questions such a conclusion: *If entrepreneurs in collectivist societies are less prosperous than those in individualistic cultures, how can the success of collectivists in Asia e.g. Singapore be explained?* In answer, Pearson and Chatterjee (2000) cited in Ahmed (2007), suggest that both cultural orientations can be successful, what matters are the competencies possessed by a person i.e. his/her "underlying characteristics such as generic knowledge and specific knowledge" (Bird 1995 p.51). Hence, adopting the right mix of competencies in each context could be the determinant of business success (and not necessarily the cultural orientation). McMullen and Shepherd (2006) posit that the difference between entrepreneurs and non-entrepreneurs is the possession of applicable knowledge which reduces perceived uncertainty to a point that makes entrepreneurs believe that they have identified a viable opportunity.

This study focuses on graduate startup by transferring culture from a societal level to an individual level and by transferring the entrepreneurial orientation construct from a firm level (Lumpkin & Dess 1996) to an individual level of analysis (Krauss et al. 2005). Since a person's perceptions rather than objective reality account for the decision to start a venture (Krueger & Brazeal 1994) and since actions are often governed by perceptions rather than facts (Timmons & Spinelli 2007 p.85), the first objective of this study is to examine the extent to which graduates' cultural orientations predict their perception of risk and proactiveness and eventually entrepreneurial intentions.

Given that entrepreneurial competencies may be context specific (Pearson & Chatterjee 2001 cited in Ahmad 2007), competencies that are highly valued in one culture may differ from those that are valued in another context (Hofstede & Bond, 1988) and acting entrepreneurially in an individualistic culture for example may be different from doing so in a collective culture (Marino et al. 2002 cited by Ahmad 2007). Hence the second objective of this study is to examine the extent to which knowledge moderates the relationship between graduates' cultural orientation and the perception of risk/ proactiveness on one hand and entrepreneurial intentions on the other. To fulfil these objectives, the study constructs and seeks to test a culturally based model that incorporates cultural orientation variables, entrepreneurial orientation, and intention (figure 1). Further, since studies on the perception of risk need to address the question of how risks are embedded in the social fabric, the study also examines the role of other possible explanatory variables like filial piety, optimism and cultural tightness/looseness of the society. This study is in response to a call by Bruton, Ahlstrom and Obloj (2008) who urge for research to develop a better understanding of contextual factors that influence entrepreneurial behavior in developing countries.

This study is justified because most of publications on graduate entrepreneurship originate from the US and other Western countries (Kruger et al. 2000) and thus focus on graduate entrepreneurship in the context of mature and stable economies (Matlay, 2006). Hence little is known about entrepreneurship in emerging economies (Bruton et al. 2008 p.1). The transferability of such study findings to contexts where the task and psychic environments may be different remains a key question (Thomas & Muller, 2000). In addition, most studies of entrepreneurship have focused on older entrepreneurs, yet people are likely to start a business in the age range 25 to 44 (Liles, 1974), hence little is known about young adults' views on entrepreneurship (Henderson & Robertson, 2000 p. 279). The rest of this paper is organized as follows:

After this brief introduction, section two presents the literature review which incorporates the theoretical frame work, a motivation of the various hypotheses, and the study model. Section three outlines the proposed methodology, while section four presents and discusses the study findings. Section 5 concludes the paper.

Literature review

A central question in the entrepreneurship literature is what factors drive students' entrepreneurial intentions (Schwarz et al. 2009)? Many studies that have attempted to answer this question have concentrated on personality factors (Wang and Wong, 2004), rather than on contextual factors (Turker and Selcuk, 2008), thus neglecting various external circumstances that might influence student career choice to starting a business. Following Kostova's (1997) conceptualization, three institutional profiles make up a country's environment i.e. a regulatory (government policies and laws), cognitive (shared knowledge) and normative (culture). While all these dimensions influence entrepreneurship (Busenitz et al. 2000), culture is particularly important because cultural values and norms will either compliment or conflict with a community's ability to develop a strong entrepreneurial orientation (Lee & Peterson 2000 p.404). However, extensive research in entrepreneurship, has not arrived at agreed position on entrepreneurial activity within cultures (Shane 1996 in Mitchell, Seawright & Morse, 2000) and across cultures (McDougall & Oviatt 1997 as quoted by Mitchell et al. 2000).

Entrepreneurial orientation

Conceptually, entrepreneurship is regarded as a product of entrepreneurial orientation and it is what counts most in the pre-nascent stage (Kollmann et al 2007). Entrepreneurial orientation refers to the entrepreneurial process i.e. how entrepreneurship is undertaken- the methods, practices and decision making styles used to act entrepreneurially (Lee & Peterson 2000 p. 405). Some researchers have conceptualized an entrepreneurial orientation as consisting of three dimensions namely innovativeness (experimentation), risk taking and proactiveness (Covin & Slevin 1989 cited in Kreiser et al 2010). However, others argue that entrepreneurial orientation is composed of five dimensions i.e. autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness (Dess & Lumpkin 1996). A key area of disagreement in the literature is the risk taking dimension which has yielded different outcomes. Since the degree of risk aversion as well as peculiarities in risk perception determine career choice, (Kihlstrom & Laffont 1979) cited in Freytag & Thurik 2007), it is of paramount importance to examine the impact of contextual factors (cultural orientation) on perception of risk and proactiveness, and how the perceived risk influences graduate entrepreneurship. Another area of conflict within the literature is whether entrepreneurial orientation is a firm or individual level construct. According to Shane 2003, (cited in Kollmann et al. 2007 p.12) discovery of an entrepreneurial opportunity and the decision to pursue it takes place at an individual level. Further, Krauss et al. (2005) argue that while not emphasized explicitly, the widely used Covin & Slevin (1986) entrepreneurial orientation instrument which measures innovativeness, risk taking and proactiveness is actually a measure of self-reports by individuals mostly owners and managing directors (Zahra, Jennings & Kuratko 1999). Hence this study views entrepreneurial orientation as an individual level construct.

Theoretical framework

The theory of planned behavior

The theory of planned behavior (TPB) views entrepreneurial intent as an immediate determinant of planned behavior (Fishbein and Ajzen, 1975).The model holds that attitude, subjective norm and perceived behavioral control predict intention which also in turn predicts behavior. These three cognitive variables are called motivational antecedents by Ajzen (1991). If a person evaluates a suggested behavior as positive (attitude), those important to him/her approve of the behavior (subjective norms), and the person feels he/she can successfully execute the behavior (perceived behavioral control PBC) then a higher intention (motivation) to perform the behavior results. However, the contribution of the three motivational antecedents of the TPB in explaining entrepreneurial intention is not established beforehand (Linan and Chen, 2009) i.e. the specific configuration of relationships between these constructs has to be empirically determined for each specific behavior (Ajzen 1991).

In this study entrepreneurial intent is defined as self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future (Thompson, 2009). Bird (1988), defines intentionality as a state of mind directing a person's attention, experience and action towards a specific goal to achieve something, hence intentions is not a dichotomy but a continuum (Shapero & Sokol 1982 in Kouriloff, 2000). Although there is an extensive body of literature on the relevant variables affecting entrepreneurship (See meta-analysis by Rauch, Wiklund, Lumpikn and Frese 2009 for example), there is still a profound lack of knowledge regarding the more qualitative factors that influence the decision to start up i.e. the entrepreneurial intentions of people in a society/ territory (Linan et al. 2009)**.** Further, little research has yet empirically studied the effects of culture on entrepreneurial intentions in different regions (Linan et al. 2009). Given that having a preference for self-employment increases the probability of actually being self-employed (Grilo &Thurik, 2005) understanding the factors that influence entrepreneurial intentions is a key phase in understanding the venture creation process (Lee, Wong, Foo & Wong, 2011).

Image theory

Image theory describes how important decisions are made by individual unaided decision makers (Beach & Mitchel 1987). The central premise of the theory is the self-image, (driven by self-concept) which is the personal beliefs, values, ethics etc. of the individual decision maker. The self-concept itself is defined as the sum of all a person's feelings about the self (Kullmer et al. 1998). It is a multiplicity of identity (Burke 1980), described as personal characteristics, feelings and images (Burke 1980), as well as rules and social status. In image theory for a person to make a decision to adopt or reject a plan, the decision rule is that the plan must both be compatible with the self-image (not violate his/ her principles) and show promise (feasibility) of attainment. On the other hand, progress toward a goal is halted if the projected image (the anticipated state/ goal) is found to be incompatible with the trajectory image i.e. agenda for the future (Beach & Mitchel 1987). Hence, the self-concept does not just reflect on going behavior, but instead mediates and regulates this behavior (Markus & Nurius 1986 p.299). Some researchers have linked motivation directly to the self-concept. Markus and Nurius (1986) present a theory of possible selves defined as self-conceptions of one's perceived potential (feared or desired) which serve to individualize global motives and thus serve as a cognitive component of motivation. Possible selves are the ideal people that a person would like to become, he /she could become or is afraid of becoming (e.g. the unemployed). The reservoir of possible selves emanates from one's sociocultural and historical background.

Further in image theory, behavior is driven by the relationship of self and other people, and especially the way the individual perceives himself/ herself as separate from or connected with other people. This connectedness is culturally driven, therefore culture determines the self, consequent upon which two construals emerge: The independent (individualistic) and the interdependent (collective) construals. The former is characterized by the will to be independent of others and to discover and express one's unique attributes (Johnson, 1985 in Markus and Kitayama 1991 p.226), and portraying oneself as a person whose behavior is guided by one's own thoughts, actions, feelings rather than referring to other people . The dominant aspect of this theory is that the person is described as autonomous and independent or individualistic. On the other hand, the interdependent construal is characterized by connectedness. Thus one defines himself/ herself in relation to others, hence his / her behavior is contingent upon what the individual feels are the thoughts, views, feelings of others in the relationship.

The cultural theory of Risk

The perception of risk is inherently social (Gustafson, 1998), hence risks need to be put in the context in which they are experienced (Lima and Castro 2005 p.722). Fear involves the perception of risk and the cultural theory of risk (Douglas &Wildavsky 1982 cited by Mamadouh 1999) attempts to account for the relationship between culture, risk and fear. Many studies have provided evidence for the efficacy of cultural theory with the main premise of this theory being that attitude towards risk is a derivative of social norms

(Braman and Kahan 2003), hence society uses a cultural lens to examine all types of phenomena. This means that there is no culturally unmediated phenomena (Lime &Castro 2005). Cultural theory argues that people choose what they fear in relation to the way they live or in relation to their culture, hence the most important predictor for selecting what people fear are not individual cognitive processes, but socially shared world views or cultural biases that shape individual perceptions (Dake 1992).

Definition of culture

Hofstede (1980 p.25) defines culture as "the collective programming of the mind which distinguishes the members of one human group from another" i.e. social systems can exist only because human behavior is not random, but is predictable to some extent. This programming can be inherited (Hofstede, 1980 p.2) or can start early in life resulting in patterns of behavior that continue over time, thus setting the cultural context (Hofstede 1980 as quoted by Freytag & Thurik, 2006 p. 122). Culture manifests its self in values and in more superficial ways through symbols, heroes and rituals (Hofstede 1980 p.1). Values are "broad tendencies to prefer a certain state of affairs over others" Hofstede (1980 p.19). In studying values, we compare individuals, while in studying culture, we compare societies (Hofstede 1980 p.15). Thus while one can be both individualistic and collectivist, a country culture is predominantly one or the other (Hofstede 1980 p.293).

Culture and entrepreneurship

Psychological research demonstrates that values, beliefs and behavior are linked (Freytag & Thurik 2006), hence differences in culture in which these values and beliefs are embedded play a big role in influencing entrepreneurial behavior (Thomas & Mueller, 2001). In their Giessen-Amsterdam model of entrepreneurship, Frese and Wang (2005) argue that actions, visions, goals and strategies as well as personality, human capital, environment and business success are all influenced by culture. Thomas and Mueller (2000 p. 289) posit that "since entrepreneurship by definition encompasses the initiation of a new venture, frequently outside traditional boundaries, we would expect contextual factors such as culture to have "a significant impact". Most research about the influence of culture on entrepreneurship has followed Hofstede's (1980) conceptualization of culture based on five dimensions of culture each rooted in a basic problem with which all societies have to cope, but on which their answers vary, namely collectivism, uncertainty avoidance, power distance and masculinity and long term orientation. However, empirical evidence for the relationship of these dimensions and entrepreneurship is weak and often contradictory (Hayton et al. 2000 cited by Zhao et al. 2012). While Shane 1992 established that power distance is positively correlated to innovation, this relationship was found to be negative in another study (Shane 1993). This implies that there could be variables moderating the relationship between culture and entrepreneurship (Zhao et al 2012 p.451).

Cultural dimensions and entrepreneurship

As earlier stated, Hayton et al (2002 p.34) and other researchers concur that entrepreneurship is enhanced by cultures that are high on individualism, low on uncertainty avoidance, a low power distance and high on masculinity: *"Ceteris paribus, the greater the cultural distance from these ideal types, the less the aggregate individual and national levels of entrepreneurship.* Specifically, low power distance is a special characteristic of entrepreneurs, regardless of whether the culture is low or high on power distance (Mcgrath et al. 1992:119). Mueller et al. (2002) agree with this position, except for the power distance variable, where they argue that low power distance cultures would promote entrepreneurship.

Other researchers contest the role of individualism in the literature. For example Morris, Avila and Allen (1993) in Zhao et al. (2010) posit that high individualism may be dysfunctional for entrepreneurship. Similarly, while Dwyer, Mesak and Hsu (in Zhao et al. 2010) find a positive relationship between power distance and innovation, Shane (1993) reports a negative relationship. Meantime, the collectivist-individualistic debate of the entrepreneur is not yet resolved. While micro-stream researchers posit that "those who generate variety (founders and corporate entrepreneurs) tend to be individualistic, the macro –stream researchers associate both individualism and collectivism with economic growth and innovation (Tiessen, 1997 p.367). In this view, individualism and collectivism are not polar ends of a continuum i.e. neither of them critically encourage nor discourage entrepreneurship, rather they influence how its functions are performed: variety generation needs individual creativity and initiative, while resource leverage is anchored on efficient relationships that thrive under a collectivist setting, but can be induced by means of contracts between individuals. This, explains the economic growth of Confucian collective Asian states and the individualistic western countries: "Researchers should be comfortable with an apparent paradox that collectivism facilitates entrepreneurship, but does not deny the critical role of individualism" (Tiessen 1997 p.380).

Cultural orientation

Sharma (2010 p. 789) asserts that there is no consensus on the conceptual and operational definition of individual level personal cultural orientations. Some people define culture as an interrelated set of elements consisting of knowledge, beliefs, values, laws, morals and other behaviors that a person acquires as a member of a particular society (Usuner 1996). Following this definition, cultural orientation is defined as individual values that can be found across countries or cultures (Yoo & Donthu 1998) and refers to the independent identification with both the minority and majority culture (Oetting & Bieaus 1990-91). Cultural orientations are antecedents and consequences of individual value priorities and are a consequence of personal learning through interactions with one's social environment such as family, workplace, community, etc. Cultural Orientation is therefore not inherited but learnt which means that a person can develop a new cultural orientation when exposed to a new environment.

Uncertainty avoidance and perception of risk

Uncertainty avoidance, is the extent to which societies take deliberate measures to reduce ambiguity (Hofstede, 1980), by use law, technology and religion etc. The stronger a society's desire to curb uncertainty, the more the need for rules (Hofstede, 1980 p.147).

Further Hofstede argues that there is a firm theoretical link between tolerance of uncertainty and risk taking. Since cultures differ in their avoidance of uncertainty, they create different values for such things as formality and tolerance for ambiguity (Sandhu, Sidique & Riaz, 2011). Hence in high uncertainty avoidance cultures, breaking rules is not tolerated rendering these cultures more resistant to change (House et al. 2004). Coping with uncertainty avoidance is partly a non-rational process, hence dealing with it is a motivation by security or a motivation by fear (Hofstede 1980 p.386).

Since uncertainty avoidance is a search for safety, people in high uncertainty avoidance communities limit themselves to known risks (what is different is dangerous) while those in low uncertainty avoidance societies take risks, including unknown risks (what is different is curious); thus there is more tolerance for diversity in low uncertainty avoidance countries (more comfortable with ambiguity, chaos, novelty and convenience) and more fear of things foreign in high uncertainty avoidance countries, hence they seek clarity, structure and purity (Hofstede, 1980 p.170). Joy & Kolb (2008) also observe that in high uncertainty avoidance societies, there is a high fear of failure and preference for tasks with sure outcomes, clear guidelines and less risk. In general, people in low uncertainty avoidance countries feel more able to influence society at large, because uncertainty avoidance implies a willingness to enter into the unknown (Hofstede 1980 p. 165).
H_1: Low uncertainty avoidance culturally oriented students will perceive less risk than higher uncertainty avoidance culturally oriented ones, leading to a higher variance explained in entrepreneurial intentions of the first group.

Power distance and perception of risk

According to Hofstede (1980), the basic underlying variable in power distance is inequality in prestige, wealth, power etc. It is the degree to which a community accepts and endorses authority, power differences and status privileges (House et al. 2004). Power distance deals with the need for dependence as opposed to the need for interdependence in a community. Low power distance communities seek to minimize power distance, while high power distance societies use it as the basis for social order. High power distance societies do not give the individual an opportunity to do what he/she wants but give guidance for people to do what is socially right and proper (Joy & Kolb 2008). People in such cultures will have less freedom and autonomy to make bold decisions (Kreiser et al. 2010). Kohn (1969) as quoted by Hofstede (1980 p.99) established that power distance is highly correlated with obedience. Thus in high power distance societies, respect for one’s parents and the elderly is an important value which lasts as long as the parents are alive. According to Takya-Asiedu (1993 p. 94), critical career decisions are made by parents even before their children go to secondary school. Parents entreat children to follow the traditional career path (Law, Medicine, and Management) which suppresses their entrepreneurial spirit. On the other hand, children in low power distance societies are socialized to become equals sooner in life, thus pursuing the notion of autonomy (Hofstede 1980, p.100). Power distance also correlates significantly with uncertainty avoidance (r=.78) such that in western countries the effect of uncertainty avoidance and power distance is difficult to separate (Hofstede 1980 p.150). Further, resources in high power distance cultures are available to only a few, and information is hoarded (House et al. 2004), yet risk assessment is information based

(Norton & Moore 2006). Gelekanycz (1997) in Zhao et al. (2010) observe that high power distance is associated with maintaining the status quo. People with this cultural orientation seem to need a lot of support before making decisions, hence:
H_2: Low power distance culturally oriented students will perceive less risk than higher distance culturally oriented ones, leading to a higher variance explained in entrepreneurial intentions of the first group.

Masculinity and perception of risk

Hofstede (1980) argues that masculinity is related to the division of emotional roles between men and women. Masculinity is the degree to which power and achievement are modelled as masculine (Hofstede 1980 P.280) or the extent to which individuals are assertive, confrontational and aggressive in their relationship with others (House et al. 2004). Masculinity is characterized by competitiveness versus warmth and collaboration. Cultures which are high on masculinity place a large premium on material goods and prestige and individuals exhibit a high need for achievement. On the other hand, cultures which are low on assertiveness communicate indirectly to save face, try to be in harmony with their environment (House et al. 2004), are less competitive and place more emphasis on improving intrinsic aspects of the quality of life such as service to others (Hofstede 1980 p.297). Joy and Kolb (2008) add that highly assertive societies appreciate dominant and tough behaviors from all of its members. They believe that anyone can be successful through hard work, take initiatives and are competitive in nature (House et al. 2004). On the other hand, societies that are low on assertiveness consider assertiveness unacceptable, endorse modesty and tenderness and cherish people and relationships (Joy& Kolb, 2008).
High masculinity and low uncertainty avoidance are both highly correlated with high need for achievement (Hofstede1980 p.164). Low uncertainty avoidance depicts a great willingness to enter the unknown, while high masculinity means assertiveness and ambitiousness. Hence a combination of these two match the picture of McClelland's achievement motivated individual, thus:

H_3: High masculinity culturally oriented students will perceive less risk than higher low masculinity culturally oriented ones, leading to a higher variance explained in entrepreneurial intentions of the first group.

Collectivism and perception of risk

Collectivism is related to the level of integration of people into groups (Hofstede, 1980). Differences in attitudes towards achievement and aspirations for success may be related to cultural factors or the way people are integrated in groups, for example the theory of achievement motivation suggests that collectivists are constrained in their motivation to achieve and that achievement behavior is individualistic (Nelson & Shavitt 2002 p.440). Further, collectivists are motivated by socio-oriented goals, not individual oriented achievement goals (Triandis 1995 cited by Nelson & Shavitt 2002). Group membership has roles, obligations and duties that go with it and it is of paramount importance to maintain harmony and save face of the group members (Joy & Kolb 2008). Conversely, people from a more individualistic society have a more autonomous orientation, might not easily be influenced by in groups because of low power distance and might not fear risks because they are more active to get somewhere (Hofstede 1980:233). In line with this, Damaraju et al. (2010) argue that the impact of fear of failure is higher in collective societies than individualistic societies, because the stigma of failure is more acute in collectivist cultures and hence acts as a deterrent to entrepreneurship. However, it has been argued elsewhere that collectivism helps entrepreneurship because collectivistic societies provide more social support and resources e.g. families could provide the needed resources for one's entrepreneurial endeavors and the needed social security in the event that things do not work out (Zhao et al 2010). Weber & Hess (1998) advance their cushion hypothesis in which they argue that collectivist societies perceive the riskiness of risky options as smaller because group members will come to the rescue of a person who experiences a loss after selecting a risky option, while in individualistic cultures a person making a risky decision will be expected to personally bear the possibly adverse consequences of their decisions. Many studies view individualism and collectivism as opposite ends of each other (Sharma 2010). However, people may maintain both independent and interdependent self-construals, and each of these may be activated according to the pertaining situation (Markus and Kitayama 1991), thus:

$H_{4:}$ *Individualistic culturally oriented students are likely to perceive less risk than those with a collective cultural orientation resulting in higher variance explained in their entrepreneurial intentions.*

Uncertainty avoidance and proactiveness

According to Mueller & Thomas (2001) in Kreiser et al (2010), in uncertainty –accepting communities there is a major belief that conflict and competition can take place within a framework of fair play and can be employed in a constructive manner. On the other hand, in high uncertainty avoidant cultures, conflict and competition are dysfunctional and should be avoided. Further, entrepreneurs in uncertainty accepting cultures are likely to perceive more opportunities as existing in the external environment than will entrepreneurs in uncertainty avoidant cultures (Thomas & Mueller, 2001). The favorable perception of the external environment will most likely make entrepreneurs in low uncertainty avoidant cultures more proactive, hence:

$H_{5:}$ *Students with a low uncertainty avoidance cultural orientation will be more proactive and will have higher variance explained in entrepreneurial intentions.*

Masculinity and proactiveness

Masculine communities place a big emphasis on proactive behaviors (Kreiser et al 2010 p.964). People in masculine cultures make strategic moves to explore environmental opportunities than people in feminine cultures who develop a more reactive stance. Since people in masculine cultures have an inherent drive to finish first, it is hypothesized thus:

$H_{6:}$ *Students with a high masculine cultural orientation will be more proactive than those with a low masculinity cultural orientation and variance explained in entrepreneurial intentions will be higher in the first group.*

Collectivism and proactiveness

Studies examining the relationship between collectivism and entrepreneurship have yielded inconsistent findings (Kreiser et al. 2010). For example some researchers posit that individualism results into more levels of entrepreneurship (Shane 1993), others assert that individualism may actually hinder entrepreneurial behavior in firms (Franke Hofstede & Bond 1991, Tiessen 1997 cited by Kreiser et al.2010). At an individual level, and especially in the beginning phase of an enterprise, the existence of networks places the entrepreneur in a social context (Lee & Peterson 2000 p.409). Since entrepreneurs tend to rely on informal networks (family, friends, businesses) to assist them in various activities, opportunities will thus come to those who are well positioned within these networks (Aldrich & Zimmer 1986 cited by Lee& Peterson 2000 p.409). Since entrepreneurs are resource dependent, they usually have to look for such resources externally (Begley et al 2005 cited by Kollmann 2007 p.21), hence:

$H_{7:}$ Students with a collective cultural orientation will be more proactive and will have higher variance explained in entrepreneurial intentions, than those with an individualistic cultural orientation.

Explanatory variables:

1. Cultural tightness- looseness
Questioning the sole reliance of values on the study of culture, Gelfand, Nishii and Raver (2006) propose a theory of cultural looseness tightness, which refers to the strength of social norms and the degree of sanctioning within a culture. They posit that extensive focus on values has a subjective bias, since it ignores external influences on behavior such as cultural norms and constraints, social networks and components of a large social structure (p.1225). Earlier, theorists like Triandis (1989 cited by Gelfand et al 2006) argue that cultural tightness -looseness is an important, yet neglected dimension of culture, which is distinct from collectivism –individualism. Societal tightness- looseness has two major components i.e. the strength of social norms, or how clear and prevalent they are in a community and the strength of sanctioning or how tolerance there is for deviation from these norms within a society (Gelfand et al 2006). This dimension could have important implications for entrepreneurship, since tight and loose societies are differentiated by their rates of innovation versus stability and degree of conformity versus deviance (Gelfand et al 2006 p. 1238).

2. Filial Piety
Filial piety originating from Chinese culture is defined as a “specific complex syndrome or a set of cognition affects, intentions and behaviors concerning being good or nice to one’s parents” (Yang 1997 p.252 cited by Kwan 2000); Filial attitudes include obedience to one’s parents, treating them with politeness and respect, promoting the public prestige of one’s kindred and fulfilling parental aspirations/ wishes about occupations or vocation among others. It is the contention of this paper that filial piety may play a substantial role in influencing graduate entrepreneurial intentions, even in an African collective context.

Moderating Variables

1. Optimism

A possible moderator between entrepreneurial orientation and entrepreneurial intentions could be optimism. Kahneman (2011) posits that having an optimistic orientation is both a blessing and a risk, because optimistic people e.g. inventors and entrepreneurs make decisions that have an impact on the life of others. Kahneman argues that optimistic people seek challenges and are lucky: in fact luckier than they acknowledge. Their confidence sustains a positive affect that helps them acquire resources from other people, raise the morale of their workers and enhance the chances of prevailing. According to Scheier and Carver (1985 cited by Leung, Moneta & McBride-Chang 2005), "optimism is a longitudinally and cross-situational stable tendency to believe that one will experience positive as opposed to negative life events." Optimists entreat the external view that examines specific causes, while pessimist rely more on the internal view that examines more general causes (Buchanan & Seligman 1995 in Leung et al. 2005), hence optimism is a cognitive temperament that positively evaluates past happenings and more positive expectations of future events (Leung et al. 2005 p.339). Optimists view their limitations as temporary and are more ready to accept reality (Scheier et al 1986 cited by Leung et al. 2005). In short, an optimistic temperament encourages persistence in the face of obstacles (Kahneman 2011) and is thus an important virtue in the domain of entrepreneurship.

2. Competencies: Knowledge

According to Baum et al. (2001) in Ahmad (2007), the most recent approach to understanding how an individual's behavior might impact upon business outcomes focuses mainly on competencies, for example knowledge. Saddler-Smith et al. (2003) argue that small business owners should have a diverse array of skills across a range of competency domains, performing a generalist role. Entrepreneurs need to be proactive and possession of entrepreneurial competencies plays a big *role in this regard if they are to minimize the negative impact of a turbulent environment.* Knowledge has been defined as justified true belief (Becerra-Fernandez & Sabherwal 2001) and plays an important role in entrepreneurship (Sommer & Haug 2010). Knowledge can also be defined as personalized information i.e. knowledge depends on an individual and is shaped by his or her needs and initial amount of knowledge possessed (Tuomi 1999). Knowledge can be gained from engagement in the practice of certain behaviors and from studying. This means that there are many more sources of knowledge than just personal practice (Sommer & Haug 2010). There are different types of knowledge, for example Kogut and Zander (1992) cited by Becerra-Fernandez & Sabherwal (2001) delineate between information (what something means) and know how (knowing how to do something). Knowledge can also be viewed as tacit or explicit, with the former referring to knowledge that can be expressed in numbers and can be shared, while the latter refers to knowledge that includes insights, intuition and hunches and is thus difficult to share. Prior information, whether developed from work experience, education or other means enhances the entrepreneurs capacity to understand and apply information in ways that those who do not have this information cannot replicate (Roberts 1991 cited by Shane 2000). Hence a person's idiosyncratic prior knowledge forms a knowledge base that enables him/her to recognize certain opportunities not recognized by others (Venkataraman 1997). Thus while opportunity recognition and development form the core of entrepreneurial activities (Pech & Cameron 2006 cited by

Ahmad 2007 p.58), only a small set of the population will possess prior information that could lead to the discovery of this opportunity (Shane 2000). There are three major dimensions of prior knowledge that can facilitate the discovery of an opportunity namely prior knowledge about markets, prior knowledge of ways to serve markets and prior knowledge of customers' problems (Shane 2000). Generally, the more one consciously knows about a certain behavior, the higher his or her likelihood of performing that behavior. Hence entrepreneurial knowledge is an important entrepreneurial resource (Barney et al 2001 cited by Sommer & Haug 2001), for example in the start-up process:

H_8: knowledge will moderate the relationship between entrepreneurial orientation and intention resulting in a higher variance explained in intention for all cultural orientations .

Method

Research design

This study employed a triangulation technique in that both qualitative and quantitative research designs were used (Campbell and Fiske 1959). Phase one of the study was qualitative i.e. talking to and holding conversations with various experts in the field of management, entrepreneurship and education, scholars, students, parents to gain an in-depth understanding of the study concepts. This enabled the researcher to place the study in context. Phase two of the study employed a cross sectional research design, in which data was collected from a systematic sample of final year business students at Uganda Christian University N=200 (This study will cover two universities in each EA country, Uganda is the first one), using a questionnaire. Since the data was to be partly analyzed by factor analysis, the recommendation Hair *et al.*, (1998) i.e. the sample should be six times as large as the number of items in the questionnaire for EFA (a maximum of 30 items for any dimension in the questionnaire) so the minimum sample size was 200. In order to overcome common method bias, a number of procedural measures were taken (Podsakoff and Organ, 1986 p.540). For example respondents were assured of confidentiality and anonymity and that there were no correct or wrong answers.

Measures

Instruments with robust psychometric properties and that adequately cover the behavior domain of interest were employed in this study, in order to avoid sub optimal mapping of constructs (Van der Vijver and Leung 2000 p.36).

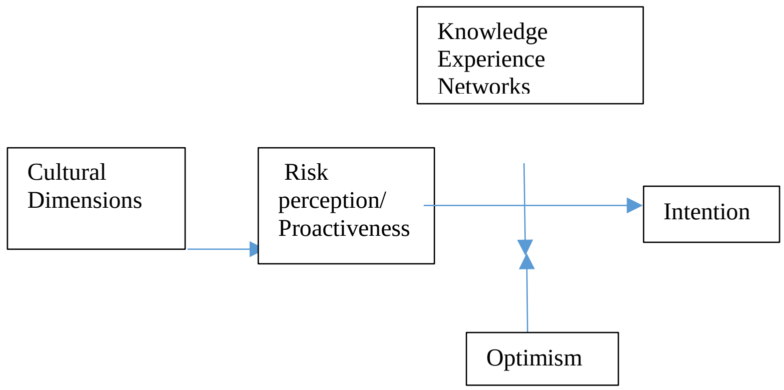
Measurement of culture

Some researchers suggest that the best way of measuring cultural orientation is by use of the scenario format questions. Konig et al (2007 p.212) argue that to avoid committing an ecological fallacy, cultural research that is oriented towards an individual level of analysis should employ cultural orientation scales. In this regard, Peng et al. (1997) posit that scenario scales are the most criterion valid method of measuring cultural orientations because they reduce noise or the different interpretations of terms in different cultures, as well as the relativity of social comparison terms (Chirkov et al. 2005). Further, the scenario method has the ability to reduce desirability bias which is a major problem of attitudinal scales (Triandis et al. 1998 cited by Chirkov et al. 2005). However, Peng et al. (1997 p.341) put a disclaimer to their assertions when they posit that their findings can scarcely be expected to settle validity issues concerning values studies: their findings do not mean that rating or ranking methods cannot have cross cultural validity, nor do the findings mean that well-constructed scenarios will always give more valid results than other methods. Thus the important thing is that whatever method is used cross cultural validity cannot be assumed but must be proved.

In line with this call by Peng et al. (1997) to treat their findings with caution, some researchers have not found the scenario based scales to be reliable and have abandoned them. Lalwani, Shavitt and Johnson (2006) established in a principal components analysis of the Triandis et al. (1998) 16 item scenario measure, that items did not load as expected, most factor loadings were not significant (<0.4) and the reliabilities of the dimensions were not acceptable (Cronbach's alpha < 0.7). Another major problem with scenario based scales is their availability. For instance while Konig et al. (2007) develop scenario based scales of business owners based on the GLOBE dimensions, (hence they are not applicable in the case of other subjects e.g. students), scenario based scales to measure other cultural dimensions (uncertainty avoidance, masculinity, femininity, long-term orientation etc.) are not so common or were developed in the west, hence they may not be valid in an emerging market context. In light of these arguments, cultural orientation in this study was measured using the Yoo and Donthu (2001) 26 item cultural orientation scale. This scale is anchored on likert based scales ranging from "1" strongly disagree to "5" strongly agree and has been widely used in marketing research.

Cultural tightness-looseness was measured with the Gelfand et al (2011) six item scale. Gelfand et al (2011) reported extensive validity for the instrument, and reliabilities are reported to be in the range .55 to .82 (Church et al 2011). Entrepreneurial orientation was measured with the 10 item Bolton and Lake (2012), questionnaire. Items in this scale are anchored on a five point likert scale ranging from "1" strongly disagree to "5" strongly agree. Intention was measured by the Entrepreneurship Intentions Questionnaire EIQ (Linan and Chen, 2009), validated by these authors using structural equation modelling. The EIQ measures intention on a Likert scale anchored on a 7 point scale ranging from "1" strongly disagree to "7" strongly agree. Optimism was measured with 10 items from the Life Orientation Test (Scheier & Carver 1985), validated by Leung et al (2005). It is a measure anchored on a 5 point Likert scale. Since filial piety teaches people to be obedient to their parents and is also identified as a reason for going into business (Idris 2009), then 10 items from the Filial Piety Scale (Ho, 1996) were included in the questionnaire. Prior knowledge will be measured using the scale from Mathew and Lumpkin (2007), anchored on 1 total disagreement to 7 total agreement. Data analysis was carried out using, t-tests, factor analysis and linear regression.

Figure 1: Study Model



Results

This section presents the study findings. First, the study sample consisted mostly of men (52%), while the rest were women and the average age of both groups was 24. Second, factor analysis of the cultural oriented scale, the entrepreneurial orientation scale and the entrepreneurial intentions questionnaire was carried out to examine the discriminant validity of these measures. Most of the items on these scales loaded as expected (results not shown due to space constraints). Further, reliability of all the scales met the 0.7 cut off (Nunnally and Bernstein 1994). Second, data analysis started by construction of a correlation matrix of all the study variables (appendix 1) followed by regression analysis. The results are presented in the tables below.

Table 1: Cultural variables/ Entrepreneurial orientation versus intention

	df	F	R^2	B	p
Mas	1	.126	.001	-.025	.503
Mas + pro	2	5.83	.030	-.171	.017**
Mas + pro+ risk	3	3.46	.046	-.131	.064
UA	1	.691	.003	.059	.916
UA+Pro	2	4.41	.027	-.168	.028**
UA=pro+ risk	3	3.64	.045	-.134	.058
Pd	1	1.36	.007	-.083	.225
Pd+ pro	2	2.28	.023	-.127	.075*
Pd + pro+ risk	3	3.58	.052	-.173	.015**
Col	1	.057	.000	-.017	.974
Col+ pro	2	2.75	.027	-.166	.021**
Col + pro +risk	3	3.07	.045	-.134	.058
Indv	1	1.44	.007	-.085	.694
Indv + pro	2	2.95	.019	-.153	.031**
Indv + pro +risk	3	3.12	.031	-.130	.076

*p<.01 ** p<.05 ***p<.000

Mas=masculinity, Pd= power distance, UA= uncertainty avoidance, Col= collectivism, Indv=individualism

Note: The table above shows that cultural orientation dimensions (individualism, collectivity, uncertainty avoidance and masculinity predict intention through proactivity. However, power distance does not predict intention through proactivity, but does so when risk is added. When risk is added to the model in the case of individualism, collectivity, uncertainty avoidance and masculinity the relationship is not significant (p>.05).

Table 2: Knowledge / Proactiveness moderation					
	df	F	R	B	p
Mas	1	.301	.002	-.065	.876
Mas + pro	2	4.19	.045	.495	.005***
Mas + pro+ pro X know	3	4.68	.074	-.723	.021**
UA	1	.181	.001	-.032	.671
UA+Pro	2	4.06	.044	-.228	.005***
UA=pro+ pro X know	3	4.52	.071	-.714	.023**
Pd	1	.646	.007	-.083	.225
Pd+ pro	2	4.42	.047	-.211	.005***
Pd + pro+ pro X know	3	4.70	.075	-.710	.022**
Col	1	.398	.002	-.047	.911
Col+ pro	2	3.75	.040	-.198	.008***
Col + pro + pro X know	3	4.42	.070	-.731	.019**
Indv	1	1.19	.007	-.081	.906
Indv + pro	2	3.83	.041	-.192	.012**
Indv + pro + pro X know	3	4.43	.070	-.725	.025**

*p<.01 ** p<.05
***p<.000

Mas=masculinity, Pd= power distance, UA= uncertainty avoidance, Col= collectivism, Indv=individualism

Note: The table above shows that knowledge moderates the relationship between all cultural variables and entrepreneurial orientation (proactiveness and risk) on one hand and intention on the other.

Table 3: Knowledge/ Risk moderation					
	DF	F	R^2	B	p
Mas	1	.301	.002	-.041	.584
Mas + risk	2	4.19	.045	-.210	.005**
Mas + risk + risk X knowledge	3	3.82	.061	-.126	.086
UA	1	.181	.001	-.032	.671
UA +risk	2	1.73	.019	-.135	.071
UA+ risk+ risk X know	3	1.17	.019	-.063	.823
Pd	1	.646	.004	-.060	.423
Pd+ risk	2	1.84	.020	-.130	.083
Pd + risk+ risk X know	3	1.24	.021	-.077	.784
Col	1	.398	.002	-.047	.529
Col+ risk	2	5.19	.006	-.060	.425
Col + risk + risk X know	3	1.44	.024	-.130	.072
Indv	1	1.19	.007	-.081	.276
Indv + risk	2	2.00	.022	-.123	.096
Indv + risk + risk X know	3	1.35	.022	-.170	.803

*p<.01 ** p<.05 ***p<.000

Mas=masculinity, Pd= power distance, UA= uncertainty avoidance, Col= collectivism, Indv=individualism

Note: The table above shows that knowledge does not moderate the relationship between all the cultural variables and risk on one hand and intention on the other. The table also shows that masculinity significantly predicts intention, while all the other cultural orientations do not.

Table 4: Low/high cultural orientation and intention

		df	F	R^2	B	p
Low masculinity	Mas Mas + risk Mas + risk + pro	1 2 3	1.59 2.49 4.11	.025 .077 .077	-.160 .227 -.126	.260 .090 .929
High masculinity	UA UA + risk UA+ risk+ pro	1 2 3	.131 3.07 4.11	.033 .139 .250	-.180 .342 -.340	.647 .010* .025*
Low Power Distance	Pd Pd+ risk Pd + risk+ pro	1 2 3	.004 2.13 1.90	.000 .033 .044	-.006 .184 -.110	.000 .041* .231
High power Distance	Col Col+ risk Col + risk + pro	1 2 3	15.9 12.4 7.08	.727 .832 .842	-.852 .483 -.098	.007** .136 .654
Low uncertainty Avoidance	UA UA + risk UA + risk + pro	1 2 3	2.03 11.2 6.90	.225 .790 .690	.474 1.08 .219	.290 .007** .547
High Uncertainty avoidance	UA UA+ risk UA + risk + pro	1 2 3	.504 3.85 3.26	.003 .046 .058	-.056 .207 -.116	.722 .004* .115
Low Collectivism	COLL COLL + risk COLL + risk + pro	1 2 3	4.46 4.12 .010	.130 .238 .238	-.360 .329 .011	.036* .058 .173
High Collectivism	COLL COLL + risk COLL + risk+ pro	1 2 3	.048 1.55 1.67	.001 .036 .057	.024 .188 -.148	.991 .055 .173
Low Individualism	INDV INDV +risk INDV + risk + pro	1 2 3	2.36 16.4 898	.441 .940 1.00	-.664 -.709 -.430	.018 .063 .050*
High Individualism	IND INDV + risk INDV + risk + pro	1 2 3	.687 .225 .219	.005 .032 .047	-.071 -.165 -.123	.968 .068 .983

*p<.01
** p<.05 ***p<.000

Mas=masculinity, Pd= power distance, UA= uncertainty avoidance, Col= collectivism, Indv=individualism

Note: The table above shows that students with a low uncertainty avoidance cultural orientation also perceive less risk explaining 7.3% variance in intention (p<.05), compared to students who have a high uncertainty avoidance cultural orientation explaining 4.6% variance in intention (p<.05), thus H_1 is supported. Similarly, students with a low power distance cultural orientation perceive less risk explaining 3.3% (p<.05) variance in intention, compared to those with a high power distance cultural orientation p>.05, thus H_2 is supported. The table above also shows that students with high masculinity cultural orientation perceive less risk, explaining 13.9 % (p<.05) variance in intention, compared to those with a low masculinity cultural orientation which explains only 7% (p<.05) thus H_3 is supported. On the other hand, collective culturally oriented students perceive high risk, such that both groups high and low do not explain variance in intention significantly p>.05, hence H_4 is not supported. Coming to proactiveness, high masculinity culturally oriented students are more proactive explaining 23% variance in intention (p<.05), compared to the low masculinity culturally oriented students who explain only 7% in intention, thus H_5 is supported. However for both high collectivism and high individualism, at the 0.1 level of significance, collectivists perceive less risk than individualists, hence the variance in intention is higher 3.6% for the first group than the latter 3.2%, hence H_6 is not supported. Collective culturally oriented students are more proactive than individualistic culturally oriented students, since the former explain 2.7% variance in intention (p<.05), compared to 1.9% explained by the latter group, thus supporting H_7 (Table 1). Lastly, knowledge moderates the relationship between proactiveness and intention for all cultural variables, since there is an increase in variance explained in each case (p<.05) see table 2, thus supporting H_8 .However, knowledge does not moderate the relationship between risk and intention for all cultural variables (p>.05) in each case (table 3).

Discussion

Consistent with McGrath et al (1992) and Hayton et al (2002) the finding above indicate that students with a masculine, low power distance and low uncertainty avoidance cultural orientations are more entrepreneurial i.e. are both proactive and risk taking, while students with a collective cultural orientation are proactive but seem to be risk averse. Since Uganda is generally a collective society, this could possibly explain the low start up rate among graduates. This finding is consistent with those who think that the stigma of fear of failure is high in collective societies (Damaraju 2010), but is inconsistent with the Weber and Hess (1993) cushion hypothesis. While the literature is full of assertions that an individualistic orientation is more likely to take on entrepreneurship in the western world (Shane 1993) in this study individualists do not have a high entrepreneurial intent which is surprising. However, this is possibly because they do not fit in properly in society seem/look like they are “rebels” or social deviants i.e. at a time when one is young and needs support from family and friends to be able to develop an entrepreneurial intent, those with an independent self-construal are not favorably looked upon by society, hence they may not be able to leverage resources to enable them start a business or develop entrepreneurial intent.

Knowledge is a key factor that makes people proactive and hence develop a high entrepreneurial intent, but does not do so for risk. In other words, risk remains a threat to entrepreneurial intent, even in the face of knowledge. Possibly the more knowledgeable a person becomes about threats in an industry/ business, the more risk averse they become i.e. entrepreneurs do not just take on more risk, they perceive less risk (Simon et al 2008). Lastly some back ground factors could throw more light in explaining the findings, namely optimism, filial piety and cultural tightness/ looseness. As shown in the correlation matrix (Appendix 1), optimism is significantly correlated with uncertainty avoidance (r=.388**) masculinity (r=.153**) and intention (.150*). This could partly explain why people with these two cultural orientations have a high intent to start up. While cultural tightness is significantly correlated with uncertainty avoidance (r=.218*), risk (r=.226**) and optimism (r=.238*), it is not significantly related to proactivity and intention, meaning that students who perceive the norms and values of their society to be unfavorable to entrepreneurship may not start up. In a similar vein, filial piety is not significantly related to proactivity and intention, while it is significantly related to risk (r=.244**), optimism (r=.297**) and cultural tightness (r=.201*). This possibly means that in a culturally tight, collective society as is the case in Uganda where self-employment is the least preferred option (Walter et al. 2005), parental influence against start up is a real possibility, as espoused by a Takya -Asiedu (1993) and this could also possibly explain the low graduate start up in this country.

Conclusion

The purpose of this study is to try and ascertain whether low start up in E.A (taking Uganda as an example) can be explained by the impact of cultural orientation on two dimensions of the entrepreneurial orientation construct, namely risk and proactiveness. This study establishes three facts. One consistent with theory, masculinity and power distance and low uncertainty avoidance account for most of the variance in entrepreneurial intention through proactiveness, while collectivism accounts for the least variance in entrepreneurial intent through proactiveness. Second, risk seems to be the major explanation for the low entrepreneurial intent in this study, as most of the regression equations exhibited none significant results for this variable. Third, again consistent with the literature, entrepreneurial competencies, i.e. knowledge (in this study), moderates the relationship between proactiveness and intention for all cultural variables. However, knowledge does not significantly moderate the relationship between risk and intention for all cultural orientations. Going by these results, it is plausible to conclude that the low startup of graduates in this mainly collective country is attributed to a high perception of risk, even when these students are knowledgeable. This situation could be made worse by cultural tightness of Ugandan society, coupled with filial piety. The government of Uganda has set up a number of projects, intended at availing credit to young people who want to start a business. Knowing the entrepreneurial orientation of these people could be very useful before funds are disbursed.

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Appendix 1: Correlation Matrix

UA2	**1**											
COL 2	0.15	**1**										
PD	-0.14	0.24*	**1**									
MAS	-0.01	-0.09	0.39**	1								
IND	0.11	0.08	-0.05	0.032	1							
INT	0.006	-0.006	-0.111	-0.099	-0.039	1						
PRO	0.3**	0.15	-0.079	-0.026	-0.058	0.072	1					
RISK	0.2	0.19**	-0.22**	-0.064	0.27**	0.27**	0.25**	**1**				
OPT	0.33	0.1	0.011	0.16**	0.035	-0.15*	0.20*	0.131	1			
KNOW	0.3**	0.12	-0.21**	-0.18*	0.075	-0.011	0.24**	0.28**	0.122	1		
CULT	0.22*	0.12	-0.113	0.067	0.20*	-0.088	0.014	0.23**	0.24**	0.13	1	
FLIP	0.12	0.109	-0.121	0.035	0.073	-0.077	0.073	0.26**	0.29**	0.104	0.20*	**1**

UA= uncertainty avoidance, COL=collectivism PD= power distance, MAS=masculinity IND=individualism, INT=Intention, PRO=proactiveness, RIS= risk, Opt=Optimism, KNO= knowledge, CULT=cultural tightness, FLIP= filial piety

*p<.01 ** p<.05 ***p<.000

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USING A FINANCIAL CONDITION INDEX TOOL TO MEASURE MUNICIPAL FINANCIAL CONDITION

This paper explores the concept of using a financial condition index tool to measure the financial condition of a municipal unit. The Province of Nova Scotia's Financial Condition Index (FCI) will be reviewed. In addition, FCI data reports for three recently dissolved towns located in Nova Scotia are reviewed and compared to identify concerns with using financial indicators to assess a town's financial condition. The paper highlights why contextual knowledge is a necessary component of financial condition assessment.

Introduction

In May 2014, three towns located in Nova Scotia applied to the Nova Scotia Utility and Review Board (NSURB) for dissolution of their municipal status: Springhill on May 15, Hantsport on May 20, and Bridgetown on May 27. Each of the applications cited the same three reasons for dissolution: human resource capacity, economic development, and financial status.

Each town echoed the same sentiment with regard to human resource capacity – having a limited staffing complement and encountering difficulties with meeting the existing demands of their respective communities. Each town noted that these increased demands resulted in additional overtime costs and that joining a larger municipality offered the opportunity to consolidate staffing resources and the potential for economies of scale.

With regards to economic development, each of the applications stated that "our modern means of transportation and communication have rendered the concepts of local economies within a two (2) kilometer radius obsolete" (Applications to Dissolve the Town submitted to NSURB: Bridgetown, Springhill and Hantsport). In addition, each town acknowledged the need for municipal reform to ensure the ongoing viability of the province of Nova Scotia and its constituent towns and municipalities, with both Springhill and Bridgetown specifically referencing the Ivany Report.[1]

[1] The Ivany Report ("Now or Never: An Urgent Call to Action for Nova Scotians") was released in 2014 and provided recommendations and goals for the province, including boosting population, increasing economic development and the need for municipal reform.

Each town provided a very similar explanation of their financial status in their applications: deficits, limited ability to increase tax revenue, and aging infrastructure. Each town provided an estimate of their respective deficits for the March 31, 2014 fiscal year end and provided the same example of how a $0.01 increase applied to town tax rates would result in an insignificant (and insufficient) increase to revenues – Springhill's revenue would increase by only $14,192, Bridgetown by $4,500, and Hantsport by $7,500. Each town stated that a tax rate increase would not be fair and would put the towns at a competitive disadvantage with their surrounding municipal neighbours. In addition, each town noted that renewal or replacement of aging infrastructures would place upward pressure on tax rates over the medium term. Each of the towns concluded the financial status section by stating that as per their Financial Condition Index (FCI), the town was not meeting the index threshold for viability.

This paper is exploratory in nature and reviews the concept of measuring the financial condition of a municipal unit and the Financial Condition Index referenced by Bridgetown, Springhill and Hantsport in their applications for dissolution. While this tool, recently released by the Province of Nova Scotia, was developed for use by regionals, towns and municipalities in Nova Scotia, the paper focuses on towns, specifically the above-noted towns of Bridgetown, Springhill, and Hantsport. The importance of using other contextual information in financial condition assessment is highlighted.

Nova Scotia – A Brief Background

The Province of Nova Scotia is incorporated into three types of municipalities: regional municipalities (3), towns (27) and county or district municipalities (21). In addition, there are 22 villages which provide additional governance and service to selected areas within a rural municipality. Municipalities have the ability to raise revenue under the *Municipal Government Act (MGA)* or the *Halifax Regional Municipality Charter*. In Nova Scotia, municipal governments are not permitted to budget for an operating deficit.

Each municipality in Nova Scotia has a March 31 fiscal year end. The MGA requires that each municipality submit a copy of their annual audited financial statements to Service Nova Scotia and Municipal Relations by September 30th of each year. Financial statements must be prepared in accordance with generally accepted accounting principles as set forth in the Public Sector Accounting Handbook.

Property taxes (residential and business) are the most important source of revenue for all municipalities in Nova Scotia. For the fiscal year ending March 31, 2014, on average, 75 percent of municipal revenue was generated by property taxes ("The Municipal-Fiscal Review: Part II," 2014). This does not include grants-in-lieu which are legislated provincial and federal grants for eligible tax exempt property and are equal to the amount that would be paid if the property were not tax-exempt. Other municipal revenues include transfers from other governments, revenue from own sources and sales of services.

Tax rates are set by the municipality and are expressed as per $100 of assessment. Commercial tax rates are typically two to three times higher than residential property rates. All properties in

Nova Scotia are assessed annually by the Property Valuation Services Corporation (PVSC) but the annual taxable assessed value for a given year is the value that was determined two years earlier. Nova Scotia has a Capped Assessment Program (CAP) whereby the increase in property tax assessments for eligible owner-occupied residential properties and resource properties (but not commercial properties) is capped at the increase in the Nova Scotia Consumer Price Index.

Effective July 1, 2015, the province of Nova Scotia has 27 towns. In a three year period, four towns had dissolved, each amalgamating with a county or district municipality: Canso - July 1, 2012; Springhill and Bridgetown - April 1, 2015; and Hantsport - July 1, 2015. The remaining 27 towns are located throughout the province, range in geographic size and have populations that range from a low of 481 residents (Annapolis Royal) to a high 12,059 (Truro) ("The Municipal-Fiscal Review: Part 1," 2013).

In comparison to the rest of Canada, economic performance in Nova Scotia has been poor in recent years. While improved economic performance is predicted for the province, it is not expected to match national growth. Regionally, growth is predicted to be strongest in the Halifax region, but not positive for other areas of the province, with more rural areas expected to have a more difficult economic time. These challenging economic circumstances have affected property assessment growth, with little to even loss in assessment value experienced by certain remote municipalities. ("The Municipal-Fiscal Review: Part II," 2014.)

Nova Scotia's modest population growth peaked by July 2012 and the province is now experiencing demographic challenges. A government report released in February 2014 stated that the province's "current population challenge has two dimensions: a decline in the absolute number of people in the province but also the changing age group make-up" ("Now or Never," p. 12). It is predicted that Nova Scotia will lose 22,000 people and 20 per cent of its workforce between 2010 and 2036. Furthermore, it is anticipated that the employment age demographic (18-64) will contract over this time period and the proportion of population aged 65 and older will increase to 28.6% from 17.2%. ("Now or Never," 2014)

Defining and Measuring Municipal Financial Condition

Various terms and definitions are used to describe the concept of municipal financial condition, many of which are outlined and examined in literature. Wang et al. (2007) define financial condition as a level of financial solvency that must include the dimensions of cash, budget, long-run and financial solvency. Other studies use the Government Accounting Standards Board (GASB), defining a government's financial condition as "a composite of government's health and its ability and willingness to meet its financial obligations and commitments to provide services" (Clarke, 2015, p. 66 citing GASB, 2012).

In addition to variations in definition, different terms are used in literature when referencing financial condition such as financial health, financial position, fiscal distress and fiscal position. Sohl et al. (2009) argue that while literature uses the terms financial position and financial condition interchangeably, the terms must be distinguished and used more precisely as doing so allows one to identify the types of comparisons that would be appropriate for different analysis.

These authors state that to perform a comparative financial position analysis, one must use financial indicators that are from "like-situated jursidictions" (p. 76) to establish a relative position or rank for each financial indicator, thus providing a jurisdiction the ability to compare its performance to the mean or median for its specific cohort (Sohl et al., 2009). In contrast, Rivenbark and Roenigk (2011) state that the financial position of a local government is established when the unit releases it unqualified financial statements at fiscal year end but provide no additional explanation as to how this can be determined, just that the statements provide aggregate and disaggregate financial position information. There is agreement in the literature in that to determine financial condition it is necessary to benchmark a unit's position over time, against the cohort and against accepted standards (see for example Sohl et al., 2009; Rivenbark & Roenigk, 2011).

While a review of literature reveals that using financial indicators (ratios) to evaluate financial relationships is at the heart of financial condition measurement and assessment, there are variations in the methodologies utilized and studied. Researchers have tested existing financial condition measurement methods, modified existing methods or have developed new methods to assess financial condition.

Wang et al. (2007) use eleven indicators to measure the dimensions of cash, budget, long-run and service level solvencies of 49 states in the U.S. Using data collected from Comprehensive Annual Financial Reports (CAFR), but for the 2003 fiscal year only, the researchers develop a financial condition index by weighting and averaging the standardized scores of 11 financial indicators. The researchers determine that their "financial condition measure is a relatively reliable and valid in measuring financial condition" (Wang et al., p. 20). Even though the researchers acknowledge that using a single year of financial reports pose a limitation to the study, they feel that the study provides a benchmark of financial condition for state governments to assess performance, compare performance to other states and to seek ways to improve financial condition. The researchers determine that the "government-wide information required by GASB Statement No. 34 provides a useful framework to evaluate the financial condition of a government" (p. 20). In contrast, Sohl et al. (2009) find inconsistencies in the financial data reported in the CAFRs which, as these researchers note, can "have the capability of diluting the comparability of financial indicators" (p. 88).

Sohl et al. (2009) use a modified version of the Financial Trend Monitoring System (FTMS), a recognized financial trend measurement tool developed by the International City/County Management Association (United States). The research team apply 29 indicators using data obtained from CAFRs to conduct a financial position and financial condition index for eleven U.S. cities. The study illustrates the importance of selecting a sample that will enable comparability. A rank-driven methodology is utilized to identify a cohort of similar cities so as to benchmark their financial position and assess financial condition. These researchers stress "the need for measuring financial position and condition based on trends rather than point estimates" (p 93).

Cabaleiro et al. (2013) use the framework developed by Canada's Public Sector Accounting Board to support an analysis of the financial health of 5,165 Spanish municipalities. By calculating twenty ratios for each municipality and using multivariate statistical techniques, an aggregate indicator for each municipality is determined, evaluated and then used to rank the financial health of each municipality. They conclude that the aggregate indicator determined correlates with those municipalities known to be experiencing poor financial health. However, the study falls short in that it only uses data for 2008 and as such, provides a measurement for one point in time. A single year of data is a weak basis for judging the relative condition of a government unit (Sohl, 2009). Trend analysis was not considered to put short term anomalies into context as recommended by PSAB. And as noted by Sohl et al. (2009), "the strength of trend analysis is that it provides valuable context to identify the direction of each indicator, be it increasing or decreasing relative to the cohort statistics" (p. 78).

Clark (2015) tests the validity and reliability of a financial condition index tool developed by Sanford Groves, Maureen Godsey and Martha Shulman in 1981. This tool assesses the financial condition of local government financial condition by examining four solvency dimensions: cash, budget, long-run, and service level. Clarke's data source includes CAFRs for 117 of the largest cities based on revenue from the state of Ohio from 2004 to 2010. He agrees with Sohl et al. that a carefully selecting a cohort improves comparability in financial analysis. He contends that by selecting cities from the same state improves comparability due to various similarities such as political culture, geographic location, costs of living and accounting practices (Clarke, 2015). The researcher notes that using data spanning multiple years may help to predict the future but cautions that it is only a good estimate as a government's revenue generating ability and demand for services can change over time. In addition, Clarke (2015) notes that the improvement of a government's financial condition as measured with a financial condition index tool may "not necessarily be an absolute improvement" (p. 76) and as such "creates a false sense of progress when none exists" (p. 76). The researcher determines that, due to many limitations, financial condition measurement tools may not be able to consistently predict financial condition at the local government level.

Studies of financial condition take varying approaches with regard to the inclusion of socioeconomic indicators. Some studies focus only on financial aspects, others consider the association between socioeconomic and financial indicators and other studies examine methods of including socioeconomic indicators into a financial condition measure. As noted, Sohl et al. (2009) use a rank-driven methodology to identify a comparable group of cities located in the United States to study performance comparisons. The researchers consider socioeconomic variables including population size, organizational size and scope of services, revenues and expenditures, tax base and community characteristics.

Wang et al. (2007) assert that while "socioeconomic factors may affect financial condition, they are not financial condition itself" (p 5). In their study, they empirically test the relationship between the financial condition index of a municipality and select socioeconomic variables including population, personal income per capita, population growth rate, percentage change in personal income, percentage change in employment rate, state gross product per capita and an economic momentum index. The researchers determine that their measure of financial condition is negatively associated with population and personal income per capital. However, they find that financial condition is positively associated with certain measures of socioeconomic conditions, including employment increases and an economic momentum index.

A similar approach is taken by Clark (2015). He determines that FCI is negatively associated with population, wages per capita, and employment per capita. However, he acknowledges that the small scale of many of the cities used in his study limit the ability to measure economic position as there is a potential for error. For example, data that measures jobs and wages in a city does not take into account that individuals can work in one city, but live in another.

Cabaleiro et al. (2013) contrast the aggregate financial performance indicators determined in their study with the socioeconomic variables of population size and geographic location. These researchers conclude that decreasing population size is a factor in deteriorating health of a government unit and that geographic location has implications for the health of those municipalities studied in Spain.

While the measurement of a government unit's financial condition is a complex concept, due in part to the numerous approaches and methods (Cabaleiro et al., 2013; Rivenbark & Roenigk, 2011), there is agreement that its measurement is important to the effective, efficient, and economical delivery of public service (Wang et al, 2007). However, it is suggested that the information obtained from a financial condition analysis should be presented in a manner that will increase the likelihood of its use (Rivenbark & Roenigk, 2011). Financial indicators should be reviewed in context of a group of indicators and financial condition measurement be based on trend, not point estimates (Sohl et al., 2009). Both context (Sohl et al., 2009; Rivenbark & Roenigk, 2011) and environment are necessary components of government financial condition assessment, but such factors are not easily modelled using a financial condition indicator tool (Clarke, 2015).

Nova Scotia's Financial Condition Index

A joint project between the Province of Nova Scotia, the Union of Nova Scotia Municipalities (UNSM) and the Association of Municipal Administrators (AMA) in 2002 resulted in the development of municipal indicators. The program was launched on the Service Nova Scotia and Municipal Relations (SNSMR) website and provided comparative financial, community, governance and performance indicators and information to support governance, management and policy development in Nova Scotia's municipal governments. The program was subject to several reviews to assess the scope, effectiveness and reliablity of the indicators, with the most recent commencing in 2010. A key recommendation that came out of this review was for a reorganization of the municipal indicators, including the financial condition index. The design was finalized in December 2012.

The revised FCI model has three dimensions: a revenue dimension, a budget dimension, and a debt and capital dimension. Each dimension has five indicators that can be used to measure components of financial condition for towns, and rural and regional municipalities in Nova Scotia. Appendix 1 provides a listing of the 15 indicators, contains a description of how each rating is calculated and a corresponding brief definition or rationale.

The FCI was launched on May 15, 2014 by the Department of Municipal Affairs and the UNSM but on that date, the website tool contained indicator data for the 2011-2012 fiscal year only for each of Nova Scotia's towns and rural and regional municipalities. On February 17, 2015, the database was populated with information for both the 2012-2013 and 2013-2014 fiscal years. The website user now has the option of generating a one-year or a three-year comparative FCI report for any of the province's municipalities.[2] Each report provides a municipality's score for each of the fifteen indicators, the indicator average for its classification (rural, regional or town) and the recommended indicator threshold. The report is color-coded to assist readers with interpreting the results, as summarized in Table 1.

Table 1: FCI Colour Legend

Green	The FCI Indicator Score **meets or exceeds** the Threshold and the Town Average
Yellow	The FCI Indicator Score **meets or exceeds** the Threshold but **does not meet** the Town Average
Red	The FCI indicator **does not meet** the Threshold

Source: The Financial Condition Index (http://novascotia.ca/dma/pdf/mun-finance-indicators-FCI-brochure.pdf).

The majority of data for an FCI report comes from the Financial Information Report (FIR). This 33-page annual filing requirement is due by September 30 of each year and includes prescribed data that must come from the audited financial statements. Assessment data is obtained from the PVSC, the provincial organization charged with providing assessment values of all properties in Nova Scotia. Census data comes from Statistics Canada and the Province of Nova Scotia Community Counts program.[3] Each municipality is required to review and approve its data and has the option to provide additional information to explain certain indicators or unique circumstances. These comments, if provided, can be accessed when a one-year FCI report is generated.

A Financial Condition Index brochure cautions that the FCI is "not a substitute for comprehensive examination of a municipality's financial performance," that it "gives a snapshot of financial condition as of March 31 of the fiscal year selected" and that it "should not be used to pick the best municipality." ("FCI Brochure"). So this implies financial condition is something that may be determined at one point in time. Furthermore, while it may not provide information on the 'best municipality', town averages for each indicator are provided which means municipalities may assess their performance in comparison to the appropriate class average, and not just at one point in time, but over a three year period. And finally, achievement benchmarks are provided which are based on jurisdiction and literature research, data modelling and municipal consultation. How they were determined is not the issue, but rather that they are provided. This suggests inadequate performance if a municipality does not hit the benchmark.

In 2010, the Towns Task Force was formed to address the many challenges facing Nova Scotia towns and municipalities. Their report, "A Path to Municipal Viability," was issued in September 2012 and contained 36 recommendations, with the first four dealing with the financial condition index. The first recommendation was to prepare financial condition indicators for each municipality in the province and make the results available for public review and comment. Second, it was recommended that municipalities be subject to a comprehensive follow-up study

[2] To view a sample report, go to http://novascotia.ca/dma/finance/indicator/fci.asp.

[3] The Community Counts program was cut in the provincial government's spring 2015 budget. The website now redirects users to Statistics Canada.

when issues identified through critical indicators continue to demonstrate problems over a three year period. The third recommendation encouraged public engagement and the fourth suggested that the process for required reporting on the FCI and any follow up be entrenched in legislation. All recommendations, including the four specifically dealing with the FCI were approved by the UNSM membership on September 20, 2012. (Towns Task Force, 2012)

On October 14, 2014, a draft report containing forty-one recommendations was issued by the Provincial-Municipal Fiscal Review Committee, four of which were specific to the FCI. First, the committee recommended that the province formalize FCI tracking as the tool to be used to monitor the financial health of municipalities. Secondly, the committee encouraged the development of materials to help municipalities understand the FCI. They also recommended that municipalities be subject to a comprehensive review after three consecutive years of six or more red-flagged FCI indicators. The FCI tracker was the recommended tool to be used to identify red-coded scores. However, the recommendations were silent as to whether this applied to specific indicators, if it had to be the same six indicators in each year, or if could be any six indicators annually over the three year period.

A provincial government media briefing on the FCI issued on February 17, 2015, indicated that using the FCI as an indicator of municipal viability and the three-year trend of six or more red scores triggering a review guideline were not approved. However, on this same date, CBC News Nova Scotia reported that the Municipal Affairs Department said the FCI indicated that the towns of Westville, Clark’s Harbour and Mulgrave were not meeting enough benchmarks to be considered financially viable. The report also noted that the Minister of Municipal Affairs was working with municipalities to finalize the review process. Each of these towns had a three-year trend of six or more red scores.

Municipal Profile Overview Reports

The Municipal Affairs website also provides a tool that allows a user to create a municipal profile report for each town and rural and regional municipality located in Nova Scotia. While the website states that the overview provided in the reports can assist with interpreting other indicators such as the FCI, the data is of limited use. The municipal profile reports are available on an annual basis only and are for the fiscal periods 2011/12, 2012/13 and 2013/14. Each profile report provides general information that includes municipality size (number of dwellings and geographic area), operating budget for the next fiscal year, taxable property assessment and size of the council. The report also provides two pie charts - one for a municipality’s various components of revenue and a second for the appropriate class average.

The municipal reports also provide demographic information including population trends (2012 – 2014), age profiles, percentage change in population, median household income, employment participation and education beyond high school. However, the demographic information is based on the 2011 census, so a municipality’s report generated for 2013/14 contains the same information as a report generated for 2011/12. The population trend data charts reflect static population for both the municipality and the municipality average over the three year period. An FCI report includes indicator data for 2011/12, 2012/13 and 2013/14, not 2011 as reflected in the municipal demographic data. Deteriorating or negative demographic and economic trends can have a significant impact on municipalities and can provide valuable insight for interpreting a municipality's FCI. Municipal profile reports should be for a period that is concurrent to the FCI reports as this would provide relevant, contextual data to use in financial condition analysis.

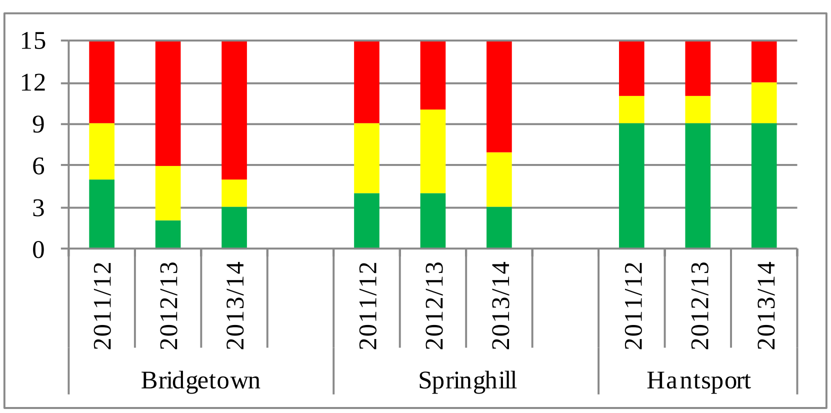
A Critique of the Nova Scotia FCI using Bridgetown, Springhill and Hantsport Examples

Bridgetown, Springhill and Hantsport each stated in their dissolution application documents that they were not meeting the FCI threshold for viability. We will review the three year FCI reports for the fiscal years ending March 31, 2012, 2013 and 2014 for Bridgetown, Springhill and Hantsport to determine if they provide insight into why these towns are no longer financially viable. We will also use this FCI data to identify and consider shortcomings in using financial indicators only to evaluate financial condition, (i.e. – that it is not a reliable snapshot of financial condition), and highlight why contextual knowledge is necessary.

A table summarizing the FCIs for Bridgetown, Springhill and Hantsport for the fiscal years ended March 31, 2012, 2013 and 2014 can be found in Appendix 2. This table also provides the annual town average scores and the recommended threshold for towns in Nova Scotia.

First, the number of red, yellow and green FCI indicators for Bridgetown, Springhill and Hantsport the years 2011/12- 2013/14 are determined and summarized in Table 2 below. One can easily note that financial conditions of both Bridgetown and Springhill appear to be deteriorating over the three-year period, if the number of red scores is an indicator of financial condition. Bridgetown exceeds the proposed threshold of six or more red scores over three years while Springhill does so in the 2011/12 fiscal year, again in 2013/14 but has five red scores for 2012/13. Hantsport's financial condition appears to be somewhat stable over the three years based on the colour scores received for its indicators and, in fact, has nine green scores in each of the years reviewed. Based on this, Hantsport and Springhill would not be subject to an automatic review under the proposed grading system.

Table 2: FCI Colour Score Count by Year – Bridgetown, Springhill and Hantsport



Source: Financial Condition Index (http://novascotia.ca/dma/finance/indicator/fci.asp)

Reviewing Bridgetown and Springhill's FCI reports for the three years ending March 31, 2014 (see data as provided in Appendix 2), it can be seen that each town received a red score for four of the same indicators over the three year period: uncollected taxes, 3-year change in tax base, commercial property assessment and operating reserves. In 2013/14, each town received a red score for six of the same indicators: uncollected taxes, deficits in last five years, budgeted expenditures accuracy, liquidity, and operating reserves. Do any of these red scores, individually or in conjunction with other red scores, signify that a town is no longer financially viable? We argue no, based on the following analysis of selected indicators for the former towns of Bridgetown, Springhill and Hantsport.

The significance of red scores for the liquidity and the percentage of uncollected taxes is intuitive. A low liquidity score implies that the municipality may encounter difficulties in paying current liabilities. Each of the three towns had yellow or red scores for the liquidity ratio for each of the three years with one exception – Bridgetown received a green score in 2011/12. The high percentage of uncollected taxes suggests that the municipality is experiencing difficulty in collecting overdue accounts and is likely having cash flow issues as a result. The continuation of poor liquidity and slow collection of outstanding receivables could negatively impact on a town's future viability. The percentage of uncollected taxes for Bridgetown and Springhill each exceeded both the recommended threshold and the town average, but there are two things to note. First, Springhill's ratio for each year could be considered an outlier as it is significantly higher than the reported ratio for all other towns, as summarized Table 3.

Table 3: Percentage of Uncollected Taxes

Fiscal Year Ending,	Range of Indicator Scores, excluding Springhill	Indicator Score – Springhill
March 31, 2012	0.7% to 20.9%	53.8%
March 31, 2013	1.0% to 25.4%	53.9%
March 31, 2014	0.7% to 23.7%	40.6%

Second, as the town average is calculated by including the ratios for all towns, Springhill's score is likely putting upward pressure on the average for this indicator. Table 4 reflects a recalculated indicator average with Springhill excluded and the median for this indicator. Springhill's score for uncollected taxes has skewed the town average.

Table 4: Percentage of Uncollected Taxes (Recalculated and Median)

Uncollected Taxes (%)	Town Average, Per FCI Reports	Town Average, Recalculated (excluding Springhill)	Median (Including Springhill)
March 31, 2012	9.7%	7.9%	7.0%
March 31, 2013	9.7%	8.1%	6.7%
March 31, 2014	9.1%	8.0%	7.5%

The data provided in Appendix 1 reveals that Hantsport received green scores for the uncollected taxes indicator in each of the three years under review, performing better than the town average and within the recommended threshold. However, the town has provided additional information to their FCI Reports for both 2012/13 and 2013/14 stating that uncollected taxes have remained low in Hantsport because of financial institutions paying taxes owed on a higher number of bank foreclosures on homes (FCI Report - municipality comments, Hantsport, 2014). So, while the green scores imply the town is performing well, the underlying reason for the green indicators signal financial concern.

The 3-year change in tax base indicator implies modest improvement for Bridgetown and Springhill with each town moving from a red score in 2011/12 to green scores in 2012/13 and 2013/14. Bridgetown's score of 6.5% in 2012 increased to 7.9% over the three year period and Springhill's score of 6.4% in 2012 increased to 8.6%. However, the annual recommended threshold for this indicator is set at the change in the Nova Scotia Consumer Price Index over the previous three years. As such, a declining CPI resulted in a decline in the recommended thresholds over the three year period as follows: above 8.37% in 2011/12; above 6.20% in 2012/13; and above 4.44% in 2013/14.

The towns' green scores do not necessarily mean there was improvement in financial condition, not only because of the decreasing CPI, but for other reasons. First, it cannot be determined if any portion of the improved score is due to an increase in assessment value because of improvements to existing properties or new builds in the town. Second, the assessments of certain properties in Nova Scotia are based on a CPI-capped value, not market value. And third, the annual taxable assessment value of property is subject to a two-year lag, not a more current assessment value.

Hantsport experienced significant declines in its score for the three year change in tax base indicator for each of the years under review with red scores of -17.2% in 2011/12, -14.7% in 2012/13 and -18.4% in 2013/14. And while the town received green scores for commercial property assessment each of the three years, an examination of the trend data reveals significant decline from year to year: 40.9% in 2011/12; 33.5% in 2012/13; and 22.5% in 2013/14. The town's application for dissolution explained the significant events that had such a negative impact on these two indicators. First, the Canadian Gypsum Company idled its operations in 2009. The commercial assessment for this company dropped from $32 million to $5.3 in a just a few years. Second, the Minas Basin Pulp and Power Company closed in 2012 resulting in an immediate drop in commercial assessment, from $6 million to $1.5 million. The two closures resulted in over a $1 million reduction in their tax revenue, or one-third of the budget. (Application to Dissolve the Town, Hantsport)

Bridgetown and Springhill each received red scores for the commercial property tax assessment indicator for each of the three years under review. Bridgetown's score declined from 15.1% in 2012 to 13.3% in 2014, a 1.8 point decrease over the three-year period. Springhill's commercial assessment score declined from 10.5% to 10.0%, a .5 point decrease over the same period. This indicator is viewed as an important measurement of economic activity in a town, so a decline in the value implies a decrease in economic activity. There are two issues that should be considered when using this indicator in financial condition assessment. First, we must consider the effect the two-year lag has on commercial properties. Many businesses experience downturns when the economy experiences a downturn, not two years later (although a downturn can continue two years later and longer). So, if the market value of a commercial property decreases due to a slow economy, tax rates are not applied to the decreased assessment value until two year later.

Second, this indicator is calculated using the following formula: total taxable commercial assessment ÷ total taxable assessment. This calculation does not include special arrangement taxes such as taxes-in-lieu. So, while inclusion of these amounts would not necessarily change the indicator score, the information regarding such grants is arguably important when assessing a town's financial condition. Springhill, for example, reported $1,870,687 grant-in-lieu revenue for the March 31, 2014 fiscal year. This represented 26.9% of the town's total revenue and the majority of this grant-in-lieu is received because a federal penitentiary is located within the town's boundaries. This is reflected in Springhill's red score of just over 22% for the reliance on single business/institutions indicator in each of the three years. The federal penitentiary is a key part of the local Springhill economy and its closure is not likely. As such, for Springhill, this reliance can be interpreted as a good thing, not bad, as a red score implies.

Contrast this to the scores received by Hantsport for reliance on a single business/institution. The three year trend included two red scores (22.7% in 2011/12 and 13.7% in 2012/13) and one yellow score (7.0% in 2013/14). One could assume that based on the trend data, the financial condition indicator is improving. However, as noted, two major companies have closed over the past few years resulting in a significant economic downturn for the town. So while the indicator is improving, the town's financial condition is not.

A similar situation can be argued with regard to operating reserves. This ratio is calculated as follows: (total operating reserve fund balance + accumulated surplus of the general operating fund) ÷ total operating expenditures. First, it must be noted that the recommended threshold went from above 5% in 2011/12 to 10% for 2012/13 and 2013/14. A reason for this change was not provided. Bridgetown and Springhill each had red scores for each of the three years. This implies that limited to no funds were held aside for contingencies. The Hantsport data for the operating reserve indicator is quite interesting. The town received a yellow score of 7.3% in 2011/12 and green scores in both 2012/13 and 2013/14 of 15.9% and 21.6%, respectively. So this trend data implies that Hantsport's position for this indicator is improving. However, this is not the case. The town suffered a significant decrease in revenue over the three years, and a lower tax base results in a smaller budget. So, while there has been little change in the dollar value of the reserves over the past few years, expenditures have decreased. As a result, the operating reserves represent a larger portion of a smaller budget. (FCI Report - municipality comments, Hantsport, 2014). So, while the trend implies significant improvement for this indicator, the same cannot be said for the town's financial condition.

The final indicator that will be discussed is the budget expenditures accuracy indicator. First, it must be noted what this indicator means and how the town average is calculated and presented in an FCI report. The closer a municipality's budgeted expenditures are to 0%, the more accurate their actual expenditures are to budgeted expenditures. A positive indicator score means that a town's actual expenditures were less than budget whereas as negative indicator score means that actual expenditures exceeded budget. The recommended threshold indicator score is presented as a range. For example, the recommended threshold for 2012 to 2014 is between -5% and +5%.

The town average is calculated using the absolute value for each town's indicator and this number is displayed on an FCI report as the 'town average.' However, as the absolute value of each town's score is used to determine the average, the town average should be presented as a range. So, for 2014, 'between -3.9% and +3.9%' should be reported as the town average, not '3.9%.'

The interpretation of a town's score for the budgeted expenditures accuracy indicator is quite difficult without contextual knowledge. Take for example the 2014 red indicator scores for Bridgetown (+13.4%) and Springhill (-13.7%). The only thing we can interpret is that Bridgetown's actual expenditures were less than budget and that Springhill's were greater than budget. Knowledge of what caused the inaccuracies would assist with assessing financial condition. For example, actual expenditures being less than budget because of cost savings or efficiencies is significantly different than spending more to provide the same level of service to town constituents.

Conclusion

During 2015, the towns of Bridgetown, Springhill and Hantsport dissolved, each amalgamating with a neighbouring county municipality. Each of the applications for dissolution noted that, as per their Financial Condition Index, the towns were not meeting the index threshold for viability. The FCI reports for each of these towns for 2012, 2013 and 2014 were reviewed and compared to identify concerns with using the tool to assess financial condition.

The majority of municipal data used to generate FCI reports comes from the annual FIR reports. The FIR is a quality database of the financial information of all municipalities in Nova Scotia as it includes commonly-coded data that must come from audited financial statements. Financial statements must follow GAAP as prescribed by PSAB. As such, this improves the comparability of data used to assess the relative performance, or position, of a municipality within its class.

It must be acknowledged that financial statements are historic and as such the FCI reports are as well. And, as the data required to generate FCI reports is not due until six months after year end, timeliness of the information contained in the reports is certainly an issue. So, while the FCI may provide a snapshot of the financial condition as of March 31, the snapshot is not available until more than six months later. In addition, it is reasonable to question the FCI's predictive ability not only because of its use of historic data, but because a municipal situation can change in the future – government, revenue generating ability, and demand for services to name but a few.

Comparative analysis requires more than just comparable data. Literature supports that an analysis of comparative financial position should be performed for a like-situated cohort. An FCI report for a town provides one average for all towns in Nova Scotia – all towns are considered to be one class. County and district municipalities are also considered to be one class, and as such, one average is provided. An FCI report for one of the three regional municipalities in Nova Scotia does not include a class average as each is considered to be the only one in its class. Even though the province of Nova Scotia is small in terms of population and geographic size, there are significant variations with regards to population size, demographic profile and geographic size.

As such, considering one class average for 27 towns and one for 21 rural municipalities may not be appropriate.

Assessing financial condition should not be done for a municipal unit for one point in time nor be based on a set of financial indicators only. Additional information must be considered. First, using trend data can help establish context. Is a financial indicator improving over time or deteriorating? Second, additional contextual knowledge can be obtained by assessing a group of indicators. For example, Hansport's FCI reported green scores for the commercial property assessment in each of the three years indicates that it met the prescribed threshold and performed better than the town average. However, the trend data revealed a significant decrease over the three year period 40.9 to 33.5 to 22.5 (the revenue coming from commercial tax stream decreased). So, the trend data indicates that financial condition may be deteriorating. Reviewing other indicators may confirm or dispel this. In Hantsport's case, the trend for the three-year change in tax base showed significant decline and the town's poor liquidity position in each of the three years substantiates that the town's financial condition is in fact deteriorating.

The FCI report generated contains red, yellow and green scores. This is reminiscent of traffic lights: red means stop; yellow means proceed with caution; and, green means you are good to go. However, this is not always the case when interpreting an FCI report as this analysis revealed when Hantsport was examined. The tool in its present format is relatively new and only time will tell if the way the data is presented will increase the likelihood of its use.

Economic and demographic data can also provide contextual knowledge. For example, a decreasing GDP, decreasing population or an aging demographic can suggest that a town's financial condition is, or will, deteriorate. Deteriorating or negative economic and demographic trends can have a significant impact on municipalities and can provided valuable insight for interpreting a municipality's FCI. Economic and demographic data adds contextual knowledge and can help with determining if the towns are like-situated for comparison purposes. However, the information must match the period for which the FCI information is available. Nova Scotia's municipal profile overview reporting tool is an attempt to provide this economic and demographic information but there are too many shortcomings that limit its usefulness when assessing financial viability. For example, the census data included in the municipal profile report is for 2011 only and the FCI reports are for 2012 – 2014.

In closing, it must be noted that if an entire region is depressed, the least depressed in the group or class will appear relatively healthy. As such, adequate and appropriate contextual knowledge is necessary in assessing the financial condition of a town.

Appendix 1: Financial Condition Index – Indicator, Formula and Definition/Rationale

Indicator	Formula	Definition/Rationale
Reliance on Government Transfers (%)	Total government transfers ÷ Total revenue	An indicator of a municipality's reliance on transfers from provincial and federal governments.
Uncollected Taxes (%)	Uncollected taxes (all years, less valuation allowances) ÷ Total taxes billed in current fiscal year	Compares cumulative unpaid taxes, net of adjustments, with the current amount billed by the municipality.
3-Year Change in Tax Base (%)	(Current Uniform Assessment – Uniform Assessment 3rd Prior Year) ÷ Uniform assessment 3rd Prior Year	Illustrates the growth in the municipality's property assessment.
Commercial Property Assessment (%)	Total taxable commercial assessment ÷ Total taxable assessment	A measurement of economic activity in the municipality.
Reliance on Single Business/Institution (%)	Taxable assessment value of the largest business or institution ÷ Uniform assessment	Shows how much a municipality's tax base depends on a single commercial or institutional account.
Residential Tax Effort (%)	(Total residential tax revenue ÷ Total dwelling units) ÷ (Median household income)	% of average household's income required to pay the average tax bill.
Deficits in the Last Five Years (#)	Number of non-consolidated operating deficits in the last 5 years	Indicates how many deficits a municipality ran in the last five years.
Budgeted Expenditures Accuracy (%)	(Budgeted expenditures - Actual expenditures) ÷ Budgeted expenditures	Reflects accuracy with projecting revenues and expenditures.
Liquidity	Total short term operating assets ÷ Total short term liabilities	The municipality's ability to pay bills in the short term.
Operating Reserves (%)	(Total operating reserve fund balance + accumulated surplus of the general operating fund) ÷ Total operating expenditures	Compares total operating reserves to a single year's operating budget.
Debt Service (%)	Principal and interest paid on long term debt ÷ Total own source revenue	% of a municipality's revenue devoted to debt repayment and allows analysis of only the revenue within council's control.
Outstanding Debt (%)	Total outstanding long term debt ÷ Total uniform assessment	Provides an indication of how much debt a municipality is carrying in relation to their tax base.
Undepreciated Assets (%)	Total net book value of capital assets ÷ Total gross cost of capital assets	Provides an estimate of the useful life left in a municipality's capital assets.
5-year Capital Purchases (%)	Total purchases of capital assets over a 5-year period ÷ Total depreciation accrued over the same 5-year period	Compares how fast a municipality is investing in capital assets and how quickly their assets are aging.
5-year Contributions to Capital Reserves (%)	Total contributions to capital reserves over a 5-year period ÷ Total depreciation accrued over the same 5-year period	This indicator shows how quickly a municipality is accumulating capital reserves compared to how quickly their assets are aging.*

Source: Indicator Definitions (http://www.novascotia.ca/dma/finance/indicator/definitions.asp?def=12

**Indicator data available only from 2010 onward. As a result, the 2012 score is based on three years of data, the 2013 score is based on four years of data, and the 2014 score is based on five years of data.)*

Appendix 2: Financial Condition Comparison for the Three Years Ending March 31, 2014 (Bridgetown, Springhill and Hantsport)

	Bridgetown			Springhill			Hantsport			Town Average			Threshold
Revenue Dimension	2011/12	2012/13	2013/14	2011/12	2012/13	2013/14	2011/12	2012/13	2013/14	2011/12	2012/13	2013/14	
Reliance on Government Transfers	17.7	21.6	16.1	13.8	13.7	13.6	4.0	2.8	5.6	11.0	10.5	9.9	Below 15%
Uncollected Taxes (%)	17.0	15.0	15.7	53.8	53.9	40.6	1.1	4.3	3.6	9.7	9.7	9.1	Below 10%
3-Year Change in Tax Base (%) *(See note 1)*	6.5	7.5	7.9	6.4	7.3	8.6	-17.2	-14.7	-18.4	5.4	7.2	7.3	2012 > 8.37% 2013 > 6.20% 2014 > 4.44%
Commercial Property Assessment (%)	15.1	14.5	13.3	10.5	10.4	10.0	40.9	33.5	22.5	23.1	22.2	21.6	Above 20%
Reliance on Single Business/Institution (%)	1.1	1.0	1.1	22.4	22.2	22.4	22.7	13.7	7.0	7.2	6.2	5.9	Below 10%
Budget Dimension													
Residential Tax Effort (%)	3.4	4.3	4.4	2.9	3.1	2.9	3.2	3.8	3.9	3.3	3.7	3.9	Below 4%
Deficits in the Last Five years (#)	4.0	3.0	3.0	1.0	1.0	2.0	0.0	0.0	0.0	1.0	0.7	0.5	Below 1
Budgeted Expenditures Accuracy (%)	-3.4	8.6	13.4	-1.0	-3.6	-13.7	2.7	3.4	1.2	3.8	4.1	3.9	Between -5% And +5%
Liquidity (Ratio)	1.5	0.5	0.6	1.0	1.0	0.5	0.7	0.5	0.6	1.5	1.6	1.4	Above 1.0
Operating Reserves (%) *(See note 2)*	0.0	3.7	3.8	0.0	0.0	0.0	7.3	15.9	21.6	8.0	15.8	14.6	2012 > 5% 2013 & 2014 > 10%
Debt & Capital Dimension													
Debt Service (%)	14.6	16.1	16.0	8.5	8.7	11.3	9.6	9.6	9.9	7.4	7.8	7.9	Below 15%
Outstanding Debt (%)	3.0	2.9	2.5	2.3	2.0	1.6	1.2	1.1	1	1.3	1.3	1.3	Below 3.5%
Undepreciated Assets (%)	70	66.8	63.9	65.2	63.4	61.5	77.9	74.1	71	58.6	57.7	56.4	Above 60%
5-year Capital Purchases (%)	120.9	101.1	94.6	155.1	131.1	120.5	224.3	201.5	169	211.6	196.0	181.5	Above 100%
5-year Contributions to Capital Reserves (%)	16.7	13.0	10.3	0.0	0.0	0.0	2.8	2.0	1.5	8.2	11.0	14.6	Above 10%

Legend:

Green	The FCI Indicator Score **meets or exceeds** the Threshold and the Town Average
Yellow	The FCI Indicator Score **meets or exceeds** the Threshold but **does not meet** the Town Average
Red	The FCI indicator **does not meet** the Threshold

Note 1: The three year change in tax base varies each year by change in 3 year CPI.

Note 2: In 2011/12, the threshold was set at 5%. In 2012/13 the threshold increased to 10%.

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RHETORICAL HISTORY AND REGIONAL ADVANTAGE: AN ANTI-HISTORY OF "THE OCEANS CLUSTER" IN NOVA SCOTIA, CANADA [1]

Abstract

Many regions articulate their competitive advantage by pointing to local industry clusters. However, the story-telling related to regional industry clusters is often taken-for-granted. I use the ANTi-History approach to (re)assemble three histories of "the oceans cluster" in Nova Scotia. Accounts from 1960, 1980 and 2012 are discussed. I suggest that these are evidence of "industrial interessement": attempts to define a cluster identity and rhetorically impose that identity on various actors. I argue that these are "rhetorical histories" that aim to "assemble" a cluster as historical fact, thereby establishing a regional competitive advantage.

Industrial History as Rhetoric

Nova Scotia is a maritime province on Canada's Atlantic Coast, where recent events mean it is again "du jour" to know the ocean. While our fishery is still only a ghost of its former glory, we will soon rediscover our shipbuilding heritage. Irving Shipbuilding will "build ships here" for our federal government's next-generation combat fleet. Excited press releases and policy documents have positioned this as only the beginning. The project is touted as an anchor tenant (c.f. Niosi & Zhegu, 2010) for an already promising "Oceans Technology Sector" (Government of Nova Scotia, 2012). The same policy narrative credits defence spending with not only the future of this industry, but also its historical evolution. But at a panel discussion I attended on the subject, one prominent observer posed an interesting challenge: is ocean technology truly one coherent set of technologies or companies? (If so, why not one other set called land technology?). Instead of one industry, this "expert" described "puzzle pieces" and the need for "bandwidth" to connect them[2]. This got me interested in the idea that there may be multiple (Mol, 2002) versions of this industry, and the prominent versions might be "assembled" to serve the interests of certain actors.

Firms use rhetorical history to establish valuable symbolic assets and competitive advantages (Suddaby, Foster, & Trank, 2010). This involves "strategic use of the past as a persuasive strategy

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[2] Jim Hanlon, CEO, Institute for Ocean Research Enterprise, speaking as moderator of the "Oceans Panel" at The Premier's Innovation Summit, April 17, 2013, the Halifax Marriott Harbourfront Hotel.

to manage key stakeholders of the firm" (Suddaby et al., 2010). In this paper, I argue that rhetorical history is also used by those who are working to "assemble" a "cluster," "industry" or "sector." An industrial history provides a kind of geo-political competitive advantage (c.f. Porter, 1990; Porter, 2003) by establishing a cluster as "historical fact." The narrative serves to attract interest and resources toward the future development of such an "industry."

To illustrate, this paper (re)assembles histories of the "oceans cluster" in Nova Scotia, Canada. My aim is to identify key actor-networks, their interests and their socio-politics (Callon, 1986b), thereby revealing the history of this sector in its multiplicity. This is an empirical example of the nascent ANTi-History approach (Durepos & Mills, 2011; Durepos & Mills, 2012). It not only introduces a new domain for studies of rhetorical history, but also challenges the naïve assumption that an "industry" is an objectively defined group of firms (e.g. NAICS, SIC).

I begin this paper by describing my use of Actor-Network Theory (ANT) (Alcadipani & Hassard, 2010; Latour & Woolgar, 1986; Law, 1986; Law & Hassard, 1999) as an approach to working with archival data. This is followed by brief examinations of three historical accounts (dating from 1960, 1980, and 2012) and the actor-networks associated with each account. Reflecting on these histories, I conclude the paper with some discussion on the multiplicity of historical rhetoric and the socio-political processes of "assembling" knowledge about/for an industrial cluster. With reference to Callon (1986b), I focus particularly on a process I call "industrial interessement" which appears to be a precondition to the "assembly" of an industrial cluster and to any related claims of regional competitive advantage.

Actor-Network Theory

Actor-Network Theory (ANT) emerged from sociology's *Science and Technology Studies* (Hassard & Wolfram Cox, 2013). Early ANT studies focused on the construction of knowledge in scientific laboratories (Latour, 1987; Latour & Woolgar, 1986) and the social engineering of technologies (Callon, 1986a; Law, 1986). ANT has since been translated for use in organization studies to help re-theorize a wide range of topics (Woolgar, Coopmans, & Neyland, 2009).

ANT is neither *theory*, nor *method*, in the traditional sense of those words (Latour, 1999; Law, 1999; Mol, 2010). It is more accurately described as a research *approach* (Alcadipani & Hassard, 2010). An actor can be any entity (human or non-human, e.g. a piece of technology) with the capacity to act upon another (Law, 1986). Interactions between these entities form network relations. Callon (1986b) calls this process "translation" and breaks it down into four "moments." The interactions begin with *problematization*: a problem is defined (by one or more of the actors) such that the actors seem indispensable to one another. For example, a policy maker might work to convince various organizations that they exist in a mutually beneficial industrial cluster (i.e. their fortunes are tied together). The second moment is *interessement*: an actor "attempts to impose and stabilize the identity of the other actors it defines through its problematization" (Callon, 1986b, p. 204). In other words, an organization might be convinced that its *identity* is defined through its association within an industrial cluster. Next, objections and negotiations are resolved during the third moment: *enrolment* (sic). Here, some companies may find enrolment to be in their best interests: they benefit in some way from the association. Other companies may choose to resist. In the final moment, *mobilization*, those actors that were successfully enrolled may begin to act on behalf of the network. Company officials may begin to positively promote their home region to suppliers, customers, and partners.

When many actors begin to act in unison, their network is said to become punctuated (Latour, 1987). That is to say, the network becomes an actor. One way that networks punctuate is by inscribing their intent into a report (Latour, 1987), book (Durepos & Mills, 2012), technology (Akrich, 1994), or other material artifact. This object becomes a non-human actor, an immutable mobile (Latour, 1987), that can travel across time and space enrolling other actors into its cause. It also has the ability to appear as a "black box" (Latour, 1987): concealing the network that led to its creation. Historical accounts are particularly interesting "black box" inscription points.

ANTi-History (Durepos & Mills, 2011; Durepos & Mills, 2012) is a nascent approach for studying black-boxed organizational histories. It fuses ANT with ideas from critical historiography (Durepos & Mills, 2011; Durepos & Mills, 2012). The ANTi-History approach side-steps the realist/relativist debate in history by providing a "relationalist" ontological alternative (Durepos, Mills, & Weatherbee, 2012). This means treating historic accounts as knowledges (sic) that are embedded within network relations. Mannheim (1936/1985) argued that knowledge must be understood from within the socio-historical boundaries ("communities") in which it is created. From this perspective, our knowledge of a phenomenon depends on our situatedness. It is a function of our position within a particular network, at a particular point in time. It is *relational*. This means that, "two communities can have different knowledge of a phenomenon because of their differing relationships with it" (Durepos et al., 2012, p. 271).

The vast majority of ANT studies resemble ethnography, where researcher(s) literally follow and observe actors as they relate to one another in real-time (e.g. Latour, 1987). Meanwhile, ANT approaches are also increasingly being used with textual data (e.g. Callon, 1986a; Law, 2002). In particular, the ANTi-History approach has made extensive use of archival sources (Durepos & Mills, 2011; Durepos & Mills, 2012; Durepos, Mills, & Helms Mills, 2008; Hartt, Mills, Helms Mills, & Corrigan, 2014; Myrick, Helms Mills, & Mills, 2013) in order to 'follow' actor-networks in time.

I began my work with a report from the Government of Nova Scotia (2012) that 'revealed' the neglected history of a vibrant ocean technologies cluster. This inspired me to search for older historical traces. I began by searching for "ocean technology/ies" at the Nova Scotia Public Archives[3]. This led me to examine a total of 70 documents dating from 1944 to 1995, including official and unofficial government/agency reports as well as newspaper and magazine articles. Four organizational actors figured prominently in these traces: the Nova Scotia Research Foundation (now defunct), the Naval Research Establishment (now known as Defence Research and Development Canada), Dalhousie University's Oceanography Institute (now a department in the Faculty of Science), and the federal government's Bedford Institute of Oceanography. Archival materials were limited for the latter two of these actors, and so I sought additional data from published histories relating to Dalhousie University (Mills, 1994, 2011; Waite, 1994), and reports

[3] I am grateful to the support and hospitality provided by the staff at the Nova Scotia Public Archives, and particularly to the assistance provided by archivist Rosemary Barbour.

from the Bedford Institute of Oceanography's online publication archive[4]. Over approximately one month of research, I produced 58 pages of notes and recorded 60 pages of annotated images. This work was not necessarily linear and chronological: an interesting point found in the 1980s would cause me to re-examine traces from the 1970s.

Historical Accounts

Among all of the data I have collected, three documents stand out for their attempts provide a comprehensive (historical) account of an "oceans cluster" in Nova Scotia. Other related archival traces helped me to understand how each account was itself situated within different actor-networks (i.e., a different temporal and relational contexts).

Government of Nova Scotia Publication, 2012

In the summer of 2012, the Government of Nova Scotia published "Defined by the Sea: Nova Scotia's Oceans Technology Sector present and future." This document was posted on the website of the *Department of Economic and Rural Development* as part of the governing New Democratic Party's *jobsHere* initiative. This meta-initiative was a widely promoted job creation program launched in the fall of 2010, which served as a cornerstone of the NDP's unsuccessful re-election campaign in 2013. The "Defined by the Sea" document positioned "ocean technologies" as a priority sector within the *jobsHere* strategy.

This short 24-page report begins with 10 bulleted "at-a-glance" brag-points about the sector. The first of these is a claim that the sector includes: "Over 200 companies. More than 60 innovators of new high-tech products and services" (Government of Nova Scotia, 2012, p. 1). The bullets also tell us that these companies have combined corporate revenues of $500 million, perform one-third of all private research and development in the province, and pay nine times more taxes than the average Nova Scotian firm. Four major public research organizations are highlighted: the Bedford Institute of Oceanography, the National Research Council's Institute for Marine Biosciences, the Defence Department's Defence R&D Canada, and Dalhousie University. The mention of these institutions follows the claim that "Nova Scotia is home to 450 PhDs in oceans-related disciplines. Highest concentration in the world" (Government of Nova Scotia, 2012, p. 1). The final bullet in the summary addresses opportunities for sector growth: "Estimated annual global market value for ocean-related goods and services: $3 trillion (US). Doubled in last six years" (Government of Nova Scotia, 2012, p. 1).

While "Defined by the Sea" does not describe the "evolution" of this industry in historical terms, is nonetheless a history. This is clear from the first lines of the introduction:

> *It should come as no great surprise that in Nova Scotia, where the sea has been the defining physical and economic feature for centuries, a strong, dynamic oceans technology sector is well established and growing.*

[4] For the BIO publication archive, visit http://www.bio.gc.ca/info/publications-eng.php (accessed August 2013).

> *However, the diverse nature of the enterprises and the fact that, on a per capita basis, the province boasts North America's highest concentration of oceans technology companies may raise an eyebrow or two. We suppose that is in part our omission — **a reserved reluctance to tell the story, until now*** [emphasis added] (Government of Nova Scotia, 2012, p. 2).

Indeed, the document reads like a cross between an industrial cluster analysis and a glossy promotional booklet (complete with professional photographs of key private sector ocean activities). The text includes a general introduction to "the sector", descriptions of successful companies, an assessment of market opportunities, summary of public research capacity, and a description of the "enabling environment" (i.e. training institutions, industry associations, and government funding programs). It also includes an extensive collection of impressive "facts" (without mention of their origin or authorship). The most tenuous of these relate to the "size" of the industry. The narrative assembles a wide-range of companies into this "sector" largely due to the broad definition used:

> *The oceans technology sector comprises 'knowledge-based companies that invent, develop and produce high tech products **for specific use in or on the ocean**; or provide knowledge-intensive, technology-based services, **unique to the ocean**'* [emphasis added] (Government of Nova Scotia, 2012, p. 2).

Including all ocean-related knowledge-based companies means that the reader will encounter many unrelated firms. For example, the text discusses a recreational boat builder, a nutritional supplement company, and a naval defense SONAR manufacturer. To accommodate this diversity, the sector is grouped into six "key areas of concentration": "acoustics, sensors, and instrumentation; marine geomatics; marine biotechnology; marine unmanned surface and underwater vehicles; marine data, information, and communications systems; and naval architecture" (Government of Nova Scotia, 2012, p. 5).

"Defined by the Sea" was written at a time marked by both government austerity and targeted economic stimulus. It was published one-year after Irving Shipbuilding was selected to build Canada's next-generation naval vessels at its Halifax dockyard. To this end, the Government of Nova Scotia had led a $1.4 million, widely criticized lobbying and public relations campaign titled "ShipsStartHere" (McLeod, 2013). "Defined by the Sea" reads as an extension to that public relations effort. In short, it tells the reader that an already sizeable industrial sector (i.e. one connected with ship building) is poised for significant future growth. This is encapsulated in a quote from Premier Darrell Dexter on the final page of the document:

> *Take the collective strength of oceans-related research capacity in the province; combine it with the proven entrepreneurial vision of Nova Scotia's oceans technology leaders and companies; add committed government support and promotion and the opportunities for economic growth are limitless; the solutions to some of the most vexing problems of our time are within reach* (Government of Nova Scotia, 2012, p. 21).

Canadian Geographic Magazine Article, 1980

Canadian Geographic ran a 12-page feature story about Nova Scotia's "marine science cluster" in its October/November 1980 issue (Watkins, 1980). The headline reads, "Halifax-Dartmouth area: one of the three biggest marine science centres in Western Hemisphere" (Watkins, 1980, p. 12). The author goes on suggest that this "probably is the third largest (if not the second largest) concentration of marine research and development facilities and personnel in North America" (Watkins, 1980, p. 13). His claim is highlighted in a pull-quote:

> *Public and private enterprises oriented to the sea have assembled the largest concentration of marine scientific and technical personnel to be found in Canada, outnumbered in the Americas only by the Boston-Woods Hole area in Massachusetts and perhaps the Scripps Institution in California* (Watkins, 1980, p. 12).

This story places a great deal of emphasis on the "evolution" of the cluster. On the first page, the author invokes a sense of loss over our ship building/sailing history. He claims that "marine science" is restoring Canada's "maritime reputation" (Watkins, 1980, p. 12). The article's purpose is framed in this way,

> *This is the story of that renaissance, a look at some of the scientific and developmental involvement behind Canada's rise to international oceanographic prominence. It is an accomplishment* ***far better known abroad than it is at home*** [emphasis added] (Watkins, 1980, pp. 12-13).

The author situates the origins of his "renaissance" in the establishment of a naval defense research unit during World War II. His focus, however, is on the work of the federal government's Bedford Institute of Oceanography (BIO). He explains that, "The Bedford Institute of Oceanography is at the core of a cluster of marine-oriented establishments which includes the Nova Scotia Research Foundation, Dalhousie[5], and the newly-named Technical U. of N.S." (Watkins, 1980, p. 12).

The article is nearly exclusively focused on these public research organizations. For example, it speaks of the BIO-led first-ever circumnavigation of the Americas, aboard the scientific vessel Hudson (in 1970). There is also a lengthy section about on-going work to assess the possible ecological impacts of tidal power dams. The text is accompanied by photographs of scientists and scientific activities. A few general photos of Halifax harbour are included, with captions that point to the location of key public research buildings.

However, private sector activities do not go completely unnoticed. There are mentions of spin-off companies/technologies arising out of the research laboratories and their activities. There is also a strong focus on offshore (Arctic) oil and gas opportunities at the end of the article. This is presented as a potential stimulus for the cluster's future growth. The emphasis on petroleum development is partly explained by the author's bio: "as a result of his interest in shipping and marine affairs he was aboard the tanker Manhattan during her pioneer voyage through the Northwest Passage in 1969" (Watkins, 1980, p. 12). But it is also partly explained by BIO's research agenda, which had long been devoted to Arctic exploration (i.e. Canadian Arctic sovereignty), and had become

[5] Dalhousie's cross-departmental oceanography "institute" had recently achieved "department" status, and this is noted with fanfare in the article.

particularly focused on Arctic petroleum development throughout the 1970s (BIO, 2002)[6]. Similarly, the Nova Scotia Research Foundation (NSRF: a crown corporation devoted to applied research for economic development) had become focused on offshore petroleum resources. When this article was published, NSRF had been led for over a decade by Dr. J. Ewart Blanchard, a marine geophysicist, who was recruited from the original faculty of Dalhousie's Oceanography Institute.

Notably absent from the author's description of the cluster is naval defense. Its role is relegated to activities during WWII. The only sense of cold war tensions in this article arises in a discussion of BIO's work to detect nuclear waste disposal in Canadian waters. The absence of naval research became clearer when an archivist helped me locate "Knots, volts and decibels: an informal history of the Naval Research Establishment, 1940-1967" (Longard, 1993). Written in 1977, the forward to this booklet explains that the Department of Defense deemed it too sensitive to publish until the 1990s. Due to issues of secrecy, the Defense Department remained an unmentioned actor in the *Canadian Geographic* article.

Chronicle Herald Newspaper Article, 1960

Canadian Geographic's discovery of a marine science cluster in Nova Scotia was predated by a local newspaper article a decade earlier, which made nearly the same claims. On August 6, 1960, *The Chronicle Herald* proudly proclaimed, "Halifax is becoming an internationally important base for one of Canada's biggest tasks – the oceanographic study of her virtually unexplored northern waters" (Trenbirth, 1960). This article presents itself as an origin story: it speaks of how Halifax is "becoming" an important region for a field of science that is "in its infancy" (p. 6). It describes in great detail the vessels, personnel and technologies that left Halifax harbour that summer to conduct oceanographic research. The key organizational actors in this story are arms of the Government of Canada: the Canadian Committee on Oceanography and its Atlantic Oceanographic Group.

Seven months earlier, the federal Department of Mines and Technical Surveys had announced $3 million (approximately $31 million in today's dollars) to build BIO, on the advice of the Canadian Committee on Oceanography (BIO, 1962-1992; "Canadian Institute of Oceanography," 1959). The facility would be home to various federal government departments and agencies engaged in fisheries and oceans research. The previous year, $90,000 in federal funding (approximately $936,000 in today's dollars) had been announced to establish an oceanography institute at Dalhousie University (Hayes, 1959). Dalhousie had been lobbying heavily since 1949 when the University of British Columbia secured federal funding for its own, west coast, oceanography institute (Mills, 1994). These two major funding announcements made ocean research particularly noteworthy in Nova Scotia during the summer of 1960. The *Chronicle Herald* article directly addresses the future impact of this funding with an anecdote about research on tidal currents in the Bay of Fundy:

[6] See Ørvik (1982) who suggests that the greatest threat to Canadian Arctic Sovereignty was resource exploitation by American multinational corporations, not attack by Soviet submarines.

> *…their instruments were unable to record the rapid tide flow, estimated at eight knots. But when the Oceanographic Institute at Bedford Basin gets down to business in 1962, they hope to manufacture their own instruments instead of importing them from Europe and America* (Trenbirth, 1960, p. 6).

Through anecdotes like this, the *Chronicle Herald* article articulates the anticipation that some Nova Scotians felt toward these new ocean research institutes, and the potential for a research cluster. As BIO's 1963 annual report would later say, "It seems doubtful if even the new Dartmouth brewery will be more warmly welcomed" (BIO, 1962-1992, vol. 1963, p. 1).

As in the *Canadian Geographic* publication, defense research remains notably absent from this article. There is a brief reference to military research interests, but these are quickly brushed aside. A naval vessel, the HMS Sackville is an important actor in the story, but she is an "auxiliary" vessel and therefore deployed for science not defense. Meanwhile, Cold War tensions are explicit in the article, but they are described in terms of scientific supremacy. This begins in the second sentence: "Canada and the United States have merged forces. The Russians also have been in this port" (p. 6). The author names two Soviet ships that called on Halifax harbour earlier in the year. Then, near the end of the article, Russia is described as having a competitive advantage over Canada: "Canada, with its long coastlines, has a lot of leeway to make up. Russia years ago seized on to the importance of oceanography[7]" (Trenbirth, 1960, p. 6). This article positions ocean science as an international competition. Meanwhile, several annual reports from the Bedford Institute of Oceanography (BIO, 1962-1992) present similar visits by Russian research vessels as collaboration rather than competition.

In addition to absence of naval research, a notable actor from the *Canadian Geographic* history is also missing. The Nova Scotia Research Foundation (NSRF) was already well-established (founded in 1946) when Trenbirth's (1960) newspaper story went to press. However its annual reports demonstrate that it was principally focused on developing primary industries. NSRF's oceans research would not begin in earnest until later in the 1960s (NSRF, 1946-1995). The provincial government therefore does not appear to be a significant actor in this early network. Instead, the federal government, and its funding of scientific research, is the central actor. Note that this article was published at a time when the Canadian and American governments were both making significant investments in science for the purpose of stimulating industry development (Doern, Castle, & Phillips, 2016).

Discussion

Universal Account(s)?

During my research, I was surprised to discover these three strikingly similar accounts of an oceans cluster in Nova Scotia. The present-day publication, "Defined by the Sea" (Government of Nova Scotia, 2012), gave the impression that this sector had only recently coalesced. However, media articles dating back as far as 1960 show this present-day account to be rhetorically *progressive* and

[7] Note that the Russian term translates to oceanology rather than oceanography and thereby denotes important differences in the scientific practices (Hamblin, 2005; Mills, 2011).

teleological (Weatherbee & Durepos, 2010). In other words, the present-day account is written as if certain events culminated in the inevitable current state of the industry. However, on August 6, 1960 the *Chronicle Herald* had already reported that Halifax was positioned to become an international leader in ocean science (Trenbirth, 1960). Twenty years later, *Canadian Geographic* ran its headline, "Halifax-Dartmouth Area: one of the three biggest marine science centres in Western Hemisphere" (Watkins, 1980).

At each of these three points in time (1960, 1980 and 2012) the reader is informed that historical processes have *recently* pulled together a cohesive oceans cluster. In "Defined by the Sea," the reader is previously unaware of the cluster because the government has 'omitted' it from history, due to "a reserved reluctance to tell the story, until now" (Government of Nova Scotia, 2012, p. 2). In the *Canadian Geographic* article, the reader is unaware because the cluster is "far better known abroad than it is at home" (Watkins, 1980, pp. 12-13). And in the *Chronicle Herald* article, the reader is unaware because s/he is assumed to have missed major funding announcements over the past year (Trenbirth, 1960).

With each publication, a network of actors seems to have been discovered by the author, who has then written a history to describe the *evolutionary path* prior to discovery. These accounts are therefore also *presentist* and *universalist* (Weatherbee & Durepos, 2010). They invalidate one another's implicit claims to discovering *the* history. For example, the most recent account tells us that naval defense is, and *has always been*, a critical part of the cluster. However, this role is muted or absent in the earlier accounts. Meanwhile, the earliest account expressly focuses on the role of federal government funding in establishing the cluster. This goes unmentioned in the most recent of accounts. In both 1980 and 2012, private markets are providing the cluster with its capital.

Rather than attempting to determine the 'truth' of these accounts, ie., discounting "inaccuracies" and writing a "better" version, we can embrace them as multiple and understand accept each of these these histories as valid *relational* accounts produced by different actor-networks. In the earliest account, the federal government (in its role as research patron) and its *Canadian Committee on Oceanography* are the central players in a relatively small network of actors (research vessels, technologies, and skilled experts). By 1980, the Bedford Institute of Oceanography has become central to a cluster of predominantly public sector organizations. Then in 2012, a number of private sector companies are the main characters in the story and public research organizations are relegated to a supporting cast. This contrast, between a predominantly public and predominantly private sector characterisation, is likely explained by the rise of a broader neo-liberal economic discourse in Canada over this period (Carroll & Shaw, 2001).

Multiple Definitions

At the same time, fine-grained differences are also evident in the way each history has defined ocean science (and technology). "Defined by the Sea" describes one sector that encompasses 200 private sector firms, in "six key areas of concentration" (Government of Nova Scotia, 2012). The other two articles use much narrower definitions. Some ocean measurement and instrumentation firms are mentioned in the *Canadian Geographic* article. But that author defines his cluster's "boundaries" using the term "oceanography." This seems to be a literal definition: he includes all organizations that "chart" the ocean. But oceanography is a term with multiplicity: it can include varying focuses on physics, biology, and chemistry. Benson and Rehbock claim that “oceanography is a hybrid, a mixed science […that…] cannot be said to be a single scientific discipline” (1993, p. ix). Bascom claims that “oceanography is not so much a science as a collection of scientists” (1988, p. xiii). Within the broad realm of oceanography, we can find a small groups of oceanographers for whom ‘oceanography’ should be focused more or less on physical and/or biological and/or chemical processes.

At issue is the multiplicity with which humans relate to “the ocean” (or a particular part of “an ocean”). In his autobiographical history of oceanography, William Bascom credits four factors with the rapid growth of ocean science after World War II: a ‘doubling’ in submarine warfare, a ‘tripling’ of the global fish catch, the shift to *offshore* oil production, and a new public interest in marine conservation & archaeology (Bascom, 1988, p. xiv). Eric Mills’ history of the field uses a slightly longer list. He writes that due to demand from, “fisheries, shipping, sewage disposal, ocean mineral exploitation, and submarine warfare, the field [of ocean science] had expanded too rapidly for the supply of personnel from the pure sciences to keep pace” (Mills, 2011, p. 254)[8]. The ocean is enacted in so many ways, that it is difficult to establish a single definition of ocean science.

This multiplicity surfaces in Trenbirth’s (1960) *Chronicle Herald* article. Here, the ocean is primarily represented as a venue for scientific inquiry. The article suggests that, with sufficient care and expertise, scientific investigations of the oceans will lead to economic opportunities. The author says,

> *It’s costly work, but the payoff is tremendous. Minerals . . . oil . . . new shipping routes, these are only some of the prizes. If submarine cargo-ships are developed, the information on seabed formation, tides, currents and from charts so far not even marked would be priceless. There is a military interest too, though to oceanographers it is a short-term one compared with the future value inherent in their surveys* (Trenbirth, 1960, p. 6).

This passage attempts to *enrol* actors in the idea that the ocean should be approached first and foremost as the realm of oceanography. It is considered short-sighted to approach the ocean as a field of (Cold) war. Meanwhile, the passage also subtly suggests that any efforts to enact the ocean as an *economic resource* will arise from first enacting the ocean as a field of science. The idea that science will “push” economic development was popularized in the United States by Vannevar Bush (1945, 1960) and this idea exerted considerable influence on Canadian federal government policy at the time that this Chronicle Herald article was published (Doern et al., 2016). *The Chronicle Herald* article enacts the ocean such that scientific considerations come first, economic ones come next, and military/defense considerations are less valuable and only temporary. In contrast, “Defined by the Sea” enacts the ocean as an abstract economic opportunity, and speaks of military/defense considerations (i.e., the construction of naval vessels) and scientific considerations as important supporting elements. It is clearly possible for “the ocean” to carry more than one meaning, but it cannot carry many both of these meanings at the same time. It is “more than one but less than many” (Mol, 2002, p. 55).

[8] Notice that in this quote, “the pure sciences” are presented as (an)other discrete way(s) of knowing the ocean.

In my archival research, I found that the ocean's multiplicity was troublesome for economic policy makers in the 1970s. A report by the NSRF expressed frustration that, "ocean industry is not a well defined industrial sector. There is no standard industrial classification (SIC) covering the ocean industry nor are there official statistics for the industry" (NSRFC, 1979, p. 2). Back then, the Federal Government had opted for a simple definition: "those establishments which manufacture equipment or provide services for all commercial and scientific activities in the oceans" (NSRFC, 1979, p. 2). This definition is similar to the broad one used by the Provincial Government in "Defined by the Sea" (see above). A singular ocean science/technology cluster, or actor-network, only becomes plausible through the use of such broad language. This language/rhetoric attempts to allow *many* different enactments of the ocean to coexist. And yet, we have seen that certain contradictory enactments of the ocean and this "cluster" (e.g., Halifax/Halifax-Dartmouth/Nova Scotia, ocean/marine, science/technology/industry). Attempts to assemble multiple actor-networks together could therefore lead to coherence and/or conflict. In the particular cases I have examined here, we can see repeated attempts to establish a coherent cluster identity, and conflict across the attempts.

Industrial Interessement

These repeated attempts to establish a coherent cluster identity are made possible through the failure of similar attempts in previous decades. These appear to be failures in translation (Callon, 1986b). The first moment of translation, problematization (Callon, 1986b), was similar in all three of the accounts I studied. Each author argued that the cluster's existence was going unnoticed. They all rhetorically positioned the cluster as one of the biggest and best in the world. Furthermore, they argued that the cluster was on the cusp of tremendous growth. It is presented as a point of pride for those involved, and for Nova Scotians at-large. Many public and private ocean science organizations are drawn into these problematizations.

This problematization provides for the second moment of translation: interessement (Callon, 1986b). Here, the authors each impose a collective identity on the characters in their stories. While each story uses similar words for the "ocean science" (and technology) cluster, they each define the "contents" of that cluster differently. The sectoral/industrial boundaries are produced through the rhetorical devices used by each author to include/exclude the actors that may align with her/his cause. Similarly, the geographic boundaries for the cluster are also an interest-driven choice. The *Chronicle Herald* article (Trenbirth, 1960) uses "Halifax", the *Canadian Geographic* article (Watkins, 1980) uses "Halifax-Dartmouth area" (the harbour is the area of focus), and the government report (Government of Nova Scotia, 2012) uses the entire Province of Nova Scotia. These geographic labels not only help to explain which actors might be inside or outside the network/cluster, but are also a form of geo-political identity work. The authors attempt to make this cluster a part of the Halifax/Nova Scotia identity. This form of rhetorical positioning then becomes a symbolic asset: one that is used to generate regional competitive advantage.

However, the translation process does not seem to have progressed beyond interessement for very many actors over the past 50 years. Perhaps the various "ocean cluster" identities simply could not be negotiated among such a diverse set of actors? Actors need to become enrolled in the network for each "cluster" to exist 'beyond the page.' On another level, readers need to become enrolled in a history in order for it to be accepted and then passed along. However, in these three examples we observe a singular cluster that is (re)discovered, despite its multiplicity, time and time again. These histories seem unable to enrol and mobilize actors. The "cluster" they purport to discover is therefore unable to remain black boxed outside pages of these histories. It "disappears" into bits and pieces that await (re)assembly at some future point.

Implications and Future Directions

In this paper, I have (re)assembled three histories of the "oceans cluster" in Nova Scotia, Canada. Accounts from 1960, 1980 and 2012 were examined to reveal their constituent actor-networks. Each account presented a similar, but different, cluster than the others. This multiplicity (Mol, 2002) is a product of the authors' work in support of various actor-networks. Knowledge of "the cluster," and its past, is a function of the authors' situatedness within a network of relations. Acknowledging this allows us to recognize each history as being both valid and contradictory in comparison to others. This is one of the distinct advantages of the ANTi-History approach (Durepos & Mills, 2011; Durepos & Mills, 2012). It provides tools for recognizing, studying and producing rich multi-vocal histories. There is tremendous potential to extend this approach outside of management & organizational history into the related field of industrial development and change.

The ANTi-History approach has also led me to examine the translation process (Callon, 1986b) emerging from these histories. All three publications problematized their "oceans cluster" in a similar way: as a remarkable and relatively undiscovered "fact" that was poised for growth. They performed interessement (Callon, 1986b) by defining a cluster identity, and rhetorically imposing that identity on various actors (including the reader). It was particularly interesting that these histories imposed their "cluster" identity on a geographic region (Halifax/Nova Scotia). I argue that each publication is therefore a particular kind of rhetorical history (Suddaby et al., 2010): one employed by an actor-network that exists across and outside of individual firms. Each history is a symbolic asset, used by its actor-network to "assemble" an "oceans cluster." This helps the network achieve a kind of regional competitive advantage (Porter, 1990, 2003) by establishing its "cluster" as historical "fact." The resulting narrative serves to attract interest and resources toward the future development of the cluster/industry. Unfortunately, these three histories did not enrol and mobilize actors sufficiently to survive over time. The "cluster" was lost, and then (re)assembled again.

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FIT 2 EXCEL? FAMILY. BUSINESS. AND FAMILY BUSINESS.

Jon and Sheila Stawinski, co-owners of Injury2Excellence (I2E) and Fit2Excel (F2E), find themselves immersed in the many personal challenges inherent in family-run enterprises. The demands of operating their own fitness and rehabilitation firm leave the couple stressed, burdened, and distracted from family matters. As their lives become increasingly frenzied, Jon and Sheila must wrestle with pertinent questions regarding business, family, and the relationship between the two entities.

The case study is intended for upper level undergraduate courses in entrepreneurship and family business. Key issues in the case include family business management and entrepreneurial decision making. Specific student learning objectives include managing business-family overlap/integration (Question 1), the importance of boundaries in family business (Question 2), and the assessment of family firm performance (Question 3). Theoretical foundations explored in the Instructor's Manual to the Case (available upon request from the authors) include the Segmentation-Integration Continuum of Family Businesses (Sundaramurthy & Kreiner, 2008), the Family Business Performance Matrix (Sharma, 2004), and the Model of Differential Permeability of Identity in Family Business (Sundaramurthy & Kreiner (2008).

Running Out of Steam

Sheila Stawinski ran down the narrow dirt path that wound its way through the forest. It was a beautiful spring day in June 2014 – white puffy clouds splotched the blue sky as the green forest swayed to the rhythm of the gentle breeze and a babbling brook lazily meandered into a quiet beaver pond. Despite the tranquil scenery, Sheila felt anything but relaxed. "I just don't know what to do," she said aloud as she rounded a bend and began ascending a mossy hill. She always knew that managing Fit2Excel (F2E) with her husband, Jon, would be difficult, but she had not anticipated just how demanding entrepreneurship would be for her and her family. Running F2E had been downright grueling and there seemed to be no end to the stress, financial pressures, and personal difficulties caused by the business. As she ran, Sheila reflected on the events of the last few years.

Injury2Excellence

In 2008, Jon Stawinski was thinking about leaving his job. Employed as an Athletic Trainer at the University of Vermont (UVM), Jon loved working with athletes and sports teams. However, he found that his job often pulled him away from Sheila and his nine, seven, and five year old children since he had to travel whenever UVM's teams played away games. Jon missed his family, and his boss was "a nightmare." He wanted a new job with a more flexible schedule so he could devote more time and attention to his home life.

During this time several private athletic trainers had approached Jon about working for them. Up until then Jon had never seriously thought about working privately, but after chatting with these entrepreneurs he began to think about establishing a health and fitness practice of his own. "I realized that maybe there was something there," he remarked, "and so I investigated the feasibility of [working for myself] and realized that it was something I thought I could make work."

In truth, Jon was extremely qualified to start his own practice. As a specialist in sports medicine, he had helped literally thousands of athletes recover from injuries. He had worked as a Certified Athletic Trainer (CAT) for over 25 years and was licensed by the State of Vermont and the National Athletic Trainers Association (NATA)[1], "to provide rehabilitative services to active individuals." Jon had previously worked at the Olympic Training Center, had been invited to travel internationally with Olympic teams, and was affiliated with the New York Rangers and Boston Bruins hockey franchises. With 12 years in UVM's Athletic Medical Department and undergraduate and graduate degrees in Athletic Training, Biomechanics, and Exercise Physiology combined with certifications through NATA, Jon was well equipped to offer professional sports medicine therapy. "It's probably the highest level of certification you can get," he explained, "You don't really need much more than a piece of paper which says you took a weekend course to qualify you [for Athletic Training], but to do much with it you obviously want to get a higher level training."

[1] According to NATA's official website, "The National Athletic Trainers' Association (NATA) is the professional membership association for certified athletic trainers and others who support the athletic training profession."

While Jon was certified to be both an athletic trainer and strength and conditioning coach, his real love was sports medicine. As he pondered the possibility of starting his own practice, Jon developed a unique business idea where he could combine his sports medicine expertise with his strength and conditioning backgrounds. While most sports medicine practitioners were content to get athletes back to full health after an injury, Jon's mindset was to not only rehabilitate athletes but to make them even more excellent in their sport than they had been before they were injured. His ambition was to get athletes to a condition where they could *excel* on the game field, and his "injury-to-excellence" mentality would inspire the name of his new business.

That same year, after making overhead and revenue projections and setting up health insurance for his family, Injury2Excellence (I2E) was launched at a gym in a chiropractor's clinic in Essex Junction, Vermont. Jon's expertise in sports medicine and strength and conditioning paid off, as clients came to him with various sports related injuries and Jon rehabilitated and trained them until they were healthier than before. Between Jon's sports therapy practice and Sheila's job working with varsity athletes at UVM the couple was able to support their young family.

Fit2Excel

Initially, I2E was solely an injury rehabilitation practice for athletes, but after two years Jon realized that there was another market for people interested in strength and conditioning training. When a local summer fitness camp operating out of Mount Mansfield Union High School (MMU) needed a new leader in 2010, Jon took the opportunity to launch another business initiative. With Sheila's help, he ran a strength and conditioning camp several mornings a week during the summer months on MMU's athletic fields where participants took part in group-based exercise in a team oriented, supportive environment. The Stawinskis called the camp Fit2Excel (F2E).

F2E at MMU received positive feedback so Jon decided to start another camp at nearby South Burlington High School (Appendix A). Although the F2E initiative grew the Stawinski's business, running multiple operations took its toll on Jon. Sheila explained:

> "I was very content with how things were going [but] Jon wasn't because he was running around all over the community. He hated that. Driving to one gym to work with people then driving to the medical office to work with others, and then going to MMU, and then going to South Burlington. He was going crazy…it was really wearing on him."

Jon wanted to find a consolidated location for the business to simplify his hectic schedule and facilitate smoother operations. But both he and Sheila worried that consolidation might have a negative impact on their family. With a master's degree in sports psychology, experience working with Olympic level athletes, and a history of offering leadership counseling and development to high school and collegiate sports teams, Sheila was more than qualified to help run F2E. Yet while she loved working at F2E in a limited-time capacity, Sheila was content with the current business model because it allowed her to stay home with their three children. The idea of the business having its own space overwhelmed her as she thought that consolidation would increase the programs and offerings provided to clients and require her to become more heavily involved in operations. Nonetheless, the couple understood that moving F2E and I2E under the same roof had significant benefits for the fledgling business — not only would it give Jon peace of mind, it would also provide the organization with ample opportunity to expand its programs and increase revenue.

One day while driving through Essex, Sheila noticed a sign advertising that a local business was leasing out space to interested renters. The former RV showroom had sufficient room for exercise equipment and a couple of offices for Jon's sports medicine operation. When the Stawinskis called to inquire they found the rent was far more than they could afford, but six months later the owners became desperate and contacted the Stawinskis to offer a much lower monthly rate. "They were very kind to us," Sheila recounted. Jon and Sheila accepted the offer and moved operations to the central location in 2011.

The Church

Soon after settling into the Essex facility F2E was presented with yet another opportunity to expand operations. One of the Stawinski's close friends was a real estate expert who had long encouraged Jon and Sheila to own their own property. He directed their attention to a church facility for sale 1.5 miles away from their new location and challenged them to consider buying the premises for their business. The property would cost $206,250 and could be paid through monthly mortgage installments $1,250. Even though the Essex facility was already large enough to accommodate current operations, owning the church building would give F2E additional space if the business continued to grow. In the meantime, the family could rent out the property to finance the mortgage. Sheila admitted that she was "scared to death" about the ramifications of taking responsibility for yet another property. She knew that her family already had their hands full with the launch of F2E in Essex and wondered if she and Jon would have the time and energy to maintain both facilities *and* find renters. But Jon was much more optimistic about the opportunity and excited by the idea of owning his own property. The couple prayerfully and thoughtfully considered the prospect, and ultimately concluded that purchasing the church could have major positive outcomes. In addition to the option of moving the business to another, larger location, Jon and Sheila thought the facility would be attractive to other strength and conditioning trainers or physical therapists. If the Stawinskis could find enough tenants to finance the mortgage, they would essentially own a valuable real estate asset at a minimal cost to F2E. They felt that another advantage of the purchase was that the property could be sold in the future to supplement their retirement savings. In spite of the fact that the church needed major renovations in order to be rentable and some hesitancy to become landlords, they took the plunge and purchased the church property in January, 2012.

F2E: Insanely Unusual

With the Essex location up and running in early 2012, Sheila came on “full force” to help manage F2E, which had become a “much more functioning business.” The indoor facility greatly increased F2E’s versatility because the Stawinskis could run exercise boot camps all year round. Sheila explained:

> “We could offer indoor classes, we could offer specialty classes, we could work with teens…not that we couldn’t do that before but we didn’t have a site to offer [clients] to come to. So having a work home allowed us to branch out and expand our market opportunities, expand our expertise.”

As a duo, Jon and Sheila had a combination of knowledge, skills, and abilities to help athletes and fitness enthusiasts recover from injuries, overcome mental obstacles, and become more fit and excellent in their endeavors. Having met at grad school in San Diego where they were both training to be specialists in their fields the couple seemed to be a natural fit:

> “My Master’s Degree is in sports psychology so [Jon] deals with the medical, we [both] deal with the physical, and I deal with the psychological side of athletes. So if you think about the three pieces…if you want to improve an athlete, between the two of us, we can do it all.”

The Stawinskis certainly had no shortage of athletes enthusiastic about their business. In addition to offering summer strength and conditioning camps at MMU and South Burlington, Jon and Sheila started another summer camp at the Essex facility. During the long Vermont winters, the business moved indoors where operations continued. F2E offered specialty classes, sports psychology consulting, private group training, obstacle race training, functional boot camps, yoga, youth programs, and wrestling and grappling courses. The company described itself as: “Established in 2008, family-owned and operated Fit2Excel provides a unique combination of services from group fitness, to athletic performance training, and injury rehabilitation to neuro-cognitive concussion testing.” Members did not seem to grow tired of coming to F2E because Jon and Sheila never ran the same routines twice.

Business growth was fueled by grassroots enthusiasm among F2E participants. Clients loved Jon and Sheila's dedication to building relationships and the familial feel of the business. Though the Stawinskis hired a handful of part-time personal trainers to help run camps and classes and employed a member of their church to handle accounting, billing and insurance, Jon and Sheila were the "heart and soul" of the business. As Christians, the couple saw F2E as an opportunity to present the gospel to anyone who walked through the door. Their mindset was not to generate as much revenue as possible; it was to cultivate relationships with the end goal of sharing their faith with customers. Because of this mission, Jon and Sheila worked hard at developing friendships with F2E members and personally invested in participants' lives — even sometimes attending their clients' family funerals. People loved F2E because of the social and fun community that Jon and Sheila created — it had become more than a strength and conditioning business; it was a vibrant network of friends enjoying exercise together. F2E even hosted birthday parties for clients. "The people that come into our building are so behind us. It's insanely unusual," Sheila explained. "People that come to our classes are wonderful and they are our number one fans. At Christmas they give us a ton of gifts. It's really strange but it's the sweetest environment to work in."

The Only Show in Town

When Jon started I2E in 2008, there were already eight physical therapy businesses within a ten kilometer radius. Even though I2E's sports medicine offerings were different than physical therapy because they involved not only "the restoration of function" but also the restoration of "advanced athletic skill," many consumers did not understand the distinction between these two fields. "We went into a market that was saturated which was not good for us," Sheila said, "Jon does sports medicine rehab which is different than physical therapy. But to educate the community on the differences has been very hard."

F2E also faced competition from a plethora of other strength and conditioning initiatives in the area. Personal fitness gyms such as the nearby Planet Fitness offered unlimited fitness training visits for only $12.50/month. In contrast, members had to pay $186/month for unlimited visits at F2E (Appendix B). Sheila maintained that the higher prices were justifiable because F2E had much more to offer consumers than mere exercise equipment:

> "Strength and conditioning-wise we're the only show in town that does what we do…if you're going to Planet Fitness you're getting nothing but your own workout with no knowledge of what you're doing [and] with no goals. You're just running on a treadmill, right? So when you come to us, you get a lot of the expertise that we have…and some people want that; some people don't. Some people can pay for it, some people can't…Being a facility, not being a gym, where people can just come and free-for-all and

> work out and get nothing out of it—that's not us. And so we're kind of a niche market in a way."

People could do their own workout routines at personal fitness gyms but would not benefit from the goal-setting, expertise, knowledge, and support of F2E's trainers. Nevertheless, F2E's relatively high prices in a competitive marketplace meant that the Stawinskis had to work hard at marketing their programs and courses to consumers. Sheila handled most of the promotional initiatives but admitted, "I'm not a marketing person at all." Even so, what Sheila lacked in formal marketing expertise she made up for in networking. As a gregarious personality who taught leadership seminars, public speaking and coaching all over Chittenden County, Sheila had developed many connections over the years and had access to every athletics director in the region. "My marketing has been email; my marketing has been networking," she said. "I was out there talking about the business." And once consumers started coming to F2E and realizing what an enjoyable and beneficial exercise experience it was, word-of-mouth buzz propelled the business's growth. The organization had a website and social media pages, but word-of-mouth and relationship marketing formed the fundamental core of F2E's promotional efforts.

Too Much of a Good Thing

Even though the Stawinski's clients were very enthusiastic about F2E and I2E, Jon and Sheila began to have trouble making ends meet. The 2010 Affordable Care Act[2] had a damaging impact on the I2E side of operations. Like most sports medicine practices, a rehabilitation session at I2E would cost more than $100 so many clients had to rely on health insurance plans to afford Jon's services. Since the Act required health insurance providers to cover more medical treatments, insurance companies were not able to reimburse as many claims, and many consumers had to raise their deductibles. As a result, some injured athletes could not afford therapy through I2E and Jon was forced to lower the price of his rehabilitative services. F2E was also encountering challenges despite swelling class sizes. "Our classes were decently big, but not big enough," Sheila explained, "And summer camps carried us through half the year." The Stawinskis needed to generate more business.

Beyond the financial challenges, managing the business had a draining effect on the family. Jon and Sheila were constantly busy operating classes and camps, scheduling

[2] According to the U.S. Department of Health and Human Services: "This Act puts individuals, families and small business owners in control of their health care. It reduces premium costs for millions of working families and small businesses by providing hundreds of billions of dollars in tax relief – the largest middle class tax cut for health care in history. It also reduces what families will have to pay for health care by capping out-of-pocket expenses and requiring preventive care to be fully covered without any out-of-pocket expense."

appointments, marketing F2E to consumers, and trying to pay their bills. Inevitably, business operations did not stop when Jon and Sheila left the office but carried into their home life. Because the Stawinski children were too young to be left on their own, they accompanied Sheila as she worked. She explained that while she was physically present with the kids most of the time, the constant demands of the business hindered her from being mentally present, even when she was not at work.

Business operations also negatively impacted Jon and Sheila's marriage. Before Sheila started working for F2E full time, she and Jon had been able to compartmentalize their marriage and business lives. But when they began co-managing it had become impossible to keep the constant demands of the business out of their relationship. As a result, Jon and Sheila found it extremely difficult to emotionally and mentally invest in their marriage. During their times together they were often distracted, thinking, talking, and worrying about operations. Sheila in particular found the tension between work and marriage to be burdensome, stating, "I don't want to be a business partner with my husband." Ironically, while Jon and Sheila's marriage had been at the forefront of their enterprise, running the business was actually damaging their relationship. The couple agreed that, "too much of a good thing became a bad thing," and that Sheila needed out. However they did not know how this could happen given Sheila's essential role in F2E's operations.

In addition to the impact of the business on their marriage, the couple felt that F2E's constant demands were hurting their spirituality, in particular their relationships with Jesus Christ. When they had made the decision to rent the facility in Essex Jon and Sheila had known that the expanding operations would take significant time and attention, yet they were surprised at how much the business diverted their attention away from God and Bible study. Sheila explained, "I feel that I have not been able to study, read, [and] just pray. This business has distracted us from Christ a lot. And that's not good. And it has affected Jon a lot. And that's not good."

It Was Just Ridiculous

Soon after purchasing the church, Sheila's worries about the property's demands on her family were validated. While the Stawinskis had planned to cover the monthly mortgage payments by renting out the facility to other personal trainers and physical therapists, to their dismay they discovered that the building required significant renovations to be rentable, including a new roof and fixing a "tremendous" mildew problem. On top of these expenses, Jon and Sheila paid $7,500 for the construction of a parking lot to make the space more attractive to renters.

But the renters never came. For over two years the "For Rent" sign posted by the street failed to attract anyone, and managing bustling operations at the Essex facility left Jon and

Sheila with little time to seek out renters or maintain the church building. As a result, the Stawinskis had to foot the $1,250 monthly mortgage payment, a $3,750 annual fee in property taxes, and a $1,000 monthly heating bill during the winter months — all for an empty building. While these costs were borne by F2E and I2E, the financial strain was such that Jon and Sheila could not compensate themselves for several months. In order to pay for groceries and other bills, the Stawinskis were forced to take on about $12,000 of consumer debt.

To make matters worse, Jon's mother had been diagnosed with cancer around the time of the church purchase. This became a burdensome ordeal for Jon, Sheila, and the kids as they began to make frequent trips to New Jersey where Jon's mother lived. Spending so much time away from the business put an even heavier financial, mental, and emotional strain on Jon and Sheila's relationship as their lives became increasingly hectic. "We were in New Jersey constantly for two and a half years," Sheila recalled. "It was just ridiculous."

Falling Apart

Sheila glanced down at her watch as she jogged through a pine grove. "4:45 pm. I guess Jon and the kids will be home by now," she thought. She remembered when afternoon runs had been relaxing, but those days were long gone. There was just too much stress, too much distraction, and too much busy-ness to have peace of mind. "I feel like I'm going to fall apart," Sheila groaned, "I know I need to stop working for F2E full-time but I don't see how it's possible given our financial position and the constant demands of the business."

Despite being overwhelmed and worn out, Sheila felt that – in some way – these hardships had grown her faith. No matter how desperate things seemed, she felt that God always enabled them – somehow – to put food on the table and pay their bills. "But that doesn't mean that trusting God isn't a constant struggle," she sighed, slowing down to walking speed. Tomorrow, Sheila and Jon would once again make the drive to New Jersey to visit Jon's mother. One of the neighbors had offered to watch the kids for the weekend so the couple could get some time alone. "I'll actually get to talk to my husband," Sheila smiled as she tried to remember the last time she had been able to have a prolonged, undistracted conversation with the man she loved. Turning around she wiped the sweat from her brow, tightened her shoelaces, and began the run back home.

Suggested Questions for Student Assignment

1. **Consider the Stawinski family's involvement in F2E. To what extent are the family and business integrated? Draw conclusions based on the advantages and disadvantages of F2E's degree of business-family integration.**

2. **Assess the performance of I2E-F2E, being sure to consider both business and family considerations. What would you recommend to the Stawinskis going forward?**

3. **Assess F2E's current situation based on the boundaries Jon and Sheila have set between business and family identity. What additional (if any) boundaries would you include and why?**

Appendix A:
Chittenden County Vermont

Appendix B:
Fit2Excel Pricing Scheme

Fit 2 Excel Pricing Scheme		
Drop-in Rate	$	19
Punch Cards		
10-Punch		163
10-Punch Yoga Only		63
20-Punch		300
30-Punch		413
6-Month Membership		
(10 visits/month)		119
Annual Membership		
(10 visits/month)		106
Unlimited Membership		
1 Month		186
3 Month		474

Appendix C:
Fit2Excel Financial Summary

F2E-I2E
Condensed Income Statements
For the years ended December 31

	2013	2012	2011
Professional fees earned (net)	148,215	97,113	64,357
Less: Advertising and promotion	5,785	10,814	5,060
Rent	38,085	37,500	481
Utilities	10,124	9,614	-
Other	20,166	37,344	35,811
Net Income	$ 74,055	$ 1,841	$ 23,005

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