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DO ACCOUNTING STUDENTS DIFFER FROM OTHERS IN SELF-INTEREST, CONCERN FOR OTHERS AND ETHICAL PERCEPTIONS - FINDINGS FROM AN ATLANTIC CANADA STUDY

This paper presents the results of a study using participants from an Atlantic Canadian university (n=997) which indicates that accounting students differ significantly in their level of self-interest and perceptions of academic dishonesty – but not in their concern for others- from some of the other business majors and students in other programs.

Introduction

Integrity is the foundational basis of the accounting profession. Nevertheless the past involvement of accountants in fraudulent financial reporting has resulted in heightened attention of both business leaders and academics on building an even stronger ethical base among accountants, including those planning to enter the accounting profession. Since research indicates that students who cheat academically are more likely to commit an unethical act in the workplace, it is important to understand the ethical values of accounting students if one is to improve the integrity of the accounting profession (Jurdi, Hage & Chow, 2011; Payan, Reardon & McCorkle, 2010; Plinio, Young, & Lavery, 2010; Iyer & Eastman, 2006). Further, there are often corollaries between unethical behaviors in an academic context and those in the workplace context. For example, Malone (2006) indicated cheating on an exam may be analogous to falsifying an expense report. In addition, research also indicates that an individual's perceptions of what constitute unethical behavior and his/her attitudes towards the behavior strongly influence whether or not a person will actually engage in fraudulent behavior. For example, Buchan (2005) studied the ethical attitudes of accountants and found these attitudes were directly related to their intention to commit unethical acts. Given these findings, it is important to study accounting students' perceptions of what constitutes academic dishonesty and to understand the factors that impact and influence such perceptions.

While understanding the causes of unethical behavior is filled with complexities, many researchers feel that underlying personality factors play a critical role in determining whether or

not a person will commit an unethical act (Brown, Sautter, Littway, Sautter & Bearnese, 2010). The two personality traits most often related to unethical behaviors are self-interest or selfism (often also called narcissism) and concern for others or empathy (e.g., Brown, et al., 2010; Shaub, Collins, Holzmann & Lowensohn, 2005). Research has examined these variables in the context of business students in general (Bloodgood, Turnley & Mudrack, 2010), and a few have even compared accounting majors to other business majors (Cohen, Pant & Sharp, 2001; Malone, 2006). However, most of these studies have been conducted in the US; there are very few Canadian studies in this area and very few (if any) studies in Atlantic Canada. This paper aims to fill this void in the literature by examining the differences between accounting majors and other students in terms of two personality variables - self-interest and concern for others - and their perceptions of academic dishonesty.

Literature Review

Personality variables: Self –interest (or Selfism) and Concern for others

The Merriam-Webster's dictionary defines self-interest as "concern for one's own advantage and well-being" and selfism as "concentration on self-interest" (Merriam-Webster, 2014, self-interest). While narcissism is often associated with a love of one's own body, the term is also used as a synonym for self-interest or self-concernedness (Merriam-Webster, 2014, self-interest). In this paper, we will use these terms interchangeably. Self-interest has also been related to Machiavellianism; as Bloodgood, Turnley, and Mudrack (2010) note, a 'high-Mach' individual is one who focuses on his/her self-interest with little or no regard to the social acceptability of their actions. Thus the personality trait of self-interest and Machiavellianism tend to be highly correlated.

How does a higher level of self-interest relate to ethics? Lack of concern for societal norms combined with a greater self-interest is likely to lead an individual to actions that would promote his/her own welfare even if such actions are not considered ethical by society. Research does indicate that people who score higher on selfism (or concepts highly related to it such as Machiavellianism and narcissism) tend to be less critical of unethical or ethically questionable behaviors; they also tend to behave less ethically (O'Fallon and Butterfield, 2005) and more opportunistically or at the expense of others (Wilson, Near, & Miller, 1996). In an academic context, students who score high on Machiavellianism have been shown to behave unethically in hypothetical ethical dilemmas (Brown, et al., 2010), and to be more accepting of academic cheating and 'passive cheating' in a non-academic context (Bloodgood, et al., 2010). For example, Bloodgood et al. (2010) found that students who scored higher on Machiavellianism were more likely than 'low-Machs' to be accepting of unethical behaviors in an academic context (e.g., copying another student's homework/class assignment, using unauthorized cheat sheets, etc); 'high-Machs' were also found to accept passive cheating behaviors (e.g., not saying

anything when they received a good or service that they had not paid for, not saying anything when given too much change back for a purchase, etc) than ‘low-machs’. Interestingly, these researchers found that academic dishonesty was also significantly related to passive cheating in other situations (Bloodgood, et al., 2010). Brown et al., (2010) in a study of business majors found that in two hypothetical situations (taking/returning \$100 bill and keeping/returning extra merchandise), students who scored higher on self-interest were more likely to behave unethically when presented with ethical dilemmas. It is even more interesting is that both the above studies found that the findings held even after demographic variables such as age, sex, and GPA of the students were controlled for (Bloodgood et al., 2010; Brown, et al., 2010). These findings indicate that underlying personality traits may be more important in understanding a student’s ethical values and future ethical behaviors than demographic variables.

The second personality variable included in this study – concern/empathy for others – has also been related to a person’s ethical attitudes and behaviors. Empathy is defined as “the feeling that you understand and share another person's experiences and emotions: the ability to share someone else's feelings” (Merriam-Webster, 2014). Higher levels of empathy has been related to efforts to prevent unjust acts (Davis, 1996; Smith-Lovin, 1995). In addition, Brown, et al., (2010) found that students who scored higher on empathy were less likely to act unethically in hypothetical ethical dilemmas. Again, the results held true even when demographic variables such as age, sex, and GPA were controlled for (Brown, et al., 2010).

Academic dishonesty

Academic dishonesty is a broad term that covers several forms of academic misconduct or unethical behaviors by students. While some researchers equate this to cheating, academic dishonesty covers a broad range of behaviors including cheating (as in using ‘cheat sheets’), plagiarism (submitting another person’s work as one’s own – both those of other students’ and copying from the internet), letting others copy one’s work (or passive cheating), and other behaviors.

Academic dishonesty has been a concern in education for decades. In 1986 a group of researchers concluded that academic cheating was an epidemic (Haines, Diekhoff, Labeff & Clark, 1986). For example, Jones (2011) and Davis, Grover, Becker & Macgregor (1992) indicated that 80% and 83% of students reported that they had cheated. This is disconcerting for educational institutions since there is a risk that students might be cheating their way through a program rather than earning their rite of passage (Jurdi et al., 2011). As a result, ethics has received more emphasis in business schools (Bloodgood et al., 2010; Nguyen, Basuray, Smith, Kopka & McCulloch, 2007).

Students' acceptance of academic dishonesty (i.e., the more it is viewed as not ethically wrong) is a key variable in understanding the occurrence of actual dishonest behaviors within the educational system. The more positive the attitude towards a behavior is, the more likely it is that the individual will actually engage in that behavior. The Theory of Planned Behavior (TPB) provides a framework to analyze academic dishonesty. TPB states that a person's chances of behaving in a certain way is a function of many things: his/her attitudes towards the behavior, the person's subjective norms (i.e., whether or not the person feels that the behavior is acceptable in his/her general environment), and the level of personal control a person has over the action. These variables will affect both the individual's intention to indulge in the behavior and his/her actual behavior (Ajzen, 1991). While TPB has been used by marketers extensively to study various aspects of consumer behavior, a few researchers (e.g., Beck and Ajzen, 1991; Stone, Jawahar, & Kisamore, 2009; Whitley, 1998) have used it to explain academic misconduct. For example, Stone, et al., (2009) in a detailed empirical study tested TPB in the context of academic misconduct using a sample of 438 management, marketing, accounting and economics undergraduates in a large mid-western university in the US. Besides attitudes, subjective norms, and personal control, these researchers also added a new variable – the students' justifications for cheating – to the TPB model. This study found that attitudes towards academic misconduct (i.e., whether or not it is ethically right or wrong) was positively correlated to an individual's intention to engage in academic misconduct, his/her justifications for such behavior, and actual cheating behavior (Stone, et al., 2009).

Other researchers have also examined the relationship between academic dishonesty and other variables. For example, Bloodgood, et al., (2010) found that academic dishonesty was related to social desirability, Machiavellianism, and passive cheating in a business context. Smyth, Davis, and Kroncke (2009) looked at how students saw academic dishonesty and dishonesty in business situations. They paired 13 academically dishonest behaviors with 13 instances of business misconduct and found that 12 of the pairings were seen as different by the students; the results indicated that in some instances, students perceived academic misconduct to be more ethically wrong than business situations that were of a similar nature.

Program of study and academic dishonesty, self-interest, and concern for others

While past research indicates that both self-interest and concern for others are correlated with dishonesty/unethical behaviors (academic and non-academic), very few studies have tested these relationships in the context of students majoring in various business areas. Brown, et al (2010) tested the differences in narcissism and concern for others among business majors and found that those majoring in finance and accounting had lower levels of concern for others than marketing/management majors; the same study also found that finance majors scored higher on self-interest than management and marketing majors, but accounting majors did not. The researchers attribute the difference in empathy between the business majors to the nature of the subjects; in their opinion, management and marketing being more people-focused majors

(compared to accounting and finance), probably help the students develop more people-oriented and other-focused skills. Finance majors were the least empathetic group and the researchers state that this is “perhaps not surprising, considering the sort of pecuniary values that are emphasized in their discipline” (Brown, et al, 2010, p. 207). However, contradictory findings have been reported by others (e.g., Cohen, Pant, & Sharp, 1998; Malone, 2006). Cohen, et al., (2001), in one of the earliest studies on this topic, compared the ethical values of accounting majors to other business majors and students from other disciplines using eight business situation vignettes and found accounting students scored higher on ethical values and evaluation of the vignettes than other business majors and liberal arts students. Malone (2006) found no difference between accounting majors and other business majors in their ethical perceptions. Given that there is little research to draw definitive directional hypotheses related to these variables, we developed the following hypotheses:

H₁: Accounting majors will differ from other business majors in their level of self-interest.

H₂: Accounting majors will differ from other business majors in their level of concern for others.

H₃: Accounting majors will differ from other business majors in their perceptions of academic dishonesty.

Most of the research on this topic has focused on comparing business students to non-business students; in general, results indicate that business students are more likely to be dishonest than non-business students (e.g., Baird, 1980; Brown, 1995; McCabe and Travino, 1995). For example, Brown (1995) compared business students to those in engineering and education and found that business students were more likely to participate in unethical academic behaviors. Similarly, McCabe and Travino (1995) in a large-scale study of undergraduate students in the US found that business students were more likely than others to report having cheated. While there have been a few studies (e.g., Iyer, et al., 2006) that have found contradictory results, overall, there is more evidence to back the hypotheses that business students are more likely than others to engage in academic dishonesty. In addition, research has shown that individuals higher in self-interest are more likely to engage in unethical activity (Brown et al., 2010; Shaub et al., 2005). There is also some evidence that business students are likely to score higher on self-interest than non-business students. For example, Skinner (1981) indicated scores related to Machiavellianism (self-interest) and achievement were higher for business students than non business students. Further, research has shown that individuals that have high self-interest are more likely to place their needs ahead of others (Wilson et al., 1996). Thus, overall, existing research indicates that business and non-business students differ in their level of self-interest, concern for others, and academic dishonesty. If business students as a group differ from non-business students, then it seems reasonable to hypothesize that accounting majors will also differ from non-business students on these variables. Thus, we hypothesize that:

H₄: Accounting majors will differ from students in other programs in their level of self-interest.

H₅: Accounting majors will differ from students in other programs in their level of concern for others.

H₆: Accounting majors will differ from students in other programs in their perceptions of academic dishonesty.

METHODOLOGY

Students enrolled in business and non-business courses in an Atlantic Canadian university were asked to complete a survey on the ethical values of students. Instructors were approached for permission to administer the survey in their classes and participation by students in these classes was voluntary. The courses were chosen to get a wide distribution of business and non-business courses. Care was taken to include courses at all levels (i.e., first, second, third, and fourth year courses). The survey included (among other variables), an eight-item self-interest scale and an eight-item empathy or concern for others scale, that were modified and tested by Brown et al. (2010). The researchers indicated these scales were versions of existing scales: Phares and Erskine Selfishism Test, 1984 and Goldberg's Empathy Test, 1999. Each item on the modified scales was scored on a 5-point scale (1=strongly agree to 5=strongly disagree). Lower scores indicated a higher self-interest and a higher concern for others. Students also self reported on their views towards academic dishonesty using a modified version of the scale used by Bloodgood, et al. (2010). The scale consisted of 11 items which were scored on a 5-point scale (1 = strongly believe that it is right; 5 = strongly believe it is wrong). Higher scores indicated the student believed the academic behavior was wrong. We also tested the internal consistency of the scales in this study; the Cronbach's alpha was 0.751 for self-interest, 0.865 for concern for others, and 0.845 for academic dishonesty, indicating that these scales are internally consistent and reliable. Details of the instruments used in this study are provided in Table 1. The survey also included questions on demographics such as program and major as well as other variables that are not part of this research paper. The questionnaire had received ethics approval from the University Ethics Review Board.

Data was collected over two terms: Fall, 2012 and winter, 2013. A total of 997 students participated in the study: 425 business students, 111 arts, 54 science students, 220 public relations students and 100 other. Among the 425 business students, there were 154 accounting, 129 marketing, 61 management, 18 finance, 35 tourism/hospitality and 38 general business.

RESULTS

Self-interest. A low score on this scale indicates that students have a high level of self-interest. The item with the lowest score is item 3 (*I regard myself as someone who looks after his/her own interest*) with a mean of 2.38 followed by item 1 (*thinking of yourself is no sin in this world*) with a mean of 2.39. All other items have a higher mean indicating on average participants did not place more emphasis on their own self-interest. The highest mean was for item 5 (*getting ahead in life depends mainly on thinking of yourself first*) with a mean of 3.27 followed by item 4 (*it's best to live for the present and not worry about tomorrow*) with a mean of 3.25. The overall mean of all items was 2.798.

Concern for Others. A low score on this scale indicates the student has a high concern for others. Item 3 (*I love to help others*) had the lowest mean of 1.70. The next lowest mean was item 1 (*I make people feel welcome*) with a mean of 1.76. The highest mean was item 5 (*I have a good word for everyone*) with a mean of 2.43. This was followed by item 2 (*I anticipate the needs of others*) with a mean of 1.98. Overall, based on their self-reports, participants seem to have a high level of concern for others as the mean score was 1.930.

Academic Dishonesty. The items on the scale measure whether or not students considered certain academic behaviors to be unethical; lower scores indicate that students perceived the action to be ethical. No items had a mean of less than 3.29 indicating that most students perceived the 11 actions as wrong or unethical. The item that scored lowest (believed to be right) was item 5 (*obtaining the answer on the internet*) with a mean of 3.29. This was followed by item 2 (*asking someone to help you with a take home test*) with a mean of 3.39. The highest mean was item 6 (*turning in another student's work as your own*) with a mean of 4.75. This was followed by item 8 (*purchasing a paper as your own*) with a mean of 4.74. The overall mean of all items was 4.16 (Table 1).

Accounting majors vs other business majors (H1-H3)

Due to their small sample size (n=18), Finance majors were dropped from this analysis; accounting majors were then compared to all other business majors (Management, Marketing, and General Business) using one way ANOVA. Given the high internal consistency of the measures of self-interest, concern for others, and academic dishonesty, the total mean scores on these were used for the ANOVA. Overall, the results (Table 2) indicate that there were significant differences between the various business majors in their scores on self-interest ($F=5.724$; $p<.01$) and perceptions of academic dishonesty ($F=7.774$; $p<.001$), but not in their concern for others. Post-hoc tests indicate that accounting majors differ from those majoring in management in their level of self-interest (mean difference=0.241; std. error=1.09; $p<.05$) and marketing majors (mean difference=0.274; std. error=0.086, $p<.01$), but not from those majoring in General Business. The mean score for accounting majors was higher (2.97) than that of marketing (2.70) and management (2.73) students indicating that accounting majors - as a group - have a lower level of self-interest than those majoring in marketing and management. Interestingly, one-way ANOVAs indicate that there were no significant differences between accounting majors and other business majors in terms of their level of concern for others. Thus the results partially support H1 but not H2.

Do accounting and non-accounting majors in the business program have differing perceptions of what constitutes academic dishonesty (H3)? Results of the one-way ANOVA indicate that the differences between the groups were significant ($F=7.74$; $p<.001$). Once again, post hoc tests indicated that accounting students differed from those majoring in marketing and management but not general business students. Accounting students also had a higher mean score (4.31) than marketing (4.1), and management majors (4.0) which indicates that they were

more likely to perceive the dishonest academic behaviors listed as more unethical than the others. Thus, the results partially support H3.

Accounting majors vs. students in other programs (H4-H6):

Accounting students were compared to students in arts, science, tourism and hospitality and public relations. One way ANOVAs indicated that there was a significant difference between accounting students and students in other programs on self-interest ($F(4, 557) = 4.785, p < .001$). Post hoc tests revealed that the significant differences were between accounting students and those in the BSc and Public Relations programs, but not between accounting majors and those in the BA or BTHM (Tourism and Hospitality Management) programs. Accounting students had a higher mean (2.9703) indicating they had lower self-interest than public relations (2.7162) and science students (2.6392). Thus there is partial support for H₄ as accounting majors do differ from those in two of the four other programs examined in this study. There were no significant differences between accounting students and students in other programs in their concern for others. Therefore, there is no support for H₅. A significant difference was also found between accounting students and students in other programs in their perceptions of academic dishonesty ($F=7.488, p < .001$). Post hoc tests indicated that significant differences existed between accounting and science students and public relations students but not accounting students in the BA or BTHM programs. Accounting students had a higher mean (4.309) indicating they viewed the academic dishonesty items to be more wrong than the public relations students (4.138) and science students (3.904). Thus, again, there is partial support for H₆ (there is a difference in the perceptions of academic cheating between accounting and students in other degree programs).

Other findings

To examine how the variables (self-interest, concern for others, and perceptions of academic dishonesty) relate to each other, the correlations between these variables were analyzed using Pearson's correlation coefficient. There was positive correlation between self-interest and perceptions of academic dishonesty ($r = .237, p < .001$), and a negative correlation between concern for others and perceptions of academic dishonesty ($r = -.136; p < .001$). These results indicate that students with high levels of self-interest are more likely to see many negative (dishonest) academic behaviors (e.g., copying from the internet, submitting another person's work as one's own, etc.) as acceptable. On the other hand, those with higher levels of concerns for others seem to possess a stronger moral compass; these students are more likely than others to perceive the negative academic behaviors as unethical. The effect size was near medium for self-interest and ethical perceptions but smaller for ethical perceptions and concern for others.

Surprisingly, there was no significant correlation between self-interest and concern for others. In other words, higher levels of self-interest do not necessarily lead to lower concern for others.

DISCUSSION

The primary aim of this study was to examine the differences between accounting students and others (both other business majors and students in other programs) in self-interest, concern for others and in their perceptions of academic dishonesty. Results indicate that accounting students differ from marketing and management majors and from students in public relations and science programs in their level of self-interest and in their perceptions of academic dishonesty. Accounting students seem to have lower levels of self-interest and a higher level of academic honesty (i.e., they seem more ethical) than the others. This leads to many interesting questions: Is there something in the curriculum that makes them more ethical and/or less self-interested? From another perspective do these students already have these personality traits and as a result are drawn to the accounting profession? Of interest might be consideration as to whether there is a difference in the results for accounting, other business majors and non business students when other variables such as gender, age and year of study are considered. Further research is required to answer these questions.

This study does lend support to some of the findings from other studies but there are also some contradictory findings. As in other studies, self-interest was found to be related to attitudes towards academic honesty; students with higher self-interest were found to be less academically ethical (i.e., they did not perceive the examples of academic misconduct to be wrong) than those with lower self-interest. Similarly, this study reinforces the connection between concern for others and perceptions of academic dishonesty; the higher the concern for others, the more uncomfortable students were with the dishonest behaviors. Yet, there seems to be no connection between self-interest and concern for others; perhaps this indicates that students see a high level of self-interest as not precluding them from being concerned for others; that caring for others does not mean that one should not care for oneself too. This is consistent with research where the important factor was harm to others or one's self and not just self interest (Malone, 2006). Perhaps the real test will be when the participants are asked to choose between their own welfare and those of others!

It should be noted that this study examined only how students viewed academic misconduct – i.e., how they perceived behaviors that were dishonest in an academic context; it did not examine if the participants had engaged in behaviors that constitute academic dishonesty. The finding that accounting students rate academic misconduct as morally/ethically wrong need not translate into lower levels of actual academic dishonesty. In other words, there is a need for future studies that examine the link between perceptions of what constitutes academic dishonesty to actual dishonest behaviors. An overall limitation of the study is that all variables were

measured based on self-reports of students using surveys as a tool. As is common with surveys, students may have responded with the response that they thought was expected rather than how they truly felt. Further, the use of students as participants in the study may limit generalizing the results, particularly for self interest and concern for others, to the general population.

This research is a small part of a much larger study. Further studies in this area include looking at all business students and non business students from many programs. To expand on students' perceptions and personality traits the study will include ethical scenarios as well as the use of defining issues tests (DIT). This will allow analysis across programs and disciplines as well as identifying areas of further research.

Table 1: Scales used in the study

Scale (mean, std. deviation)
Self-interest (Overall mean= 2.798; Cronbach's Alpha=0.751)
1. Thinking of yourself is no sin in this world. (2.39, 1.027) 2. It is important to live for yourself rather than for other people, parents or for posterity. (2.88, 1.171) 3. I regard myself as someone who looks after his/her personal interests. (2.38, 0.937) 4. It's best to live for the present and not worry about tomorrow. (3.25, 1.142) 5. Getting ahead in life depends mainly on thinking of yourself first. (3.27, 1.035) 6. Call it selfishness if you will, but in this world today we all have to look out for ourselves first. (2.91, 1.080) 7. In striving to reach one's potential, it is sometimes necessary to worry less about others people. (2.88, 1.07) 8. Not enough people live for the present.(2.53, 0.979)
Concern for Others (Overall mean=1.93; Cronbach's Alpha=0.865)
1. I make people feel welcome. (1.76, .682) 2. I anticipate the needs of others.(1.98, 0.727) 3. I love to help others.(1.70, 0.717) 4. I am concerned about others.(1.82, 0.749) 5. I have a good word for everyone. (2.43, 0.959) 6. I am sensitive to the feelings of others.(1.95, 0.829) 7. I make people feel comfortable.(1.89, 0.696) 8. I take time for others. (1.93, 0.722)
Academic dishonesty (Overall mean=4.160; Cronbach's Alpha=0.845)
1. Copying another student's homework assignment. (4.30, 0.723) 2. Asking someone to help you with a take home test. (3.39, 1.078) 3. Allowing another student to copy your assignment. (4.18, 0.786) 4. Allowing another student to copy from your exam. (4.74, 0.562) 5. Obtaining the answer to your assignment question on the internet. (3.29, 1.081) 6. Turning in another student's work as your own. (4.75, 0.568) 7. Using unauthorized cheat sheets during an exam. (4.88, 0.712) 8. Purchasing a paper to turn in as your own. (4.74, 0.589) 9. Using sources for your paper that were not cited or referenced. (4.14, 0.798) 10. Providing unauthorized assistance to a classmate. (3.51, 0.981) 11. Borrowing parts of a case analysis that someone else had done or that you found on the internet. (4.01, 0.919)

Table 2: Results of one-way ANOVA tests

Variable	Sum of Squares	d.f.	Mean Squares	F-value	Significance level
Business Major					
Self Interest					
Between Groups	5.541	2	2.771	5.724	p<.01
Within Groups	153.446	317	.484		
Concern for Others					
Between Groups	1.325	2	.662	1.984	Not Significant
Within Groups	110.177	330	.334		
Ethical Perceptions*					
Between Groups	5.000	2	2.500	7.774	p<.001
Within Groups	102.60	319	.322		
Program					
Self Interest					
Between Groups	7.322	4	1.831		
Within Groups	213.091	557	.383	4.785	p<.001
Concern for Others					
Between Groups	2.337	4	.584		
Within Groups	168.803	573	.295	1.983	Not Significant
Ethical Perceptions*					
Between Groups	7.053	4	1.763		
Within Groups	133.047	565	.235	7.488	p<.001

*Ethical Perceptions showed unequal variances and hence Dunnett's for unequal variances was used for this; all others used the LSD test to assess the significance of the F value.

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LA REPRÉSENTATIVITÉ RÉGIONALE DES PLUS GRANDES SOCIÉTÉS PUBLIQUES CANADIENNES

Les sièges sociaux sont importants pour l'économie d'une région pour le dynamisme économique qu'ils créent dans une région. La recherche a pour objectifs d'identifier si 1) les sièges sociaux des plus grandes sociétés publiques canadiennes et si 2) les administrateurs siégeant aux conseils d'administration de ces sociétés se répartissent d'une façon proportionnelle à la démographie des différentes provinces canadiennes. Les résultats de la recherche montrent que l'Alberta est fortement représentée sur ces deux plans et que l'ensemble des autres provinces sont sous-représenté.

I. Introduction

Cette étude a pour objectif d'analyser la représentativité régionale du pouvoir de décision chez les plus grandes sociétés publiques canadiennes. Elle cherche à savoir si les sièges sociaux effectifs se répartissent entre les diverses provinces sur une base similaire à celle du prorata de la population. Comme les études antérieures ont démontré que les sièges sociaux tendent à se concentrer dans les grands centres urbains tant dans le contexte canadien que celui mondial (Bloom et Grant, 2011), la présente étude pousse le regard plus loin pour analyser si l'effet de la concentration de ces sièges sociaux est atténué par une plus grande représentativité régionale des administrateurs siégeant aux conseils d'administration.

II. Les sièges sociaux

Les sièges sociaux sont importants pour l'économie d'une région (Institute for Competitiveness & prosperity, 2008) ou d'une province pour de multiples raisons. La recherche considère ici les sièges sociaux effectifs où les décisions stratégiques se prennent et non ceux officiels pouvant se justifier pour des raisons politiques comme le cas de la Banque Royale dont le siège social est à Montréal ou historiques comme celui de la banque Nouvelle-Écosse dont le siège social est à Halifax. Les sièges sociaux sont importants, car c'est là que se prennent les décisions sur l'allocation des ressources de l'entreprise. Ils constituent le centre névralgique des décisions sur la localisation des installations, les fusions et acquisitions et le choix des fournisseurs par exemple. Les études antérieures semblent démontrer que ces décisions ont tendance à favoriser la région où se situe le siège social (Bloom et Grant, 2011). Il s'agit aussi d'un endroit où se concentrent des emplois hautement qualifiés et très bien rémunérés¹ contribuant à la vitalité économique régionale. Ces centres de décisions font vivre dans leur sillage une multitude de professionnels de la consultation qui sont eux aussi hautement qualifié et bien rémunérés. À ce titre, il est possible d'identifier, par exemple, les bureaux d'avocats et de

¹ Pour donner une idée de l'importance de cette rémunération Mackenzie (2014) fait ressortir que la rémunération totale pour les PDG des 240 sociétés cotées sur l'indice TSX aurait été de 7,96 millions de dollars en 2013. Puisque cela met seulement en évidence le salaire des cadres supérieurs, on peut s'imaginer l'impact économique que peut avoir un siège social dans une région si on considère tous les salaires.

comptables. Le biais décisionnel en faveur de la région pourrait aussi se faire valoir au niveau des activités philanthropiques de l'entreprise.

Les sièges sociaux des entreprises se situent généralement dans des lieux différents des activités opérationnelles de production pour permettre une gestion plus détachée du portefeuille d'actifs (Bloom et Grant, 2011). Ce détachement des opérations permet aux sièges sociaux de se localiser par exemple dans les tours de bureaux des centres-villes. L'attraction des grandes villes pour les sièges sociaux provient de l'accès à une main-d'œuvre qualifiée (ex.: présence d'universités), des infrastructures publiques (ex.: aéroport permettant aux dirigeants de se déplacer rapidement) et de l'accès au financement (ex.: institutions financières) (Bloom et Grant, 2011). Les entreprises d'un même secteur ont aussi tendance à se concentrer dans une même ville et à former des grappes industrielles de sièges sociaux afin de bénéficier de certains avantages compétitifs (Porter, 2000; Glasmeier, 1988). Les différentes juridictions peuvent aussi entrer en compétition en ce qui concerne la fiscalité pour attirer les sièges sociaux.

Les plus grandes sociétés publiques canadiennes considérées sont celles composant l'indice composé S&P/TSX de la bourse de Toronto. Cet indice se composait de 242 entreprises en janvier 2014. De ces 242 entreprises, 234 avaient leur siège social effectif au Canada si on considère l'adresse officielle de l'entreprise selon la base de données Thomson One. Le tableau 1 présente la localisation par province de ces 234 entreprises et le pourcentage de la population canadienne de chacune des provinces canadiennes en avril 2014 selon Statistique Canada.

Tableau 1
Localisation par province des sièges sociaux des entreprises composant l'indice composé S&P/TSX

Provinces	Nombre de sièges sociaux	Pourcentage des sièges sociaux	Pourcentage de la population canadienne	Nombre théorique sièges sociaux	Surreprésentation Sous représentation	Pourcentage du nombre théorique
T.-N. et L.	1	0,4%	1,5%	4	(3)	27,8%
I.P.E.	0	0,0%	0,4%	1	(1)	0,0%
N.-É.	4	1,7%	2,8%	6	(2)	62,2%
N.-B.	1	0,4%	2,2%	5	(4)	19,1%
Prov. Atla.	6	2,6%	7,0%	16	(10)	36,9%
Québec	32	13,7%	23,6%	55	(23)	57,9%
Ontario	82	35,0%	38,4%	90	(8)	91,3%
Manitoba	5	2,1%	3,6%	8	(3)	59,2%
Saskatchewan	2	0,9%	3,1%	7	(5)	27,7%
Alberta	79	33,8%	10,9%	25	54	310,0%
C.-B.	28	12,0%	13,1%	31	(3)	91,1%
Total	234	100,0%	99,7%	233		

L'analyse de ces résultats montre que de ces 234 sièges sociaux, 82 (35%) sont situés en Ontario et 79 (33,8 %) en Alberta laissant loin derrière le Québec à 32 et la Colombie-Britannique à 28 qui représentent respectivement 13,7 % et 12 % des entreprises de l'indice. Aucune des autres provinces ne compte plus que 5 entreprises cotées à l'indice. Les 4 provinces atlantiques regroupées ne sont représentées que par 6 entreprises.

L'analyse est ensuite raffinée en comparant la représentativité régionale au prorata de la population canadienne. Le lecteur averti remarquera que la somme des pourcentages de la population des 10 provinces canadiennes ne donne pas 100 % étant donné qu'il existe 3 territoires au Canada. Le pourcentage de la population canadienne de la colonne 4 est ensuite utilisé à la colonne 5 pour calculer le nombre théorique de sièges sociaux qui devrait être localisé dans chaque province selon une répartition au prorata de la population. Ce nombre théorique comparé au nombre réel permet de dégager à la colonne 6 une surreprésentation ou une sous-représentation pour chacune des provinces. Il ressort de ces résultats que toutes les provinces sont

sous-représentées à l'exception de l'Alberta. En effet, même si l'Ontario est représenté par plus d'entreprises que l'Alberta 82 par rapport à 79, une fois pris en considération sa population près de 4 fois plus importante, elle devient sous-représentée. La surreprésentation de l'Alberta pourrait s'expliquer par la force de l'économie poussée par l'industrie pétrolière et la plus grande propension des entreprises de ce secteur à devenir publique.

La 7^e colonne aide le lecteur à se donner une idée de l'ampleur de la surreprésentation ou de la sous-représentation en faisant le rapport du nombre réel d'entreprises sur le nombre théorique. L'Alberta est à 310 % au-dessus de son nombre théorique signifiant qu'elle compte 3 fois plus de sièges sociaux que son prorata de la population canadienne. L'Ontario à 91,3 % et la Colombie-Britannique à 91,1 % ont à peu près leur prorata de sièges sociaux. On aurait pu penser que l'Ontario, lieu géographique de la Bourse de Toronto, aurait été plus avantagé en s'inscrivant comme le centre financier canadien. Les autres provinces sont toutes à moins de 70 % de leur prorata.

La collecte de données a permis de faire ressortir un phénomène marqué de grappes industrielles au Canada où les sièges sociaux de l'industrie pétrolière se situe en Alberta, ceux de l'industrie financière à Toronto et ceux de l'industrie minière à Toronto et à Vancouver. Les sièges sociaux situés au Québec, principalement à Montréal, sont moins associés à un secteur spécifique et sont plus tributaires de l'identité propre de la province. Les résultats, somme toute prévisibles, montrent que les sièges sociaux au Canada se concentrent dans les plus grands centres urbains de Toronto, de Calgary, de Montréal et de Vancouver ne laissant que peu de place pour les Prairies et les provinces de l'Atlantique.

Le constat qui ressort de l'analyse est qu'à l'exception de l'Alberta, de l'Ontario et de la Colombie-Britannique, les autres provinces sont fortement sous-représentées. La seconde partie de la recherche visera à voir si cette sous-représentation est en contrepartie atténuée par la présence aux conseils d'administration d'administrateurs provenant des provinces sous-représentées.

III. Les administrateurs

La présence de sièges sociaux pour une région, due au pouvoir décisionnel, fait en sorte que cette dernière a tendance à être avantagée lors de l'allocation des ressources et des activités philanthropiques (Bloom et Grant, 2011). Cependant, l'ultime pouvoir décisionnel concernant les orientations stratégiques ne relève pas du président directeur général et de son équipe de gestion, mais plutôt du conseil d'administration de l'entreprise. Les conseils d'administration sont confrontés et doivent voter sur les décisions importantes auxquelles fait face l'entreprise, que ce soit les fusions, les acquisitions ou la fermeture d'usines. Les discussions au sein de ces conseils ont donc un impact sur les décisions stratégiques. (Harris et Helfat, 2007). Selon Finkelstein & Mooney (2003), l'interrelation entre les membres du conseil d'administration peut être considérée comme un réseau, qui a un influence auprès du président directeur général, mais qui établit les règles et qui distribue les rôles et les influences au sein de ce conseil. De plus, Zojac ((2001) a démontré que la structure et la composition démographique jouent un rôle important dans l'orientation du conseil. À cet effet, la diversité régionale chez les administrateurs pourrait en quelques sorte faire contrepoids à la propension de l'équipe de gestion à favoriser la région du siège social. L'objectif de la recherche n'est pas ici de démontrer si cette diversité arrive à cette fin, mais plutôt à déterminer si au Canada les régions détenant peu de sièges sociaux de sociétés publiques d'importance arrivent quand même à être représenté dans les conseils d'administration. Ces administrateurs, provenant des provinces moins favorisées en sièges sociaux, seraient alors en mesure de faire valoir les atouts de leurs régions par exemple pour l'implantation d'un centre de production ou lors de l'identification des causes philanthropiques à supporter. Le tableau 2 fait état de la représentativité provinciale des administrateurs de 239 des 242 entreprises composant

l'indice composé S&P/TSX. L'exclusion de 3 entreprises s'explique par l'absence d'information dans la circulaire d'information sur le lieu de résidence des administrateurs.

Tableau 2
Lieu de résidence des administrateurs des sociétés composant l'indice composé S&P/TSX

Provinces	Nombre d'administrateur	Pourcentage des administrateurs	Pourcentage de la population canadienne	Nombre théorique d'administrateurs	Surreprésentation Sous représentation	Pourcentage du nombre théorique
T.-N. et L.	8	0,5%	1,5%	27	(19)	29,3%
I.P.E.	0	0,0%	0,4%	7	(7)	0,0%
N.-É.	35	2,0%	2,8%	49	(14)	71,9%
N.-B.	10	0,6%	2,2%	40	(30)	25,2%
Prov. Atla.	52	2,9%	7,0%	123	(71)	42,2%
Québec	273	15,4%	23,6%	418	(145)	65,3%
Ontario	659	37,2%	38,4%	680	(21)	96,9%
Manitoba	32	1,8%	3,6%	64	(32)	50,1%
Saskatchewan	20	1,1%	3,1%	55	(35)	36,5%
Alberta	510	28,8%	10,9%	193	317	264,4%
C.-B.	224	12,6%	13,1%	233	(9)	96,3%
Total	1771	100,0%	99,7%	1765		

L'analyse du tableau 2 sur les administrateurs se présente sous la même forme que celle du tableau 1 sur le lieu des sièges sociaux. On voit que parmi les 1 771 administrateurs recensés 37,2 % et 28,8 % proviennent respectivement de l'Ontario et de l'Alberta. Le Québec et la Colombie-Britannique suivent avec respectivement 15,4 % et 12,6 % ne laissant qu'un maigre 5,8 % pour les autres provinces.

Lorsque l'on considère l'importance démographique des provinces, l'Alberta montre encore une forte surreprésentation avec ses 510 administrateurs. Elle ne devrait qu'en avoir 193 si on considère son prorata de la population canadienne, c'est-à-dire que le nombre d'administrateurs représente 264 % du nombre théorique. Cette surreprésentation est toutefois moins importante que celle affichée pour les sièges sociaux de 310 % (voir tableau 1) laissant ainsi plus de place pour les autres provinces. Toutefois, aucune autre province canadienne n'est surreprésentée quand on considère son poids démographique. Elles sont cependant toutes moins sous-représentées à l'exception du Manitoba qui bénéficie de deux sièges sociaux émanant du secteur financier soit ceux de la Great-West et de IGM Financial, tous deux liés à la société de Holding Power Corporation du Canada.

L'Ontario à 96,9 % et la Colombie-Britannique à 96,3 % sont à peu près équipondérés en regard de leurs proportions dans la démographie canadienne. Ces chiffres se comparent avantageusement à ceux respectifs de 91,3 % et 91,1 % (voir tableau 1) chez les sièges sociaux. Ces provinces sont donc à un peu plus de 5 % près de leur représentation proportionnelle quand on considère les administrateurs au lieu des sièges sociaux. Le bond est plus important pour le Québec. Les 273 administrateurs québécois (15,4 %) sont bien en deçà d'une représentation au prorata 418 (23,6 %). La sous-représentation est toutefois moins prononcée que pour les sièges sociaux, car les administrateurs québécois représentent 65,3 % du chiffre théorique alors que les sièges sociaux ne sont que 57,9 % de ce qu'ils devraient être en regard du prorata de la population canadienne. Les sociétés publiques des provinces à majorité anglophone porteraient donc une attention particulière à la présence de Québécois au sein de leur conseil d'administration. Le Manitoba et la Saskatchewan n'ont respectivement que 1,8 % et 1,1 % des administrateurs pour une représentation totale de 2,9 % ce qui est bien inférieur à leur pondération de la population canadienne de 6,7 %. Ce déficit d'administrateurs se traduit par un manque de 67 administrateurs par rapport à leur quote-part. Ce faible nombre d'administrateurs s'expliquerait par le faible nombre de sièges sociaux et l'affiliation de ces provinces à la grande région des prairies qui est déjà souvent représentée par des administrateurs albertains chez les entreprises n'ayant pas leur siège social dans cette région. La force économique de l'Alberta imposerait un administrateur de cette province au détriment du Manitoba et de la Saskatchewan.

Les 4 provinces Atlantiques sont quant à elles représentées par le même nombre d'administrateurs, soit 52, que le Manitoba et la Saskatchewan en dépit d'une population légèrement supérieure. Les 4 provinces de l'Atlantique regroupent 7 % de la population canadienne contre 6,7 % pour le Manitoba et la Saskatchewan. Il en résulte donc une sous-représentation encore plus importante de l'Atlantique. Le nombre d'administrateurs provenant des ces provinces ne représentant que 42,2 % de ce qu'il devrait être en regard d'une pondération selon le poids démographique. Il s'agit tout de même d'une amélioration (5,3 %) quand on compare cette pondération à celle de 36,9 % affichée en ce qui concerne les sièges sociaux. Il est à noter que sur les 52 administrateurs de l'Atlantique 35 résident en Nouvelle-Écosse, soit 67 %. Cette concentration s'expliquerait par le fait que 4 des 6 entreprises de l'Atlantique ont leur siège social en Nouvelle-Écosse et par un intérêt plus marqué des entreprises canadiennes soucieuses d'une représentation de l'Atlantique à considérer la présence d'un administrateur de cette province.

IV. Conclusion

L'Alberta est largement surreprésentée tant en ce qui a trait aux sièges sociaux qu'aux administrateurs. La surreprésentation est un peu moins prononcée pour les administrateurs. Il en résulte, qu'en contexte canadien, la composition des conseils d'administration pallierait que très partiellement à la concentration des sièges sociaux. La concentration des sièges sociaux vers les centres urbains est un phénomène déjà bien connu (Bloom et Grant, 2011). La provenance des administrateurs est un sujet moins traité. La présente étude fait ressortir un lien entre l'emplacement des sièges sociaux et le lieu de résidence des administrateurs, car les provinces où les sièges sociaux sont relativement plus présents jouissent aussi d'un plus grand nombre d'administrateurs.

La présente recherche considère uniquement les sociétés publiques. Dans une perspective plus large, il serait intéressant de regarder aussi les entreprises privées. Statistique Canada fait état, par province, des 500 plus grandes entreprises canadiennes (publiques et privées) en termes de revenus totaux sans les identifier. À la lecture de ces statistiques, datant de 2012, on y apprend que près de la moitié (247) sont domiciliées en Ontario et que l'Alberta avec ses 77 (15,4 %) est beaucoup moins surreprésentée que chez les sociétés publiques. Le Nouveau-Brunswick avec ses 11 sièges sociaux a quant à lui un nombre représentatif de sa population.

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COPORATE SOCIAL RESPONSIBILITY BEYOND DONOR FATIGUE: IDENTIFYING CORPORATE SOCIAL EXHAUSTION AMONG SMALL ENTERPRISE IN NOVA SCOTIA

Studies have examined corporate social responsibility (CSR). However, limited research has discussed the role of CSR within the small enterprise (SE) environment. This qualitative study examines the role of CSR within a SE environment in rural NS. Using grounded theory and situational analysis the phenomenon corporate social exhaustion has been identified.

Corporate Social Responsibility, beyond Donor Fatigue

Within existing literature various definitions of Corporate Social Responsibility (CSR) can be found. The World Business Council for Sustainable Development has defined CSR as “the continuing commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large.” McWilliams and Siegel (2001, 117) define CSR as “actions that appear to further some social good, beyond the interests of the firm and that which is required by law”. As well, CSR is considered to take into account the following five dimensions as identified by Dahlsrud (2006, 6) stakeholder, social, economic, volunteerism, and environmental dimensions.

Primarily CSR research has focused on the positive relationship between corporate citizenship and financial returns for businesses. Karmens (1985) examined the self-interest theory of business social responsibility and concluded that businesses that contribute to the greater societal welfare, in excess of their economic responsibilities would prosper. Similarly, Orlitzky, Schmidt and Rynes (2003) reported good corporate citizenship is related with positive financial outcomes for all businesses. It is undeniable that CSR has become an effective marketing tool, and a vehicle to positively shape a company’s reputation. Companies branded through images of caring and compassion have often been rewarded with economic success (Bronn & Vrioni, 2001).

Limited research exists that has examined CSR from a SE perspective. SE has been identified with medium enterprise as often contributing more to individual communities than large corporations (Hammann, Habisch & Pechlaner, 2009). Socially responsible corporate behaviour has also been identified as crucial to the long-term success of the SE (Chrisman & Archer, 1984; Njite, Hancer, & Slevitxh, 2011). Social capital as described by Pierre Bourdieu has been used as an underpinning to examine the SE experience in relationship to CSR (Njite,

Hancer, & Slevitch, 2011). Various researchers (e.g.: Besser & Miller, 2004; Worthington, Ram, & Jones, 2006) have examined the SE's motives for engagement in CSR and have found their motives differ from larger enterprises. SE managers and owners report a commitment to the community and a desire to give back as primary reasons for participating in CSR (Besser & Miller, 2004; Worthington, Ram, & Jones, 2006).

Besser (2012) examined the motives and consequences of SE's involvement in socially responsible practises. Besser interviewed twenty SE businesses owners and managers from the Midwest USA. The majority of participants were sole proprietorships and their business's revenues were generated from their local communities. Sixty percent of participants reported being actively involved in leadership roles within community organizations; eighty percent reported having been involved in a community betterment program during the previous year. All participants reported they feel an obligation to support their community. Besser (2012) identified enlightened self-interest and moral obligation as the driving motivators for these owners and managers' decision to engage in CSR. The consequences of CSR on these SE were also examined. Participants reported that contributing to their business's success was a motivating factor to engaging in socially responsible initiatives. However, only six participants reported CSR resulting in enhanced business success. Participants recounted the occurrence of negative financial outcomes associated with SE CSR. Five business owners reported losing business as a result of specific activities of support provided within their community. If individuals within the community disagreed with the support the SE had provided to a community need they withdrew support from the SE. One participant revealed a frustration with the community's lack of reciprocal support. Besser (2012) concluded that although SE expects to receive financial benefits from supporting their community there is no specific evidence to support that presumption.

In recent years CSR has been embraced by businesses of all sizes. From 1990 to 2009 Canadian corporate donations increased 581% (Imagine Canada, 2011). Corporations have recognized that many stakeholders are influenced by a company's level of CSR and a company's policies surrounding CSR (Bhattacharya, Sankar, & Korschum, 2011). The Federal Government cuts in funding to charitable organizations as well as their decrease in provincial transfer payments is creating increases in the already strained resources of many communities (CBC.ca, 2012; Ramos & Ron, 2012). In spite of increased financial demands incurred as a result of the economic decline corporate donations have generally been increasing since 1961 (Imagine Canada, 2011). There are many reasons which can be attributed to these increases in charitable donations. One reason identified is larger corporations have recognized the return on investment from investing socially, and have developed successful marketing strategies concerning CSR (Frankental, 2001; Laroche, Bergeron & Barboro-Forleo, 2001; Mohr & Webb, 2005).

Statistics Canada reported in 2008 that small and medium size enterprise (SME) employed 64% of private sector employees in Canada. It is undeniable that SME is a significant contributor to the Canadian economy. Of the total SME in Canada 98% are small enterprise having fewer than 100 employees, 75% of those small enterprise (SE) have fewer than 10 employees and 55% have only 1 to 4 employees. SE, on its' own, has a significant influence on the Canadian economy. Considering that Imagine Canada reports 76% of Canadian businesses donate money, it can be inferred that a considerable proportion of charitable donations made in Canada are given

by small enterprise. The US Small Business Administration reported in 2011 an equally staggering influence of SE on the US economy. SE represents 99.9% of the 29.6 million businesses in the US and paid 44% of the total private payroll of the US. SE plays a significant role in the economy. Engaged SE is responsible for contributing positively to the betterment of the communities they work in (Tolbert, 2005).

The present study examines social capital as a construct and theoretical component of the dynamics which are being experienced by SE participants. Researchers have previously made links between social capital, SE, and CSR (Besser, 2004; Casson & Giusta, 2007; Van Aaken, Splitter, & Seidl, 2013). Social capital represents the intrinsic value and often actuated power of social connections. Social capital is a very relevant aspect of our social dynamic. In 1986, Pierre Bourdieu identified the volume of social capital possessed by an individual to be dependent on the size of the individual's network connections and on the volume of economic and cultural capital possessed by those to whom the individual is connected (Bourdieu, 1986, 249). Individuals that know the 'right' people are perceived as having valuable social leverage. As well, increased relationship links create social capital which can be cashed in within a charitable request situation. Therefore, social capital has a two-fold implication in SE. Social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition. The volume of the social capital possessed by a given agent thus depends on the size of the network of connections he can effectively mobilize and on the volume of the capital (economic, cultural or symbolic) possessed in his own right by each of those to whom he is connected (Bourdeau, 1986).

Significant academic examination has been given to philanthropy of individuals. Overburdened donors who cease donating or reduce their average contribution is a phenomenon identified as 'donor fatigue' (Aldhous & Ewing, 1990; Bekkers & Wiepking, 2010; Carney, 1997; Hall & Kerkman, 2005; Sadanand, 2001, Van Diepen, Donker & Frances, 2009). According to Putman (2000) those that give are asked to give more often. As a rule, individuals who donate to charities are not motivated by material gain "donors will always be better off not making a donation" (Sargent & Jay, 2004, p.100). Individuals who give to charity are held in high regard, receiving recognition and approval from their peers. In addition, those individuals are willing to incur costs to achieve this approval from their peers (Clark, 2002; Wiepking 2007).

There has been much reported about donor fatigue as a result of the series of natural disasters of the past few years (Arneson, 2012). On the other hand, little has been discussed regarding the demand that has been placed on SE as a result of the recession, the Government's withdrawal of funding for charities large and small as well as the Federal Government's decreases in Provincial Government funding. The Federal Government's 'partnership' with the provinces has resulted in an added stress on provincial and municipal governments to maintain healthcare and education status quos (Speech from the Crown, 2011). The Canadian social safety-net is becoming increasingly strained.

A discussion is necessary to bring to light the variety of implications that the recession has created among SE and the public relations challenges it has left some SE facing. The detrimental

strain on stakeholder relationships which has been created by the increase needs of the community is a relevant problem facing SE in the Maritimes.

Methods

A qualitative grounded theory approach, using a situational analysis perspective was selected as best suited to this study due to the lack of the knowledge regarding SE experiences with CSR (Clarke & Friese, 2007). It was the most appropriate research methodology to apply to this situation. The researcher used a grounded theory methodology (GTM) approach to explore CSR and its implications for SE during a time of economic decline. As well, applied situational analysis facilitated the research process, to explore various contexts and examination of organizational, community, and national situational variables (Clarke & Friese, 2007).

Participants

Participants of this study were SE owners from King and Hants Counties in Nova Scotia Canada. The criteria for this purposive sample (Patton, 1990) included SE owners of businesses that had a recognizable community presence in their given areas of business. Each business was easily recognizable within the community due to its marketing strategies and stakeholder engagement within the community. Each business resided in a commercial space and interacted with a consumer base which was primarily found within their residing community. Each SE had a repeat customer base; meaning their success is driven by repeat consumer business. None of the businesses were so specialized to narrow their exposure to the community. The sample size was determined by the saturation point (Glaser & Strauss, 1967; Strauss & Corbin, 1998). The point of saturation was reached during interview nine. However two more interviews were conducted to ensure saturation, as well the extra interviews acted as a form of validation of the emerging constructs and themes (Corbin & Strauss, 2008). A total of eleven interviews were conducted. The sample included six female and five male participants. Participants ranged in age from thirty to seventy years of age. Seven of the participants were owners within a partnership, three were sole proprietors and one was a dealer owner within a national franchise.

Role of the researcher

Particularly in this qualitative study, the role of the researcher was the key instrument for collecting and interpreting the data. This requires the identification of personal values, beliefs and biases by the researcher at the onset of the study. As the owner of a small Nova Scotia company, I have a firsthand experience with CSR and its impact on SE. I believe this experience enhances my knowledge, appreciation and sensitivity to this topic; however it may bring certain biases to this study. Every effort has been made to diligently address objectivity throughout the research process. Multiple strategies were implemented to address objectivity. I maintained an open mind and was consciously objective to various perspectives and experiences of the participants. No leading questions were asked during the interview process. Participants were able to freely discuss what they felt they wanted to express. I did not express opinions and responded neutrally to all participant responses and comments. I often reflected back to participants to clarify the participant's feelings and opinions.

Materials

The open-ended interview initially include sixteen questions that encouraged respondent disclose. These questions were developed by the researcher for the purpose of exploring the business owner's experience.

Procedures

After receiving ethics approval participants were selected using purposive sample. Sixteen participants were contacted via an email message to request their participation in the study. Fifteen participants responded and expressed interest in participating in the study. Interested participants were contacted via telephone. Interviews were face to face, one on one, and conducted using an emergent open ended questionnaire. The researcher administered the fifteen open-ended interview questions. This emergent open ended approach helped to facilitate the disclosure of historical information and allowed the researcher control over the line of questioning. The interviews were electronically recorded using a small recording device with the permission of the participants and transcribed verbatim. As well, the interviewer regularly reflected back, paraphrased to the interviewee to assure the correct understand of thoughts, and concepts being communicated by the interviewee. Dragon transcription software was used to assist in the transcription process. Each transcribed interview was reviewed and compared to original audio recordings to assure accuracy.

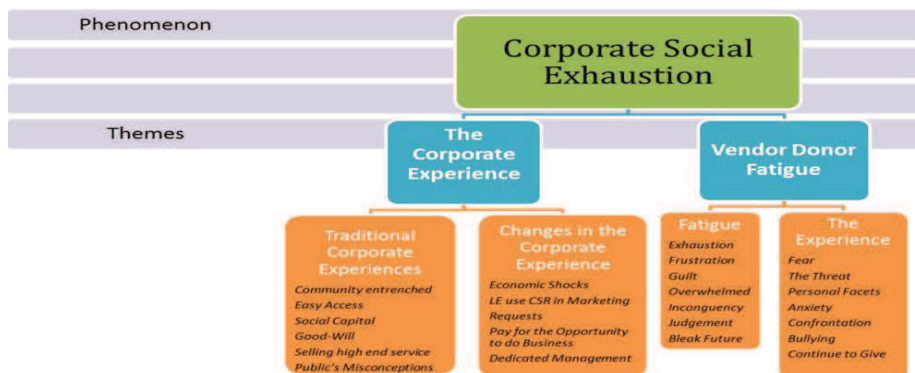
In practice of the GT approach the researcher employed a sequential recurrent and evolving approach to the interview process. During each interview the researcher made notes to accompany the audio recording. Within six hours of each interview the researcher reflected on the interview experience and created memo notes. These memos were a reflection and representation of the researcher's comprehensive experience during the interview. The memos included reflection regarding the significant points of interest made by the interviewee as well as things such as mood, physical expressions of anxiety, frustration, and sarcasm. The researcher used the process of memo writing to reflect on the interview in its most current interpretation. Initial memos were a valuable and effective construct building tool.

As previously stated, open codes were created for each new idea, event, feeling, situation or concept that was communicated. Initially the interviews resulted in 151 individual codes. Each of these initial codes was drawn together using situational mapping and memo writing (Bryant & Charmaz, 2007). During the analytic process concepts were developed through continual comparison, with the most relevant concepts presented and combined. Axial codes (Strauss & Corbin, 1998) were established to evolve themes which were found to be conceptually similar or connected in meaning. At this point many codes were collapsed to form a theoretical framework. This evolving process resulted in twenty-two overarching constructs.

Using the grounded theory and situational analysis frameworks the final product of the study explains the central theme of the data as well as accounts for variations in the data. Categories or themes are the "cornerstones" of developing grounded theory as they represent concepts in a broad or abstract manner. At the completion of axial coding, two major categories, grounded in the data had emerged: (1) *organizational experience* and (2) *vendor donor fatigue* (see figure 2). Organizational experience represents a thorough examination of the traditional organizational experiences as well as changes in the organizational experience which the

participants identified. Traditional corporate experiences represent reported core categories of the organizational experience which were identified as long standing SE experiences. Changes to the corporate experience encompass core categories which were identified in the interviews as aspects of the SE's experience which have changed in recent years. Vendor Donor Fatigue consists of the core categories of fatigue and the experience. Fatigue consists of the elements of fatigue of the experience described by the participants. The experience identifies core categories of the experiences described by the participants. These categories converge into the phenomenon of corporate social exhaustion.

Table 1. Corporate Social Exhaustion



Results

The Corporate Experience

The corporate experience examines two aspects of the SE's overall corporate experiences. The traditional corporate experience represents categories found to describe the long standing experiences of the SE as described by the participants. SE's community entrenchment, easy access to SE management, the use of social capital, good-will, selling from a high-end service strategy and the public's misconceptions regarding SE are all themes that were evident as long standing elements of the SE corporate experience. As well, changes in the corporate experience surveys the themes reported to have been experienced by participants over the past five years. These reports represent a shift in the SE experience in conjunction with the SE traditional corporate experiences. Changes in the corporate experience are represented by categories which examine economic shocks, large enterprises use of CSR as a marketing tool, changes in charitable

request trends, owners reported feelings of paying customers for the opportunity to have them as customers, and the demands reportedly placed on management to address CSE.

Traditional Organizational Experiences

Community entrenched. Business owners expressed a commitment and personal involvement in their given communities. They refer to the communities they do business with using language that represents attachment and ownership.

P5: We all have the community we settled for and if you want your community to be better, I have always said this is a great place to live and we want to keep it that way.

Easily accessible. SE owners discuss the public's easy available access to them personally. These SE owners are easily identifiable within the community and people have access to them or will seek out access to them.

P4: The fact that I was visual and I had a storefront and you can walk right in, walk right in the door it is really easy to walk in and ask for money.

Social capital. Business owners describe situations where individuals within the community leverage themselves socially within organizations or social groups in the community. The individual is able to do this by using the relationships they have with the SE. The individual may make assurances that they have the social capacity to influence the SE. In turn they will be able to get monetary support from the business owner. The ability to do that represents an increase in social capital within the canvassing organization or social group.

P5: I mean I have often said even myself on committees and they want me to do fundraising because I know a lot of people and I say no I will not do it. I will not go to businesses and ask them for money or staff.

Good-will. In contrast to the previous negative constructs owners express the positive influences of good-will as an effective marketing tool within the community.

P5: The other thing is we do not do a lot of advertising so this helps the name, the company name. I find donations do generate goodwill; I like to think they do.

The contrasting expressed view is a declined charitable request will have a counter effect.

P7: Your try to avoid the negative advertising that's all you're doing. It's sort of one of those things if you get good service you'll tell five of your friends, if you get bad service you'll tell anybody that will listen. That is what you are trying to avoid with the charity.

Selling high end service. SE report marketing themselves as high end service providers. The ability to provide high quality service is a strategy implemented by many SE as a way to market in competition to large box stores. Some report a concern that this marketing strategy, of trying to give the customer everything they need and want is creating a dynamic where any request can be made and the public feels it should be satisfied.

P7: Not the same as the box stores. They are marketed the other way. They are on the other end of the spectrum. We market ourselves that way. Maybe you have to pay a little more, but you will

get way better service here. That is what we have to cling onto, is the service end, where they haven't. Maybe we created our own monster, doing service, to the point of ridiculous.

The public's misconceptions. All of those interviewed expressed concern regarding the public's misconceptions regarding the realities of SE. The misconceptions varied but consistently those interviewed expressed distress that the general public's impression is that the financial gains and abilities of local business to provide financial support are far greater than their reality.

P1: I think that they think as I said if you have a business whether it's small or whatever you are wealthy, you have a load of money and you basically just work because you want to. I have had people actually say that to me that you know "why are you still working?"

Changes in the Organizational Experience

SE owners report many changes in their tradition roles and experiences. Owners reported experiencing numerous economic shocks.

Economic Shocks

Government cutbacks. Participants discussed the strain Government cutbacks have had on social programs within their community and how the owner's roles has changed within the community as a result.

P5: The government has pulled out of a lot of funding you see it in schools, schools are constantly looking for money for their programs. Schools have to make up the shortfall because they do not have it in their budget anymore. I also feel the government has really bagged us out.

Economic decline. SE owner's reveal communities and the individuals within those communities are feeling the pressures of the economic recession. General economic decline is felt across all aspects of the community.

P4: it seems the people have even less and less money and they want more donations. So I'm sure that would happen, I have talked to other small businesses. I've talked to a lot small businesses and I have said to them "are you getting as many people?", and it's the same story, "oh my God we had four more today"

Lost revenues. Those interviewed discussed the concerns of lost revenues. Businesses are often making less while trying to deal with increased costs, as well as increased social demands from the communities they operate within.

P3: So the asks have gotten bigger and bigger and our margins have gotten smaller and smaller.

Competition. In a climate of heavy competition for business, owners reveal situations where attempts are made to pit competing businesses against each other. Owners report this as concerning because they already feel the strain of competing for their own market share in a stressed economy.

P11: They are putting me right on the spot. "Well I'd sooner ask you then the meat shop down the road", that's putting me on the spot. I think she thought I would automatically donate to her if she said that.

Support double standard. Some interviewed felt although they actively supported the community the community wasn't supporting local business the way they felt it should. The positive support provided by SE is not being valued or reciprocated by the community.
P3: They don't really even understand fully how that is affecting their own community. You go to New Minas and you deal with Wal-Mart and then you go to Joe's menswear in the mall because you know Joe and you want a donation. And Joe knows you, he probably lives down the street from you and he feels he has to give you a donation but the manager, Timmy, at Wal-Mart's job is not dependent on giving you a donation. His livelihood is not dependent on giving you a donation.

Large enterprise uses CSR as a marketing tool. Some of the participants reflected on larger corporations marketing trends of recent years. Concern was expressed regarding large corporations effective use of CSR and charitable fundraising as a marketing ploy. The public is developing an expectation that part of the consumer experience involves an obligation by businesses to fulfil the consumer's social conscience.

P2: I think increasingly the community is being educated about corporate social responsibility, the ad campaign of the past five years plus. We see large businesses large corporations supporting cancer research, food networks, help lines or whatever it is large industry is using it as a marketing ploy. I think in a way that has educated the population I think that the general public to a large degree is starting to feel that it is the role of business to support the community, not for profits, to support, and I don't know if that's always fair. I feel they put the same pressures on small businesses as they put on these huge industries. Because for us it's more personal it is more difficult, the revenue just isn't there to support across the board.

Requests. Owners interviewed reported numerous noteworthy changes in the charitable requests experience.

Volume of requests. Collectively those interviewed reported the volume of charitable requests had increased over the previous five years.

P5: The only thing I can say is that it has been growing in numbers more and more every year. More and more people pounding on your door.

Scope of the requests. Participants reported that the amount of charitable monetary requested have increased. As well, when discussing other forms of requests those interviewed felt the requests were often excessive and unreasonable

P7: So sometimes you just have to turn them down. They ask for too much.

Increases in critical need requests. Some of those interviewed felt the types of charitable requests being made increasingly speak to critical needs. They conveyed the seriousness of the requests and the need within the community should not be underestimated.

P11: No I think it's more that people need help now than it was back years ago. Years ago I think we actually had more requests from people doing sports.

Life experiences. Those interviewed spoke of unease with the trend of private sector businesses being perceived as responsible for providing individuals with desired life experiences. Owners expressed a sentiment that all requests were not of a traditionally charitable nature and are becoming increasingly about satisfying individual wants.

P8: People have this expectation, it boggles my mind, it boggles my mind. You do not go out in your neighborhood to canvass, to send you somewhere, it's not that it's fun, but it's still like a school trip, it's an experience you want, it's an experience you want. It's not that you're not helping anybody, but it's an experience you want. It's a good experience, but this organization puts it on the backs of the people that go, it gives them the green light the okay to raise money. Someone in this organization is making money. But it is totally accepted that would be the case. But my point is there is just this widespread acceptance, you can do personal stuff, stuff that a generation ago you would never dream of raising money for. Now it just becomes automatic.

Give More, Decline More. Business owners reported an increase in the number of charitable requests they decline, as well as an increase in the number of requests they fulfill. One hundred percent of those interviewed reported an increase in the amount of money and time they have donated to charity over the previous five years.

P7: It's increased, it's increased. It's an increased expense. That's why we've gotten more creative and tried to find donations that are cheaper on our end to access.

Repeat request clientele. Several participants felt the pressures of a vicious cycle created by fulfilled requests. There is a pressure to fulfill the request but the relief of fulfilling a request is short lived. Often persons that have their requests fulfilled return yet again. The charitable appetite is insatiable.

P2: They come back again and again. Once you say yes once you can expect another ask.

Paying for the Opportunity to do Business.

The participants reported that customers no longer seem satisfied with quality service and competitive pricing. Doing business is no longer about just the traditional elements of their given marketplace; there is a new dimension and pressure on already strained small businesses. Universally owners felt they are often put in a position where they must pay consumers for the opportunity to have them as a customer.

P6: There is the product, and the service, the price and now there is this added element.

Dedicated Management

SE report significant changes in their CSR experiences in recent years. These changes have created an environment within the organization where the challenges of organizational image, stakeholder relationships, and organizational resources are being diligently managed.

P9: I had to put policies in place. I tried, it's hard. It was the biggest surprise when I bought that business and I told the new owners when I sold it "be prepared".

Vendor Donor Fatigue

All owners interviewed described a personal experience associated with the challenges faced by the increasing demands of CSR in their small corporate environment. They described an overwhelming experience steeped with emotion. Fatigue is a theme which describes the emotions associated with vendor donor fatigue; exhaustion, frustration, guilt, feeling of being overwhelmed, incongruences, feeling judged, and a lack of hope for the future are all reported by participants. The experience reveals elements of the unique experiences associated with vendor donor fatigue; fear, threats, the personal connections experienced between SE owners, employees and their customers, confrontations, bullying and the SEs commitment to continue to donate to charitable needs in their communities.

Fatigue.

Those interviewed reported many emotions that contributed to an overall fatigued and defeated sentiment. Participants expressed feelings of exhaustion, frustration, guilt, being overwhelmed, misunderstood and hopeless over the bleak future of CSR and SE.

Exhaustion. Participants reported exhaustion associated with the demands being placed on them.

P1: It means I am tired of giving, I'm tired, I'm tired of having to say "no" and look like the bad guy all the time. I feel guilty that I am saying "no", I shouldn't have to feel guilty. So to me it's like yeah just sick and tired of having to say "no". Yeah you just, yeah it is just overwhelming.

Frustration. Owners interviewed reported increasing frustration with the strains placed on their stakeholder relationships.

P1: Like every time somebody walked in how I feel in your mind you're thinking "oh another frigging donation" it is true you just say "oh my God". I just think when I see someone walk in I don't know, I don't think it's a new client, I think someone want a donation. How bad is that? I can honestly say that. That is how bad it is, yeah.

Guilt. Participants reported feelings of guilt even though they know the ability to fulfill all requests is impossible, they still experience guilt.

P6: And boys you feel guilty for it too but, but I have learned to actually say the word now. "I'm sorry I can't, no".

Overwhelmed. Those interviewed express a sense of being overwhelmed by the barrage of charitable demands made of them by the public.

P5: If you have the eighth person in that week well you get a little tired of giving it out. Especially if it hasn't been a great week financially.

Incongruent viewpoints. Owners sense that many of the individuals they must decline are not open to the SE's explanations for declining requests.

P9: It's not the saying "no", I own a business I have to say "no" to people all the time. It's saying "no" to someone who has no idea where I'm coming from, saying "no" to someone who thinks I'm lying even.

Judgement. Participants expressed concerns that the decisions they make, the organizations they chose to support or not support lead to judgement inferences being made about their SE and themselves.

P8: I'm judged when I say "no".

Bleak future. Participants had no positive comments about the future. Participants' views were no improvements to the situation are foreseeable.

P5: The only thing I can say is I don't think it's going to change. I think it's going to continue to increase. I don't know how the businesses are many continue to do it because I know that talking to other people; people are fed up with it. We just can't keep giving and giving and giving but I do think it's going to continue to increase until we get a handle on a few of these things.

The Experience

The fear. Participants spoke of their fears. Owners spoke of fears of losing business, their reputation, their livelihood. SE owners have a personal stake in keeping their customers satisfied.

P11: We were donating to them because we don't want to lose their business.

The threat. Participants repeatedly refer to the threats uttered by customers.

P1: She had come in and she wanted, they were raising money to send, raising money to send her child to cheerleading camp in the states somewhere for the summer, for a couple of weeks or something. And I said well, "no I don't give to cheerleading." And she said "Well all these years I have come to your business and spent my money here," she said "I can see why you can't just do this the once". And I said to her "if I do it for you I have to do it for everybody. It's not it's not like I don't want your child to go it's just that I can't afford to do it." I can't afford to send every person I know and she said "well then I can't afford to come back here" basically. That was it I haven't seen her since. It's gotten crazy.

The personal facets. Interactions between SE and those making requests often have an inter-personal aspect which can be significant to the mutual experience.

P1: It's that same bond yeah. As I've said I've done their hair and then they've gotten married and had kids and you have done their hair, and you have gotten to know the whole family. So when I say "no" to them and they're asking something of me it is very personal and they are hurt by it and yeah they let you know in no uncertain terms. It's true though I would have to say, my long-term customers I would break down 1st and give to them. I would feel pressured into doing that.

The anxiety. Anxiety associated with CSR requests is an emotional state reported by SE owners

P2: Well, it affects me walking down the street needing to interact with that person or delivering oil to them and having to interact knowing there is this thing that went on between us now.

The confrontation. Confrontations were reported to be a negative aspect of the SE management of CSR.

P11: Pretty much any time you say no you have a negative feeling from the people. You know that's not what they're expecting, they expect you donate. So you have that negativity as soon you see them and they can tell you are going to say no right away.,

The bullying. Two of those interviewed articulated their experiences as being bullied.

P8: I felt bullied; I felt that was an aggressive line that was out of line.

P3: The grand plan by the time they are done that night, after talking it all over is that they are going to raise thousands and thousands of dollars. And they do it by bullying and badgering the local businesses.

Continuing to Give Set SE Apart. One of the universal themes that separate SE as vendors from individualistic experiences of donor fatigue is SE continues to give. This represents a key distinction between the trends of individuals and SE organizations.

P8: From a budget point of view we are doing too much. For what would be considered responsible fiscal management.

Discussion

Discussion

The corporate experience and vendor donor fatigue constitute the core categories of corporate social exhaustion (CSE). Corporate Social Exhaustion is identified as a serious phenomenon faced by some small businesses in Nova Scotia. CSE encompasses stakeholder strains experienced by SE resulting from a large volume of charitable requests and necessary declined requests by SE. CSE is defined as a widespread demand for community support and a flexing of consumer power that leaves the vendor struggling to balance good will and unrealistic stakeholder expectations. CSE differs significantly from individual donor fatigue. CSE's unique characteristics include a diligence to continue to fulfill charitable requests, potential harm to the SE's as a result of giving, and public misconceptions regarding the abilities and intentions of SE.

The interviews painted a clear picture of the SE's organizational experience. Many factors discussed by the SE owners in this study represented aspects of the organizational experience which have been long standing. These SE owners have always felt a loyalty and commitment to the communities they do business within. It is arguable that the relationship SE has within the traditional community is the origin of corporate social responsibility. The small enterprise by its nature is often steeped in a tradition of CSR. The attributes of SE make it very capable and perhaps even unable to sustain itself without some degree of corporate social engagement (Miller & Besser, 2003).

SE organizations often feel a 'connectedness' to their marketplace (Besser & Miller, 2004; Kilkenny, Nalbarte, & Besser, 1999). This 'connectedness' translates into an obligation. A very personal feeling that the business's role is not only to provide product or service, not only to function as a vehicle for shareholder profits, but to contribute positively to their community (Besser, 2012; Spencer, 2004).

The dynamics of social capital and by what means social capital influences the environment of SE and CSE cannot be underestimated (Coleman, 1988; Flora, Sharpe, Flora & Newton, 1997). It is power at play from two perspectives, as reported by the participants in this study. One, often

the individual making the request, has flexed some personal social capital within a larger organization. They have played the “who they know” card. It is a legitimate card in the realm of SE. Once they have made that claim the individual becomes self-invested in proving or fulfilling their claim to this access of social capital. They have made the claim to this social capital, the power to have influence over an individual that can have benefit to the organization. It is then in their self-interest to have the claim validated and seen through to fruition. Their ability to see the request to fruition again increases their social capital standing within the group. This increases their own social capital within the social group they have flexed this claim with. Therefore they will then use the social capital, connection they have with the business owner to have the organization’s need fulfilled. They happily approach the owner in the hope of cashing in some of their social capital. They do in fact have the realities of social capital in the context of their relationship with the owner. So they leverage that capital in a plea to the owner to support the cause, representing the second element of influence of social capital. This situation is twofold; the individuals making the request are self-invested to increase their social capital within the organization they are working with. Secondly, they are leveraging the social capital of their relationship with the owner in an attempt to have the need fulfilled.

Good –will representing a value assigned by the public to the organizational image (Kilkenny, Nalbarte, & Besser, 1999). This value may be translated into a desire by the consumer to do business with an organization for reasons other than products, services and pricing (Laroche, Bergeron, & Barbaro-Forleo, 2001). SE has long seen good will as a powerful marketing tool within the community. Good-will has been a traditionally strong influence in the success of SE (Besser, 2012; Coleman, 1988; Granovetter, 1985). However, in more recent years participants reported a growing concern regarding the perception that the organization lacks good-will within their consumer markets. With ever increasing CSR demands placed on the resources of SE the once positive good-will produced by a variety of contributions to the community may actually be out weighted by the negative talk of declined charitable requests. This is reportedly becoming an increasingly frustrating dilemma for SE. This can have serious repercussions for SE. When individuals can place a face on the source of their feelings of anger, deceit, and rejection their emotions can be very strong and have an impact on their choices and attitudes. SE’s good-will has often represented a dynamic of reciprocity, concurrently a business supported the community and the community supported the business. Declined requests and the perception by consumer of a lack of SE participation, or the consumer’s disagreement with charitable choices of the SE may negatively affect reciprocity and create challenges for SE (Besser 1997; Kilkenny et. al. 1999).

Large enterprise has effectively transformed CSR into a marketing ploy (Googin, Mirvis, & Rochlin, 2007; Husted & De Jesus, 2006; Porter & Kramer, 2002). This has been intensified and executed primarily in the last ten years. It is increasingly difficult as a consumer to make basic purchases without being bombarded with marketing campaigns hailing the good-will, and social causes championed by consumer products. In a marketing ploy that has attempted to put a personal quality on large corporate entities. In a strategic attempt to fulfill an aspect of the consumer experience which large enterprise was lacking; the intimacy of the SE consumer experience. This strategy has on the surface educated the general public, although not to the complexities or the realities of the situation, but to a mood, a new standard. To do business, to be

a consumer is now about more than quality products, quality service, and competitive pricing. It is now also about an obvious social conscience. Arguably with large box stores and corporate conglomerates taking the attention off of quality and service and replacing them with a social conscience. Large enterprises effective use of CSR as a marketing tool has left consumers with a sense of entitlement to CSR from a company; consumers increasingly demand accountability of CSR (Oberseder, Schlegelmilch & Gruber, 2011; Pomeroy & Dolnicar, 2009). That is not a negative, however under certain circumstances that can become an overwhelming unrealistic burden to SE. Consumers are being conditioned to shifts in the capitalist market that do not support the local consumer's relationship with small local businesses. What was once a staple and unique quality of the local business's intimate relationship with their community has perhaps been morphed into a marketing ploy by large corporations and may inevitably developed into an insurmountable demand on SE.

Reported changes encompassing all aspects of charitable requests were evident. All of those interviewed discussed the dramatic increase in the number of requests being made for social support. Drastic increases in the volume of requests have been experienced universally across all participants. Many discussed the monetary requests being made of their SE. However requests for support were not limited to monetary requests. Requests of time, services, products as well as their own ability to promote a cause were mentioned.

Individuals may feel a level of personal rejection when the SE declines a request that they have made of the SE. Individuals that choose to support a cause are putting themselves forward publically, feeling the cause is valid, worthy and important. When an individual publically supports a cause those feelings are intensified (Freedman & Fraser, 1966). To be told by the SE that we have chosen not to support the cause, for any given reason, is on some level a personal rejection. The degree to which the individual takes that rejection personally varies substantially dependant on numerous factors. However, SE management is experiencing negative repercussions from these necessary rejections or declined charitable requests. Consumers evaluate CSR actions as they relate to their personal morals, values and priorities (Rowley & Moldoveanu, 2003).

Owners spoke of fears of losing business, their reputation, and their livelihood. SE owners have a personal stake in keeping their customers satisfied. SE owners' fears are not just plausible they are rooted in threats they have experienced. Participants repeatedly refer to the threats uttered by customers and the public. These threats could result in direct and real damage to the SE reputation and profitability. Compliance gaining theory from the exchange-theory approach (Marwell & Schmitt, 1967) explains the strategies used by some of those making demands of the SE. Marwell and Schmitt explored the behaviour of compliance and found that a person will comply in exchange for something else supplied by the other person. This theory is based on power distribution. If one holds enough power over another, in terms of resources, or can provide or withhold something the other wants they flex significant power to influence decision making and actions. Power is access to influential resources, which is the result of interpersonal perception; people hold as much power as others perceive them as having. This explains owners' reports of fear of repercussions of declined requests. As well as owners' insistence in supporting those requests from direct customers above all other charitable requests.

The discernible difference between an individual's philanthropic donor fatigue and CSE is the SE continued support of charitable requests. Regardless of vendor donor fatigue and the negative organizational experience the SE continue to provide support to the charitable needs of the community. They do not withhold support or withdraw their level of support. In contrast they continue to support charitable requests, and in all cases reported giving more in response to increases in social support demands from the community. They do this in some cases to the SE's detriment. The motivating factors for SE vary and are often not solely one of maximizing profit. SE owner's reasons for being in business are often complex and socially motivated (Spence & Rutherford, 2000).

Further research is required to examine all facets of CSE and its implication for SE.

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A HISTORY OF PUBLIC RELATIONS ETHICS IN CANADA

This paper constructs one history of public relations ethics in Canada. Looking specifically at the development of key texts in this process, the author attempts to contextualize understandings of ethical practice in Canadian public relations.

This paper traces the development of several key texts which construct one historical narrative of public relations ethics in Canada over the past century. Dominated by understandings of public relations ethics in the United States in this same era, the Canadian experience draws on documents from both Canada and the US, written from the early 1900s to the present day. Starting with Ivy Lee's Declaration of Principles in 1905, these documents provide interesting historical traces which reflect specific understandings of both ethics and public relations. From an historiographical perspective, this paper attempts to surface the importance of context in the development of these documents. A review of the context in which public relations existed during the development of these documents proposes a distinct, Canadian experience of ethical practice.

The texts highlighted in this paper were selected because of their prominence in the dominant narratives of public relations ethics. As Weatherbee (2012) points out, "As a discipline's knowledge is not singularly held by individuals but is held by communities of like-minded scholars (Popper, 1979), a field's history is also collectively held in the written products of the discipline (Kuhn, 1970)" in (Weatherbee, 2012, p. 206). The particular historical traces featured in this paper represent one written history, constructed within specific contexts, in the evolution of the current narrative of ethical PR practice.

The historiographical landscape of public relations ethics is a tricky one. The literature from both the academic and practitioner perspectives is quite large. However the context in which that literature was produced has received relatively little attention. As Heath (2010, p. 288) emphasizes, "while the scholarship of public relations has been concerned with the problem of ethics, it remains largely unconcerned with history or historiography, including its own." This leaves a gap in understandings of context in the construction of the historical narratives which inform the identities of public relations practitioners and scholars. L'Etang (2014, p. 27) summarizes the scope of the work to be done, "If we are to tackle...history in the field of public relations then we do have to deal with questions of power, structure, social theory and relationships in society and put some more work into theorizing their significance for concepts we use."

To that point, the work of constructing rich historiography of a discipline is a complex process. Although power interests most certainly played a role in how the documentation of ethics eventually emerged in both Canada and the US, it is not the purpose of this paper to uncover the power effects of discourses which may have produced these. In this paper the author attempts to simply put forward a history of public relations ethics to point out some historiographical differences in the narratives of two national experiences of PR practice. This contribution may set the groundwork for further research which will continue to uncover insights into the history and theory which continue to form the dominant narratives.

Emerging work on the History and historiography of Canadian public relations (Emms, 1995; Thurlow, 2009; Wright, 2011; Johansen & Ferguson, 2005) has begun to carve out a Canadian voice, or at least pluralized Canadian voices, in the history of public relations. Within this work are narratives of a distinctly Canadian experience, highlighting how origins of public policy and immigration have provided a different foundation for the practice of PR in Canada than in the US. However, the issue of Canadian public relations ethics has not yet been fully explored in this literature and research in this area may serve to deepen our understanding of not only our ethics, but our history, theory and practice as well.

Notwithstanding the potential presented here, we must acknowledge that the act of highlighting the Canadian experience as a distinct narrative raises its own set of complications from an historiographical perspective. McKie and Xifra (2014, p. 5) point out that national identity is fluid, “constantly under construction, and capable of changing and being changed. And this, recent historiography suggests, is equally true of history.” Nevertheless, this paper advocates the importance of a Canadian narrative of public relations ethics as an alternative voice in the dominant linear history of ethical practice reflecting an American corporate experience (Miller Russell & Bishop, 2009).

The Ethical Dilemma

Present day public relations does not have a strongly ethical image in the public, and particularly in media representations. According to the Edelman Trust Barometer¹, PR practitioners rank far down the list of credible spokespersons – just above celebrities and just below lawyers (2005/2007). The struggle to establish an identity as an ethical profession has been a challenging one (Thurlow, 2009). As Edgett articulates, public relations “has much still to prove as it strains toward recognition as a true profession” (Edgett, 2002, p. 2). Research has suggested that this may result from negative portrayals in popular culture (Johansen, 2001) or from a less than honorable past, epitomized in the work of early PR practitioner and Circus promoter P.T. Barnum. Barnum is famous for asserting that there is no such thing as ‘bad publicity’, and ‘I don’t care what they write about me in the press, just spell my name right’ (Heath & Coombs, 2006). Other research speculates on lack of understanding of the profession out in the public, or animosity from journalists who are frustrated by lack of access to information and lower wages (Miller Russell & Bishop, 2009).

¹ <http://www.edelman.com/insights/intellectual-property/2014-edelman-trust-barometer/>

Although current depictions in the public including terms such as spin doctor or truth spinner are commonplace, this perception was not always the case. In both Canada and the United States it has been suggested that the practice was originally seen as a positive role in society, or at the very least, neutral (Miller Russell & Bishop, 2009; Johansen, 2001). In a Canadian context, media depictions of PR agents as unethical were not present in the media for the most part until the mid-1940s (Johansen, 2001). Prior to that, and reaching back to the mid-1800s, public relations was largely seen as government communication or advertising, and there does not appear to be a strong feeling about the ethical practice of either of these functions in the press (Emms, 1995).

Miller Russell and Bishop (2009) identify the mid to late 1890s as the turning point in media references to PR practice in the United States. Prior to the 1890s, PR practitioners had been seen largely as spokespersons who could provide access to journalists for entertainments events, or provide information from corporate sources. There were also calls for more transparency from the corporate sector, including demands for access to spokespersons and written material explaining corporate positions.

However, by the mid to late 1890s, references to press-agentry (as a form of public relations) were becoming decidedly more negative. The motivations behind this change appear to emerge from conflict between journalists and press agents around access to information from corporations and a lack of authenticity in the publicity events created to sell tickets or products (Miller Russell & Bishop, 2009). By the time Ivy Lee produced his Declaration of Principles in 1905, it was in response to media statements about the lack of truthfulness in public relations practice. Not surprisingly, Lee's declaration addresses almost exclusively the issue of openness and accuracy in dealing with the press.

The American Narrative: Declaration of Principles, Propaganda, PRSA Code of Ethics

The Declaration of Principles 1905

In 1905 Ivy Lee and his partner George Parker were working as publicists, advising coal operators on how to respond to an ongoing coal strike. Lee issued the declaration to counter statements from journalists about their inability to gain access to information, accusations of ghost-written press releases, propaganda disguised as news stories, and other strategies by corporate owners to manipulate the information presented in the media. The document itself was a one page statement, distributed to American reporters and editors of the time.

According to Morse (1906, September.), at the time of the 1905 strike Lee sent to city editors the following "declaration of principles":

This is not a secret press bureau. All our work is done in the open. We aim to supply news. This is not an advertising agency; if you think any of our matter ought properly to go to your business office, do not use it. Our matter is accurate. Further details on any subject treated will be supplied promptly, and any editor will be assisted most cheerfully in verifying directly any statement of fact. Upon inquiry, full information will be given to any editor

concerning those on whose behalf an article is sent out. In brief, our plan is, frankly and openly, on behalf of business concerns and public institutions, to supply to the press and public of the United States prompt and accurate information concerning subjects which it is of value and interest to the public to know about. Corporations and public institutions give out much information in which the news point is lost to view. Nevertheless, it is quite as important to the public to have this news as it is to the establishments themselves to give it currency. I send out only matter every detail of which I am willing to assist any editor in verifying for himself. I am always at your service for the purpose of enabling you to obtain more complete information concerning any of the subjects brought forward in my copy (p. 460). In (Miller Russell & Bishop, 2009)

Previous scholarship has identified the writing and dissemination of this Declaration of Principles as “a seminal moment in public relations history” (Miller Russell & Bishop, 2009, p. 93). This document is held up in the dominant narrative of public relations history as the defining moment where publicity was claimed as a legitimate form of communication (Hallahan, 2002). Equally important, the Declaration was welcomed and accepted by journalists as well. Editors welcomed the opportunity to work with Lee and publicity was again seen as a useful communication role.

However, Lee’s legacy is not without criticism. Olasky in his (1987) research asserts that although Lee’s declaration was factually accurate, it implied a level of truthfulness or a willingness to “put all his cards on the table” which was not the case. Lee’s work was accurate, but slanted to convey clear perspectives to the audience. At that time, largely about the issue of corporate trusts which dominated the American political economy at the time. This propensity towards unethical practice came up again in Lee’s career as he was criticized for unethical practice while working for the Rockefeller family during another coal strike in 1914 in Colorado. Even later on in his career, Lee is criticized for working with clients of questionable integrity (Olasky, 1987).

Propaganda 1928

Following in Lee’s tradition of defending the standards of public relations practice, another “father of public relations,” Edward Bernays, emerged on the scene several years later. A strong advocate for high standards in public relations practice, throughout his career, even until the 1980s and 1990s, Bernays has consistently called for licensing and professionalization in public relations (Bernays, 1984). Depending upon the traces used to re-assemble histories of Public Relations ethics, the motivation for increased focus on ethics standards has been attributed to improved professional education, theoretical evolution of the discipline to a more enlightened two-way model of communication, and the sheer growth in numbers within the field following the Second World War. Although scholars may debate the relative merit of these different perspectives, there is one key motivator in the call for ethical practice which is consistently put forward; ethical standards are a requirement of professionalization (Edgett, 2002, p. 3). Bernays commitment to the need for professionalization ran parallel to the move towards professionalization in journalism. In the 1920s, both PR and journalism struggled to

define roles, identity and ethical standards. During the 1920s the tension between journalists and public relations practitioners that Ivy Lee had attempted to diffuse was heating up once again. At the end of the First World War, the field of journalism was stinging from the way that reporters had been successfully enrolled in the dissemination of wartime propaganda by the government during the war.

In the early 1920s work on professionalization within journalism began in earnest, starting with a clear distancing of that field from public relations. PR practitioners were painted in a very negative light as propagandists. Journalism took on an approach of scientific method, where “truth” was gathered from experts and reported objectively to the public. The first code of ethics for the American Society of Professional Journalists was adopted in 1926², calling for, among other things, “sincerity, truthfulness and accuracy in reporting.”

In 1923, Bernays wrote *Crystalizing Public Opinion*. This book was an important first attempt to define the value of public relations in the role of advocacy or as an avenue for the publicity for minority voices. Bernays, “articulated that propaganda presented its own vital truth claims - those who had new minority ideas could use propaganda to surface their contentions through the media and push an indolent majority toward progress” (St John, 2009, p. 354)

Bernays followed up on this point in his subsequent book, *Propaganda*, published in 1928. In *Propaganda*, Bernays discusses the origins of the field of public relations along with the rights and responsibilities of practitioners. His statement of responsibilities focused for the most part on issues of conflict of interest, and the need to openly identify the client or source of the information being presented. Many of the statements put forward by Bernays in this book are mirrored in the current code of ethics of the Public Relations Society of America.

In publishing *Propaganda*, Bernays took on the media establishment by attempting to demonstrate that “propaganda promoted the knowledge and agendas of the minority voice, from civil rights to new fashion trends, resulted in press attacks on propaganda as corrosive to journalism” (St John, 2009, p. 354). The New York Evening Post printed one of the first reviews of *Propaganda* on November 15, 1928, under the headline “Boobery in the Making Revealed At Last.” Bernays, said the un-bylined piece, treats the public like it is a boob that needs to have its collective head crammed with ideas; the public relations counsel is “the magician who makes ideas dance inside our thick domes” (St John, 2009, p. 361).

Other papers printed similar reactions, most criticizing *Propaganda* as a description of public relations as unconcerned with truth and accuracy and attempting to convince the public of events or issues that may or may not be true. Although Bernays continued for decades after *Propaganda* to have a successful public relations career, he ultimately lost the battle to re-define propaganda. The press successfully constructed the term in a pejorative manner, and public relations attempted to disassociate itself with the label.

² <http://www.spj.org/ethicsfaq.asp#2.pdf>

Throughout his career, Bernays was himself the strongest advocate for professionalization in America, and he played an important role in the development of the first PRSA code of ethics in 1952. Perhaps ironically, more recent research has presented Bernays as a practitioner with questionable ethics as he has been criticized for unethical behavior on behalf on several high profile clients over the years (Bivens, 2013).

The PRSA Code of Ethics 1951

On December 4, 1950 the Public Relations Society of America (PRSA) introduced one of the first codes of public relations ethical standards. The code was described at the time “as a compromise between those who were striving for ideal if not idealistic behavior and those who wanted no Code at all” (Calver, 1951, p. 53). And, “as one of the founders of the original code stated: “the fact that public relations has a Code of Ethics is certainly unknown to most users of public relations and will be surprising to many” (Calver, 1951, p. 53) in (OECD, 2012).

Although general in content and vague in practical guidance, the brief document laid the groundwork for future codes and established the direction of its successors. It emphasized serving the public interest; avoiding conflicts of interest; communicating honestly; avoiding misrepresentations to clients, employers, and others; and the continuing professional development of public relations practitioners (Fitzpatrick, 2002, p. 90).

This first, general code of ethics was revised in 1959 to a broader code which was expanded to include two paragraphs directly related to enforcement.

The new provisions required members to serve if called as a witness in an enforcement proceeding and to “co-operate with fellow members in upholding and enforcing this Code” (PRSA, 1959). Perhaps because ethical accountability had become increasingly important to Society leaders, the drafters of the 1959 code placed more weight on “improper” (Watson, 1960, p. 23) activities than on ethical best practices, relying heavily on the phrase “shall not.” (Fitzpatrick, 2002, p. 93).

This move towards enforcement is interesting, but perhaps not surprising, as the image of public relations practitioners in society, and in the press was quite negative by this time. Enforcement remained a primary concern of the PRSA code for decades until in the revision of 2000, the Society acknowledge that enforcement has not worked. At that point, the focus returned to that of individual accountability and responsibility.

The Canadian Narrative

In contrast to the American history assembled above, Canada had no single document outlining PR practice prior to the establishment of the Canadian Public Relations Society (CPRS) code of professional conduct written in 1961.

This lack of documentation may have reflected the fact that the context in which PR was practiced in Canada was quite different than the situation south of the border. Prior to the 1940s in Canada, the image of public relations practitioners was largely a positive one (Johansen, 2001). That is not to say that all public relations activities were executed in a morally correct manner. The Canadian history reflects a strong reliance on government immigration policy as the birthplace of the practice. As Emms (1995) points out, public relations as it related to Canadian immigration policy often included over-exaggerated claims about living conditions and farming requirements in the Canadian West. The communication also excluded particular groups of potential immigrants and drove political agendas more so than public interest.

Nevertheless, the historical impetus to raise the profile of the profession was not present until decades later. However, post 1940s there appears to be somewhat of a change in tone in terms of media representation of PR practitioners, as well as public perception. For example, Johansen (2001) points to a stern letter to the press written in 1955 by Leonard Knott, then CPRS society Vice President. Knott objected after publication of statements made by a Montreal police official in the press that "Public relations men routinely procured prostitutes for corporate clients" (p. 64).

Over the next 15-20 years two powerful forces, the drive to professionalize, and the public perception of the practice in the mass media, created the conditions for the development of a Canadian code of ethics. Johansen points out that it was not until 1961 that CPRS "felt compelled to establish a special committee to recommend steps designed to increase understanding and acceptance of the role of public relations as a function in the Canadian community." (Johansen, 2001, p. 64) That same year, the International Public Relations Association (IPRA) established the Code of Venice, which was an international code of ethics and behavior in the field of public relations.

American public relations had a further role in moving Canadian PR practitioners toward their first code of ethics. US practitioner Philip Lesly is described by Johansen (2001) as advocating for Canadian public relations to become more "advanced", and emulate its American counterpart by raising the profile of the profession and "elevating the prestige of public relations people among leaders and businessmen throughout Canada." (Johansen, 2001, p. 65). Lesly himself was an American PR practitioner who had financial interests in a Canadian PR firm at the time.

The CPRS Code of Professional Conduct 1961

In Canada, the first code for Public Relations practice was established in 1961. Called the Canadian Public Relations Society (CPRS) Code of Professional Conduct, this document closely mirrored the PRSA code indicating a need for openness in dealing with the press and vigilance regarding conflicts of interest.

Still reflected in the current CPRS code, the first article of the CPRS code emphasizes that “Members shall conduct their professional life in a manner that does not conflict with the public interest...” The prominence of this statement reflects an equally strong statement in the original code of ethics for American Journalists, as well as in the current Canadian Association of Journalists ethic guidelines “We serve democracy and the public interest by reporting the truth³.”

This emphasis on truth and public interest is fundamental to both the journalism codes and the public relations ethical codes in both Canada and the United States over the past century. The relationship between the evolution of standards in both these fields is an interesting one, and there has been some scholarship from a public relations perspective on how the intertwining of the interests of these two groups has impacted PR ethics.

Although very little information is available in terms of enforcement issues within the Canadian PR society, there are references to the need for a more structured enforcement process in a recent study conducted by the Quebec chapter in the CPRS society (Tremblay, 2008).

The recent narrative

Ethics continue to be a primary concern of both CPRS and PRSA, and the perception of public relations practice in the media has not improved (Thurlow, 2009). Over the past 14 years, the two associations have taken very different approaches to address this issue largely reflected in how they approach the issue of enforcement.

As mentioned above, in 2000, the Public Relations Society of America (PRSA) made an important and in many ways defining change to how it represents its professional code of standards. It moved away from enforcement as an emphasis of the code and adopted an approach of inspiration and education.

The Society presents the current code on its website with the following introduction:

When PRSA introduced its first Code of Ethics in 1950, the Society’s leaders had high hopes for cleaning up many of the bad practices that sullied the reputation of the profession. Clear guidelines, tough enforcement and public shaming were put in place as the strategy to address ethical violations. But during 50 years of trying, those good intentions were frustrated, due to a lack of cooperation; enormous legal and investigative expenses; significant investments of time, money and resources for investigating alleged violations; and a slow but steadily growing realization that the meager results of the effort in relation to the time and resources required, failed to provide a valuable return on investment for PRSA, its members or the broader profession (PRSA).

³ <http://www.caj.ca/ethics-guidelines/>

CPRS, by contrast, has maintained a strong enforcement mandate in the application of its code. But the fact remains that negative depictions of public relations practice in the media have not ceased. As recently as 2007 CPRS society president Derek Pieters wrote a letter to the Toronto Star to respond to unflattering representation of public relations in the article *Look before Leaping into the Spin Trade*⁴. In his response, Pieters specifically referred to the Code of Ethics and the fact that it is enforced by the society.

The tension between journalists and public relations practitioners evident early in the 20th century in the United States and later in Canada is reflected in the continuing negative representations of public relations ethics in the media. This ongoing struggle to stake out the higher moral ground in public communication has continued as both groups attempt to shore up their ethical position with regard to professionalization. This conflict may have contributed to the narrative of ethical practice constructed today in both Canada and the United States. Certainly a challenge for public relations practitioners is that journalists were very successful in dominating the argument for ethical practice as journalistic objectivity (McBride, 1989). Throughout the previous century, the standard of ‘objective truth’ came to define ethical communication. As McBride points out, this “dominant yet dysfunctional perspective” was adopted by public relations practitioners as their paradigm of ethical practice. McBride and others have called for further scholarship in this area to create a perspective of ethical practice that allows for advocacy as a function of ethical public relations.

This highlights the question of enforcement from another perspective. If the underlying history and theory which contributed to codes of ethics based on journalistic principles does not offer an appropriate framework for public relations practice, can those standards ever be effectively enforced? In Canada, for many of the reasons outlined by the PRSA statement above, enforcement is not seen to have the teeth it could by at least some CPRS members (Tremblay, 2008). Nevertheless, the position of CPRS is quite clear. CPRS currently enforces its code through a Judicial and Ethics committee which acts on behalf of the board.

In the CPRS code this committee is still tasked with enforcement,

The National Judicial and Ethics Committee shall act on behalf of the Board as custodians of, and shall have power to enforce, the Declaration of Principles and the Code of Professional Standards of the National Society both as promulgated and in accordance with these Regulations (CPRS.ca).

Enforcement, it is suggested in this material, could come in the form of sanctions up to and including expulsion from the society. In further support of the move toward individual monitoring as opposed to society-level enforcement the Global Alliance⁵ (the confederation of the world's major PR and communication management associations and institutions, representing 160,000 practitioners and academics around the world), has introduced a code of ethics based on individual accountability. This code is endorsed by

⁴ http://www.cprs.ca/news/07Aug10_SpinTradeResponse.aspx

⁵ <http://www.globalalliancepr.org/website/page/about-ga#sthash.DyMC1sz9.dpuf>

both CPRS and PRSA. The Global Alliance code follows closely the American model, and states:

“A code of ethics and professional conduct is an individual matter that should be viewed as a guide to make sound values-based decisions⁶”

Conclusion

The traces assembled in this history of public relations ethics have provided two distinctly different narratives of ethical practice in Canada and the United States over the past century. These narratives provide us with insights into the constraints and ideals around the establishment of standards of practice. Also part of these narratives are the paths taken towards the enactment of these standards within the PR community.

Central to the narratives in these two countries is the issue of enforcement of ethical codes. Likewise, the race for professionalization between journalism and public relations clearly plays a role. Tensions over media depictions of the public relations profession appear to be profoundly important in both national contexts. The journalistic claim of truth and public interest has potentially driven public relations ethics in a reactionary way, discounting more complete understandings of history and context.

Further research is required in this area to investigate the role of enforcement in the evolution of PR ethics in Canada, and internationally. The move by PRSA and the Global Alliance away from enforcement and towards individual accountability is an interesting one, perhaps sending the message that professionalization is no longer the driving force behind the need to document ethical practice.

⁶ <http://www.globalalliancepr.org/website/page/code-ethics>

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ECONOMIC IMPACT OF THE NOVA SCOTIA CO-OPERATIVE SECTOR

Nova Scotia's co-op sector has a rich history going back to the 1860s but detailed knowledge of the role of the sector in the economy is limited. We estimated the economic impact of co-ops and credit unions, including GDP, income, employment, and taxes. We also examined the impact of co-ops across the Urban – Rural divide.

Introduction

This study was carried out last year and it focuses on the economic impact of the co-operative sector in Nova Scotia. It is a comprehensive study of the economic impacts of co-operatives and credit unions on all communities in the province. 2012 was the UN-proclaimed international year of cooperatives and it was marked by the co-operative sector worldwide. The Nova Scotia Co-operative Council and the researchers in the Atlantic cluster of the *Measuring the Co-operative Difference Research Network*, a SSHRC-funded CURA project, saw it as an opportunity to reflect on the qualities and contributions of co-operatives and credit unions in Nova Scotia, as viable collectively-owned democratic businesses.

Co-operatives make-up a strong, stable and resilient sector of the economy in Nova Scotia, for well over a century. The Britannia Consumers Co-operative was established by coal miners in Sydney Mines, Cape Breton in the 1860s and Nova Scotia's largest co-operative, Scotsburn, was created in 1900 by dairy farmers in Pictou County. Agricultural societies started 'feed and seed' supplier co-operatives to meet the needs of farms and later started consumer co-ops to meet the needs of households. The Government of Nova Scotia has been involved with co-operative development dating back to the early 1900s when agricultural representatives helped farmer groups send their shipments of livestock to market. In 1906, the Farmers Co-operative Associations Act was enacted as a special part of the Companies Act. (Co-ops in Nova Scotia, 2007)

The modern co-operative sector grew during the 1920s and 1930s as the Antigonish Movement, led by Cape Breton's Fr. Jimmy Tompkins and Fr. Moses Coady, assisted local fishers, farmers, forestry workers, and coal miners to start more consumer, agricultural, and financial co-operatives. The Acadian community of Cheticamp, Cape Breton, was an early adopter of the co-op model and organized a fisheries co-operative by 1915.

In 1932 the Reserve Mines Credit Union, Cape Breton, obtained the first credit union charter from the Nova Scotia government. In 1934 the first meeting of Nova Scotia credit unions was held in Sydney. Many more Nova Scotia communities started Credit Unions and the credit union systems of Nova Scotia, New Brunswick and PEI owe their origins to the Antigonish Movement, which also had an important influence across Canada.

There is some recognition that co-operatives have a long history and hold great potential for the future of Nova Scotia. Nova Scotia's recent *JobsHere* strategy and the new *One Nova Scotia Report* (Ivany Report), for example, recognize that social enterprises such as co-operatives can contribute to job creation and wealth creation. However, detailed knowledge of the role of co-operatives (including credit unions) in Nova Scotia's economy is limited. The impact of the co-operative sector in the economy has been studied in other regions, such as Wisconsin and New Brunswick, but not in Nova Scotia. This research study intends to provide a detailed evaluation of the economic impact of the sector in the province.

Background

Co-operatives pursue social goals using economic means; in other words, they operate as businesses with economic goals, but have a social purpose (Novkovic, 2012). Generally, the social goals of co-operatives are a response to a need in the communities in which they operate. The ability of co-operatives to respond to community needs has contributed to the success as well as the diversity of co-operatives in Canada (Fulton & Hammond-Ketilson, 1992).

Research indicates that co-operatives are a tool that can lift groups, not only individuals, out of poverty (Majee & Hoyt, 2011). Their ability to reduce poverty can be attributed to the fact that co-operatives provide a means for communities to come together and allow citizens to make choices based on the community rather than individual well-being (Fulton & Hammond-Ketilson, 1992).

The literature also informs us that the co-operative business model is well suited for community economic development due to the fact that they create economic, human and social capital through their operations (Majee & Hoyt, 2011). In their exploration of the use of co-operatives in community development, Majee and Hoyt, 2011, demonstrate that co-operatives are able to strengthen connections within groups, while connecting groups with outside resources simultaneously.

Local control is another important aspect of co-operatives because it allows members to react to local conditions and also gives them a sense of power over their circumstances (Fulton &

Hammond Ketilson, 1992). As locally owned and controlled enterprises co-operatives are place-based businesses that are able to provide goods and services as well as employment and other positive contributions to their communities (Majee & Hoyt, 2011). In this manner, co-operatives are able to prevent market failures, and are considered valuable economic and social resources in communities across Canada.

Although co-operatives are found across the country in both urban centers and rural communities, the literature indicates that co-operatives may be more significant in rural areas; for example, Novkovic, Leclerc, and Fulton & Hammond – Ketilson. Leclerc, 2010, informs us that many co-operatives operate points of service despite the fact that these local operations may have a negative impact on their balance sheets. Novkovic, 2008, emphasizes that co-operatives often mitigate market failures by operating in less-profitable locations than other firms may be willing to operate in. The literature further informs us that co-operatives allow people in small communities to have control over their own economies (Fulton & Hammond- Ketilson, 1992).

It is recognized that co-operatives and social enterprises often achieve better economic and social outcomes than their conventional counterparts (Borzaga, Depedri, & Tortia, 2011). The practitioner based literature confirms that co-operatives have the ability to enhance the social fabric of their communities by ensuring jobs, promoting entrepreneurship and improving quality of life (Lotti, Mensing, & Valenti, 2006).

The literature informs us that the impact of co-operatives and social enterprises is often left unrecognized by predominant economic theory (Borzaga, Depedri, & Tortia, 2011). The practitioner based literature suggests that co-operatives, “tend to operate with little fanfare and are often unrecognized by the financial press...” (Lotti, Mensing, & Valenti, 2006). International co-operative organizations also recognize the lack of knowledge and awareness about the co-op sector in common discourse around the world (World Co-operative Monitor, 2011).

The lack of awareness of the economic significance of this sector can be partially explained by the lack of extant literature that measures the economic impact of this sector. In conducting the review of literature relevant to this paper the researchers found few previous economic impact studies on the co-operative sector in Canada or elsewhere, and very few that have been peer-reviewed and published in recognized journals. However, in this review we will discuss the corresponding technical reports that we have found in the co-operative sector literature.

In a study of the economic impact of the co-operative sector in New Brunswick, Leclerc looked at the direct, indirect and the induced impacts of the sector as well as the tax revenues generated through the activities of co-operatives and their employees (Leclerc, 2010). Leclerc used the input-output model, finding it more suitable due to the varied nature of co-operatives in that province (Leclerc, 2010). He estimated the contribution of the co-operative sector in New Brunswick to equal 3.4% of the total jobs in that province, provides \$117.4 million in total tax revenue

In the United States a team of researchers from the University of Wisconsin conducted an analysis of the economic impact of the co-operative sector across that country. In this study,

Deller et al, 2009, also used the input-output model to calculate direct, indirect and induced impacts of economic activity in the co-operative sector. They measured the value of revenue, wages and income as well as the number of jobs to determine the total economic impact (Deller et al, 2009).

This study has identified 29,284 co-operatives operating in the United States, and surveyed 16,151 of these to collect data. Deller et al, found that 66% of all co-operatives in the United States are in the social services sector, 19% are found in sales or marketing, 11% are in the utilities sector and 4% are in the financial services sector. Their analysis indicated that co-operatives in the United States own 3 trillion in assets, account for 654 billion in total revenue, 75 billion in wages and benefits, and create two million jobs by their direct, indirect and induced impact (Deller et al, 2009). The study did not include effect on GNP and taxes.

Globally, the World Co-operative Monitor has begun developing extensive yearly reports in an attempt to raise the profile of co-operatives and demonstrate their economic and social importance while providing more opportunities for co-operation among co-operatives. Using data from 2011 this organization has been able to identify the three hundred largest co-operatives operating around the world and values their contribution to the economy in the trillions of dollars (World Co-operative Monitor, 2011).

Scope

The study aims to complete a comprehensive analysis of the economic impact of general and financial co-operatives in Nova Scotia. We have made an effort to conduct a census of the economic activity of the co-operative sector by collecting and analyzing the revenue and employment of all organizations that have self-identified as co-ops and registered with the Co-operatives Branch of Service Nova Scotia or with the Credit Union Central. The table below provides a sample of types of co-operative ventures operating in the province:

Airports (ex. Waterville/Cambridge)	Farmer's markets	Investment funds (CEDIFs)
Art galleries	Fishing/Trawlermen	Marina operators
Boatyards	Fish-plants	Museums
Bus operators	Filmmakers	Nursing homes
Credit Unions	Fitness centres	Poultry Processors
Dairy processors and distributors	Forestry	Ranchers
Daycare centres	Funeral homes	Theatre productions
Doctor offices/clinics	Grocery supermarkets	Water utilities
	Housing	
	Insurance brokers	

Our initial scan of annual reports published by these two organizations indicated that there are over 350 co-ops and credit unions operating in the province, with more than \$2 billion in assets, more than \$850 million in revenue, and more than 200 thousand members. Considering that Nova Scotia's 2011 population was 922 thousand, the co-operative sector attracts a significant number of producers and consumers, of a variety of goods and services. Table 1 presents a summary of the general, non-financial co-operative sector.

Table 1. Summary of Co-operatives in Nova Scotia, 2011

Type	Number of Co-Ops	Revenue	Number of Members	Assets	Number of Employees
Agriculture	35	502,074,480	3,215	207,855,078	1,946
Craft Products	10	915,747	154	463,950	34
Fish Products	13	46,214,033	607	8,589,571	166
Forest Products	8	4,493,447	882	1,802,312	54
Housing	71	16,395,248	1,939	75,146,995	15
Investment	21	1,542,139	2,051	21,314,187	8
Miscellaneous	2	14,633	23	7,277	0
Retail Consumer	36	131,778,195	28,325	36,363,402	334
Services	55	6,118,169	4,903	10,581,283	257
Worker Labour	40	23,625,169	2,635	12,769,540	298
	290	733,171,260	44,734	374,893,595	3,112
Credit Unions	31	118,174,615	159,347	1,954,911,000	735

Source: NS Co-operatives Branch, Co-Op Atlantic

Agricultural co-ops and financial co-ops (credit unions, insurance, investments) are still dominating the sector, in terms of sales and employment. Two of Nova Scotia's agricultural co-ops, Scotsburn and Farmers Dairy, were included in the list of Top 50 Canadian Non-financial Co-operatives published by the Federal Government's Co-operatives Secretariat. (Top 50 Non-financial co-operatives, 2011)

The Co-operatives Branch of Service Nova Scotia breaks down non-financial co-ops into 10 categories, 9 corresponding to economy subsectors and one ('Worker Labour') relating to a

special type of co-op ownership (employee owned). Considering that economic impact calculations rely on economic sectoral data, we had to further code every co-op by the North American Industrial Classification system (NAICS), using the codes used by Statistics Canada at the W level (301 industries), and also utilized in the Nova Scotia Input-Output (NSIO) system: we ended up using codes for 46 different sub-sectors to categorize all Nova Scotia co-operatives and provide sufficient granularity for economic impact calculations.

Methodology

Operating an enterprise, that uses capital and labor to produce goods and services, creates economic activity. This economic activity generates jobs, wages, and taxes and ripples through the economy; as suppliers to the enterprise generate more revenue and more jobs, and as their employees spend their earnings on goods and services within the province. Typically the impact is measured in terms of value-added Gross Domestic Product (GDP), labour income, employment (number of jobs), and tax revenue to all levels of government.

Economists use a couple different methods in order to estimate these figures for ventures or policies, with the “Input-Output Analysis” being the most commonly used. This method is built on the observation that one industry’s output becomes an input for other industries: it analyzes how the direct impact of a venture affects other industries, to generate “indirect” and “induced” impacts. It also recognizes that different industries have different levels of material, capital, and labour inputs and have different levels of effect on other industries; thus using different coefficients/multipliers. A pulp and paper mill, for example, uses primarily local materials and labour and it has a bigger multiplier effect on the provincial economy than a comparable size manufacturing project that is less labour intense and uses imported input materials, or a service organization that only uses labour inputs.

The “Input-output” method has been popularized by American economist Wassily Leontief and it is widely used by economists and governments throughout the world. Statistics Canada has developed Input-Output tables for the national and provincial economies and updates them approximately every five years. Using these tables, we can use the given coefficients/multipliers to estimate the effects of co-ops on GDP, employment income, number of jobs, and taxes. This approach was used for estimating the economic impacts of co-ops in New Brunswick, as mentioned above.

For each type of industry the co-ops participate in, the economic impacts are estimated as:

- (a) Direct impacts: revenue, jobs, and taxes generated by the co-ops
- (b) Indirect impacts: revenue, jobs, and taxes generated by enterprises that supply the co-ops

- (c) Induced impacts: revenue, jobs, and taxes generated from spending by direct and indirect employment; spending by employees of co-ops, employees of suppliers to the co-ops, and their families.

Input-Output tables issued by Statistics Canada include multipliers for direct and indirect impacts for GDP, employment, jobs, and taxes for 301 industries, but they do not provide coefficients for the *induced* impacts. The Ministry of Finance, Province of Nova Scotia has developed the Nova Scotia Input-Output System (NSIO) that uses the basic Statistics Canada framework of 301 industry categories, but it also estimates induced impacts: estimates direct and spinoff (indirect and induced) impacts.

It should be noted that Nova Scotia is a small open economy and coefficients used for induced impacts in larger, more self-sufficient economies would produce unrealistically high estimates of induced impacts for Nova Scotia. We have exercised caution in producing conservative estimates of impacts and we did not use a general Induced coefficient. The Ministry of Finance NSIO model accounts for that low level of induced impacts and we have been fortunate that ministry officers graciously offered to run our categorized co-ops revenue data through the NSIO model.

We proceeded with coding all co-operatives and credit unions using the NSIO vector codes and we were able to obtain revenue subtotals for each of the 46 industry codes used: the Co-operatives Branch of Service Nova Scotia provided us with the revenue and employment subtotals by subsector for the cooperatives that submitted full financials in 2011 (290 co-ops) and the Credit Union Central provided us the same for the 31 credit unions operating in the province. We also obtained additional revenue data from Co-op Atlantic and The Co-operators for their Nova Scotia locations.

We summarized input data and the Ministry of Finance run our input data through the NSIO model and provided us with direct and spinoff economic impact estimates. It should be noted, however, that the NSIO model run did not provide us with impact estimates on Taxes. We used Statistics Canada Input-Output multipliers for Nova Scotia (Provincial Input Output, 2007) to estimate the production and product taxes and we used Statistics Canada data series on household expenditures (Household Expenditures, 2007) to estimate the Induced impact on taxes: income taxes, HST, and household property taxes.

Results

The economic impact estimates are summarized on Table 2 below.

The study results suggest that the impact of the co-operative sector in Nova Scotia's economy is substantial, with value-added economic output (GDP) of \$799 million, 11,359 jobs (full-time equivalent) and employment income of \$469 million. The co-operative sector essentially

generates 2.2% of the provincial GDP and provides 2.5% of all jobs in Nova Scotia. Although this percentage may not look substantial, it actually is: to place these impacts in context, one could compare the Co-ops jobs figure of 11,359 to the 9,314 Nova Scotia provincial government jobs in the province.

Table 2. Economic Impacts of Nova Scotia's Co-Operative sector, 2011

	Direct	Spinoff	Total
<u>Economic Output (GDP, in \$000s)</u>			
General Co-Ops	260,909	338,442	\$ 599,351
Credit Unions & Insurance	104,854	94,444	199,298
			\$ 798,649
<u>Jobs (FTEs, person-years)</u>			
General Co-Ops	4,434	4,495	9,379
Credit Unions & Insurance	1,098	882	1,980
			11,359
<u>Household Income (\$000s)</u>			
General Co-Ops	173,336	196,217	\$ 369,553
Credit Unions & Insurance	60,773	39,023	99,796
			\$ 469,349
<u>Taxes (\$000s)</u>			
Production taxes (Stats Can, Provincial I-O multipliers 2007)	\$ 16,528		\$ 16,528
Product taxes (Stats Can, Provincial I-O multipliers 2007)	5,721		5,721
Household Income Taxes (Stats Can 202-0501, 202-0707, 203-0001 2010 15.6%)		73,218	73,218
Household HST (FP Markets - 7.788%)		36,552	36,552
Household Property Taxes (Stats Can 203-0001, 2.1%)		9,968	9,968
			\$ 141,987

It is well known that the roots of the co-operative movement are in agriculture and in rural communities and we have attempted to also classify co-operatives as Urban or Rural; defining Rural as co-ops that are headquartered in a location that is not a town or a city. We are not aware of any statistical analysis that has attempted to analyze the Urban-Rural split on economic impacts in the province, but considering the rural nature of Nova Scotia, there may be value in analyzing separately the economic activity of the co-operative sector in rural areas. A preliminary analysis is shown on Table 3 below for the general Co-ops, using raw figures from the annual returns of the co-ops:

Table 3. Rural vs. Urban Summary of Co-operatives

Location	No of Co-ops	Revenue (\$)	Assets (\$)	No of Members	No of Employees
Rural	136	472,100,660	181,178,315	34,078	2,045
Urban	154	261,070,600	193,715,280	10,656	1,067
	290	733,171,260	374,893,595	44,734	3,112

The above indicates that rural co-ops account for 3/4 of total co-op membership and for 2/3 of co-op revenue and number of employees.

We relied on the raw data only, as one cannot estimate the indirect and induced impacts along the Rural-Urban line easily. The coefficients and multipliers we used apply to the economy of the whole province: suppliers to the rural co-ops may be located in urban areas and employees of rural co-ops may make purchases in urban areas also. However, we believe there is significance in the fact that co-ops have a big rural presence and that on average they have been operating for many years. It should also be noted that 30 of the 82 Credit Union branches in Nova Scotia are located in communities where there is no other financial institution present. (Credit Unions in Nova Scotia, 2007)

Limitations

The results of this impact analysis are affected by some limitations.

The first limitation is that this analysis measures only the co-operatives that report revenue to the Co-operatives Branch of Service Nova Scotia. There were approximately 40 co-operatives that did not report revenue in 2011. However, the authors of this paper feel confident that the largest co-operatives were indeed reporting and the majority of those not reporting had little or no revenue to report: the large dairy co-ops and the co-op supermarkets account for more than 80% of the sector's revenue volume and they have reported.

A limitation arises on adjusting for sector inter-provincial revenues: accounting for revenues in the province by all co-operatives, including the co-operatives that have headquarters in another province, and for adjusting for out-of-province revenues of Nova Scotia co-operatives. The researchers obtained revenue figures from a number of co-op organizations and believe the adjusted revenue figures used are fairly accurate.

Another limitation comes in the coding of co-operatives into the NAICS industry codes used in the Statistics Canada multipliers tables and in the NSIO codes used by the Nova Scotia Ministry of Finance model to perform the input-output analysis: we had to assign the codes, by reviewing profiles of the co-operatives. Special care was taken to try to eliminate subjectivity, by having two researchers review the coding.

Conclusion

This study fills an important gap in the existing co-operative literature, by quantifying the size of the sector in Nova Scotia.

There have been a few studies of the social economy in Nova Scotia, but not a full economic impact study of the co-operative sector. This study is an attempt to estimate the full economic impact of both non-financial and financial co-ops in the province and it demonstrates that the co-operative sector is a significant part of the provincial economy.

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HYBRID, EMERGENT AND SYMBIOTIC INNOVATION PATTERNS: SOME TAXONOMIC PROBLEMS IN NOVA SCOTIA'S OCEAN INDUSTRIES¹

Innovation taxonomies help us understand firms' technological trajectories. We used website material to classify 117 ocean technology firms into 6 innovation patterns from the Castellacci (2008) taxonomy. This revealed 3 boundary conditions: *hybrid* firms with *emergent* innovation strategies and *symbiotic* linkages defy classification. We discuss approaches to resolve each limitation.

Introduction

A firm's innovation behaviours are partly shaped by its sectoral, geographic, and temporal context. Pavitt (1984) introduced the first comprehensive attempt to group these behaviours into patterns. His famous taxonomy describes how the characteristics of an industry's technological paradigm/regime define a firm's technological trajectory, as well as the linkages between sectors. Over the years, this important work has been extensively cited, critiqued and revised (Archibugi, 2001; Castellacci, 2008). Pavitt and his heirs have helped us understand the broad strokes of sectoral innovation patterns. However, many limitations remain embedded in the underlying taxonomic logic (Archibugi, 2001; Castellacci, 2009; Gallouj, 2002).

Existing taxonomies, from Pavitt (1984) to Castellacci (2008), were built through econometric analysis of large industry datasets from national innovation surveys. To depart from this paradigm, we conducted an embedded case study (Yin, 2009) on the "ocean technology sector" in Nova Scotia, Canada. Our case study context was sufficiently unusual and heterogeneous (in terms of innovation behaviours) that it proved revelatory (Yin, 2009). We examined website material for 117 firms in 45 product-based industries (based on the North American Industry Classification System). Using cues in the website material, we matched each firm with an innovation pattern from the Castellacci (2008) taxonomy. We encountered early-stage and multi-product firms that could not be properly classified, sectors where multiple innovation patterns were present, and linkages with public research organizations that looked more like intersectoral knowledge "loops" than vertical "chains". This surfaced three critical taxonomic problems in innovation studies: hybrid firms, emergent strategies and symbiotic linkages. We elaborate each of as a boundary condition of the existing models and suggest how each might be addressed in future research.

¹ Acknowledgements suppressed for review.

The paper begins with a review of the literature on sectoral patterns of innovation. After discussing Pavitt's formative contribution and its limitations, we survey many of the subsequent adjustments and alternatives that have been proposed. We then outline our case study methodology and describe the three major taxonomic problems that arose in our results. We conclude with a discussion of these boundary conditions and the implications for future classification of innovation behaviours.

Innovation Taxonomies

Pavitt's Taxonomy

Among Keith Pavitt's countless contributions to innovation studies (Verspagen & Werker, 2004), his taxonomy (Pavitt, 1984) is said to have been the most significant (Archibugi, 2001). It sparked decades of investigations into innovation behaviour patterns and remains extremely influential to this day (Archibugi, 2001; Castellacci, 2008, 2009; Peneder, 2003, 2010). In the original paper, Pavitt used data on 2,000 "significant" manufacturing industry innovations in the United Kingdom (1945-1979) to develop five broad patterns or categories of innovation behaviour. He called these his "sectoral technological trajectories" (Pavitt, 1984, p. 354). First, his "supplier dominated firms" were generally *small*, used *non-technical means* to appropriate *process* innovations, and relied primarily on technological inputs (knowledge flows) from *suppliers*. His "science based firms" were much *larger*; used *know-how, patents and secrecy* to appropriate a *mix of product and process* innovations; and drew knowledge from both *internal R&D* and *public science*. Pavitt divided his third category, "production intensive firms" into two sub-categories: (a) "scale intensive firms" and (b) "specialized suppliers." The former were *large* firms that drew knowledge from both *suppliers* and *internal R&D* and used a variety of means to appropriate *process* innovations. The latter category, "specialized suppliers," were *small* firms that relied on their *customers/users* and their *internal R&D activities* to develop *product* innovations, which were appropriated through *know-how* and *patents*.

While Pavitt (1984) spoke of sectoral *trajectories*, some might make the distinction that he also used variables associated with technological *regimes* (Breschi & Malerba, 1997) (i.e. the appropriability conditions/methods discussed above). Indeed, Castellacci (2008) describes Pavitt's taxonomy as more than simply a model of technological trajectories. The taxonomy's categories can help us to anticipate the trajectory of a firm's technological change, because the direction of that change is shaped by the firm's technological "paradigm" (Dosi, 1982) or "regime" (Breschi, Malerba, & Orsenigo, 2000). Pavitt's work combined these concepts to highlight the broad paradigm-regime-trajectory categories of the late industrial era (Castellacci, 2008).

But Pavitt's taxonomy also goes further, helping to explain the vertical linkages that tie together various manufacturing sectors. Archibugi argues that the taxonomy made it "easier to explore how different economic units are interconnected and to identify the main knowledge flows and user-producer linkages" (2001, p. 422). Castellacci has argued that these linkages are "a crucial aspect" (2008, p. 980) and the "most original contribution of Pavitt's taxonomy" (2009,

p. 324). We might therefore conclude that the taxonomy was an early attempt to create a fully-integrated paradigm-regime-trajectory-linkage model of firm innovation (Castellacci, 2008).

Problems with Pavitt's Taxonomy

While Pavitt's taxonomy has been used extensively by innovation scholars, it has also been heavily critiqued. Many of the critics forget that Pavitt readily acknowledged the limitations of his work: "Given the variety in patterns of technical change that we have observed, most generalizations are likely to be wrong, if they are based on very practical experience, however deep, or on a simple analytical model, however elegant" (Pavitt, 1984, p. 370). He recognized that his taxonomy was only a starting-point, and called for further exploratory research, extensions, and alterations. In fact, as he was concluding his original article, Pavitt was already beginning to suggest alterations. He suggested that another category might be needed, "to cover purchases by government and utilities of expensive capital goods related to defense, energy, communications and transport" (Pavitt, 1984, p. 370).

In our review of the literature we were unable to identify any subsequent alterations or alternative taxonomies that captured these "non-market" (public sector) firms. In fact, Gallouj (2002) includes this as the first of his many outstanding problems with the taxonomy. He notes that Pavitt's work excludes non-market firms, lumps all of the service sector into the "supplier dominated" category, assumes industries are heterogeneous, overlooks the possibility of innovation co-production, assumes a clear distinction between product and process innovations, neglects organizational innovations, and uses firm size as a determinant of technological trajectory (whereas the causality should be reversed). Many of these problems emerge from two underlying limitations: the research context and the unit of analysis.

First, Pavitt's work was conducted in one specific temporal and geographic context. His taxonomy was based on data from the United Kingdom during the period 1945-1979, but "is intended to be universally applicable" (Gallouj, 2002, p. 6). As Castellacci says, "Pavitt's model [...] provides a stylized and powerful description of the core set of industrial sectors that sustained the growth of *advanced economies* during the *Fordist age* [emphasis added]" (2008, p. 980). The limitation here is obvious. A large volume of literature has documented the great variation in innovation patterns across temporal and geographic contexts, not only sectoral ones (for more on this argument, see Castellacci, 2008). One test of Pavitt's taxonomy across modern-day Europe found greater variability in innovation patterns between countries than between sectors (Castellacci, 2008). The model clearly requires adaptation if it is to be generalized beyond the context in which it was created.

The second underlying limitation of the taxonomy is the product-based industrial classifications embedded in Pavitt's work. Pavitt (1984) established explicit correspondence between his taxonomic categories and standard product-based industries. For example, he said that his "scale-intensive" category included firms from industries such as food product manufacturing and shipbuilding. Meanwhile, "science-based firms are to be found in the chemical and the electronic/electrical sectors" (Pavitt, 1984, p. 362). However, Pavitt had intended for his model to be a firm-level taxonomy: "the basic unit of analysis is the innovating firm" (1984, p. 353). Archibugi (2001) argues that Pavitt failed to make this clear, instead giving the impression

that this is a taxonomy of industrial sectors. That impression is reinforced throughout the original paper. Pavitt (1984) performed his econometric analysis using data he had aggregated up to the industry-level, defined by the UK's "Minimum List Heading" (Standard Industrial Classification). This makes a great deal of sense, given his background in economic policy. However, it neglects considerable heterogeneity within each industrial classification.

Since World War II, economists and statisticians have established a relative consensus around the product-related classification of firms. "Standard" classification systems around the world (e.g. North America's NAICS, Europe's NACE, or the United Nation's ISIC) are all very similar in this respect. They sort business establishments based on the primary products they produce. However, businesses with similar product outputs can exhibit completely different innovation behaviours. A good example might be two footwear companies: one mass producing slippers, the other collaborating with NASA to produce moon boots (Archibugi, 2001). This is the aspect of Pavitt's taxonomy that has been most heavily critiqued. For example, Archibugi (2001) has noted that multi-product, multi-technology firms defy the classification system. Gallouj (2002) has argued that the classification logic leaves no room for firms to change their product offerings or technological trajectories.

Cesaratto and Mangano (1993) may have been the first to statistically demonstrate that Pavitt's sector-level analysis was problematic. They found that Pavitt's general idea was sound, but that innovation behaviours varied greatly among individual firms in Italy. De Marchi, Napolitano, and Taccini (1996) also tested Pavitt's model using Italian firm-level data. They found some statistical support for Pavitt's taxonomic categories, but also observed a high degree of firm-level variability within sectors. Other studies have confirmed that small firms in Switzerland (Hollenstein, 2003) and the Netherlands (de Jong & Marsili, 2006) are more diverse in their innovation patterns than Pavitt's sector-based approach might allow. More recently, Leiponen and Drejer (2007) demonstrated that firm-level capabilities and strategies were more important to innovation behaviour than sectoral characteristics in both Finland and Denmark. In light of studies like these, Archibugi has argued that improvements to Pavitt's taxonomy should provide us with "a categorization of firms entirely independent from the product-based one" (2001, p. 420). He has called for further innovation taxonomy research at the firm-level, rather than the industry-level.

Adjustments and Alternatives

It has become a kind of sport for innovation scholars to try and fix the problems of Pavitt's taxonomy. In his review of industry classification systems, Peneder (2003) discusses the contributions of Evangelista (2000), Marsili (2001), and Pol, Carroll, and Robertson (2002). The first of these is focused on the service sector. Using the same sector-level logic, Evangelista (2000) produced a taxonomy that resembles Pavitt (1984). Meanwhile, Marsili (2001) updated Pavitt's work for modern manufacturing sectors. She focuses on characteristics of technological regimes, and identified five patterns: science-based, fundamental process, complex systems, product engineering, and continuous process. Marsili and Verspagen (2002) applied this refined taxonomy to the Dutch manufacturing sector and found that their data explained approximately two-thirds of the correspondence between standard industry sectors and the taxonomic regimes.

Finally, Peneder (2003) notes the Pol et al. (2002) variation, but suggests that it added little to Pavitt's original model.

There is no doubt that Peneder (2003) missed many of the other published adjustments and alternatives to Pavitt's taxonomy. These have been numerous, and it is not our intent to review them all. But for example, we know that Pavitt himself was involved in an adjustment that added an "information intensive" category to the taxonomy (Tidd, Bessant, & Pavitt, 1997). Guerrieri (1999) used a modified version of the taxonomy to study international trade data. Also, Miozzo and Soete (2001) developed a well cited sectoral taxonomy of services. This was also a relatively minor adjustment to Pavitt's model, introducing two types of supplier dominated services (personal services and public/social services) and two types of scale intensive services (physical networks and information networks). Again, it was based on a foundational sector classification, and linkages between sectors (producing both services and goods). Since the publication of reviews by Peneder (2003) and Archibugi (2001), many other adjustments and alternatives have been presented. For example, Bogliacino and Pianta (2010) changed the category "scale-intensive manufacturing" to "scale and information intensive firms". Peneder (2010) contributed his own version of the taxonomy, built around a paradigm-regime model of five innovation "modes." Hollenstein (2003) also built a five-mode taxonomy, but used the firm as his unit of analysis. Nonetheless, the resulting classification system was similar to those of Evangelista (2000) and Miozzo and Soete (2001). Among all of these interesting contributions, the most comprehensive to-date has been Castellacci (2008).

Castellacci's taxonomy (2008) is a direct refinement of Pavitt's model that incorporates both goods-producing and services-producing firms. It uses a simplified three-dimensional mapping of sectors. On one dimension, Castellacci differentiates between firms that produce their technological content internally versus those that acquire it externally. Pavitt (1984) made a similar distinction between intramural and extramural knowledge sources. For his second dimension, Castellacci differentiates firms based on their position in a vertical supply chain (suppliers versus recipients of goods/services). Castellacci does not explicitly acknowledge the third dimension, which he uses to divide firms based on the relative tangibility of their products: intangible services versus tangible goods. The result of this exercise is a 4 category taxonomy with 8 sub-categories. The classifications (and sub-classifications) include: personal goods and services (sub-divided into supplier-dominated goods and supplier-dominated services), mass production goods (sub-divided into scale-intensive and science-based), infrastructural services (sub-divided into physical infrastructure and network infrastructure), and advanced knowledge providers (subdivided into specialized suppliers manufacturing and knowledge-intensive business services). The first category, personal goods and services, has low innovation intensity. The other six sub-categories are described in terms of their technological regime and technological trajectory characteristics in the first 5 columns of Table 1.

Despite the myriad options, we consider the Castellacci (2008) taxonomy to be the current heir to Pavitt's original work. It was developed from data on modern goods and service producing industries, across many European countries, while still maintaining the basic structure of Pavitt's paradigm-regime-trajectory-linkage model. It is also a sectoral taxonomy, following on Pavitt's original analytical approach. Castellacci acknowledges this by saying, "one limitation of this

empirical analysis is that it focuses on the sectoral (two-digit) level of analysis, and is therefore unable to investigate the extent of firm-level heterogeneity within each industry” (2008, p. 991).

Table 1. Cues used to code firms into the 6 main categories of Castellacci’s taxonomy.

Category	Cues				Number of Firms Identified
	Technological Regime		Technological Trajectory		
	External Knowledge Sources	Means of Appropriation	Types of Innovation	Innovation Strategy	
Knowledge Intensive Business Services	Users; Universities	Know-How; Copyright	Product (Services); Organizational	R&D; Training; Cooperations	52
Specialized Supplier Manufacturing	Users	Patents; Design Know-How	Product	R&D; Acquisition Of Machinery And Software	2
Science-Based Manufacturing	Universities; Users	Patents; Design; Copyright	Product; Organizational	R&D; Cooperations	25
Scale-Intensive Manufacturing	Suppliers; Users	Design; Process Secrecy	Mixed Product and Process	R&D; Acquisition Of Machinery	9
Network Infrastructure Services	Suppliers; Users	Standards; Norms; Design	Mixed Process, Product (Services) and Organizational	R&D; Acquisition Of Software; Training	0
Physical Infrastructure Services	Suppliers	Standards; Norms; Design	Process	Acquisition Of Machinery And Software	25

Adapted from Castellacci (2008, p. 984).

Notes. Castellacci’s low-innovation categories (supplier-dominated personal goods and services) were excluded from the analysis because no such firms were present in the case context. The number of firms does not sum to 117 because 4 firms did not match any of the six patterns / categories.

While Castellacci is aware of the limitations, he still produces a clear taxonomy that can be tested in other contexts. He provides clear descriptions of his taxonomic categories, the relevant variables, and the corresponding product-based sectors. Castellacci (2008) therefore gives us a

ready-to-use taxonomy that is applicable beyond Pavitt's geographic and temporal context. However, he maintains various underlying logics, including product-based sectoral divisions.

Method

Case Study Context

To achieve a deeper understanding of the taxonomic problems facing innovation studies, we chose a case study method rather than the usual regression analysis of innovation survey data. Edquist (2001, 2004) has argued that case studies are a useful methodological approach for building theory around systems of innovation. More broadly, Yin explains that the case study method is appropriate when the researcher wants, "to understand a real-life phenomenon in depth, but such understanding [encompasses] important contextual conditions" (2009, p. 18). In a study of innovation patterns, the primary contextual conditions are geographic (national/regional) and sectoral. Castellacci (2009) observed a great degree of variation in innovation patterns across national innovation systems, and we would argue that this likely applies across sub-national regional systems as well. To control for such variation, we have limited our study to one regional context: the province of Nova Scotia, Canada. This a small province of just under 1 million residents, located on Canada's Atlantic coast. It is home to 11 universities, several federally-funded research agencies, and Canada's east coast Navy (including the Navy's research unit, "Defense R&D Canada – Atlantic Research Centre").

Within this regional context, we selected an unusual sectoral context: ocean technologies. The Canadian federal government and the Nova Scotia provincial government have each identified the "ocean technology industry" as a priority sector for economic development in this region, as has the local economic development agency for Halifax, the provincial capital (Atlantic Coastal Zone Information Steering Committee, 2006; Government of Nova Scotia, 2012; Greater Halifax Partnership, 2012). The sector is said to encompass upwards of 200 private sector firms, in "six key areas of concentration" (Government of Nova Scotia, 2012), and 46 different 6-digit NAICS codes (Atlantic Coastal Zone Information Steering Committee, 2006). Some observers have noted that the "ocean technology" label does not describe a uniform industry (i.e. one coherent set of technologies or companies)². This heterogeneity is what makes the ocean technology context potentially revelatory. We are able to observe a great deal of variation in firm-level innovation behaviours within a loosely-bounded "sectoral" context. Also, to the best of our knowledge, only one academic study has been published on innovation in the ocean technology sector (Gopalakrishnan, 1989). So, this context is both under-explored and an important departure from the traditional product-based industrial classifications that Pavitt and others have used as the foundations for their taxonomic research.

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.

Our research design is therefore what Yin (2009) calls an “embedded” case study in a single “revelatory” context. The embedded unit of analysis is the firm. We imposed no industrial classification boundaries on our dataset, but did record the 6-digit North American Industrial Classification System (NAICS) code for each firm. We accepted any firm, from any NAICS category, into the dataset if it was identified on one of several “ocean technology industry” lists. We assembled a master list of ocean technology firms in the region from four sources: the public membership list of the Ocean Technology Council of Nova Scotia (Ocean Technology Council of Nova Scotia, 2013) (66 private sector members), the Canadian Ocean Technology Sector Map (Almada Ventures Inc., 2013) (31 private companies), a government-commissioned “Ocean Technology” value chain analysis (Gereffi, Brun, Lee, & Turnipseed, 2013) (35 companies), and an internal provincial government working list (72 companies). These were combined to create a list of 120 unique companies.

Variables and Coding

We conducted a content analysis of each company’s web presence. Data was collected from each company website and from the “Canadian Companies Capabilities” directory published by Industry Canada (2013). When a company could not be located via Google search, nor the Industry Canada directory, we verified its active legal status in the Government of Nova Scotia (2013) business licensing database. One company was eliminated from the data because no evidence of its existence could be found on the web or in the business licensing system. Another company was eliminated because the licensing system indicated that it ceased operations in 2007 (and no evidence of those operations could be found on the web). A third company was also eliminated from the study because its limited web presence did not provide sufficient data to attempt taxonomic classification.

Details for the remaining 117 companies were pulled from the online resources and recorded in a simple spreadsheet. Basic company profile data was collected including the company name, website address, principle product description(s) (goods/services), and primary customer segments. We assigned 6-digit NAICS codes to each firm based on the product descriptions on their websites and/or the NAICS codes provided in the Industry Canada system. The firms were assigned to a total of 45 primary NAICS categories (see Table 2). Note that a wide range of categories were present: from the 210000 level (Resource Extraction) through to the 610000 level (Education Services).

Table 2. Number of firms, and taxonomic groups, for each 6-digit NAICS category.

Code	Title	Firms	Castellacci
213118	Services to Oil and Gas Extraction	1	PIS
221118	Other Electric Power Generation	1	*
238210	Electrical Contractors and Other Wiring Installation Contractors	2	PIS
238310	Drywall and Insulation Contractors	2	PIS
311710	Seafood Product Preparation and Packaging	1	SBM
325199	All Other Basic Organic Chemical Manufacturing	1	SBM

Code	Title	Firms	Castellacci
325413	In-Vitro Diagnostic Substance Manufacturing	1	SBM
325520	Adhesive Manufacturing	1	SIM
332710	Machine Shops	5	PIS
333310	Commercial and Service Industry Machinery Manufacturing	1	SBM
333314	Optical Instrument and Lens Manufacturing	1	SBM
333920	Material Handling Equipment Manufacturing	2	SS, SBM
334110	Computer and Peripheral Equipment Manufacturing	1	PIS
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	5	SBM
334417	Electronic Connector Manufacturing	1	SSM
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	1	PIS
334419	Other Electronic Component Manufacturing	1	PIS
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	11	SBM
334512	Automatic Environmental Control Manufacturing	3	SBM
335312	Motor and Generator Manufacturing	2	SIM
336412	Aircraft Engine and Engine Parts Manufacturing	1	SIM
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	1	SIM
336611	Shipbuilding and Repair	4	PIS, SIM
336612	Boat Building	2	SIM
417320	Electronic Components, Navigational and Communications Equipment and Suppliers Wholesaler-Distributors	1	PIS
423490	Other Professional Equipment and Supplier Merchant Wholesalers	1	PIS
423690	Other Electronic Parts and Equipment Merchant Wholesalers	3	PIS
425120	Wholesale Trade Agents and Brokers	1	PIS
488190	Other Support Activities for Air Transportation	1	SIM
511210	Software Publishers	2	KIBS
517911	Telecommunications Resellers	1	PIS
541110	Offices of Lawyers	2	KIBS
541330	Engineering Services	14	KIBS
541360	Geophysical Surveying and Mapping Services	5	KIBS
541370	Surveying and Mapping (except Geophysical) Services	4	KIBS
541380	Testing Laboratories	1	KIBS
541512	Computer Systems Design Services	9	KIBS
541611	Administrative Management and General Management Consulting Services	4	KIBS
541613	Marketing Consulting Services	1	KIBS
541690	Other Scientific and Technical Consulting Services	3	KIBS
541712	Research and Development in the Physical, Engineering, and Life Sciences	6	KIBS, *
561990	All Other Support Services (<i>Diving Services</i>)	2	PIS

Code	Title	Firms	Castellacci
611519	Other Technical and Trade Schools	3	KIBS
611699	All Other Miscellaneous Schools and Instruction	1	KIBS

* Contained firms that defied classification.

Notes. KIBS = Knowledge Intensive Business Services; SSM = Specialized Supplier Manufacturing; SBM = Science-Based Manufacturing; SIM = Scale-Intensive Manufacturing; NIS = Network Infrastructure Services; PIS = Physical Infrastructure Services

There were a number of companies on the list that we would have hesitated to label as “ocean technology” companies (such as large law and consulting firms). We therefore decided to examine the oceans-focus of each company. Based on the website content, we assigned each company to 1 of 3 categories. First, 65 companies were clearly and exclusively ocean related. Another 35 companies showed evidence of a non-exclusive oceans focus (i.e. ocean technology was not their only area of activity). Although the remaining 17 firms had been identified on at least one source list of ocean technology companies, we were unable to identify an oceans focus from their web presence. Many of these companies were members of the Ocean Technology Council of Nova Scotia. Perhaps they are marketing general products and services to this “industry.” We believe that this combination of “core” and “supporting” firms is an interesting cross-section of actors in the regional-sectoral innovation system.

The online data also provided an indication of most companies’ primary knowledge sources. This evidence ranged from explicit discussion of university/public research partnerships or licensing, to discussion of the company’s history and R&D capabilities. We employed an open-coding methodology. Where the evidence permitted, we noted specific knowledge sources (e.g. “licensing from the Bedford Institute of Oceanography”). After the data collection as complete, we then developed a series of thematic codes based on the knowledge sources identified: internal R&D, university / public research organization, parent company, suppliers, customers, regulatory standards, and human capital acquisition. There was insufficient data to code 5 of the 117 companies.

Finally, we assigned each company to a sub-category in the Castellacci (2008) taxonomy. Again each firm was treated as a single unit of analysis. We intentionally did not use an industry-to-taxonomy correspondence table (see for example, Castellacci, 2008, p. 992, Appendix A). Ours was a qualitative coding process using cues from the website material. The coding was based on Castellacci’s own descriptions of each regime-trajectory category. Table 1 summarizes the cues that corresponded with each taxonomic category. Particularly useful were announcements of new product or service offerings (type of innovation), reference to patent filings (means of appropriation), discussion of new or best-in-class machinery, software, or skills (innovation strategy), and the external knowledge sources we had previously identified.

No firms matched the pattern for Castellacci’s “network infrastructure services” category. There were 52 companies identified in the knowledge-intensive business services category, 2 in specialized suppliers manufacturing, 25 in science-based manufacturing, 9 in scale-intensive manufacturing, and 25 in physical infrastructure services. Four firms did not match any of the six

patterns/categories identified by Castellacci (2008). These, and other problems that arose, will be discussed in our results.

Results

Our efforts to classify “ocean technology” firms using Castellacci’s (2008) taxonomy highlighted three problems in the general taxonomic process. First is the well-recognized unit of analysis problem: industry-level categories hide heterogeneity at lower levels of analysis. Second, there is a problem of firm maturity and the assumption of static or ‘locked’ trajectory: a company’s innovation behaviours might develop and change over time. Finally, a problem arises because the taxonomy recognizes many intersectoral linkages, except when public sector organizations are involved.

Unit of Analysis Problem

Our results reconfirmed the critique of industry-level thinking in Pavitt-style taxonomies (e.g. Archibugi, 2001). After coding all 117 companies for both NAICS and the Castellacci (2008) taxonomy, we cross-tabulated the results. We explored whether each 6-digit NAICS category corresponded to a single Castellacci category. There were 3 NAICS sectors that spilled over into multiple Castellacci categories (see Table 2).

Two companies were coded into the industry “Material Handling Equipment Manufacturing” (NAICS #333920). The first company, *Hawboldt Industries*, designs and manufactures winch systems, reels, windlasses, capstans, and propellers for a variety of marine industries. The evidence on its website matched a “specialized supplier” innovation mode, since it focused on: (1) serving the design needs of users, (2) the company’s appropriation of design know-how, and (3) the company’s advanced production machinery and software. The second company, *ODIM Brooke Ocean*, is a subsidiary of *Rolls Royce* and a spin-off of the *Bedford Institute of Oceanography* (a local public research organization). It primarily manufactures handling systems (sophisticated winches and hoists) for oceanography equipment, along with several oceanographic profiling systems and instruments that these hoists are used to deploy (its secondary NAICS code would be 334512, “Measuring, Medical and Controlling Devices Manufacturing”). This company matched the pattern of a “science-based manufacturer” since it makes extensive use of knowledge from public research sources, appropriates product innovations through patents and patent licensing, and uses a strategy of both internal R&D and external cooperation. It was clear that *Hawboldt Industries* and *ODIM Brooke Ocean* are operating in different technological regimes and following different technological trajectories.

Another illuminating example was the NAICS industry “shipbuilding and repair” (#336611). Pavitt (1984, p. 359) gave shipbuilding as an example of his “scale-intensive” category. Castellacci (2008) only mentions that “other transportation equipment” fits in his variation on this category. When we think of shipbuilding, we often think of large companies operating large shipyards. They primarily build ships, but also perform repairs and retrofits as necessary. One company on our list, *Irving Shipbuilding*, fits this stereotype and therefore the scale-intensive mode of innovation. However, we found that three other companies in this industry more closely

fit the “physical infrastructure services” pattern. *All-Sea Atlantic* and *Mobile Valve* are both specialized service companies that perform ship repairs based on industry standards, and using technology acquired from their suppliers. Meanwhile, *MAN Deisel & Turbo Canada* performs maintenance (and sales) of ship engines manufactured by its parent company. So while the one “shipbuilding” company in our study is clearly a scale-intensive manufacturer, the three “ship repair” companies provide physical infrastructure services.

A third sector, “Research and Development in the Physical, Engineering, and Life Sciences” (NAICS #541712) was particularly troublesome. Three companies in this category (*Akoostix Sound Research & Design*, *Coastal Ocean Associates*, and *MacDonald, Dettwiler and Associates*) clearly fit the knowledge-intensive business services (KIBS) pattern. However three other companies did not. Two of these were difficult to assign within Castellacci’s taxonomy because they are early-stage companies. This is discussed in section 4.2 below. The third mismatch in this industry was the company *Jasco Applied Sciences*. We could not assign this small company to any one of the Castellacci categories because it has multiple identities. One business unit provides acoustic impact assessments (e.g. ‘will underwater activities interfere with marine mammal communication?’). Another business unit develops and manufactures underwater acoustic sensors (NAICS #334511, “Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing”). The first of these matches Castellacci’s KIBS innovation mode, while the second matches the science-based manufacturing mode. We noted that this taxonomic problem could be resolved by classifying the business units rather than the whole firm.

The three 6-digit sectors above confirmed that industry-level taxonomic analysis is problematic. Meanwhile, firm-level analysis was challenged when we tried to classify several additional companies like *Jasco Applied Research*. We also noted that companies like *Saab Microwave Canada Ltd.*, *SAIC Canada*, and *Kongsberg Maritime* were all sales offices for their parent companies. Within the regional boundaries of our case study, these business units match the “physical infrastructure services” innovation pattern. They are essentially wholesale subsidiaries of their parent companies. But if we disregard the regional boundaries, we might instead classify the firms as science-based manufacturers. Even when the firm is the unit of analysis, we may miss a great deal of variability in innovation behaviour.

Maturity Problem

Our results also surfaced a problem where Pavitt-style taxonomic thinking might assume that innovation behaviours are relatively static and mature. We have already noted that two early-stage companies in the product-category “Research and Development in the Physical, Engineering, and Life Sciences” were difficult to assign within Castellacci’s taxonomy. The *Fundy Ocean Research Center for Energy* is a research and development joint venture (a limited company) established to provide shared infrastructure facilities for the testing of four different tidal power turbines in the Bay of Fundy. It is a joint R&D site, shared by potential competitors who are attempting to test prototype tidal power generation technologies. The joint entity coordinates shared physical infrastructure, research and development expertise (in partnership with universities), and what it calls “soft infrastructure” (i.e. regulatory know-how). This complex firm is clearly intended to have a limited lifespan. Will it eventually become the site of a power

generation facility? A similar company, *Fundy Tidal Inc.*, is in the early stages of testing smaller in-stream tidal technologies at another location in the same Bay. Its website clearly indicates the intention to eventually become a small electrical utility under Nova Scotia's "Community Feed-In Tariff" program. Despite its early-stage status, we assigned this firm to the "Other Electric Power Generation" industry (NAICS # 221118). Nonetheless, we were unable to assign it to any of Castellacci's categories. We noted that neither Pavitt (1984) nor Castellacci (2008) addressed the classification of utilities, perhaps because they have historically been non-innovating monopolies. However, these new upstarts are certainly not traditional utilities.

The third early stage company that confounded our analysis was *Extreme Spill Technology*. This company has completed six years of research, in partnership with the *National Research Council* and *Dalhousie University*, toward the development of an oil spill recovery technology. The company is currently still in its extended research and development phase. It is unclear from the online materials whether the company will eventually license its technology, manufacture oil recovery vehicles, manufacture ship-mounted oil recovery devices, or operate a small oil spill response fleet. For now, the company appears to fit the "science-based manufacturing" trajectory, even if it has only manufactured prototypes. We wondered what might happen as the product development proceeds. Might the company choose a non-manufacturing business model?

Another company, *L3 Electronic Systems Services*, gave us some insight into the possibility of a trajectory shift for maturing companies. A prominent announcement on its website proclaimed, "L-3 Electronic Systems announced today that it has been renamed L-3 Electronic System Services (L-3 ESS) to better align with its new business focus on aftermarket services for the aerospace and defence marketplace" (L-3 Electronic System Services, 2012). Such drastic changes in business strategy make it entirely possible for a science-based manufacturing company to shift toward knowledge-intensive business services as it matures.

Public-Sector Linkages Problem

When we were coding a number of science-based "ocean technology" manufacturers, we noted an interesting wrinkle in the Pavitt and Castellacci models. Castellacci (2008) notes that science-based manufacturers acquire external knowledge from users and universities (these are supposedly two separate groups). Our case study included many such companies with strong links to universities and public research organizations. These cooperations and relationships were proudly proclaimed and promoted on the company websites. The external knowledge sources included *Dalhousie University* (for companies such as *Satlantic*, *Vemco*, *Pro-Oceanus*, *Nortek Scientific*, and *Resolution Optics*), the *Bedford Institute of Oceanography* (e.g. *ODIM Brooke Ocean*, *Open Seas Instrumentation*, *MetOcean*, *Jasco Applied Research*), the *National Research Council of Canada* (e.g. *Jellet Rapid Testing*, *Extreme Spill Technology*), and *Defense Research & Development Canada – Atlantic Research Centre* (e.g. *Akoostix*, *MacDonald Dettwiler and Associates*, *Omnitech Electronics*, and *Raytheon Canada*). However, these relationships were about much more than "stay[ing] close to the scientific advances continuously achieved by universities and other public research organizations" (Castellacci, 2008, p. 985). These corporate websites contained substantial language around user-producer interaction (Lundvall, 1988), and the *users* in question were scientists, universities, and PROs (including defense science). For example, the company *Satlantic* was founded by Professor Marlon Lewis of *Dalhousie*

University's Oceanography Department. He continues to serve as *Satlantic's* President and Chief Scientist. The company manufactures oceanographic sensors in collaboration with, and for the use of, scientists at *Dalhousie* and around the world.

Following on Pavitt (1984), Castellacci (2008) describes a different linkage pattern for science-based manufacturing. Such companies are expected to “assume a central position in the knowledge chain, as they receive technological inputs from advanced knowledge providers, while in turn providing technological outputs (new products) that are used by infrastructural services as well as by producers of final goods” (Castellacci, 2008, p. 985). However, the companies identified above have assumed more of a “quartermaster” position³ in a knowledge loop. These companies are developing technologies based on public scientific advances, but also with PROs as their primary user/customer. The users improve their processes, and achieve further scientific advances, by acquiring new technology from these firms. This intersectoral knowledge loop is invisible to models that have neglected public sector entities.

Conclusions

This research has illustrated several of the critical taxonomic problems facing innovation studies. Rather than the usual regression analysis of innovation survey data, we conducted an embedded case study on the ocean technology “sector” in Nova Scotia, Canada. We examined website material for 177 firms and coded each firm into a classic product-based industry (based on the North American Industry Classification System, NAICS) and also into an innovation pattern from the Castellacci (2008) taxonomy. The case study context was sufficiently unusual and heterogeneous (in terms of innovation behaviours) that it revealed three problems with Pavitt (1984) style taxonomies: hybridity, stability, and symbiosis.

‘Simple’ versus ‘Hybrid’ Firms

Although intended for classifying firm-level innovation behaviour, these taxonomies are built on logics of sector-level patterns. The divisions in these taxonomies were defined by Pavitt’s original analysis, which first grouped firms by primary product (such as in NAICS, SIC, etc.) before grouping them by innovation pattern. In our analysis, we identified 3 product-based sectors, at the lowest (6-digit) level of NAICS, where firms were exhibiting markedly different innovation patterns. We also found examples of business units (divisions within legally defined firms) that appeared to follow different innovation trajectories than other business units in the same firm. Using industry-level categories to build innovation taxonomies has obscured a great deal of heterogeneity at lower levels of analysis. This unit-of-analysis problem is widely acknowledged, but still unresolved. Some have argued that the solution lies in firm-level analysis

³ In armies, the quartermaster is responsible for providing supplies to his/her unit. In navies the quartermaster plays a navigation role. Our use of the term more closely aligns with the character “Q”, head of the British secret service’s research and development (“quartermaster”) branch, in the James Bond franchise.

(Archibugi, 2001), and yet our case has shown that there can be multiple innovation modes within the same firm.

We propose the following simple heuristic to help determine the appropriate unit of analysis. If a firm operates within one technological regime (as in Malerba & Orsenigo, 1997, pp. 93-97) then it exhibits what we would call a *simple* innovation mode. Taxonomic classification can therefore proceed. However, *hybrid* firms, operating within multiple technological regimes, will defy classification. A *hybrid* firm must be divided into *simple* business units before taxonomic classification of its innovation behaviours.

‘Stable’ versus ‘Emergent’ Strategies

In our case, we also encountered companies that were undergoing transition or maturation in their innovation strategies. We identified several early-stage companies that are developing technologies in tidal power generation and oil spill remediation. Their current innovation behaviours may not at all resemble their innovation behaviours 5 years from now. The tidal power companies may transition from applied scientific research activities to operations that more closely resemble a classic power utility. The oil spill remediation company may remain on the trajectory of science-based manufacturing, or it may follow a different business model.

The taxonomic logic of Pavitt (1984), Castellacci (2008) and others currently allows us to classify firms with *stable* technological trajectories. We therefore propose that firms can be classified if they have a clear and ‘locked-in’ business model. Firms with *emergent* innovation strategies will defy classification until their business model/strategy (re)stabilizes.

‘Systematic’ versus ‘Symbiotic’ Linkages

The final problem we encountered arises because the logic of innovation taxonomies (particularly Castellacci, 2008; Pavitt, 1984) recognizes many intersectoral linkages, except when public sector organizations are involved. These taxonomies continue to neglect “non-market” organizations (Gallouj, 2002). The limitation was raised by Pavitt himself, who felt that he was neglecting government purchases of “expensive capital goods” (1984, p. 370). Since Pavitt’s work was published, the relationships between government and industry have changed dramatically. There has been greater privatization and outsourcing. We now know that strategic procurement has allowed governments to become important “first users” of innovations (Dalpé, DeBresson, & Xiaoping, 1992; Edquist, Hommen, & Tsipouri, 2000; Edquist & Zabala-Iturriagoitia, 2012; Mowery, 2009). Further to this, our case raises the interesting phenomenon of firms that are engaged in quartermastering public science. They draw knowledge from scientific advances to produce innovative devices. These devices are primarily used by scientists to further scientific knowledge.

The logic of existing innovation taxonomies predicts vertical chains between sectors. This is based on the linear thinking of inputs and outputs. Therefore, it is possible to classify firms that systematically acquire knowledge from one sector and apply it in another. However, in our case we have observed knowledge loops. We call these *symbiotic* linkages, and suggest that they violate the boundary conditions of existing classification systems.

Future Directions

Innovation taxonomies have been extremely useful in helping us to understand the broad strokes of paradigms, regimes, trajectories and linkages. After updating and modifying the work of Pavitt (1984), Castellacci (2008) has produced a taxonomy that is generally applicable to present-day firms. However there are limitations embedded in the underlying logics of the taxonomic process. The boundary conditions are such that these classification systems apply to *simple* firms, with *stable* innovation strategies and *systematic* linkages. Outside these boundary conditions lie three problematic categories. We have argued that *hybrid* firms can be addressed by fine-tuning the unit of analysis until a *simple* business unit is identified. Firms with *emergent* strategies can also be classified, once their strategies stabilize over time. However, firms with *symbiotic* linkages cannot be as easily accommodated. Identifying such firms is an important first step toward further research on innovation coproduction and “symbiosis.”

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DOES THE BASIS REGRESSION OVERSTATE THE PREDICTIVE VALUE OF THE FUTURES PRICE?

The spread between the current spot and futures prices (the basis) is one of the most popular predictors of movement in the future spot price.

This paper demonstrates that the use of a popular regression technique to evaluate the ability of the futures price to predict movement in the spot price results in a test statistic with a non-standard distribution. A small Monte-Carlo experiment reveals that standard procedures may result in a high probability of type one error.

1. Introduction

Given the importance of predicting changes in the prices of commodities and exchange rates, a significant literature has evaluated the ability of various economic variables to predict movement in the spot price. Given their availability in real time, a significant portion of this literature has focused on evaluating the ability of the spot and futures price to predict movement in the spot price. Within this vast literature, one of the most popular methods is the basis regression of Fama (1984), and Fama and French (1987).

While this methodology (outlined in Section 2) has received considerable attention and been widely used, the standard approach used to test a key hypothesis is potentially flawed. Specifically, the standard t-test over-rejects the null hypothesis that the futures price is unable to predict movement in the spot price, due to the presence of a hidden unit root test.

Given the enormous attention focused on the predictive value of the futures price, the results presented in this paper are important in that they illustrate the possibility that the existing literature overvalues the information provided by the futures price.

This paper proceeds as follows: Section 2 outlines the basis regression and illustrates the potential problems with the standard approach to inference, Section 3 quantifies the potential problem using a simple Monte Carlo experiment, while Section 4 concludes.

2. Empirical Framework

The basis regression of Fama (1984) and Fama and French (1987) is a widely used framework for studying the behavior of futures markets for commodities and exchange rates with over 2200 (Google Scholar, July 30, 2014) citations in a wide variety of applications. This regression is formally written as:

$$S_{t+1} - S_t = \alpha + \theta [F_{t,t+1} - S_t] + u_{t+1} \quad (1)$$

Where S_t represents the spot price, $F_{t,t+1}$ represents the price of a futures contract for delivery in the next period, α, θ are parameters to be estimated and u_{t+1} is a random error term.

One of the most appealing features of this specification is that it allows several hypotheses of interest to be tested. For example, under the null hypothesis $\theta=1$, a movement in the basis is completely due to a

change in the market's expectation of movement in the future spot price, while the null hypothesis $\theta = 0$ examines whether a change in the basis is completely unrelated to expectations of the future spot price. A more complete discussion of the interpretation of this regression is found in Fama and French (1987).

The standard approach employed in the literature is estimation of the model's parameters based on ordinary least squares (OLS) and testing of each of hypotheses of interest using regular t-tests. It is common to report the estimated slope parameter and its standard error, allowing the reader to compute each test statistic (see Fama and French, 1987). While very simple, the validity of this procedure is based on the assumption that each test statistic is drawn from a t distribution. However, this is not the case.

Despite its significant influence upon the existing literature, it seems to have gone unnoticed that this assumption is not valid. As a first step in illustrating the violation of this assumption, the basis regression may be generalized as follows:

$$S_{t+1} - S_t = \alpha + \theta_1 F_{t,t+1} - \theta_2 S_t + u_{t+1} \quad (2)$$

Which reduces to the standard basis regression under the null $\theta_1 = \theta_2$. When presented with this generalization, it is apparent that testing hypotheses regarding the futures price (θ_1) is very different than testing hypotheses regarding the spot price (θ_2), due to the potential presence of a unit root in the spot price.

The properties of the regression depicted in Equation 2 are studied by Hansen (1995). From a statistical perspective, the most complicated hypothesis to be tested is $\theta_2 = 0$, due to the fact that the spot price contains a unit root under this assumption. Of course, it is very well known that the distribution of a t-statistic significantly diverges from its standard counterpart in this case. In the most famous example, Dickey and Fuller (1979) demonstrate that the distribution of a t-test of the null hypothesis of a unit root against the alternative of a stationary first order autoregressive model significantly departs from the standard t-distribution. It is very important to note that the distortion in the t-statistic disappears (asymptotically) if the constant is non-zero in Equation 2. Hamilton (1994) presents an excellent textbook discussion of these issues.

While it is apparent that the inclusion of an additional variable (or variables) will alter the properties of the distribution of a test statistic, the basic issues faced by a practitioner are quite similar to that encountered in standard unit root testing. In the case of Equation 2, Hansen (1995) demonstrates that the exact distribution depends on whether the additional regressor (the futures price here) is stationary; providing the limiting distribution in both cases. In the context of the goals of this paper, it is important to note that tests of the significance of the futures price ($\theta_1 = 0$) can be conducted using standard methods. To emphasize this point, testing whether the futures price has predictive value can be implemented using standard methods in the case of equation 2.

The difficulty in testing the significance of the futures price arises due to the restriction placed on the parameters of Equation 2 by the basis regression ($\theta_1 = \theta_2$). The introduction of this additional restriction constrains the null hypothesis that the basis cannot predict movement in the spot price to imply the presence of a unit root. As a result, the distribution of the statistic used to test this null hypothesis departs from its standard counterpart.

From a practical perspective, all a researcher or practitioner is concerned about is the degree of over-rejection that a failure to recognize this distortion will cause. To this end, the next section conducts a small Monte Carlo experiment intended to quantify the significance of failure to account for this issue.

3. Simulations

The purpose of the experiment presented in this section is to quantify the consequences of evaluating the predictive value of the futures price based on a t-test of the parameters obtained from OLS estimation of the basis regression.

The work of Hansen (1995) implies that the persistence in the futures price plays an important role in the underlying distribution. To integrate this insight into this study, the data is generated based on the following specification:

$$S_{t+1} = S_t + u_{1,t} \quad (3)$$

$$F_{t,t+1} = \gamma + \lambda F_{t-1,t} + u_{2,t} \quad (4)$$

$$u_t = (u_{1,t} \quad u_{2,t}) \square N(0, H) \quad (5)$$

$$H = \begin{bmatrix} \sigma_1^2 & \rho\sigma_1\sigma_2 \\ \rho\sigma_1\sigma_2 & \sigma_2^2 \end{bmatrix} \quad (6)$$

Having identified the importance of these parameters, the following values are employed selected for the other parameters contained in the simulations:

$$\gamma = 0, \sigma_1^2 = \sigma_2^2 = 1, \rho = 0.95$$

Using this data, for each Monte-Carlo replication, Equation 1 is estimated and the predictive value of the futures price is tested using standard methods. Given the standard practice of testing the value of the futures price found in the existing literature, the tests conducted in this section are based on two-sided t-tests.

The simulations are carried out for 3 different values of lambda [0.90, 0.98, 1.00] and 4 different sample sizes [100, 500, 1000, 10000]. These values are chosen due to their consistency with values found in actual commodity price and exchange rate data. The results of each simulation are based on 10,000 replications. Before proceeding, it is important to note that changes from this specification have only negligible impact on the results.

Table 1 contains the simulated percentiles for each combination of the model's parameters. For the sake of comparison, the percentiles of a standard normal [N(0,1)] distribution are also presented. As a simple measure to facilitate discussion, the degree of skewness is measured by the median (the 50th percentile) of the simulated distribution; which is equal to zero in the case of a normal distribution.

Table 1: Percentiles of simulated distributions

T	λ	0.5%	1%	2.5%	5%	10%	50%	90%	95%	97.5%	99%	99.5%
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100	0.90	- 0.984	- 0.758	- 0.405	- 0.091	0.261	1.433	2.429	2.742	3.017	3.340	3.581
	0.98	- 1.370	- 1.080	- 0.706	- 0.413	- 0.069	1.093	2.217	2.554	2.868	3.206	3.377
	1.00	- 2.391	- 2.159	- 1.719	- 1.401	- 1.026	0.242	1.517	1.937	2.245	2.601	2.846
500	0.90	- 0.927	- 0.669	- 0.274		0.032 0.390	1.545	2.506	2.817	3.076	3.415	3.620
	0.98	- 0.979	- 0.715	- 0.407	- 0.104		0.293	1.487	2.466	2.785	3.047	3.385
	1.00	- 2.330	- 2.061	- 1.712	- 1.423	- 1.045	0.219	1.521	1.877	2.159	2.495	2.771
1K	0.90	- 0.837	- 0.628	- 0.273		0.070 0.424	1.552	2.552	2.851	3.010	3.392	3.613
	0.98	- 0.878	- 0.671	- 0.294		0.029 0.379	1.537	2.513	2.811	3.077	3.400	3.688
	1.00	- 2.364	- 2.109	- 1.706	- 1.412	- 1.043	0.231	1.510	1.863	2.179	2.550	2.772
10K	0.90	- 0.834	- 0.567	- 0.222		0.058 0.421	1.567	2.562	2.875	3.151	3.518	3.712
	0.98	- 0.758	- 0.549	- 0.194		0.097 0.452	1.572	2.555	2.846	3.103	3.429	3.656
	1.00	- 2.266	- 2.040	- 1.676	- 1.372	- 1.019	0.253	2.585	2.885	3.114	3.449	3.632
	N(0,1)	- 2.576	- 2.326	- 1.966	- 1.645	- 1.282	0	1.282	1.645	1.966	2.326	2.576

Notes: The numbers presented in this table represent the percentile of t-statistics for the null hypothesis that the basis does not predict movement in the spot price for each combination of persistence (λ) and sample size (T).

The main trends found in the table can be summarized in three points.

First, the distribution becomes significantly skewed to the right. For a sample size of 500 and a degree of persistence of 0.98, the 90th percentile is 2.466, which is 92.4% greater than the standard value of 1.282. The skewness is slightly less severe at the 99th percentile, where the simulated value exceeds its standard counterpart by 45.6%.

Second, the size of the distortion is determined by whether or not the futures price is stationary. For example, with a sample size of 10,000 the distribution of the test statistic has a skewness of only 0.253 when the futures price is non-stationary, which increases to 1.572 at a degree of persistence of 0.98. It is plainly seen that this effect is not dependent on the sample size. In addition, it does not seem to matter how far the degree of persistence diverges from 1, as it is plainly seen that the results for a persistence of 0.90 are very similar to those for 0.98.

Third, the degree of the divergence between the simulated test statistics and the standard normal distribution is increasing in the sample size. For example, at a rate of persistence of 0.98, the skewness is more significant for a sample size of 10,000 (1.572) than a sample size of 100 (1.093). This implies (somewhat surprisingly) that the distribution is further from the standard normal at large samples than small ones.

Of course, the importance of these findings ultimately depend on the size distortion of the statistics used to investigate the importance of the futures price in predicting movement in the spot price. To investigate this possibility, the rejection rates of this Monte-Carlo experiment are depicted in Table 2.

Table 2: Rejection rates

T	λ	10%	5%	1%
100	0.95	0.3841	0.2391	0.0648
	0.98	0.2625	0.1568	0.0429
	1.00	0.1086	0.0593	0.0121
500	0.90	0.4395	0.2757	0.0771
	0.98	0.4100	0.2580	0.0709
	1.00	0.1056	0.0513	0.0092
1K	0.90	0.4451	0.2896	0.0836
	0.98	0.4344	0.2827	0.0784
	1.00	0.1022	0.0531	0.0101
10K	0.90	0.4496	0.2903	0.0887
	0.98	0.4539	0.2915	0.0848
	1.00	0.1025	0.0519	0.0095

Notes: The numbers presented in this table represent the percentage of two sided t-tests in which the null hypothesis that the basis does not predict movement in the spot price is rejected.

Consistent with the results presented in Table 1, there is very little size distortion in the test statistics when the futures price is truly non-stationary; with none exhibiting a distortion of even 1%. However, it is clear that the distortions become very severe for even a small divergence from a unit root. For example, for a degree of persistence of 0.98, the distortions are very severe. Specifically, for a sample size of 500, the standard approach to testing over-rejects the null hypothesis 31%, 15.8%, and 6.09% at the 10%, 5%, and 1% degree of significance, respectively.

From a practical perspective, the main difficulty faced by a practitioner is that the degree of persistence of the futures price is unknown; although it is not difficult to obtain an estimate. Of course, it should be understood that a simple failure to reject the unit root hypothesis does not imply that size distortions are not likely to occur. In practice, even an estimate which is very close to one is often contained within a relatively wide confidence interval; a large percentage of which includes values which imply a significant size distortion.

In light of this evidence, two options are available to conduct inference with respect to the null hypothesis.

First, a researcher may use a simulation method to calculate the critical values of the test statistic. As noted by Hamilton (1994), this is a relatively straightforward exercise in the case of a standard unit root

test. However, this exercise is complicated in this case by the need to incorporate the data generating process of the futures price. Obviously, misspecification of this process could compromise the results.

Second, the “adding-up” constraint in the basis regression could be relaxed, in which case the significance of the futures price may be tested based on Equation 2, in which case, the statistic used to test $\theta_1 = 0$ is asymptotically distributed as t . While this approach does not require the simulations discussed above, hypothesis test do not have the same simple interpretations as in the standard basis regression.

While both of these potential solutions offer an improvement over the standard approach, their limitations strongly suggest that future research should be directed toward the development of more advanced methods to test the predictive value of the futures price.

4. Conclusion

This paper examined the behaviour of a test statistic used to evaluate the ability of a futures price to predict movement in the spot price of an asset in the context of the basis regression. Through a Monte-Carlo experiment, it was demonstrated that a standard t -test may severely over-reject the null hypothesis, especially in large samples.

Given the importance of the basis regression in applied research, future research should focus on developing a method of inference which does not depend on a correct specification of the dynamics of the futures price.

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HISTORY AND THE OBFUSCATION OF CANADIAN MANAGEMENT THEORY

Although a distinct country from the United States, with different management challenges and opportunities, management theory as taught in Canada is a US-centric body of research that is considered scientific, rational, and context-free. We present a case for understanding management practice in Canada and the importance of developing a theory of management that accounts for the Canadian context.

As we follow the historic turn (Kieser 1994b, Booth and Rowlinson 2006) within management and organizational studies (MOS), we might explore not only what has happened and why (or what we can know of it), but also what has not happened and why. In particular, we are interested in the fact that historical accounts of management and organization studies tend to largely focus on American (i.e., US-born and/or based scholars) contributions (Wren and Bedeian 2009), with occasional references to European (largely UK) contributions (Urwick 1963).

In this paper we present the case of Canada and the lack of a distinct management theory that acknowledges and considers the country's differences from the dominant force in MOS – the United States of America. We argue that while ostensibly developing a scientific, rational management science, MOS researchers have developed a body of knowledge that is unconsciously informed and constrained by its context, a context in which the US dominates. A management theory that has inherent consideration for contextual differences at a societal level has never developed because management science was being developed in such a way that context was never taken into consideration - the theories being formulated applied to all organizations alike, so why would Canadian, or any non-American, organizations be studied separately. Likewise, a management theory, or body of knowledge, specific to Canada has never developed. We specifically posit in this chapter that Canada is distinct enough from the US that management theory as developed does not fit, and we more generally posit that management theory is so US-centric as to be inapplicable for most other contexts.

Problematizing a “Canadian” History

As we set about making our case for a Canadian management theory, we delve into Canada's past for an understanding of both why a Canadian management theory does not exist, and why we need one. We proceed with the understanding that history is a social construction. We do not question that there is a past in which Canada¹ has developed as a country, but we acknowledge that the past is not ontologically

¹ We also acknowledge that Canada itself is a socially constructed concept bounded by geography, language constraints, socio-political developments, laws, and politically agreed upon borders. We would contend that the idea of Canada can be seen as an outcome of a multitude of actor-networks and relationships over time - Latour, Bruno, *Reassembling the Social*, Oxford: Oxford University Press, 2005, Durepos, Gabrielle & Mills, Albert J., *Anti-History: Theorizing the Past, History, and Historiography in Management and Organizational Studies*, Charlotte, NC: Information Age Publishing 2012. As such, a lack of Canadian identity in management and organization studies can arguably be seen as a network effect that influences how the (Canadian) actors come to see themselves.

available to us (Munslow 2010). We do not, and cannot, know that past except through powerful traces of networked, or relational, behaviours (Latour 2005) upon which we impose a sense of the history. Thus, as we explore the idea of a Canadian management theory through our understanding of the past, we are socially constructing a history that comes together based on the ‘information’ available to us through the works published by historians and other networked traces (e.g., archival materials, newspapers, artefacts, etc). As our focus in this paper is to convince management researchers of the differences between Canadian and American business contexts, our history accentuates the differences between the countries and glosses over the similarities. Rather than being “the history” of Canada, this is our history. It has validity in that it is drawn from accepted works, but it is not, and does not claim to be, the “whole picture.”

As has been argued elsewhere, histories of the development of MOS have played an important role in the construction of the development of the field, creating retrospective accounts of who and what came to constitute the field (Cooke 2006, Kelley *et al.* 2006). In the process, the field of MOS has largely been constructed as an American project, dominated by American theorists (e.g., Taylor, Maslow), schools of thought (e.g., Scientific Management, Human Relations), and key studies (e.g., Mayo and the Hawthorne Studies, Lewin, Lippitt and White’s leadership studies). The most widely known of these histories are themselves authored by US scholars, including George (1968, 1972) and the work of Wren (Wren 1972, Wren and Bedeian 2009) whose editions have spanned the 1970s until the present.

It is our intention, both in this chapter and as part of a broader research collective, to develop histories of Canadian management theory. We are interested in both developing (some might argue recovering) a history and also in explaining how and why such a history has been “written out” (Cooke 1999). In the process we also want to contribute to the deconstruction of (MOS) history in general (Durepos & Mills, 2012), and US management history in particular (Foster *et al.* 2014b). However, we recognize the tendency that existing histories of management theory have toward declaring themselves representations of the past as it actually happened, and of accepting this reality as the inevitable outcome of the development of management theory (Weatherbee and Durepos 2010). We differ from that realist perspective in that we acknowledge that we present here only one of many possible histories, that in going forward with the development of a Canadian management theory we recognize it will be relational to our own context (Durepos *et al.* 2012), and that where existing histories of management theory present a history, we intend to use history to both make a case for developing a Canadian management theory and to play an important role in establishing what that theory is.

Canadian Management Theory – or the Lack Thereof

The lack of Canadian management theory is evident in Canadian business schools from both curriculum and research perspectives. Canadian business students are generally assigned either American textbooks, or ‘Canadianised’ editions of American textbooks. The textbooks and the models within, developed to teach students how to manage in American corporations, are adopted uncritically in Canada (Boothman 2000a). The use of American or Canadianised textbooks perpetuates the belief that management theory as developed in the US is universal and can be applied in any context. While the textbook is ostensibly universal, studies have shown the influence of context on the development of management education curricula and textbooks, and that the textbook is very much a product of its geographic and temporal context (Mills and Helms Hatfield 1998, Grant and Mills 2006, McLaren and Mills 2008, McLaren *et al.* 2009, McLaren and Helms Mills 2010, McLaren 2011, Foster *et al.* 2014a).

Canadian business school faculty are exhorted to publish in ‘top tier’ academic journals to earn tenure and promotion for themselves, and prestige and funding dollars for their university. Those so-called ‘leading’ management journals are strongly positivist and decontextualized, English-language, and

mainly American. Management journals publish research that adds to the extant literature, incrementally filling in gaps, rather than research that questions dominant assumptions (Alvesson and Sandberg 2012). The paucity of research focused on Canadians and Canadian organizations suggests that it is not valued by the leading management journals, and Canada's only MOS journal, the Canadian Journal of Administrative Sciences, struggles to gain legitimacy as a high-quality academic journal (McLaren and Mills 2013). This results in Canadian academics feeling that they need to conduct "context-free" (meaning American) research to be successful in their careers in Canadian universities. Similarly, the Administrative Sciences Association of Canada (ASAC), was created to provide a home for Canadian business scholars and research, but has struggled over the years with maintaining a Canadian identity and attracting senior and expert scholars to its membership and conferences (McLaren and Mills 2013). Canadian business schools themselves are based on the structure of American business schools, and are becoming more American under increasing pressure to earn AACSB (Association to Advance Collegiate Business Schools) accreditation for both legitimacy and financial reasons (McKee *et al.* 2005).

Management Theory in Canada

The impetus for the development of management theory as a formal body of knowledge and an academic discipline came from the US and was provided, in part, by the influx of WWII veterans into business schools on the GI bill (Cheit 1985), the push for professionalization and specialized training of managers by industry (Khurana 2007), and the perspective of academics that the existing vocational schools of business (based in the universities through University Extension) were unscholarly and a threat to academic legitimacy (O'Connor 2012).

Both World War II and the separation of ownership and control led to a push for specialized training of managers, as the realization that good managers, who were no longer the owners, were made, not born (Bendix 1974). The massive managerial effort required to support World War II and the subsequent Marshall Plan, also known as the European Recovery Plan, showed that effective management required specific management processes that needed to be learned (Drucker 1973). As US World War II veterans flooded into the business schools, which made themselves the most open of the professional and academic schools (O'Connor 2012), a curriculum and faculty were needed. The organizational and efficiency principles developed by the military during WWII formed the foundation of the business school curriculum (McFarland 1964), with the ensuing Cold War years having a strong, and until recently ignored, influence on the research undertaken and the curriculum taught (Mills and Helms Hatfield 1998, Grant and Mills 2006, McLaren and Mills 2008). The faculty were pulled from related disciplines, such as economics, psychology, and sociology (Khurana 2007).

Along with the need for individuals in managerial roles to have specialized training, US industry was seeking professionalization for the management profession, to elevate managers to the same status levels as doctors and lawyers (Khurana 2007). At the same time, business schools were seeking legitimacy within the academy, and the academy was likewise concerned about increasing the legitimacy of business schools to protect its own reputation (O'Connor 2012). The search for legitimacy, as both a profession and an academic discipline, led to a concerted effort to study management theory as a science. In a backlash against the classics-based university that came before, the research-based university was founded on the basis of science, positivism, and empiricism. Rather than being an institution for passing existing knowledge along to the next generation, the research-based university was a place for knowledge to be created. First the social sciences, and then the business school, adopted the scientific method of inquiry to achieve legitimacy within the research-based university (Kieser 1994a, O'Connor 2012). The concept of history was written out of management theory as nomothetic, abstract principles were favoured, context was ignored, and teleology and determinism were assumed (Zald 1993, Weatherbee 2012).

The immediate post-WWII years saw the rise of behaviourism in American business schools and an associated influence on the fields of psychology and sociology (Robin 2001). This was led and exemplified by the RAND Corporation, which for many years was to play an influential role in the development of business theory and the social sciences in the United States (Abella 2008). In the process the US military played an important role in the funding of behavioural research (Deitchman 1976, Abella 2008, Witzel 2012), as did the large funding bodies such as the Ford and Carnegie Foundations (Macdonald 1956, Abella 2008).

Canadian business schools saw similar pressures as those in the US, with growth through WWII veterans, pressure for managers to become professionalized, and pressure for the business discipline to achieve legitimacy within the Canadian academy. While American business schools had been developing since the late 1800s, with rapid growth following World War II, Canadian business schools were in their early growth stages following WWII. The backlash against vocational and professional programs within the Canadian academy was greater than that in the US, and Canadian businessmen were sceptical of the value of a post-secondary business education (Boothman 2000a), and of the techniques college-educated managers were bringing to the shop floor (Taylor 2009). Canadian business schools based their structures on their American counterparts (Austin 2000), and by the time they were actively recruiting faculty for undergraduate and MBA programs, US business schools were graduating PhDs in business. The first Canadian business PhD degree was not approved until 1961 (Yavas *et al.* 1985), so business school faculty consisted of American PhDs, Canadian PhDs from other disciplines, and part-time instructors; deans were either American, or educated in the US (Boothman 2000a).

With American structures, deans, and faculty came American curriculum and textbooks. Canadian business degree curriculum was based on textbooks written and published by Americans, and for the large part remains that way today. The small size of the Canadian textbook market means that the publication of distinctly Canadian texts, readings, or cases is not economically viable (Boothman 2000a). Some publishers produce Canadianized editions of American management textbooks (i.e., texts that were originally written for the US market that are subsequently altered to sell in Canada) but differences are generally restricted to simple substitutions of legal requirements of employers, employment rights (McLaren and Helms Mills 2010), and terminology, such as substituting 'municipal council' for 'county board' (Fitzgerald and Mills 2012). The sheer volume of US texts continues to this day to greatly outweigh the number of Canadian texts on offer – although the existing publishers have increasingly produced Canadian and Canadianized texts over the past two decades. It appears that a call for Canadian content is being answered by publishers, but much analysis will be needed to determine how Canadian the content actually is. We view as 'Canadian' those texts that are written specifically for Canadian-based university students and faculty by setting out to relate theories of management to the political, economic, and legal systems in place in Canada.

Over time, in continued attempts to legitimize the business school within the academy, business faculty, both American and Canadian, were placed under increased pressure to publish their research in social science-based journals. Tenure and promotion became increasingly dependent on publication in 'top tier' journals. The top tier journals for business schools are mainly American, and strongly favour positivist, quantitative, decontextualized research (Alvesson and Sandberg 2012). The publishing environment lays strict boundaries on what is acceptable research, and a challenge of existing theory with the assertion that it does not work for Canadians is unlikely to get published. Top tier journals are far more likely to publish gap-spotting work, rather than work that challenges the status quo (Alvesson and Sandberg 2012).

Among many obvious reasons as to why a Canadian management theory has never emerged, including the development and dominance of the business school in the US (Boothman 2000b), and the

influence of the Cold War (Horn 1999, Hewitt 2002), there lies a more subtle reason. As management theory came to be treated as a science, a perspective that was engaged explicitly to provide legitimization for the discipline and over time became the unquestioned and accepted reality, nomothetic, deterministic, and teleological principles became the expectation (Weatherbee 2012). Management researchers were seeking the overarching theories that applied to every organization, and every person in that organization, in the same way. Differences in social, political, and economic contexts were either considered only as variables to be controlled or, more often, not considered at all. Researchers were seeking to develop not an American management theory, but a management theory that could be applied everywhere (Rowlinson *et al.* 2009).

Context, however, cannot be removed from research into management, or management itself. In our situation context applies in two ways – the context in which the researcher is working that is guiding what s/he studies, and the context of the population under study in terms of location, culture, diversity, etc. Canadian business academics work in a context that marginalizes the study of management in Canada as distinct from management in the US. For hiring, tenure, and promotion, they are expected to publish in American “context-free” journals. In the classroom, they are expected to teach curriculum developed largely in the US. Research focused on Canadian issues can find a home with ASAC and CJAS, which exist to support Canadian research, but the research published by those outlets is deemed of second or third-tier quality by Canadian business school faculty (McLaren and Mills 2013). Underlying all of this is the belief that management theory is a science, and therefore existing research applies to both Canadians and Americans equally.

Making the Case for Canadian Management Theory

Setting aside, for the moment, discussion of the nomothetic nature of management theory, and accepting that current management theory is mainly American, one might question if Canada is different from the US in ways that are relevant to management theory. Canada is often seen as the economically smaller, more polite neighbour to the north and beyond the stereotypical differences is viewed as essentially American. Is there a need for Canadian management theory?

We present a set of fundamental ways in which Canada differs from the US to make our case that Canada does need its own management theory, but we are not the first to make this call. In 1957, deans of Canadian business schools met as a formal group for the first time, a meeting which led to the creation of what is now known as the Administrative Sciences Association of Canada (ASAC). In existence, in various incarnations and with a variety of names, for over 60 years, one of the fundamental elements of ASAC’s mission has been to provide a home for Canadian business researchers and to solve the problems distinct to Canada (McLaren and Mills 2013). A recent study of Cold War influences on Canadian and American business textbooks (Foster *et al.* 2014a) found calls from the 1960s for textbooks geared to the Canadian context, and a recognition that the contexts differ:

One consideration prompting this book was that many good texts in this field are written by Americans for the American scene, with consequently no allowance for the fact that our constitutional structure, trade and balance of payments picture, banking system, government regulations, system of taxation, degree of foreign ownership, size of market, and business laws are very different. (Pugsley 1965 n.p, as quoted in Foster and Mills, 2013)

In Boothman’s end of the 20th century analysis of Canadian management education he raises the complaints of students and practitioners that “business faculty give grossly inadequate attention to the actual organizational traits and environmental framework of ‘Canadian’ capitalism” (Boothman 2000a, p304).

At a broader Canadian level, from 1972 to 1976 Thomas H. B. Symons chaired The Commission on Canadian Studies, whose mandate was to study and to make recommendations on the state of teaching and research in various fields of study relating to Canada at Canadian universities. The resulting report, *To Know Ourselves*, found that “[i]t would be a betrayal of their social and intellectual functions if Canadian universities failed to contribute substantially to an understanding and amelioration of Canada’s distinctive problems” (Symons 1978). Across disciplines throughout Canadian universities many felt that Canadian problems were almost by definition of second-rate importance (Symons 1978) and were failing to study Canadian problems. Scientists viewed publishing in Canadian journals “as an act of charity” (Symons 1978). Specific to business, Symons found that while there is no country in the world in which business has occupied a more central role in national development, Canadian business and management have received far too little detailed study (Symons 1978).

Looking Back

Canada differs from the US in fundamental ways: the country developed as a resource-based economy with significant amounts of foreign investment; while large in size it has a small population spread across its southern border, divided regionally by cultural, linguistic, political, and economic differences; and it is a welfare state with a history of strong activist governments and an electorally-viable social democratic political party. This political, economic, and cultural context has a strong influence on how organizations operate and people are managed, and there needs to be management theory that fits the context, explains the behaviours, and helps Canadian organizations be successful. At the same time, some aspects of the context have contributed to the dominance of American management theory in Canadian business schools and organizations.

We briefly introduce some aspects of Canada’s history and context here, to begin to illustrate how fundamentally management in Canada is impacted by its context. The history of Canada and its relationship to the US is obviously far more detailed, complex, and nuanced than we can present in this paper, and we recognize that in selecting a few differences on which to focus, and in simplifying them, we are creating our own history.

Economic protectionism. Geographic size notwithstanding, Canada’s population has been consistently about one-tenth the size of the US, with the majority of Canadians dwelling within 100 miles of the US border (Thompson and Randall 2008). The significantly larger population of the US, and the position of the US on the world stage, has created an ongoing power imbalance between the two countries, economically, politically, and culturally. Canada’s economic growth and development since the 1500s has been based on its natural resources, with wealth coming from fisheries, furs, forests, agriculture, minerals, oil, and hydro-electricity (Martin and Milway 2012). Rather than developing secondary industries to manufacture products from the resources, early Canadian business leaders were more interested in extracting and trading the raw materials (Craib 1986). Canada’s resources have been developed through foreign investment, in the beginning British and French, post-World War I mainly American (Taylor 2009), and now still mainly American, with China playing a greater role.

The Canadian government has enacted a long history of activist and interventionist measures to protect Canada from dominance by the US and to bring foreign investment into the country. The National Policy, brought into effect in 1878 (Granatstein *et al.* 1983), created protective tariffs for domestic manufactured goods and a national railway for market development (Taylor 2009). As the tariff system protected products, rather than producers, it encouraged American companies to set up branch plants in Canada, injecting foreign capital and employing Canadians. At the same time, however, Canadian manufacturers struggled to compete with the branch plants that could draw on the financial resources and experience of American-owned companies. Canadian entrepreneurship, innovation, and risk-taking was discouraged by the National Policy through both the foreign-owned branch plants (Craib 1986) and the

protection of Canadian business from foreign competition (Granatstein *et al.* 1983), the impacts of which we are still seeing today (Martin and Milway 2012). Branch plants also had implications for research and development (R&D) and innovation in Canada. The responsibility of a branch plant was to penetrate the local market with a product that had been developed by the parent company (Craib 1986), and as such subsidiaries were rarely equipped with R&D capabilities (Taylor 2009). At the same time, the best and brightest Canadians were being recruited to US and multinational firms, not Canadian.

Social Welfare. Along with being an activist state in terms of protectionism, Canada has also developed a strong ideology as a socialist welfare state. Canada's move toward socialism actually followed the Americans, as Canadians and Canadian governments followed both the American Populist era and the implementation of the New Deal (Taylor 2009, Boyko 2010). Where post-WW II in the US saw a turning away from socialism and the rising of big business, in part in response to the Cold War, the fear of a return to the Great Depression led Canadians to demand jobs, security, and a good standard of living. Canada's first socialist-democratic party, the Co-operative Commonwealth Federation (CCF), promised Canadians social security, and indeed was the party that introduced socialized health care to Canada during the time that they held the provincial government in Saskatchewan. Recognizing the importance of the welfare state to Canadians, it was the Liberal government of Mackenzie King that responded (Granatstein *et al.* 1983). Canada's welfare state now includes a national health care system, a national pension plan, unemployment insurance, a welfare system, and provincially-run and subsidized post-secondary education.

We see again how the context in which Canadian versus American organizations exist differs drastically. At an explicit level, the influence of national health care to Canadian organizations, relative to the expectation that American organizations provide medical insurance to employees, must have had, and is still having, a huge impact on management theory areas of research such as, to posit only a few, employee motivation, organizational culture, and productivity. At an ideological level, employees who believe in the value of the welfare state are a different group of people than those who believe in individual rights over the collective. These differences must be taken into consideration when understanding how to manage.

Diversity. Canada is a country composed of distinct regions which are reflected politically, culturally, and economically. Economically and politically businesses deal with multiple levels of government, with some regulatory structures provincial, some federal, and some both. As regulations differ between levels, business owners struggle to understand their implications, but can also choose which jurisdiction is most favourable to their operations (Taylor 2009). The National Policy, put in place to protect Canada from American dominance, was also purposively crafted to bring the disparate regions of Canada together (Thompson and Randall 2008), through the construction of trans-Canadian railway systems and strong support for immigration to western Canada.

Alongside the cultural differences between Atlantic Canada, Ontario, the prairies, and western Canada, lies the official legislation of Canada as a French-English bilingual country and its pursuit of a policy of multiculturalism. Multiculturalism in Canada refers to "the presence and persistence of diverse racial and ethnic minorities who define themselves as different and who wish to remain so" (Dewing 2009, p1). In the 2006 Canadian census, more than 200 different ethnic origins were reported, 19.8% of the population had been born outside of Canada, the visible minority population was 16.2%, and allophones (having a mother tongue other than English, French, or an Aboriginal language) were at 20.1% of the population (Dewing 2009). Canada is known as a "cultural mosaic" relative to "the American melting pot," striving to integrate immigrants into Canada without asking them to give up their cultural distinctiveness. While it is acknowledged that maintaining cultural diversity has not translated into integration of races and ethnicities throughout all levels of Canadian society (Porter 1965), the diversity is still a factor that needs to be understood within organizations.

As workplace diversity is becoming a matter of concern for both academics and practitioners within the new global marketplace, Canada has a long history of dealing with diversity issues as a result of cultural differences between regions, official national bilingualism, and strong immigration rates into a country that ideologically espouses ethnic integration rather than ethnic suppression. What can we, as management theorists, learn from how Canadian organizations handle diversity and what value could we bring to Canadian organizations by understanding their specific diversity needs.

Looking Forward

Understanding how and why the Canadian context differs from the US, and therefore why a Canadian management theory would have had value for Canadian organizations, is the first step in moving from a purely scientific, context-free model of management theory. Using this understanding, and our understanding of Canada, we can look forward and assess the Canadian context with an eye to exploring how the current context may be influencing the business world and what direction our research should take to provide value to Canadian business practitioners.

Traces of a body of work that can be termed Canadian management theory can be found. Canadian management textbooks published in the 1960s reflect Canada's slightly more moderate stance on the Cold War through acknowledgement of communism as an alternative to capitalism, and Canada's welfare capitalism through the acknowledgement of legitimate forms of organization other than the free enterprise, such as co-operatives and crown corporations. This is in comparison to American textbooks of the same decade, in which neither communism nor organizational forms other than free enterprise were discussed (Foster *et al.* 2014a). Management practice, while yet to be studied specifically, must differ in many ways between the two countries as Canadian organizations work within different regulations, with a different population embedded in different ideologies, and within a different economic reality. A crown corporation does not function in exactly the same way as a for-profit corporation, and as crown corporations play a large role in the Canadian economy there must be different management practices underway than are currently accounted for in the American management theory that we have adopted as our own.

Based on their work with the Institute for Competitiveness & Prosperity, Roger Martin and James Milway published the book *Canada: What is it, what it can be* (2012), an assessment of Canada's past economic performance, the three drivers of productivity and innovation, and how to take Canada's economy to a higher level of sophistication. The book alone provides a strong argument for a need for Canadian management theory. Let's look at some specifics. Martin and Milway (2012) contend that, for a variety of historical reasons, Canada is currently a strong country, both economically and in terms of happiness. They contend, though, that also for a variety of historical reasons, over the past few decades Canada has begun falling farther and farther behind countries such as the US, Belgium, France, Germany, and the Netherlands in terms of economic prosperity, competitiveness, and innovation. They posit that Canadians trail in innovation measures, that we are slow in adopting new technologies, that fewer Canadians live in metropolitan areas as compared to Americans, that Canadians lack competitive intensity, that we have significant amounts of regulation protecting us from intense foreign and domestic competition, that we under-invest in both technology and education, and that we do not adequately recognize the importance of management for innovation.

If any of their conclusions have a basis in fact (which they do), why would Canadian management academics ever assume that research done in an American context, with American participants, embedded in American ideologies, develop theory that is valuable for solving problems in Canadian industry. If Canadians are falling behind in innovation we need to understand why it is happening and how to fix it. Or, maybe a greater understanding of Canadians would lead us to the

conclusion that there is nothing to fix. Martin and Milway (2012) assert that Canadian workers are less productive because those with higher education and higher incomes choose to work fewer hours over the course of a year than American workers of similar education and income levels. They think that there is greater financial return for highly-skilled Americans to work more hours than for Canadians, so Canadians choose to work fewer hours because they will not be financially rewarded at a high enough level. Their reason for the productivity gap treats Canadians and Americans as having the same underlying goals – earning as much money as possible, as efficiently as possible. Maybe, though, highly-skilled Canadians choose to work fewer hours than Americans because the hours that they do work earns them enough money to meet their desired standard of living, and that they value life outside of work more than they value higher financial standing. We have no way of knowing which reason is correct, or, most likely, what combination of the two reasons, without studying Canadian workers in their Canadian context.

The introduction to Canada that we have presented in this paper raises questions around, to name only a few, issues such as the National Policy and its impact on Canadian entrepreneurship, risk-taking, and innovation; Canada's welfare state ideology and organizational culture, motivation, and form; Canada's response to the Cold War and organizational form and labour relations; Canada's economy and population size and organizational form, risk-taking, and innovation; Canada's federal and provincial governments and organizational form and innovation; Canada's regional and ethnic diversity and workplace diversity, creativity, and innovation; and the impact of all of these factors on the integral management issue of power.

Conclusion

While management theory is espoused as scientific, deterministic, and teleological (Burrell and Morgan 1979), the growing body of work incorporating history into both the analysis of existing theory and the development of new theory is showing the contextual and relational nature of the body of knowledge, and changing our understanding of what it means to develop management theory (Witzel 2012). In this paper we have presented a history of the development of management theory that illustrates the influence of the political, social, and economic situation during which the main body of knowledge was being developed, and we have drawn specific attention to the lack of a distinct Canadian management theory. We then briefly presented some fundamental elements of Canada's past that have created a distinct context from that of the US, and explored how those differences have created a context in which business is done differently. Finally, we look forward at Canada's economic future and posit a few, out of many possibilities, areas in which studying the Canadian business and organizational context as distinct from the US would be of great benefit to Canada. All of this is undertaken while maintaining awareness that in "creating" a Canadian history we do so within our own networks, needs, and goals.

Moving forward we see many avenues of study for individuals interested in taking up the call to develop a Canadian management theory. One of the current concerns being raised by Canadian industry and government is the lack of innovation in Canada, an issue that can be directly tied to the National Policy and Canada's history of protectionism. We are confident that many more of the concerns in Canadian industry today can be traced back, in part, to Canada's historical context. In understanding why we are in our current situation, we can begin looking forward to how to develop theory that works for Canadian organizations. We also believe that there are many elements of management practice in Canada that differ from that in the US, and from commonly-accepted management theory. Determining what those differences are, and why, forms the basis of our new Canadian management theory.

The American influence on management education and dominance of management theory is not restricted to Canada. A 2004 symposium on the Americanization of European management education

published in the *Journal of Management Inquiry* presents historical and comparative perspectives on the Americanization of form and content in management education (Usdiken 2004) in four distinct European regions: the Nordic countries (Engwall 2004), Britain (Tiratsoo 2004), Germany (Kieser 2004), and Mediterranean Europe (Kipping *et al.* 2004). One of the ways in which the European situation differs from the Canadian is that each of the regions had developed its own business, or economic, education systems prior to the dominance of the US, and have slowly, to varying extents and in varying ways, been adopting American form, content, and research. Wanderley and Faria (2012) have recently published an analysis of the suppression of management theory from South America due to epistemic coloniality. Their specific argument is that if Americans considered all knowledge legitimate, rather than unilaterally imposing their own knowledge on everyone else, the crisis of legitimacy in strategic management could have been avoided through the acknowledgement and use of the work of Celso Furtado in response to, and conjunction with, that of Alfred Chandler.

While we, as Canadians, will move forward into a deeper and more detailed understanding of Canadian history and its influence on a Canadian management theory, as well as the development of a Canadian management theory, we put forth a call for management scholars from other regions, including the US, to understand how and why their management theory has developed as it has, and to begin the process of developing a body of knowledge that takes into consideration, at all levels, our contextual differences. As theories are interesting and influential when they challenge dominant assumptions in significant ways (Alvesson and Sandberg 2012), we believe that in calling for a body of literature that develops a Canadian management theory, and in extending that call beyond Canada to all contexts, we are calling for management scholars to undertake interesting and influential work.

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ASSEMBLING AN INDUSTRY CLUSTER: AN ANTi-HISTORY OF THE "OCEAN TECHNOLOGY SECTOR" IN NOVA SCOTIA, CANADA ¹

In this preliminary paper, I use the ANTi-History approach to (re)assemble 3 histories of "the oceans cluster" in Nova Scotia. Accounts from 1960, 1980 and 2012 are examined to reveal their constituent actor-networks. These rhetorical histories are used to "assemble" a "cluster" as historical fact, establishing a regional competitive advantage.

Industrial History as Rhetoric

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 to manage key stakeholders of the firm" (Suddaby et al., 2010). In this preliminary paper, I demonstrate 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 (Porter, 1990, 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).

Nova Scotia is a maritime province, 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 (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

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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 them². 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.

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 process of industrial interessement.

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 with this 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.

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.

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: the researcher(s) literally follow and observe actors as they relate to one another in real-time (e.g. Latour, 1987). However, ANT approaches are also increasingly applied to 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).

I began my work with a recent historical account produced by the Government of Nova Scotia (2012). This inspired me to search for older historical traces. I began by searching for “ocean technology/ies” at the Nova Scotia Public Archives³. 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), 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 from the Bedford Institute of Oceanography’s online publication archive⁴. Over approximately one month of research, I produced 58 pages of notes and recorded

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.

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

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 situated with a different temporal and relational context.

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 reelection campaign in 2013. The “Defined by the Sea” document elaborated “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).

“Defined by the Sea” does not describe the “evolution” this industry, but 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.

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” thanks to a broad definition:

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 in a time marked by both government austerity and 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, Dalhousie⁵, 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 from the research laboratories. There is also a strong focus on offshore (Arctic) oil and gas opportunities at the end of the article. This is presented as 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 particularly

⁵ Dalhousie’s cross-departmental oceanography “institute” had recently achieved “department” status, and this is noted with fanfare in the article.

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 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. Through its secrecy, the Defense Department is 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, with nearly the same title. On August 9, 1960, *The Chronicle Herald* proudly proclaimed, "Halifax: International Leader in Ocean Science" (p. 6). The headline, however, may have been a bit premature. The author describes how Halifax was "**becoming** an internationally important base for oceanographic study [emphasis added]" ("Halifax: International Leader," 1960, p. 6).

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 (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 ("Institute of Oceanography, Dalhousie: Prof Ronald 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 illustrates the great anticipation that some Nova Scotians felt toward these new institutes, and this potential 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* piece, defense research is notably absent from this article. But another notable actor from the *Canadian Geographic* history is also missing. The Nova Scotia Research Foundation (NSRF) was already well-established (founded in 1946) when

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.

“Halifax: International Leader” 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 the 1960s (NSRF, 1946-1995). The provincial government therefore does not appear to be a significant actor in this early history. Instead, the federal government, and its funding of scientific research, is the central player. Note that this article was published during an era of great interest and investment in science throughout the developed world (e.g. the space race).

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 *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 9, 1960 the *Chronicle Herald* had already reported that Halifax was an international leader in ocean science (“Halifax: International Leader,” 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 (“Halifax: International Leader,” 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 is muted 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 account. In both 1980 and 2012, private markets are providing the cluster with its capital.

Rather than discounting “inaccuracies” and writing a “better” version, we can understand and accept these histories as valid *relational* accounts. They are products of actor-networks. The actor-network influencing each story explains the differences. In the earliest account, the federal government (in its role as research patron) is the central player in a relatively small network of actors. 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. Public research organizations are relegated to the supporting cast. This contrast, between a predominantly public and predominantly private sector characterisation, is likely explained by the rise of neo-liberal discourse over this period.

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 of great 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).

At issue is the multiplicity with which humans enact the 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)⁷. The ocean is enacted in so many ways, that it is difficult to establish a single definition of ocean science.

We found that the ocean’s multiplicity similarly plagued 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 single ocean science/technology cluster is only plausible through such broad language. And yet, broad definitions also prevent formation of a coherent cluster identity.

Industrial Interestement

⁷ Notice that in this quote, “the pure sciences” are presented as (an)other discrete way(s) of knowing the ocean.

The inability to establish a coherent cluster identity, through successive decades, suggests 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. Readers may also be enticed to acknowledge this "hidden gem."

This problematization provides for the second moment of translation: intersement (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 a rhetorical device 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 ("Halifax: International Leader," 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. It becomes a symbolic asset for regional competitive advantage.

However, the translation process does not seem to have progressed beyond intersement 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 for it to be passed along. But in these three examples we have seen a cluster that is (re)discovered in 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.

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' actor-networks. Knowledge of "the cluster" is a function of the authors' situatedness within a network of relations. Acknowledging this allows us to recognize each history as both valid and contradictory. This is one of the great advantages of the nascent ANTi-History approach (Durepos & Mills, 2011; Durepos & Mills, 2012). It provides tools for 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 (where realism still reigns).

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 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 extra-firm actor-network. Each history is a valuable 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 do not enrol and mobilize actors sufficiently to survive over time. The “cluster” is lost, and then (re)assembled again. I feel that this process of “industrial *interessement*” is worthy of further research in other contexts.

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THE IMPACT OF PROFESSIONAL ADVICE, SOCIAL INFLUENCERS, AND SELF-EFFICACY ON THE HEALTH CAPITAL OF UNIVERSITY STUDENTS

Logistic regression was conducted to determine the relative influence of professional advice, social influencers and self-efficacy on university students' health capital. The results demonstrated that students with high levels of self-efficacy were seven times more likely to have high levels of health capital. Social influences and professional health advisors were not statistically significant. This has implications for health promotion by universities and health agencies concerned about the wellbeing of university students and future citizens.

Introduction

Good health is enhanced by practicing healthy eating, active lifestyle and avoiding high risk behaviours such as tobacco use and excessive alcohol consumption. For example chronic health problems related obesity and tobacco use include heart disease, diabetes, various cancers as well as susceptibility to disease and poor mental health (Qi, Phillips, & Hopman, 2006; Enwald, Niemela, Keinanen-Kiukaanniemi, Leppaluoto, Jansas, et al 2011; Lockwood & Wohl, 2011).

Part of the challenge when dealing with an aging population and socialized healthcare is to encourage individuals to take positive steps to establish and maintain a healthy lifestyle. The earlier these good health behaviours are learned the easier it is to adopt them for life. Therefore, our education system at all levels has an important role to play in promoting and supporting the development of their students' healthy lifestyles

University students have not been known for their healthy lifestyles (Kim, Ahn, & No, 2012; Gores, 2008). Many are away from home for the first time and are faced with making decisions about their personal nutrition and fitness. The mythical "freshman 15" is a reference to the weight gain that many see in their first year of study (Gores, 2008; Holm-Denoma, Joiner, Vohs & Heatherton, 2008). The buffet-style presentation of many campus cafeterias may contribute to poor portion control and over eating (Gores, 2008) as may frequency of snacking high calorie items (Holm-Denoma, Joiner, Vohs & Heatherton, 2008). However, if college students can learn positive healthy behaviours it may lead to a lasting lifestyle change (Gores, 2008).

This research focused on the health capital of university students. Health capital refers to the level of commitment and engagement the student participants had towards maintaining a healthy lifestyle as determined by self-reported level of physical activity and healthy eating behaviour and perceived overall level of health.

The research also focused on influences on healthy behaviours and in particular, healthy eating. Influencers studied included family and friends; professionals such as nutritionists and personal trainers; selected marketing communications such as magazines and websites; and self efficacy as determined by self-perceived confidence to follow eating behaviours (Von Ah, Ebert, Ngamvitroj, Park, Duck-Hee, 2004; Yilmaz, 2014).

Healthy Eating/Active Lifestyle

The trend towards maintaining wellness and preventing disease is important in nations with socialized medical care as populations mature and chronic diseases manifest themselves. Health capital can be defined as the total investment one makes in his/her health such as engaging in healthy eating and active lifestyles (Suresh, Ravichandran, & Ganesan, 2011). Researchers have shown that health capital may be declining for many Canadians, as obesity and diabetes rates soar, and consumers continue to make poor food choices, supersize their servings and are inactive.

Enwald et al (2011) stated that a combination of nutritious meal choices, regular exercise and maintaining a healthy weight can prevent the onset of type 2 diabetes. They believed that onset of this disease can be prevented by using early lifestyle interventions (p.132). They also noted that not only do most people underestimate their risk of developing type 2 diabetes, they lack knowledge of how to prevent the disease.

Canadian researchers found that lower socio-economic status was associated with more sedentary lifestyles and lower levels of fruit and vegetable consumption (Qi et al 2006). They also found that low income levels were associated with greater engagement in activities that negatively impacted health, including smoking, alcohol consumption, and failure to use routine health screening to prevent disease (such as dental check-ups, breast self-examinations and mammography, and other routine medical tests).

Dehghan, Akhtar-Danesh, & Merchant (2011) reported that more than three-quarters of Canadians do not eat the required number of fruit and vegetable servings per day. Socio-economic status has been linked to poor food choices and health outcomes in many studies. Cerin, Frank, & Salles et al. (2011) noted that not only was higher socio-economic status a precursor to good health, it was even difficult to access healthy food in supermarkets in low income areas. While this may be a result of market demand for less healthy food products, it contributes to poor health among some of the most vulnerable consumers.

Porter, Claycomb, and Kraft (2011) identified physical fitness and nutritional knowledge as two key components of a wellness lifestyle. Physical fitness was determined to be the result of regular exercise, which also was credited with maintaining not only physical health, but also psychological health. They also believed that nutritional knowledge (referred to as nutritional awareness (p.55) was equally important. Psychological health was also related to boosting one's ability to cope with stress.

Self-Efficacy and Healthy Lifestyle

Porter, Kraft, and Claycomb (2003) define wellness as:

“a general psychological state attained through a lifestyle comprising a belief in one’s responsibility for his or her own health, an awareness of the influence of environmental and nutritional factors on personal health, knowledge of the causes of stress and stress management techniques, the active practice of physical fitness activities, the maintenance of healthy social relationships, and the pursuit of a satisfying spiritual life.” (p.193)

The authors defined “personal health responsibility” as taking a proactive approach to one’s mental and physical health (p.195).

Self-efficacy is a measure of confidence in one’s ability to achieve a certain goal. Yilmaz (2014) describes self-efficacy as “the power to evaluate individuals’ own potential and the health resources available in their own environment along with taking action” (p.233). Yilmaz (2014) notes that self-confidence and self-esteem are important in an individual’s ability to acquire knowledge from their environment and apply in their personal lives. Research has also shown that individuals with self-efficacy are better able to maintain their healthy habits in times of stress. In the world of the college student, this can include resisting unhealthy behaviours (drinking alcohol and using tobacco) in a high peer pressure environment (Yilmaz, 2014, p.233).

Lockwood et al (2012) noted that healthy lifestyle knowledge is not sufficient to result in behavioural change: that self-efficacy is required to link both knowledge and results. Therefore, self-efficacy is linked to personal health responsibility in that the individual believes that they can achieve the goal (self-efficacy), so they take strategic steps to make it happen (personal health responsibility). According to Lockwood et al (2012), when consumers make choices that lead to positive health outcomes, their confidence grows. This has a positive impact on self-efficacy related to that particular health choice, resulting in sustained healthy behaviour change (p.629). The researchers concluded that any program designed to change wellness behaviour should focus on increasing self-efficacy.

Von Ah, Ebert, Ngamvitroj, Park et al (2004) examined various influencers of health behaviours, including the components of the Health Belief Model, among 161 college students and found that self-efficacy was the most significant predictor. Self-efficacy was measured by self-reported ratings of one’s confidence in performing the various health behaviours.

Kim et al (2012) also focused on the Health Belief Model in predicting college students’ health behaviour. The Health Belief Model is based on the premise that individuals hold beliefs about their susceptibility to various illnesses, as well as the severity of the illnesses themselves. Individuals also hold beliefs regarding barriers to actions that can prevent illness, as well as the benefits of activities to prevent illness. If the perceived benefits exceed the perceived threats, individuals should be motivated to protect themselves from illness by engaging in healthy lifestyles (p.551). Their research confirmed that college students who had high perceptions of benefits of healthy eating/active lifestyle, combined with a perceived low barrier to healthy eating, had higher behavioural intentions to engage in healthy eating/active lifestyle than those who did not. Also, confidence had a positive impact on perceptions of benefits and barriers for both healthy eating and physical activity. Nutrition knowledge was positively

linked to increased confidence levels, indicating the importance of subsidizing information to build confidence and therefore self-efficacy.

Social and Professional Influences on Healthy Lifestyle

Enwald, et al (2011) noted that despite access to a great deal of health and wellness information, populations in the Western world continue to lead unhealthy lifestyles which has resulted in high incidences of obesity, type 2 diabetes and other chronic health conditions. According to these authors a key challenge is how to communicate health and nutrition information in such a way that it actually has an impact on lifestyles.

Research has been conducted into the information-seeking activities of those looking for health-related information. Ramirez, Freres, Martinez, Lewis, Bourgoin, et al (2013) noted that most seekers tend to research specific health issues or conditions. Enwald et al (2011) concluded that mass media communication did not seem to effectively communicate with those who have health issues. Instead, they believed that information tailored to a specific audience who identifies with the health need is a more effective way to break through the clutter (p.133).

Health information sources may be clinical or non-clinical (Enwald et al, 2011; Ramirez et al, 2013). Ramirez et al (2013) found that those seeking information on dieting for weight loss consulted a variety of different information sources, including the Internet, family, friends, newspapers, magazines, television, radio, and physicians and other health professionals. The researchers found statistically significant differences in the impact of the information sources used on specific behaviours. Non-clinical information sources were better predictors of exercise of fruit and vegetable consumption than were the use of professional information sources such as physicians and other health professionals (p.538).

Lee (2010) postulated that there is an interaction between media information sources and interpersonal communication for healthy lifestyle information, such that reliance on media for information wanes as individuals become more involved in relevant interpersonal communications. As their information needs are met by more context-based interpersonal discussion, they reach a level of information sufficiency that no longer requires subsidization of their knowledge through media sources (p.54). The research results revealed that television and the Internet were important providers of healthy lifestyle information as was interpersonal communication. However, the latter was used significantly less by those with lower socio-economic status, indicating that the media was a more important information source for that particular group of health consumers.

Freisling, Hass, and Elmadfa (2009) showed that exposure to certain media had a statistically significant impact on adolescent consumption of fruit and vegetables. Radio ads increased consumption for both food groups, as did professional booklets and the Internet. In addition, articles in newspapers and magazines increased consumption of fruit.

Research has shown statistically significant differences in the reliance of various information sources based on demographic profiles. McKay, Houser, Blumberg, and Goldberg (2006) found that those with lower education levels relied more heavily on nutrition information from physicians, neighbours, and television, and women relied more upon friends for information more than men did (p.1109). Overall, physicians, newspapers, magazines and television were commonly used sources for nutrition information.

Ostry, Young, and Hughes (2007) demonstrated that the Internet is not necessarily a reliable source of nutrition information. Upon examining selected websites for their accuracy based on Canada's Food Guide for healthy eating, researchers noted that many were not congruent with the Canada Food Guide. The website with the lowest level of congruency was About.com, while the most reliable website was CanadianHealthNetwork.ca. However, their research also showed that other professional websites were only congruent with Canada's Food Guide about two-thirds of the time, such as WebMD and Doctissimo.fr. These findings raise concerns about the validity of the information found online and the ability of Internet resources to subsidize consumer's health information in a reliable way.

Enwald et al (2011) asserted that the key to effective communication is tailoring it to the needs of those who are experiencing pre-diabetic conditions or other health challenges. Tailored health information is designed to appeal to specific groups who are experiencing health challenges. However, Enwald et al (2011) conceded that research tailored information may be more effective in creating changes in eating habits than in pushing people to engage in more physical activity (p.133). They also found that those who were most unaffected by tailored health information were those with poor self-ratings for physical fitness. This means that it may be very challenging to connect with those who do not perceive their health behaviours as risky and who have no underlying illness.

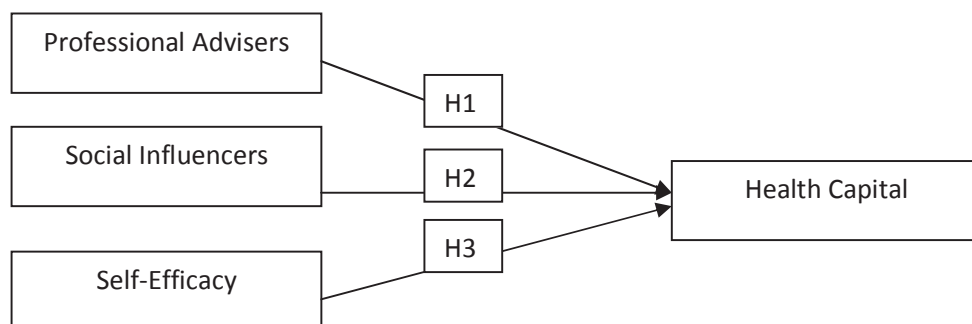
Lockwood et al (2012) promoted the use of formal education, in the form of a college course on wellness, as a method to increase both knowledge of healthy lifestyle and encourage behavioural change among college students. In a controlled study, the researchers demonstrated that a 15 week course was sufficient to create such change. However, it could not be demonstrated that such changes would be long-lived. Despite this limitation, formal education could be effective in communicating relevant information. Knowledge is an important part of enhancing consumer confidence and self-efficacy for healthy lifestyles.

Research Goals & Hypotheses

The goals of this research were to better understand the overall health of university students and the influencers that impacted their health choices. A key objective of the research was to determine the relative impact of each influence on students' health capital. A final objective of the research was to explore ways to impact students' health capital through marketing media focusing on magazines and web-based communication strategies. A theoretical model was created to capture each influencer and its potential impact on health capital. The model appears in Figure 1. The hypotheses tested within the model included the following:

1. Use of professional advice will positively influence university students' health capital.
2. Involvement with social and media information sources (social influencers) will influence university students' health capital.
3. High levels of self-efficacy will positively influence university students' health capital.

Figure 1: Theoretical Model of Influencers on University Students' Self-Efficacy for Health Eating/Active Lifestyle



Methodology

A student survey was administered during the 2012-2013 academic term to students in two Nova Scotia universities. Data was collected by means of a survey distributed to students via email through their university professors. Students at all levels of study were invited to participate. The research was cleared by authors' university research ethics board prior to data collection. A total of 188 usable surveys were completed. In return for survey completion students' names were entered into a draw for one of fifteen Amazon.ca gift cards. Data analyses were weighted based on university population to compensate for over and under representation from each university group.

Frequencies were run for all variables in the analysis. The health capital variable was created by summing responses to three variables: overall health rating, activity level, and eating a healthy diet. The variables were measured on a five-point Likert scale ranging from 1) strongly agree to 5) strongly disagree. The scale was created by conducting a confirmatory factor analysis on scale items to ensure unidimensionality and following up with a scale reliability analysis. The criterion for the factor analysis included factor scores of at least .40 in the single-factor solution. The criterion for the reliability analysis was an alpha level of at least .60.

A principal components exploratory factor analysis with varimax rotation was conducted on the ten influencer variables to eliminate correlations between the independent variables prior to conducting a logistic regression analysis. The information source influencer variables included exposure to the following information sources: the Internet (web), books, magazines, friends, family, health professional, and personal trainer. These influencer variables were measured as dummy coded dichotomies with 0 indicating no exposure to the information source and 1 indicator exposure. In addition, three variables relating to self-efficacy were also included in the factor analysis. These three variables measured students' confidence in their ability to eat a nutritious diet both during the academic term and outside the academic term, as well as a self-rating of their nutrition knowledge. Each of these variables was measured on a five-point Likert scale ranging from 1) very high to 5) very low. To have consistent variable scales for the factor analyses these variables were also dummy coded. Those with scale ratings of 1 or 2 were coded as possessing the attribute with a code of 1, while those with scale ratings of 3 or higher were coded as not possessing the attribute with a code of zero. Factor scores were saved for three resulting factors that captured the following influencers: professional advisers, social influencers, and self-efficacy.

The influencer factor scores were subjected to a single step direct entry logistic regression analysis to classify respondents as having high or low health capital ratings. Prior to conducting the logistic regression the health capital variable was dummy coded to provide a bivariate dependent variable so that students with high health capital were coded as 1, and students with mid to low health capital levels were coded as 0.

Bivariate correlations were run prior to conducting the analysis to identify potential problems with multicollinearity among the factor scores. The resulting analysis revealed no statistically significant correlations between the predictor variables as would be expected given that an orthogonal rotation was used in the exploratory factor analysis.

Logistic regression does not require multivariate normality, so the underlying distribution of the variables was not a consideration. The suitability of the technique was examined using a variety of methods. Hosmer and Lemeshow Chi-Square was used to ensure that the assumption of a linear model was not violated. MacFadden's R² was calculated to determine how much better the theoretical model predicted

higher health capital measures over the constant-only base model. Cross-classification of cases was used to determine how accurately the model predicted university students' health capital.

As a multivariate technique, the accuracy of logistic regression can be limited by sample size. However, 167 university students were included in the final analysis sample. With three predictors and one dependent variable the ratio of cases to variables was approximately 42:1, greatly exceeding the 10:1 criterion recommended for multivariate research and eliminating concerns about a sparse sample constraint.

Results

Descriptive Statistics

A sample of 188 students responded to the survey. The majority of respondents were women (78.6%). Respondents ranged in age from 17 to 55 years old with an average age of 22 years ($SD=4.72$). Nearly one-third were in their first year of university and more than half of those responding were in their first or second year of university. Most were single (80%) and 19% were married or living in a common law relationship.

Regarding nutritional knowledge, 47.3% believed they had high to very high nutrition knowledge with a mean of 2.5 on a 5-point scale where they rated their knowledge on a scale from 1) very high to 5) very poor. Over 33% rated their confidence in their ability to eat a nutritious diet outside of the academic term as high or very high, with a mean rating of 2.13 on a five-point scale ranging from 1) very high to 5) very poor. This rating was statistically lower than their average scale rating of 2.76 for confidence during the academic term, where 68.7% of students rated their confidence to eat a nutritious diet as high or very high. The scale is reverse coded, indicating that they feel less confident when making eating choices within the campus environment ($t(165)=8.591, p=.000$).

Nearly 49% of the students either agreed, or strongly agreed, that they ate healthy meals with 26% choosing a neutral point on a five-point scale ranging from 1) strongly agree to 5) strongly disagree. The scale average was 2.64 ($SD=.964$). Over half said they were satisfied or very satisfied with their health. The average scale rating for their health self-rating was 2.51 ($SD=.879$) a five-point scale ranging from 1) very satisfied to 5) very unsatisfied. When asked to rate their level of physical activity on a scale ranging from 1) very active to 5) very inactive, most said they were moderately active (48.5%). Only 18.9% said they were inactive or very inactive and nearly 30% said they were either active or very active. The scale average for physical activity was 2.78 ($SD=.876$).

Use of various information sources for nutritional information showed a distinct preference for the Internet (71.3%), followed by family (65%), friends (52%), and magazines (50.7%). The remaining information sources had fewer than 50% of the respondents using them as a resource: health professionals (47.7%), books (44.7%), and personal trainers (20.2%). Descriptive statistics summarized in Table 1.

Health Capital Scale

Health capital is a measure of the extent to which individuals embrace a healthy lifestyle. A scale was created by summing three measures of compliance with healthy eating/active lifestyle requirements: activity level, eating healthy meals, and being satisfied with one's health level. The three scaled questions

were summed to create a health capital score. The score ranged from 3 to 14, where the lower level was an indicator of a higher level of health capital. The average scale rating was 7.86 (SD=2.02). To facilitate a binary logistic regression dependent variable, the scale was dummy coded to indicate low (0) and high (1) levels of health capital. To do so, scale scores of 1 through 6 were coded as high measures (1), as they reflected the highest levels in the five-point scale ratings for the three original variables. Any measures higher than 6 were coded as low health capital with a zero value. After dummy coding, 25.1% of respondents were rated as having high health capital.

Table 1: Descriptive Statistics

Descriptor	Rating: 1 or 2	Rating: 3	Rating 4:5	Mean	Std. Deviation
Nutrition knowledge (n=180)	Very high or high: 47.3%	Moderate: 42.4%	Very low or low: 8.6%	2.5	.811
Nutrition confidence during academic term (n=166)	Very high or high: 33.6%	Moderate: 45.6%	Very low or low: 20.8%	2.76*	.988
Nutrition confidence outside of academic term (n=166)	Very high or high: 68.7%	Moderate: 24.3%	Very low or low: 7%	2.13*	.882
Health satisfaction (n=186)	Very satisfied or satisfied: 56.2%	Neutral: 29.7%	Very unsatisfied or Unsatisfied: 14.1%	2.51	.879
Activity level (n=186)	Very active or active: 32.6%	Moderately active: 48.5%	Very inactive or inactive: 18.9%	2.78	.876
Eat healthy meals (n=166)	Strongly agree or agree: 48.7%	Neutral: 29.3%	Strongly disagree or disagree: 22%	2.64	.964
Gender (n=188)	Male: 21.4% Female: 78.6%				
Age (n=187)	Range: 17 to 55			22.08	4.715
Marital Status (n=185)	Single: 80.2% Married/Living with Partner: 19% Separated or Divorced: 0.7%				
Year of Study (n=188)	First year: 32.6% Second year: 21.4% Third year: 16.6% Fourth year: 15.5% Five or more years: 13.9%				
Information Source	Used (n=180)				
Internet	71.3%				
Books	44.7%				
Magazines	50.7%				
Friends	52.3%				
Family	65%				
Health professional	47.6%				
Personal trainer	20.2%				

*Means statistically different at the .01 level: $t(165) = 8.591$.

Prior to summing the scale and creating the dummy coded variable for binary logistic regression, the health capital scale was tested for unidimensionality and reliability. A confirmatory factor analysis revealed that they three variables measured a single construct with a minimum factor loading of .74. The factor explained 56.6% of the variation in the model. Cronbach's alpha for the additive scale was .61. These measures met the criteria for unidimensionality and reliability. The results are summarized in Table 2.

Table 2: Scale Development for Health Capital

Scale Items	Factor Loading
Activity level	.770
Health rating	.744
Eat healthy meals	.743
Variance Explained = 56.6%	Cronbach's Alpha = .61

Factor Analysis of Influencer Variables

Ten variables were factor analyzed to reduce multicollinearity prior to conducting a logistic regression on health capital. These measures included the information sources used, self-rating of nutrition knowledge, and confidence measures both during and outside of the academic term. Knowledge level and confidence variables were dummy coded prior to the factor analysis to make the variables consistent with the information source measures.

The variables were subjected to an exploratory factor analysis using a principal components analysis with varimax rotation. Factors were extracted until eigenvalues fell below a cut off of 1.0. Three factors were extracted, explaining 53.8% of the variance in the model. Factor loadings fell across the three factors with values of .484 to .781. The loadings were strong and well defined. The factor scores were saved to use as independent predictors in the logistic regression analysis.

Health professionals, books, and personal trainers loaded on one factor that explained 18.7% of the variance. This factor was named Professional Advice. Family, friends, the Internet, and magazines loaded on one factor that explained 17.6% of the variance. This factor was named Social Influencers. The last factor explained 17.5% of the variance in the model and consisted of confidence to eat healthy meals both during and outside of the academic term, and nutrition knowledge. This factor was named Self-Efficacy. The results of the exploratory factor analysis are shown in Table 3.

Table 3: Exploratory Factor Analysis of Healthy Eating/Active Lifestyle Influencers

Descriptors & Factor Loadings	F1: Professional Advice	F2: Social Influencers	F3: Self-Efficacy
Health professional	.774		
Books	.729		
Personal trainer	.672		
Family		.750	
Friends		.716	
Internet		.511	
Magazines		.484	
Confidence to eat healthy during academic term			.781
Confidence to eat healthy outside of academic term			.730
Nutrition knowledge			.632
Eigenvalue	2.157	1.951	1.267
Variance Explained	18.7%	17.6%	17.5%

Regression Analysis

A bivariate logistic regression analysis was conducted on the factor scores as predictors of health capital among university students and to test the hypotheses in the theoretical model. The hypothesized regression model was:

$$\text{Health capital (ODDS)} = f(\text{professional advice, social influencers, self-efficacy})$$

A test of the full regression model against an intercept-only model was statistically significant ($\chi^2=64.714$, $df=3$, $p=.000$). Professional advice and social influencers were not statistically significant. Self-efficacy was significant ($p=.000$) with a regression coefficient of 1.074 and an odds ratio of 7.197. The constant of -2.033 was also statistically significant. The odds ratio indicated that university students with a high self-efficacy were over 7 times more likely to have high health capital than students without a high self-efficacy. The 95% confidence interval around this predictor ranged from 3.7 to 14.1. This means that the odds of having a high health capital ranges from nearly 4 to 14 times for those with high levels of self-efficacy. The resulting regression equation was:

$$\text{Health capital (ODDS)} = -2.033 + 1.974 (\text{Self-efficacy}).$$

Based on the odds ratio the probability of having a high health capital was .88 for those who had high self-efficacy measures.

The regression analysis correctly classified 85% of all cases and 65.8% of those with high health capital measures. The Hosmer and Lemeshow χ^2 was not statistically significant ($\chi^2 = 8.715$, $df=8$, $p=.367$) indicating that the data fit with a linear model. McFadden's R^2 indicated that the resulting regression equation explained 66% of the variance in health capital. The resulting regression analysis is shown in Table 4.

Table 4. Logistic Regression Predicting the Likelihood of Having High Health Capital Based on Professional and Social Influences and Self-Efficacy*

Predictor	B	Wald χ^2 (df=1)	Sig.	Exp(B) (ODDS)	95% Confidence Interval Exp(B) (ODDS)	
					Lower	Upper
Professional Advice	.290	1.407	.236	1.337	.827	2.160
Social Influences	.099	.202	.653	1.104	.717	1.699
Self-Efficacy	1.974	32.761	.000	7.197	3.661	14.148
Constant	-2.033	35.850	.000	.131		

*Sample size = 174/188

Discussion

The first hypothesis was that professional information sources, such as that from health professionals, books, and personal trainers, would have an impact on health capital. Such information sources may be seen as more credible resources and may be sought out by those with various medical conditions. However, the results were not statistically significant indicating that professional advice did not increase the likelihood of high levels of health capital. Therefore, the null hypothesis could not be rejected.

Ramirez et al (2013) also found that health professionals were not sought out as information sources in favour of mass media. These findings reject the results from other research that professional sources were taken as more credible by older adults (McKay et al, 2006). One reason why this finding was not evident in the current study may be because it focused on young adults (average age of 22 years), who may rely less on professional information sources. Previous research has also shown that information targeted to the specific needs of healthy consumers with more complex or acute medical needs may be more effective to communicate with such a cohort. Presumably, some of this targeted information could come from health professionals. This cohort would not be reflected in the current sample because most reported that they were satisfied with their health and there were no indicators of chronic or complex medical conditions in the student sample.

The second hypothesis stated that social influences, such as family members, friends, and media (the Internet and magazines), would increase the likelihood of increased health capital by subsidizing consumer information. However, the regression did not confirm this hypothesis and social influencers was not statistically significant. Therefore, the Null Hypothesis was accepted. Having access to social influencers did not predict health capital. This finding is not consistent with findings from some previous research that found magazine articles subsidized information and had a positive impact on healthy eating (Freisling et al 2009). Healthy eating would be included in health capital and would have shown up in this analysis. One reason for this difference may be that the study by Freisling et al (2009) focused on adolescents, while this study focused on college students. Possibly the relevance of magazine articles as a source of health-related information might wanes as a person matures from adolescent to young adult.

The last hypothesis stated that the higher one's level of self-efficacy for healthy eating/active lifestyle, the greater the likelihood of increased health capital. This assumption was borne out by the analysis. A high

level of self-efficacy increased the likelihood of having high health capital by more than seven times, thereby rejecting the Null Hypothesis. This finding confirms what has been discovered in previous research: that self-efficacy may be the most important contributor to healthy eating/active lifestyle and that it is a key component in motivating consumers to change their health behaviour. Yilmaz (2014), Porter et al (2003, 2008), and Lockwood et al (2012) all describe various aspects of self-confidence and self-efficacy. All contend that self-efficacy is a critical element in both motivation and producing actual lifestyle change. An interesting finding from the current study is that when professional advice, social influences, and self-efficacy, are compared as predictors of health capital, only self-efficacy emerges as being statistically significant.

Conclusions and Recommendations

This research examined how key influencers predicted health capital among university students. Health capital is a measure that captures one's total commitment to, and embracing of, a healthy eating/active lifestyle. Health capital is a measure focused on outcomes of behaviour.

Influencers of behaviour involve social interactions (such as involvement with friends and family), as well as media influencers (such as the Internet and magazines as measured in this research). It is very difficult to capture the essence of all of these influencers in a single study, and choosing different influencers (such as broadcast media), may have resulted in different findings. Future research should consider other influencers and information sources.

It is possible that combining professional advisers and social influencers in a different regression equation without including self-efficacy would show that they have a statistically significant result. However, such an approach would be testing a different model than in the one tested in the current study. The significance of self-efficacy as a predictor of health capital among university students does not preclude other significant predictors, or combinations of predictors, in future studies. However, it does demonstrate the importance of self-efficacy in creating behaviour change. This finding demonstrates that marketing efforts alone, whether employed by health care professionals directly or via media campaigns, have limited impact on the university cohort. This finding can be extended to social influencers which are frequently harnessed to communicate with health consumers. Clearly, any communication directed to university students that is designed to improve their health must first be geared to increasing their confidence in their ability to achieve the goal. Such an undertaking would likely require more engaging activities than marketing communications can provide, possibly involving formal wellness training as recommended by Lockwood et al (2012) or a social marketing approach as suggested by Deshpande, Basil & Basil (2009). Social marketing can influence self-efficacy by encouraging voluntary behaviour change with appealing options along with appropriate social, environmental and policy supports.

This research has some limitations which should be considered when interpreting the research results. The sample was drawn from two universities in Nova Scotia. While the sample size was robust, it is not likely to be representative of university students as a whole. Also, the sample skew to first and second year undergraduate students, while delivering the younger university cohort which was of great interest in this study, may not be a fair representation of university students in general. However, the results of this study are intriguing and they contribute to research in health marketing, while also providing ideas to guide future research into the marketing of healthy eating/active lifestyle to the student population in Nova Scotia.

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SOCIAL-COGNITIVE MECHANISMS AND COUNTERPRODUCTIVE COMPUTER SECURITY BEHAVIORS (CCSB): AN ANALYSIS OF LINKS

Very little research has been carried out to determine the links between social-cognitive mechanisms and employees' counterproductive computer security behaviors (CCSB). Accordingly, we aim to contribute to the literature in this area. A research model that drew from the social cognitive theory (SCT) was proposed and tested with data collected from professionals employed in Canadian organizations. Data analysis using the partial least squares (PLS) technique confirmed that outcome expectations (personal) and self-regulation were significant factors that impacted employees' decisions to engage or not in CCSB. The other considered SCT factors (i.e., observational learning, self-efficacy, and outcome expectations (organizational) in our study yielded insignificant results. The study's implications for practice and research are discussed.

Introduction

Quite often, organizational actors (i.e. employees) engage in dysfunctional or counterproductive behaviors (Spector & Fox, 2005; Mount et al., 2006; Ifinedo, 2009; Semmer et al., 2010). In fact, Mount et al. (2006, p.591) commented that "An important class of behavior that represents one component of employees' work performance is counterproductive work behaviors (CPBs)." There is a variety of CPBs including deviance, antisocial behaviors, workplace aggression, theft, sabotage, and so forth (Mount et al., 2006; Semmer et al., 2010; Chang & Smithikrai, 2010). However, the focus of this current study is not on CPBs as prior research has addressed such an issue in the extant literature (Semmer et al., 2010). Rather, our attention will be on counterproductive computer security behaviors (CCSB), a related concept, which refers to employees' computer use practices and general information security behaviors that go against the legitimate interests of an organization. Examples of CCSB considered in this study include visiting non-related websites at work, leaving one's work laptop unattended, not updating work-related passwords regularly, and so forth. The increased use of computers systems, networks, and information systems (IS) by organizational actors has given rise to CCSB and related behaviors (Moody & Siponen, 2013).

Employees' CCSB and related computer behaviors can have enormous negative consequences on an organization's IS resource (Hu et al., 2011; Ifinedo, 2012). In general, employees can directly or indirectly threaten their organizations' information and data resource especially where they choose to engage in behaviors that are counterproductive to organizational ideals (Stanton et al., 2005; Vance et al., 2012; Merhi & Midha, 2012). Stanton et al. (2005) commented that "appropriate and constructive behavior by end users, system administrators, and others can enhance the effectiveness of information security while inappropriate and destructive behaviors can substantially inhibit its effectiveness." It has to be noted that organizational IS when breached either due to employees' CCSB or other reasons can cause a variety of setbacks including financial loss, bad publicity, loss of credibility, legal, and regulatory problems (Hu et al., 2011; Andrews et al., 2013). Not surprisingly, savvy organizations tend to motivate their employees against engaging in CCSB and related behaviors (Moody & Siponen, 2013). Organizations also deploy technical solutions to deal with such concerns (Ifinedo, 2014; Crossler et al., 2013). Our objective in this study is not on technical solutions to containing threats to organizational IS resource. Rather, our attention is on human agents (i.e., organizational employees) who have been seen as the weakest link with regard to ensuring the safety of IS assets and resource (Stanton et al., 2005; Ifinedo, 2014).

In agreement with Stanton et al. (2004), we acquiesce that prior studies tended to pay very little attention to issues concerning employees' security behaviors such as CCSB in the work place. In understanding factors or issues contributing to employees' desire to engage in CCSB, past research suggest that perspectives from environmental and/or social and cognitive influences (Merhi & Midha, 2012; Moody & Siponen, 2013) greatly impact an individual desire to engage in CCSB or not. We concur with this viewpoint given that the workplace is a social system where an individual's behaviors can be directly or indirectly influenced by their peers' (Robinson & O'Leary-Kelly 1998). Additionally, regarding cognitive abilities, the amount of skills that an individual possess to accomplish a target behavior is of paramount value in ensuring success with that act or behavior (Bandura et al., 1977). Social and cognitive imperatives form the bedrock of social cognitive theory (Bandura, 1986), which serves as this study's background theory.

It is worth noting that our study is among the first of its kind to empirically examine the links or relationships between socio-cognitive mechanisms and CCSB. Knowledge of the factors influencing employees' CCSB at work is vitally important for management as insights into such behaviors would facilitate the emergence of organizational measures and policies to control related activities. Academia benefits from our endeavor given that we employ an under-explored and under-utilized theoretical framework, i.e. SCT, in the discourse of end users' (employees') security behaviors at work in the literature (Leonard & Cronan, 2001; Ifinedo, 2012; Bulgurcu et al., 2010; Hu et al., 2011; Hovav & D'Arcy, 2012; Merhi & Midha, 2012; Moody & Siponen, 2013; Ifinedo, 2014). These foregoing researchers used theories such as the general deterrence theory, rational choice theory, protection motivation theory, and among others to explore end-users' security behaviors. Very few researchers have focused on social-cognitive underpinnings that could impact such behaviors (Stanton et al., 2004; LaRose & Kim, 2007). To that end, our study is designed to fill this gap in the literature. Specifically, the research question we pose is presented as follows: What are the effects of relevant social-cognitive mechanisms on employees' desire to engage in CCSB?

Literature Review and Background Information

Issues related to computer abuse and misuse (Hovav & D'Arcy, 2012), information security contravention (Workman & Gathegi, 2006), violation of information security policies (Bulgurcu et al., 2010; Hu et al., 2011; Ifinedo, 2014), unethical IS use (Leonard & Cronan, 2001), individual lapses and deliberate omissions of information security measures (Workman et al., 2008) have been previously studied. This current study indirectly advance the work of Stanton et al. (2005) who proposed taxonomy of end-user security behaviors, which is similar to our conceptualization of CCSB. Their taxonomy included "High-end" and "Malicious" end-user security behaviors, for example, an employee who breaks into an employer's protected IS to steal a trade secret or an "employee [who] configures a wireless gateway that inadvertently allows wireless access to the company's network by people in passing cars", and so forth. Their "Low-end" and "Non-malicious" end-user security behaviors included items such as choosing a bad password and responding to SPAM email. For illustration purposes, our attention in this study will be on "Low-end" and "Non-malicious" issues; others considered such issues to be important for understanding end-user security behaviors (Guo et al., 2011).

Following a series of informal discussions with practitioners in the area, consultations with IS professors, and a literature search in the area (Stanton et al., 2005; Warkentin et al., 2012; Vance et al., 2012), we drew up a list of CCSB (Table 1), which clearly depict "Low-end" and "Non-malicious" end user security behaviors. In line with our description of CCSB, these acts can lead to disastrous outcomes for an organization's information resources and IS if allowed to occur. For example, employees who share work-related passwords with others, respond to spam emails (laden with Trojan spyware), and leave their work laptop unattended are inadvertently providing means for outsiders to gain access to their organizations' IS resources. We stress that "High-end" and "Malicious" end user security behaviors were not considered in this present study; an opportunity for that aspect will arise in the future.

Table 1 The list of CCSB considered in the study

#1	Responding to spam (i.e. unsolicited emails)
#2	Using weak passwords at work
#3	Not updating work-related passwords regularly
#4	Visiting non-related websites at work
#5	Not updating anti-virus and/or anti-spyware software at work
#6	Not logging out of secure systems after use
#7	Not always treating sensitive data carefully
#8	Allowing one's family (i.e. children) to play with work laptop
#9	Downloading unauthorized software (i.e. freeware) onto work computer
#10	Pasting or sticking computer passwords on office desks
#11	Disclosing work-related passwords to others
#12	Leaving your work laptop unattended

Theoretical Foundations and the Research Model

Social cognitive theory

The social cognitive theory (SCT) is a social learning theory proposed by Bandura (1986). The SCT is used in several disciplines including management, psychology, education, IS, and so forth. It posits that individuals acquire and maintain behaviors by emphasizing external and internal social reinforcement. The two main determinants of behavior are environmental and psychological or personal determinants. Other researchers have expanded the building blocks of the SCT (Wood & Bandura, 1989; Lent et al., 1994). Among the core concepts or mechanisms associated with the SCT framework are self-efficacy, observational learning/modeling, self-regulation, and outcome expectations (personal and organizational). All these concepts are considered important in influencing behavior. Next, we will describe the concepts used in this study.

Self-efficacy: This refers to one's ability to organize and execute courses of action required to produce a given attainment or perform a specific behavior (Bandura, 1986). It is the level and judgment of an individual's confidence in his or her ability to successfully perform a behavior (Wood & Bandura, 1989).

Observational learning/modeling: This is the learning that occurs through observing the behavior of others (Bandura, 1986; Wood & Bandura, 1989). This learning suggests that people can witness and observe a behavior conducted by others and then reproduce those actions. A social model, e.g. co-worker/supervisor, is important in observational learning. Namely, the learner observes what the model does, which they later imitate.

Self-regulation: This refers to the process of taking control of and evaluating one's own behavior (Wood & Bandura, 1989; Ormrod, 2012). It establishes a link between one's beliefs about standards and behavior. Broadly, people motivated by fulfilling valued goals are dissatisfied by substandard performances (Wood & Bandura, 1989). Thus, through self-evaluated reactions, people monitor and keep their conduct in line with acceptable personal standards (Wood & Bandura, 1989).

Outcome expectations refer to "beliefs about the likelihood of various outcomes that might result from the behaviors that a person might choose to perform, and the perceived value of those outcomes" (Glanz, et al., 2008, p. 172). Following Compeau et al.'s (1999) approach, we divided this variable into two aspects: personal and organizational. Outcome expectations (organizational) are extrinsic, e.g. success of one's organization, whereas outcome expectations (personal) are intrinsic in nature, e.g. rewards and self-accomplishment.

Research Hypotheses

Drawing from the foregoing discussions, the research model is presented in Figure 1. That said, in any organization, employees' confidence about their knowledge and skills regarding CCSB determines whether they choose to engage in such behaviors. Naturally, those with higher levels of knowledge about information security issues and consequences related to poor choices or actions would be less inclined to indulge in CCSB (LaRose & Kim, 2007). By the same token, those lacking knowledge in such matters may knowingly or unknowingly engage in CCSB. Past studies confirmed that individuals with high IS security capabilities and competence tend to follow organizational information security guideline and seemed to understand the dangers of noncompliance (Bulgurcu et al., 2010; Ifinedo, 2014). Hence:

H1: *Self-efficacy regarding computer-related security issues will have a negative relationship with CCSB*

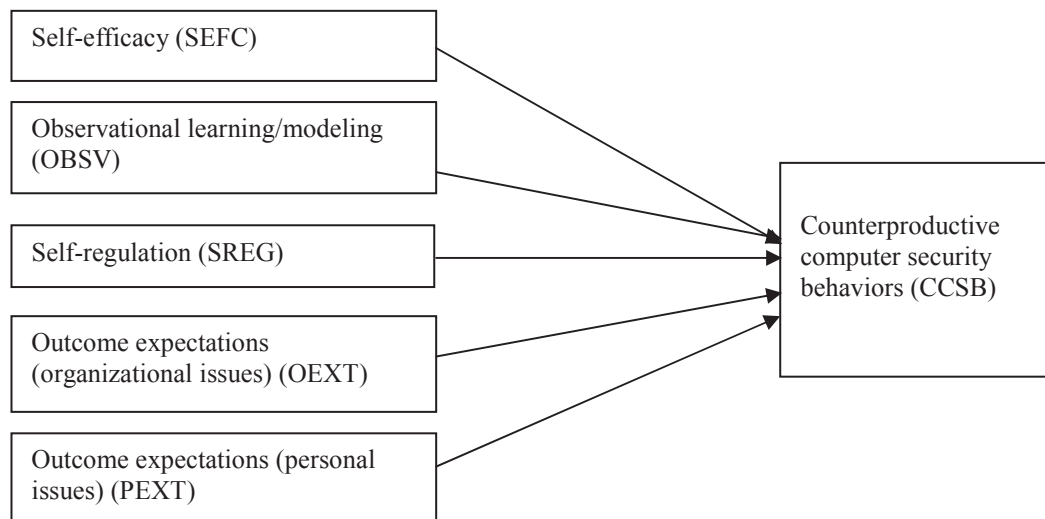


Figure 1 The Research Model

Given that the workplace is a social milieu, the behaviors of influential coworkers/supervisors are oftentimes imitated by other workers (Robinson & O'Leary-Kelly 1998). Along the same line of reasoning, workers may be influenced by coworkers'/supervisors' computer security behaviors and practices. Previous research reported that subjective norm or group influence mattered in employees' desire to comply with their organizations' IS rules and procedures (Bulgurcu et al., 2010; Guo et al., 2011). Accepting that organizations generally seek to promote acceptable computer security values in their contexts (Hu et al., 2011; Andrews et al., 2013) and group influence matters in such situations we believe acceptable values and ideals would permeate the thinking and behaviors of employees at work. As a consequence, employees may learn or imitate pervading acceptable computer-related security behaviors, in this instance, shun CCSB. Hence:

H2: *Observational learning/modeling regarding computer-related security issues will have a negative relationship with CCSB*

Self-regulatory competence is an important developmental task that enhances human functioning (Schunk & Zimmerman, 1997). People who are motivated to self-regulate their learning processes tend to have higher personal standards for specified outcomes (Wood & Bandura, 1989; Ormrod, 2012). In the same vein, employees who engage in self-evaluative processes regarding engaging in CCSB are more likely keep their computer-related security conducts in line with acceptable personal standards and their organizations' (Wood and Bandura, 1989). Thus, it is to be expected that employees' self-monitoring in such matters will dissuade them from engaging in CCSB. Hence:

H3: *Self-regulation regarding computer-related security issues will have a negative relationship with CCSB*

Organizations knowing the negative fallouts arising from workers' indulgence in CCSB frown against such behaviors (DTTL, 2012). In an ideal situation, where an organization's outcome expectations related to CCSB are known, it is likely that workers in such a setting would be less inclined to engage in CCSB. It is worth mentioning that the forgoing expectation may not hold in contexts where "high-end" and "malicious" behaviors are under consideration. In the same vein, individuals with favorable outcome expectations related to CCSB could be more likely to keep their computer-related security conducts in line with acceptable personal standards (Wood & Bandura, 1989; Ormrod, 2012). Past studies confirmed that people possessing positive outcome expectations have more intentions to share knowledge in specified areas (Tsai & Cheng, 2010) and may see less need to engage in antisocial computer-related activities (LaRose & Kim, 2007) like CCSB. Hence:

H5A: *Outcome expectations (organizational) will have a negative relationship with CCSB*

H5A: *Outcome expectations (personal) will have a negative relationship with CCSB*

Research Methodology

Research method, data collection, and participants

To validate our research model, we used a field survey, which is in fact a pilot study for an on-going research project. Participants were solicited from the researchers' contacts list on a professionals' social networking website, LinkedIn. Only participants working in Canada were contacted. All participants were motivated by thirty (30) \$25 gift certificates and a promise to share the summary of the results with them. Importantly, participation in the study was voluntary and respondents were assured that individual responses would be treated with anonymity and confidentiality.

Using random sampling, a total of 150 individuals with experience in CCSB and related issues were invited to complete the survey instrument, which was hosted online (Fluidsurvey.com). Sixty five (65) usable responses were collected from the initial 150 respondents contacted; thus, the effective response rate for this pilot study was 43.3%. The response rate is considered adequate for a study such as this one.

Demographic information about the respondents is presented as follows: 31 are males (48%) and 34 are females (52%) with many of them (about 91%) having university education. Several respondents (86%) are in the 21-40 years age range. On average, respondents had 3.2 years (S.D. = 5.4) tenure at their current organizations. Some participants' job titles included financial manager, project manager, business analyst, IS consultant, and senior accountant. Diverse industries such as energy, services, manufacturing, healthcare, and so forth were represented in our sample. The data sample included an even distribution of organization size and annual revenue.

Common method bias (CMB) cannot be ruled out in our study as the views of only an individual in the sampled organizations was used (Podsakoff et al., 2003). CMB refers to a bias in the dataset due to factors external to the measures used in the study. We made an attempt to contain such biases by soliciting participation from diverse industries and sectors. With such heterogeneity in our data sample, the potential for biases arising from concerns diminishes. Furthermore, the procedural remedies for controlling CMB, as recommended by Podsakoff et al. (2003), were followed; namely, clear and concise questions were used in the questionnaire to reduce participants' apprehension. In addition, a statistical procedure—that is, the Harman's single factor test—was used to assess whether CMB was problematic for the data sample. The test result showed 8 distinct factors were extracted, the first factor accounted for 22.2% of the variance to indicate that CMB was not problematic for our data. Namely, no single factor explained the majority of the variance in the model.

Operationalization of the study's constructs

CCSB is the study's dependent variable; its measuring items, which are indicated in Table 1, are partly sourced from the literature (Stanton et al., 2005; Warkentin et al., 2012; Vance et al., 2012) and from discussions with working professionals with knowledge in the area. First, the study's participants were asked to check the CCSB that they indulged in within the last 6 months. The responses of participants with entries of less than 5 CCSB from the list of 12 options were dropped in this study. Second, participants were asked to indicate how often they have indulged in the CCSB listed [the 12 items]". Their responses were assessed on a 7-point Likert scale ranging from "Almost never" (1) to "Almost always" (7). With respect to this exercise, frequently cited CCSB with acceptable weight loadings (more of this later) included items #1, #3 - #6, #8, #10, and #11 from the 12 items; these were the CCSB items used in the final data analysis.

The self-efficacy (SEFC) construct was adapted from Bandura (1986) and Lin and Huang (2008). Three (3) items in this construct include statements such as "I believe I have the knowledge and ability to avoid engaging in CCSB." For the observational learning/modeling (OBSV) construct, we adapted measuring items from Wood and Bandura (1989). An example of the items used to represent OBSV included "I am motivated by coworkers'/supervisors' computer security behaviors and practices." For the self-regulation (SREG) construct, three (3) measuring items such as "I self-monitor my activities to make sure I do not inadvertently engage in CCSB" were adapted from Wood and Bandura (1989). Outcome expectations (personal) (OUEP) and outcome expectations (organizational) (OUEO) were taken from

Compeau et al. (1999); three statements including “If I don’t engage in CCSB, my sense of accomplishment will improve” and “By not engaging in CCSB, the successful functioning of my organization will be assured” were used to represent these constructs. All the measuring items were assessed on a 7-point Likert ranging from “Strongly disagree” to “Strongly agree”. The descriptive statistics of constructs are shown in Table 2.

Data Analysis

The partial least squares (PLS) technique was used for data analysis. PLS is similar to regression analysis; however, it allows the use of latent constructs. It is suitable for prediction and also allows the use of small sample sizes (Chin, 1998; Tenenhaus et al., 2005). PLS supports both formative and reflective models. The ad hoc rule of thumb for using PLS is that the sample size should be at least 10 times the largest number of structural paths directed at a particular latent construct in the structural model (Chin, 1998). In this regard, a sample size of 50 would be considered adequate for this study; however, the study sample is 65. The PLS software used in this study was SmartPLS 2.0 (Ringle et al., 2005). PLS offers information regarding the assessment of the measurement and structural models.

Measurement model

Chin (1998) provided information about acceptable psychometric properties for reflective models. The main criteria are (a) item loadings in a confirmatory factor analysis (CFA) exceed 0.70; (b) the internal consistencies exceed 0.70. To ensure this criteria was met in our model, we first checked the PLS results to see whether the items load were up to or greater than the threshold value of 0.70. Only an item in the outcome expectations (organizational) did not meet the criteria and was dropped from the subsequent data analysis. Composite reliability (COR) and Cronbach’s alpha (CRA) values above 0.7 are considered adequate for assessing internal consistency of variables (Nunnally, 1978; Chin, 1998). The COR and CRA entries in Table 2 show that the study’s data is consistently above 0.7.

To assess convergent validity, Fornell and Larcker (1981) recommended that the average variance extracted (AVE) criterion be followed in assessing convergent validity. An AVE value of 0.50 is ideal. This study’s AVEs, as seen in Table 2, were adequate. The discriminant validity is assured when the following two conditions are met: (a) the value of the AVE is above the threshold value of 0.50; (b) the square root of the AVEs is larger than all other cross-correlations. Table 2 shows that the AVE ranged from 0.67 to 0.84, and in no case was any correlation between the constructs greater than the squared root of AVE (the principal diagonal element). Thus, the results indicated that the study’s measures were psychometrically adequate.

Table 2 Means, Composite reliabilities, Cronbach alphas, AVEs, and Inter-construct correlations

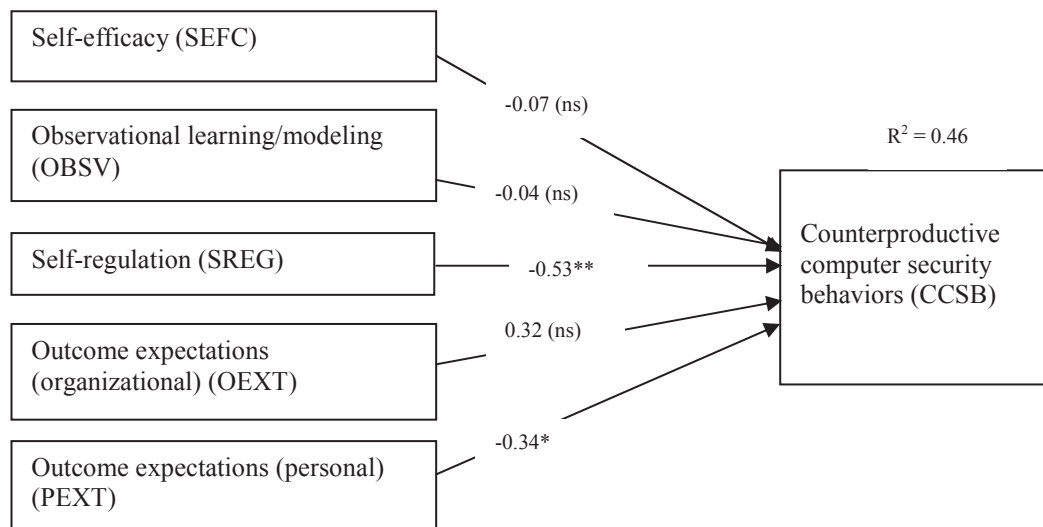
	Mean SD)	COR	CRA	AVE	CCSB	OBSV	OEXT	PEXT	SEFC	SREG
CCSB	NA	NA	NA	NA	NA					
OBSV	3.81 (1.87)	0.89	0.85	0.67	-0.25	0.82				
OEXT	4.19 (1.61)	0.90	0.84	0.75	-0.09	0.19	0.87			
PEXT	3.75 (1.68)	0.87	0.79	0.69	-0.38	0.30	0.50	0.83		
SEFC	5.06 (1.49)	0.94	0.91	0.84	-0.28	0.22	0.40	0.25	0.92	
SREG	4.65 (1.52)	0.87	0.77	0.68	-0.60	0.27	0.28	0.33	0.43	0.82

Notes: NA = Not applicable; SD = standard deviation; the bold fonts in the leading diagonals are the square root of AVEs; Off-diagonal elements are correlations among latent constructs.

For the study's formative construct, i.e. CCSB (the dependent variable), the examination of weights in the principal component analysis is suggested in lieu of evaluation of loadings in common factor analysis (Chin, 1998; Petter et al., 2007). The results show that the weights of formative indicators are significantly linked with the CCSB construct. Second, we took note of the fact that formative measurement model are based on a multi-regression that disapproves of multicollinearity (Diamantopoulos & Winklhofer, 2001). The presence of multicollinearity can destabilize the model. A variance inflation factor (VIF) test is suggested. VIF statistics for the items ranged from 1.4 to 1.8, below the recommended 3.3 threshold (Petter et al., 2007), to suggest that high multicollinearity was not present in the data.

Structural model

The structural model provides information about the path significance of hypothesized relationships using the path coefficients (β) and squared R (R^2). Path significance levels (t-values) are estimated by the bootstrapping method with a sample of 1000 cases. The SmartPLS 2.0 results for the β s and the R^2 are shown in Figure 2. All independent variables explained 46% of the variance in CCSB, which shows the model, has significant value (Chin, 1998).



Path significance: * p<0.05; ** p<0.001; ns = not significant

Figure 2. The PLS results

Hypotheses H1 and H2 were unsupported by the data. A plausible explanation for the lack of support for these hypotheses might be due to extraneous influences. For example, it might be possible that our participants work in settings where there are no clear social models for CCSB and related issues. It is possible that they do not perceive their individual self-efficacy regarding computer-related security issues to be adequate. The result might also be reflecting reality, for example, the participants might believe that their outcome expectations (organizational) are not in alignment with measures scoped to address CCSB. We are uncertain of this fact as we did not control for such issues in the study. That said, consistent with predictions, H3 (self-regulation) was found to have a significant, negative association with CCSB. Similarly, H5A confirmed that employees' Outcome expectations (personal) have a significant negative relationship with CCSB.

Discussions and Conclusion

Our research offers both theoretical and practical implications for the management and understanding of end-user (employee) security issues such as CCSB. By drawing from the SCT to conceptualize mechanisms or factors that could lead to employee's desire to shun CCSB in the workplace, we hope to have initiated focus on a key issue confronting both academicians and practitioners (Stanton et al., 2004; 2005; Bulgurcu et al., 2010; Hu et al., 2011; Andrews et al., 2013). Other researchers could be enticed to further explore the phenomenon, either from our perspective or incorporate other relevant concepts from other theoretical frameworks pertinent to our research model. Such lines of research may further explicate why individuals engage in CCSB at work.

Deeper knowledge in the area may lead to the emergence of a process-oriented analysis (step-by-step courses of action to follow) of potential social or environmental and cognitive factors that could encourage employees' disengagement from CCSB. Our work, though one of the first studies of its kind in this area of research, mainly serves to provide a base for others. We advance the effort of Stanton et al. (2005) and others and it complement insights on CWBs (Spector & Fox, 2002; Mount et al., 2006; Semmer et al., 2010) as we offer information in the area of CCSB. Our data analysis supported previous studies that suggested that individuals' self-regulation and their outcome expectations have bearings on how they relate to target behaviors including antisocial computer-related activities (LaRose & Kim, 2007; Wood & Bandura, 1989; Tsai & Cheng, 2010; Ormrod, 2012). Theory development and knowledge accumulation are bolstered by such empirical insights.

For practitioners, our results suggest that personal outcome expectations are critically important in discouraging employees' engagement in such behaviors. To that end, management may proactively consider developing enterprise-wide programs that could serve to heighten individuals' attitudes and expectancies toward CCSB. Measures including the provision of rewards and recognition can be accorded employees who shun CCSB. Our results implied that such measures may be valued by workers who do not engage in CCSB.

The finding regarding employee's self-regulation in the context of CCSB is both useful and interesting; its significance is much appreciated given that our data analysis showed that learning or modeling of peers' computer behaviors plays no role in discouraging CCSB. Rather, the individual beliefs of a worker are what matter the most. One implication from this insight is that organizational recruitment efforts could be directed toward attracting workers that are able to set goals and maintain standards for themselves in all areas including behaviors related to CCSB. Such employees possess the ability to resist CCSB. Further to this, as there is ample evidence from various domains supporting the notion that when goals and objectives are externally set (e.g. management sets CCSB goals or ideals for employees), such is as strong or forceful in eliciting desired outcomes from a person who self-regulates his or her actions for the same stated goal (Locke & Latham, 1990). Management, in an attempt to discourage workers' engagement in CCSB, should endeavor to align organizational expectations on such issues with those of their workers. Our result indicated that favorable outcomes ensue when such employees' self-regulate in computer-related security issues. Management can gain more by defining CCSB goals and challenges that workers can aspire to achieve. Admittedly, such issues are context-specific and as such, beyond the scope of this current study.

Study's limitations and future research opportunities

There are limitations in this study: First, the data came from a cross-sectional field survey; longitudinal data may facilitate more insight. Second, the sample size of this pilot study though adequate for this preliminary work may be limiting in so far as producing a definitive claim on the subject matter; larger sample size may offer a more promising result. Third, participants might have provided socially desirable responses to some of the questions to negatively impact the results. Fourth, this study may yield more useful insights had it been done alongside qualitative research approach such as in-depth interview or focus group.

Future study should endeavor to overcome the shortcomings in this study. Attention should be paid to "High-end" and "Malicious" end-user security behaviors in the future studies. Other relevant aspects of SCT, e.g. social support and facilitating conditions and barriers could be explored.

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A STUDY OF FEMALE ADVENTURE TRAVELERS: MOTIVATIONS AND RISK PERCEPTIONS ¹

This research identified risks that women perceive before embarking on a Tall Ship travel adventure experience. It was found that most participants perceived the risk of social adaptability more so than the physical risks of working at heights (going aloft), weather events and other risks associated with tall ship sailing. Also motivations for embarking on the adventure included wishing to do something unusual that would challenge technical and social skills.

Introduction

Adventure travel has seen a significant growth over the past decade and by nature it involves risks greater than conventional tourism (Fletcher, 2011; Gyimothy and Mykletun, 2004; King and Beeton, 2006; World Tourism Organization, 2001). The view of adventure travel representing a method of bringing the “endeavour to extreme limits” (Gyimothy & Mykletun, 2004, p. 855) and offering some form of everyday life escape supports the notion of adventure travel being an activity focusing on overcoming challenges and taking great risk in doing so.

In 2009, George Washington University with the Adventure Travel Trade Association conducted their first study on adventure travel. The latest 2013 study shows a 65% year-over-year growth in the adventure travel market (Adventure Tourism Market Study 2013). As today’s market is driven by demand for such tourism products it is important to understand the motivations behind decisions to embark on adventure travel. There is also an increase in women participating in adventure tourism (Henderson & Roberts, 1998; Nolan & Priest, 1993) and there is little research on women’s motivations or risk perceptions to assist the industry even though there are many adventure travel companies that are targeting the female group.

Limited research has been conducted around the pursuit of risky outdoor activities and even less focus has been on the tall ship sailing industry. The following research has been inspired by a long-standing personal history of adventure traveling, in particular tall ship

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sailing, which combined with experience and curiosity, made for an obvious research topic for the master's thesis. The overall aim of this research was to identify what motivates female adventure travelers to partake in high-risk activities like tall ship sailing as well as to identify the risks as perceived by them.

Adventure tourism

Swarbrooke, Beard, Leckie & Pomfret (2003) define adventure tourism as “travel and leisure activities that are bought into in the hope that they will produce a rewarding adventure experience” (p.27). Adventure travelers seek experiences that often involve risk, exhilaration, stress and even fear (Bentley & Page, 2001). Adventure travel offers some form of everyday life escape and offers activities that may focus on overcoming challenges and taking risks. Swarbooke et al (2003) states the core characteristics of adventure travel to include “uncertain outcomes, danger and risk, challenge, anticipated rewards, novelty, stimulation and excitement, escapism and separation, exploration and discovery, absorption and focus (as well as) contrasting emotions” (p. 9).

Hodgson and Berry (2011) found that overcoming one's fear and accepting the challenge is an important part of the adventure. The activity gives the participant the thrill and also the satisfaction of conquering the challenge and personal growth. Schlegelmilch & Ollenburg (2013) found aspects as thrill, fear and risk as important elements in adventure tourism and words such as “challenge”, “conquering fears”, and “thrill” were associated with the term “adventure”. They concluded that facing these fears or challenges is the main motivator but fun still needs to be a big part of the activity. See Figure 1.

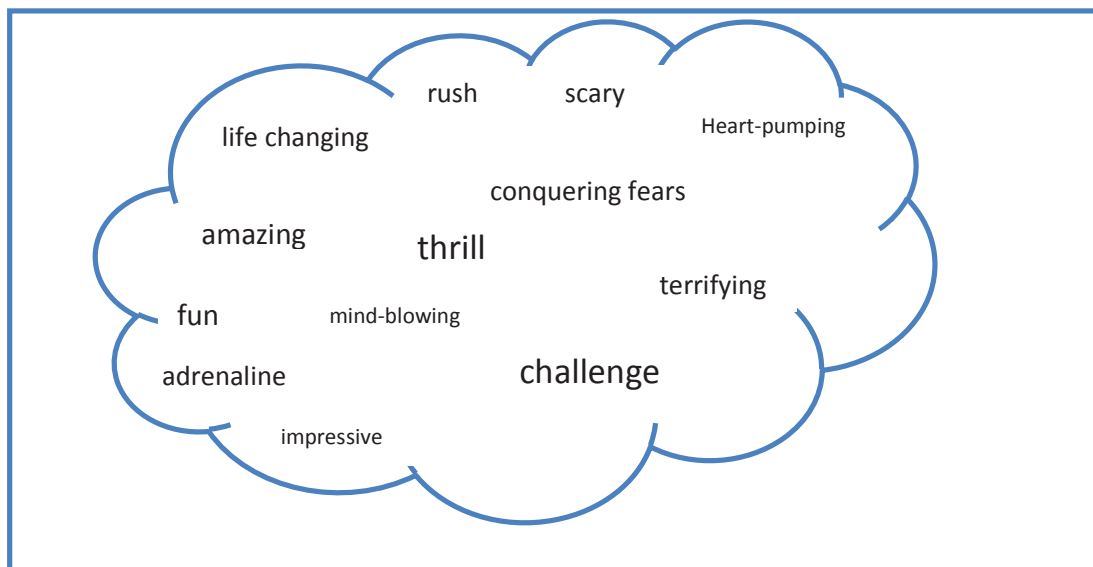


Figure 1: Association with the term ‘adventure’ from Schlegelmilch & Ollenbure (2013, p. 51)

Adventure tourism has been categorized on a continuum to explain the diverse types of behaviour with mild or soft adventure at one end and extreme or hard adventure at the other extreme (Swarbrooke, 2003). Tall ship travel would fit into the category of hard adventure with a focus on working the ship to learn seamanship and seafaring on longer voyages.

Women and adventure travel

Gender differences in risk taking has been widely researched (Breakwell, 2007; Elsrud, 2001; Flynn, Slovic & Mertz, 1994; Gustafson, 1998; Hudson & Inkson, 2006; Lepp & Gibson, 2003; Simpson & Siguaw, 2008; Slovic & Weber, 2002; Zukerman, 2007). Simpson & Siguaw (2008) found that perception of risk was not significantly related to gender. Sonmez & Graefe (1998) found gender does not influence an individual's perception of risk but other research such as Gustafson (1998) and Siegrist, Cvetkovich, & Gutscher (2002) found strong evidence of gender differences in both risk perception and risk taking. Gender is also correlated with other variables such as income, education, social background and work experience which can further impact risk perceptions. Reichal, Fuchs & Uriely (2007) found female backpackers tended to avoid risk but Rys (2011) argues that the increase of female adventure travelers is best described by their need to develop instinct of survival. McCulloch et al (2010) found in a study on sail training as an educational program, that there was a tendency for the women to more likely express anxiety on some measures but the small sample size prevented any conclusions.

Another study (Finkelstein & Goodwin, 2005) on tall ship sailing found the females as more likely to take advantage of the tall ship learning opportunities and showed a significantly higher level of relationship building onboard. Female trainees were found to achieve goals through the use of teamwork and cooperation as the male crew used leadership. The assumption that female travelers have a lower risk propensity than male travelers leads to the creation of stereotypes and possible discrimination.

Motivations and risks of tall ship sailing

What motivates one to take a prolonged voyage of work and commitment on the great sea? Is it the search for the ultimate rush and fear yet be fascinated by the unknown or is it a need to stand out and do what no one else has done? King and Beeton (2006) found that media coverage of adventure tourism increases the perception of risk, but rather than discouraging participation, it was found that it encouraged youth to participate and ignore the obvious risks.

Tall ship travelling has gained worldwide recognition for its original and adventurous characteristics (Swarbrooke et al, 2003). McCulloch et al (2010) in a major study on the real value of sail training, suggests that while in the past the focus has been on sailing for the purpose of an adventure, participants are now looking for more. Calling it a "powerful educative experience" (2010, p.661) McCulloch et al claim that in modern sail training programmes it is the

combination of traditional seamanship and the unique environment that provides the basis for learning and adventure.

This thesis was based on experience and research on a Nova Scotia based tall ship. One of the three-masted tall ships based on the East Coast of Canada is known for its sail training voyages around the world. Registered in the Cook Islands, the ship has been operating as a sail training ship since the first world voyage in 1997. It is unique for its long voyages and almost exclusive focus on seamanship and seafaring. Safety is a top priority for the ship and her crew. There is a statement on the ship's website: "it is a fact of maritime life that no ship that puts to sea is invulnerable or immune from accidents" (www.picton-castle.com). The Article of Trainee Engagement (Appendix III: 1-2) state:

The objective of the Voyage and of these Articles is to achieve a successful and safe seagoing and sail training experience for the Sail Trainee on terms (including economic and operational terms) that are reasonable for the Owners and the Vessel...Trainees join the Vessel fundamentally in order to obtain the benefit of the experience offered, including (without limitations) elements of sail training, acquisition of traditional skills of the mariner, personal growth, including interpersonal interaction and growth, exposure to other cultures and environments, and the general benefit of travel and adventure.

The Articles of Trainee Engagement make it clear that trainees should expect both the challenges and the satisfactions of a working traditional ship, which may include and cause discomforts, difficulties and dangers. Part VI of the Articles titled "Acknowledgement and assumption of risk and limitation of liability" outlines the potential risks associated with the voyage. It states "certain risks cannot be eliminated or reduced without destroying the unique character of the Voyage". Common examples of risk onboard include: working aloft, weather and sea conditions, sloping, and moving and/or wet decks. The Articles explain that making the decision to participate on the voyage "must be addressed with at least the same sober balancing of risk versus personal benefit" as one would take in making the decision against better known adventure challenges. Examples of such challenges are given such as mountain climbing, motor racing, scuba diving, white-water rafting, and solo aviation. Assuming full responsibility for and risk of bodily injury or death, the trainee is signing off on an important document. The document also explains the importance that each trainee must exercise the highest degree of self-reliance, care, self-awareness and awareness of the constant presence of risk.

As a sailing training vessel, the ship with its registration in the Cook Islands holds a number of safety certificates, including "Approved Training Program Certificate".

Methodology

A focus group was used consisting of three female tall ship adventure travelers to provide guidance in the development of a set of focused interview questions. Once the questions were designed the individual interviews were conducted via SKYPE and email. Recruitment of respondents occurred by using a letter that was sent out to all former trainees with

the criterion clearly stating “Participants must have sailed as a trainee, and be between 18 and 65 years of age”. Results included a total of ten participants that completed the interview questions.

The following questions were asked in the individual interviews.

1. Before joining as a trainee, explain what concerns did you have in relation to the risks involved with the trip.
2. During your stay, did your perception of risk change? Is so, why do you think it changed?
3. Explain what motivated you to join the ship.

The interviews were transcribed and data was organized into categories relating to the questions. The interviewees were labeled number one through ten. Most participants had no previous sailing experience prior to joining the tall ship, but the majority had some form of previous outdoor adventure experience, including camping, hiking and outdoor learning like scouts or wilderness training. Only a few participants had actual tall ship sailing experience. A large number of participants came from a working professional background, and thus left jobs in order to join the ship.

Results

All participants qualified for the age requirement, and the group ranged from 18- 47 years of age. Nine participants resided in North America and one was from the United Kingdom. No information on educational and socio-economic background was collected.

In response to the first question asking about what concerns they had about risks, the social aspect of joining the ship was a theme, consistently showing up in every interview. Here are some of the statements from the respondents.

“I was more concerned with the social aspect and the incredible learning curve than I was considering the risks involved ...”(3)

“I didn’t know what risks to be concerned about...I was more concerned with the personal stuff...”(4)

“...the biggest risk I perceived was that of completely changing the path I was on at the time... and the personal stuff, like sharing the space and overcoming my shyness....”(6)

“...I was more worried about the emotional risk than the physical...I wanted to fit in and have people like me...”(8)

The themes that emerged from the second question on what made participants change their risk perception was that with experience, confidence and training, some risks become more manageable and some became more real. The following are some examples of direct quotes.

“... as I became more experienced... I began to respect the sea more but was not afraid...”(3)

“...as my confidence and experience grew some of the risks were alleviated...but some just grew the longer I was onboard...” (5)

“...the more I know, the more I’m nervous...” (3)

“...in hindsight, not recognizing the risks was naïve...once I spent time onboard, I realized the importance of what had been outlined to me prior to the trip...the importance of on-board safety training...”(1)

“...it’s like once you do one scary thing and it goes well, it’s much easier to do others...”(8).

“...the concerns I had before I joined the ship stopped being worrisome once I was exposed to them...I engaged in risky and potentially dangerous tasks every day, but I was hyper vigilant about personal safety...”(10)

For some, having a “close call” did not only change the perception of risk, it also had an impact on their overall experience.

“...at first I felt fearless in the rig and had almost no fear of going aloft...a couple of close calls made me more hesitant and eventually I became terrified of going aloft...being overly turned in to the risk of being aloft...to my own detriment...”(6)

“...it all changed after I fell down from the boom and after slipping while aloft... (7)

Personal development was a theme in the responses and some said that the trip was a life changing experience.

“...the ship has changed my life in a way that no other experience could...not only did I learn about myself but the world around me...it opened my eyes in ways that are beyond explanation really...(1)

“...the experience was wonderful and I grew as a person...became more confident. I think of it every day... (8).

Another theme was being able to teach others was a very important outcome and had great value.

“...when new trainees came on, I became the one to go aloft with them....I was hyperaware of what to do up there to be safest, and would teach them too....(2)

“...later as I gained leadership responsibilities and became directly responsible for other people...pretty much everything looked risky, but I learned to balance one risk for another...(6)

“...I learned a lot...I mean I can learn what I need to learn and being willing to do that is half the battle...”(8)

“...I was taught how to manage risk...”(10)

The third question on motivations revealed various themes in the responses. In accordance with age, motivations for joining the tall ship varied from defining boundaries, taking on an adventurous challenge and wanting a life changing experience.

“...I wanted to sail around the world...” (5)

“...I had dreamed of sailing around the world on a square-rigger for years...just didn't know if it was possible... (6)

“...an urge for adventure, having sailed before I was longing for the ocean...” (7)

“...I had an enormous love for sailing and I was totally infatuated with ocean sailing...I was dying for adventure...” (9)

Another theme for motivations was labeled as a desire for change.

“...I wanted to be different...to be challenged and tested and live outside my comfort zone. I like that...I mean, I like being bold and daring within reason... (10)

“...I wanted a life change, I guess... I always loved the idea of adventure, even as a kid, so this was the perfect thing for me to do... (2)

“...I wanted to try sailing on a tall ship and see what I could do...I also wanted an adventure, a break from the norm...I just wanted to do something that not many people can say they have done... (3)

“...I was just at a crossroad in my life...I needed a break from reality and I wanted to go to places I'd never seen before and travel in a way that not many people get to do...” (4)

Discussion

Accepting the fact that adventure travel is increasing for young people (Cater, 2006), this research explored three areas: the perceptions of risk prior to joining the tall ship on a world sailing adventure, the changes in risk perceptions after the experience, and

motivations for taking the journey. Considering what the tall ship offers as an experience it is perhaps safe to assume that there is a risk element in joining a tall ship voyage and that it would play a significant role in the decision process to take the voyage. Weather, seasickness, and working at heights are the most common anticipated concerns (McCulloch et al, 2010). However this research found that the social aspect of joining a tall ship was perceived as the biggest risk. Other concerns did include financial considerations, being away from home and the actual skills required to participate in the sailing program. Only one respondent indicated going aloft as a major concern and none identified seasickness as a risk.

Based on the assumption that risk is a subjective matter, typically influenced by cultural, financial or social factors (King & Beeton, 2006; Kozak, Crotts, & Law, 2007; Law, 2006; Roehl & Fesenmaier, 1992; Slovic, 2000; Swarbrooke et al, 2003) the outcomes of this research is perhaps not surprising but it does challenge the view of Fletcher (2011) who claims that for most adventure travelers, it is not the actual experience of real risk that attracts them but merely the perception of risk. The research found that for some respondents, the real risks associated with sailing on a tall ship were ignored, in spite of the clear description in the Articles of Trainee Engagement. For the majority, the perceived risk of not being able to adapt socially was most common. From a female perspective, these findings can be related to those of Flynn et al, (1994) who found that female travelers, by nature, tend to worry about the social, health and safety issues more than male travelers.

An important point is made by Cater (2006) that although a close relationship exists between real risk and perceived risk, real risk is clearly a statistical measure, quantifiable and somewhat predictable whereas perceived risk “is an essence, and hence profoundly qualitative” (p. 322). This research findings could be explained as prior to signing up for the voyage, participants simply did not know of the risks involved and so did not describe any perceived ones. Perhaps the notion of tall ship life as described by Moreland (2004) is a reasonable suggestion as to why actual risks associated with tall ship sailing are not perceived.

The sailing ship life, while rigorous, is a rich one. Being under the sun and stars, feeling the sea breezes, visiting tropical islands and overseas ports, sailing before the tradewinds, and a strong, well-found square-rigged ship under your feet and in your hands – all make up an experience you will never forget (p. 5).

This portrayal of a tall ship as an adventurous activity is not representing the actual travel risks involved with such activities and may over sell the experience. The perceptions prior to joining the ship in this research were mainly positive and focused on the social elements of meeting new people and getting along with them.

Law (2006) found that establishing a level of confidence is a crucial aspect for adventure operators and McCulloch et al, (2010) agrees that with time, experience, development of self-confidence and skills, the perception of risk was likely to change. This view is consistent with this research where it suggests that with the experience came respect of the environment, appreciation for on-board safety, elimination of concerns relating to skill level, and in increased awareness on personal safety. The greatest changes were described by respondents

who had been exposed to the real risks, such as going aloft. It appears that a negative experience influenced the perception of risk in a negative manner. Some respondents found that the more experience they gained, the more risky they perceived sailing. However, for the majority, risk become more manageable or was alleviated as the experience of being a tall ship sailor increased their confidence.

The most frequent motivation stated in this research was the idea of doing something unusual and novel that challenge technical and social skills. This is consistent with McCulloch et al (2010) who found "...ideas of challenge and novel experience, meeting new people, and a general interest in simply being at sea and experiencing a seafaring or maritime environment" as the most frequent reason for participating in a tall ship experience.

This study focused on the female risk perceptions and motivations. Falconer (2011) discussed the "masculine traits of adventure narratives" (p. 66) and suggest that female travelers include elements of risk in order to feel fully accomplished in their journeys – journeys that often seek to develop self-confidence. Female travelers are perceived to be less risky and generally worry more about risk and danger (Breakwell, 2007; Nolan & Priest, 1993; Zuckerman, 2007). There is little evidence in this research to support this view. Most of the respondents stated that the idea of risk and danger made it even more exciting.

Limitations

This researcher recognizes that both the focus group and the individual interview respondents were known to the interviewer and all belong to the tall ship network. The objectiveness of both interviewer and interviewees may have been compromised. This is a small sample and cannot be used to make major conclusions.

Conclusions

Understanding how risk is defined in our society plays an important role in the understanding of adventure travel and risk perception especially as this travel niche is in a growth stage. When trying to understand the concept of adventure travel, it becomes apparent that risk plays an integral role, not only as being a real risk in the activity itself, but also in the perception and management of the risks associated with adventure activities. Extensive research has been done in the area of risk perception and adventure travel and the notion of seeing adventure for the thrill and personal satisfaction is accepted. Risk perception is subjective and factors such as age and experience can impact its degree. The most interesting find in this research was the social aspect of joining the ship being considered as the greatest risk by the majority of respondents.

This was a limited study of a small group and future research is required to further explore the risk perception and decision process for adventure travel especially for

women. This will decrease stereotyping and may open the door for more young females to consider tall ship experiences.

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Virtual Integration & Segmentation

The purpose of this paper is to extend Ashforth et al's (2000) integration-segmentation continuum by considering the virtual domain. The focus of the integration-segmentation continuum was on the multiple role identities of individuals and how they combined or separated their physical roles. Schultze's (2012) study illustrated that individuals can have a unidirectional or multi-directional influence between one's physical and virtual performance identities. By focusing on the virtual spaces that professors create when they teach online courses, I address the question of when and why professors create virtual environments that are similar or different from their physical environments.

Introduction

The anonymity of the online world enables individuals to create virtual environments that resemble the physical world in varying degrees. In academia, the virtual classroom is suggested as a way to cut costs (Harper, Chen, & Yen, 2004) or improving student access (i.e. enables more students to take courses from remote locations) (Allen & Seaman, 2007). The assumption is that technology will make it possible to cut costs by enabling people to interact as if they were in the same room through computer mediated communication (CMC). On the one hand, by making the virtual environment similar to the physical environment as much as possible, participants are not required to put as much effort into adapting to the new way of communicating. On the other hand, technology might also offer new possibilities that could potentially improve the communication process. Thus, creating virtual environments that are similar to the physical environment is not necessarily the best solution. The goal of this study is to take the professor's perspective in exploring the variables that instructors consider when creating their online course environments.

Starting with Goffman's (1959) role theory framework, individuals perform their roles and interact with others in settings that were fixed in space. At the time he wrote his seminal work, "Presentation of Self in Everyday Life," there were no virtual spaces or a readily accessible internet. Therefore, it is no surprise that his conceptualization of settings had the assumption of physical space. However, in recent years, various authors (e.g. Miller, 1995; Papacharissi, 2002; Gottschalk, 2010) have begun to use Goffman's (1959) work to describe and study virtual domains. Intuitively, it makes sense to use Goffman's work to discuss role performances and interactions because we are obviously "presenting" ourselves online when we log on to social media sites, create websites or avatars that represent ourselves or our work

identities. However, even though scholars (e.g. Miller, 1995) have made the “leap” to include virtual spaces in the role theory framework, many questions remain about how individuals create virtual spaces and interact within them. While cyberspace can be conceptualized as being transcribed from the physical world (Gunkel & Gunkel, 1997; Papacharissi, 2009), individuals might not necessarily want to replicate the physical world in the virtual world. Furthermore, being in the virtual world requires that each participant have a computer and communicate through technological tools. Even though the virtual world seems to merely offer another domain or “space” in which individuals can create environments and interact with others, technology mediates the interactions (Walther, 1996), thereby making the physical-virtual boundary different from the boundary between two physical domains.

The overarching research question of this study is, what makes it more likely that an individual will make the virtual world similar to his/her physical world and what makes it more likely that one will create an entirely different space in the virtual world? In light of the perception that online courses can be a possible replacement for traditional classes, how much professors try to duplicate the traditional classroom experience is an important practical matter because it is not clear whether the online classroom is always a suitable replacement for the traditional class environment. The focal context of this study will be on the professor who has taught both traditional (face-to-face) and online courses. The underlying assumption of this study is that individuals have at least some agency in creating their virtual environments to suit their needs and goals.

Literature Review

Theoretical Framework(s)

The theoretical foundation of this paper is Goffman’s (1959) conceptualization of the world as a stage. The purpose of this paper is to explore the nature of virtual interactions and performances as compared to their physical counterparts. Goffman (1959) conceptualized interaction specifically as face-to-face (FtF) interaction and roughly defined it as, “the reciprocal influence of individuals upon one another’s actions when in one another’s physical presence” (Goffman, p. 15). Taken literally, phone calls, video conferencing, and other types of business communication would not be termed as being interactions because either the physical or FtF aspect is missing. The performance also assumes physical presence because it is defined as, “all the activity of an individual which occurs during a period marked by his continuous presence before a particular set of observers and which has some influence on the observers” (Goffman, p. 22). Thus, a performance assumes the physical presence of observers. This means that co-workers interacting in a back room, out of the gaze of observers, would not be engaging in a performance but merely an interaction. Furthermore, the setting is also assumed to be geographically fixed unless the performer is in a parade, funeral procession, or other type of ceremony, where the location is dynamic. This is made explicit in his description of the physical aspects of the front region, “The ‘setting’ involving furniture, decor, physical layout, and other background items which supply the scenery and stage props for the space of human action played out before, within, or upon it” (Goffman, 1959: 22). Furthermore, it is assumed, “A setting tends to stay put, geographically

speaking, so that those who would use a particular setting as part of their performances cannot begin their act until they have brought themselves to the appropriate place” (Ibid., 22). Thus, the dynamics of virtual domains add an extra dimension that was not considered in Goffman’s conceptualization of a setting.

The Front is the “expressive equipment” (Goffman, 1959: 22) that one uses to define the situation to the observers. There is a fixed element in the front because the consistency is what makes the observer make sense of the situation. For example, uniforms help observers accept that the person wearing a uniform has a particular role and gives the observer confidence that the situation is what it is. If police officers wore varied types of street clothing, it would make it more difficult for observers to know whom to trust when their house has been burglarized. If we subdivide the expressive equipment into the setting and the personal front, we can see that the former is what stays in the physical location while the latter is what the individual carries with him/her when playing the role. For instance, a doctor’s office would be a place in which the patients would be the audience and the doctors, secretaries, nurses, and other staff would be the performers. The waiting room and the examination room would be the “stages” while any rooms that were only accessible to the office staff would be the “back region” or backstage area.

With the relatively recent increased use of the internet for professional activities such as teaching (Becker & Ravitz, 1999) and personal interactions (e.g. online dating) (Madden & Lenhart, 2006), cyberspace has become another “stage,” on which individuals can interact with other individuals while being in separate physical spaces, with the added feature of being able to exchange visual information with one another (e.g. in either photographs or video). Rather than relying on only audio and text information, recent developments in online technology have enabled users to see and interact with one another either in real-time (e.g. live performances or broadcasts) or asynchronously (e.g. distance education) (Berge, 1995). The fact that individuals have a bi-directional interaction with one another on the internet also makes it an improvement on previous communication technologies such as print media and television because those were unidirectional, with the users passively receiving the information. The bi-directional interaction is termed, “lean forward” (i.e. active) while the unidirectional interaction is termed “lean backward” (i.e. passive) (Nakatsu, Rauterberg, & Vorderer, 2005). By enabling active participation, online interactions seem to move closer to being “performances” with virtual space being the “setting” in the Goffman sense of the word.

Boundary Theory

While Goffman’s work sets the foundation for this paper, the specific starting point for theorizing in this study is boundary theory (Zerubavel, 1991; Nippert-Eng, 1995) and the basic idea that we create “mental fences” (Zerubavel, 1991: 2) to define one thing as being separate from everything else in time and space. In Goffman’s parameters for his work on impression management, the boundary between two domains is literal in the sense that it is a physical one. The focus of this paper is on the mental fence between the physical and virtual domains. In this study, the functional role (i.e. teacher) will remain the same but the environment will change, from the physical classroom to the virtual classroom. This is a type of intra-role boundary that has not been

discussed thus far and has relevance to today's world of work. The focus of this study is about professors creating intra-role boundaries around their physical and virtual classroom domains and how they either segment or integrate those two domains.

Integration and segmentation can be conceptualized as mindsets that individuals have when they combine or separate their different worlds in time or space (Nippert-Eng, 1996). For example, one can integrate one's personal life into one's work domain by displaying pictures of one's family on one's workspace (Nippert-Eng, 1995). Temporally, reminders and artifacts from the other domain can seep into one's consciousness and create a mental overlap between the two worlds, which would describe "integration". Segmentation is when individuals maintain a mental fence around a domain and refrain from thinking about it when one is not physically present in it. Coser (1991) highlights the idea that role segmentation is a learned skill that involves understanding interpersonal relationships and that social roles are constantly being negotiated, as opposed to being taken-for-granted because one's role is always in relation to others. For instance, if one is a leader, there are followers. The individual must learn how to play one's role in relation to the members of the role-set, which is defined as the "complement of role-relationships in which persons are involved by virtue of occupying a particular social status" (Merton, 1957: 110). This suggests that segmentation is not just about the individual's task-related skills such as a computer programmer's coding skills. An individual's position within a social structure helps to guide behavior of the individual and of others in the role set (Coser, 1991). For instance, in the military, where the social structure is very clearly marked with one's rank on one's uniform, enlisted members know that they ought to salute officers as a mark of respect. As the Manual of Military Training states, "the salute is rendered as a mark of respect to the rank, the position that the officer holds, to the authority with which he is vested." (Moss, 1917 :1124).

In the virtual classroom, the role set potentially changes from that of the physical classroom, beyond the fact that the students in each classroom will be different. In the virtual domain, many of the professors who were interviewed for this study said that they had a teaching assistant (TA) in the virtual class but not in their physical classes. The way each professor senses and interacts with students online is also different because the social cues are often removed in the virtual domain, whether it is because only audio is transmitted or because the course management system only allows the professor to see 4 to 8 students on the screen at a time. As a result of these constraints, professors might think of their classroom environments differently and choose to shape their virtual class environments differently, thereby segmenting the two domains. On the other hand, if the professor is teaching similar courses in both domains, it might be necessary for the two domains to be integrated at least in terms of content. It is not clear when and why professors choose to segment and integrate the physical and virtual domains.

Boundary Work - Processes of integration and segmentation

The context of home and work has been used for studies on managing multiple roles (e.g. Rothbard, 2001; Rothbard & Dumas, 2006; Rothbard, Phillips, & Dumas, 2005) and boundary work (Nippert-Eng, 1995, 1996), the focus of which is the mental or cognitive separation of one's domains. In other words, does one take work home and/or tend to home matters when one is at

work? When a different physical space for each domain is assumed, integration and segmentation are manifest by the mental activities that occur in each domain and in the “realm contents” (Nippert-Eng, 1996: 36) one uses in each domain. For instance, placing physical objects such as family pictures on one’s work desk or bringing one’s work home would be examples of using physical objects to integrate the work and home domains. However, if the context is integrating or segmenting one’s physical and virtual spaces, there are no physical objects but we have the opportunity replicate our physical environments in the virtual domain in varying degrees.

The degree to which one integrates or segments one’s physical domains can be placed on an integration-segmentation continuum (Ashforth et al, 2000). Individuals will not necessarily be at the extremes but rather, move along the spectrum, depending on the situation. If the context is the physical-virtual boundary, people can integrate the physical and virtual domains by duplicating and presenting realm contents from the physical environment in the virtual environment in the form of images on the screen or reproducing the physical in the virtual realm through speech or making an avatar move a certain way. It is also possible that one might try to replicate something from the virtual domain in the physical domain, such as the use of online tools in the classroom. In the context of the classroom, the use of online discussion boards would be an example of integrating something from the virtual domain in the physical domain.

One of the characteristics of the virtual domain is that there is often a relationship to a physical entity. One could argue that cyberspace is at least somewhat transcribed from the physical world (Gunkel & Gunkel, 1997; Papacharissi, 2009). In other words, the virtual domain is never entirely segmented from a physical space. This argument is similar to the argument that disembodied virtual identities, which are assumed to have no resemblance to a physical identity, cannot exist. If a person creates the avatar, it is assumed that the avatar will have at least some relationship with the physical identity because the creation came from the person’s mind and is therefore limited by the physical person’s imagination (O’Brien, 1999). Similarly, the creation of virtual environments is influenced by the physical spaces that one has seen or experienced.

The focus of this paper is on the setting of the performance. Rather than focusing on physically static settings, I will focus on the relationship between the construction of the virtual domain setting and one’s physical space. More specifically, how do professors integrate or segment their physical and virtual classrooms? In the next section, I will summarize some related works on the virtual domain that are relevant to this study.

Theory extensions to include the virtual domain

Previous studies have looked at performances in virtual space, when the physical assumptions about the various elements (i.e. physical presence and/or FtF interactions) of performance are removed. For instance, personal home pages are one way individuals can create a virtual front (Papacharissi, 2002) and interact with one another (Miller, 1995). However, if we compare the personal home page to how one might present oneself in person, the former is a static image that the individual creates that is much like a CV or resume while the latter is dynamic and

synchronous. Even when studying Computer Mediated Communication (CMC) with a multimedia context (e.g. Soukup, 2004), the assumptions about performance and interactions change because there is no longer a physical presence and the FtF aspect is not always used. Sometimes, it might seem as though there is FtF interaction but it is not because the participants are represented by avatars (e.g. Morie, 2008; Schultze, 2014) and not images of the participants themselves. In the virtual classroom environment, the environment can be made up of a combination of video, audio, and text communication tools. The variability of the technological constraints (e.g. availability of tools, asynchronous vs synchronous format, etc.) might have an effect on how professors integrate or segment their physical and virtual classrooms environments.

Previous work on Goffman's framework as it relates to the virtual environment has mainly focused on the individual's identity performance and interactions with others in the virtual domain. For example, Schultze's (2010, 2014) work on virtual identity performance focused on avatars and the individual's identity performance. Similarly, Gottschalk (2010) studied the interaction of avatars in Second Life. In Goffman's terms, they focused on the personal fronts and not the settings. The focus of this study is on the settings that are created in the virtual domain. Professors who teach both on-ground (traditional) and online courses are an ideal sample because each professor's on-ground classroom is the reference point to which their virtual classroom can be compared. It is the relationship between the the traditional setting and the virtual setting that is the focal context of this study.

Computer Mediated Communication (CMC) as a medium for presentation of self

Computer Mediated Communication (CMC) can be defined as, "a process of human communication via computers, involving people, situated in particular contexts, engaging in processes to shape media for a variety of purposes" (December, 1997) or more simply, "communication that takes place between human beings via the instrumentality of computers" (Herring, 1996: 1). Thurlow, Lengel, & Tomic (2004) elaborated on the core concepts to identify the assumptions of CMC. The "computer" and "mediated" concepts were important in the technical sense. The main points were that we need to think about what a computer is (because sometimes they are not salient or visible) and that the computer mediates the communication. The most relevant insight for this study was that communication is dynamic (e.g. word meanings can change over time), transactional (i.e. the negotiation of meaning between individuals), multifunctional (or multi-purpose), and multimodal (verbal and non-verbal). Each of these aspects of communication enable individuals to create identity, relationships, and community, whether they are online or offline. In CMC, individuals communicate through computers to create online identities, relationships, and communities, which are potentially very different from those that are created in physical spaces.

In the context of the online classroom, professors create their online teaching identities and form relationships with students, while creating learning communities that enable students to thrive intellectually. CMC is a relevant theoretical lens that complements Goffman's (1959) work on impression management and boundary theory (Zerubavel, 1991; Nippert-Eng, 1995) because it is through CMC that individuals create virtual environments and identities. CMC also highlights the differences between physical worlds and virtual worlds. Extant theoretical work has proposed that CMC would enable individuals to transcend social

boundaries more easily (e.g. Hiltz & Turoff, 1978) and create a “more liberated way of being” (Postmes, Spears, & Lea, 1998: 690) because of the increased anonymity of participants. For instance, if all participants in an online chat room are identified only numbers or fictional names with no identifying characteristics, the only judgment that each participant can make of one another will be based on the text communication that is shared on the screen. Similarly, if students in an online course only have limited information about one another and the professor has never met any of the students, it would seem that problems of playing favorites or making biased judgments based on traditional power and status differences would disappear (Haraway, 1990; Mantovani, 1994; Myers, 1987; Poster, 1990) and high status individuals were predicted to be less likely to dominate online discussions than in FtF group discussions (Kiesler & Sproull, 1992). It is the control over one’s anonymity that seems to be the key distinction between one’s physical and virtual identity. With this anonymity aspect in mind, it is possible that professors will shape their virtual classes to either perceive the anonymity as an advantage or reduce the anonymity to make the virtual classroom resemble the physical classroom.

Anonymity in the Virtual World

Within the CMC literature, the Social Identity Model of Deindividuation Effects (SIDE) (Reicher, Spears, & Postmes, 1995) is a theory that predicts that the anonymity inherent in CMC can potentially enhance power relations if a common group identity is salient (Spears & Lea, 1994; Postmes et al, 1998). However, the predicted mechanism for the enhanced power relations is different from that in deindividuation theory, (Festinger, Pepitone, & Newcomb, 1952), which posits that individuals who become anonymous in a crowd will feel that they are unaccountable and lose their sense of self identity and participate in antinormative behavior (Diener, 1980; Zimbardo, 1969). SIDE predicts that the antinormative behavior is due to a shift from adherence to a personal identity to a stronger adherence to a social identity. In other words, when groups behave badly, it is not because the individuals feel anonymous but rather, they are identifying more strongly to the salient social identity and conforming to the group norms. Postmes et al (1998) further argue that while the anonymity experienced in CMC might be liberating, it is not the depersonalization aspect of the self and others (Turner, Hogg, Oakes, & Reicher, 1987) that leads to the increased salience of the social identity. Depersonalization is the “tendency to perceive the self and others not as individuals with a range of idiosyncratic characteristics and ways of behaving, but as representatives of social groups or wider social categories that are made salient during interaction” (Postmes et al, 1998: 698). As a result, the boundaries between the in group and out group (of the social category) will be made more salient online because the differences between individuals will be less salient while the social categories will be more salient.

In the online classroom, the anonymity might either make it possible for the students to be more outspoken and candid or increase the salience of a social category (e.g. professor, student, gender, age, etc.). From the professor’s perspective, the anonymity can have positive or negative implications for how one teaches and prepares to teach. On the one hand, deindividualization theory (Festinger, Pepitone, & Newcomb, 1952) would predict that the anonymity might make it easier to get students to participate and engage in candid discussions regardless of their offline social status. On other hand, SIDE would predict that students might

depersonalize and adhere more tightly to their revealed social identities. However, in the case of the online classroom, individuals do not necessarily give a lot of information (beyond their names) about who they are in terms of social identity. This might be an opportunity for professors to control how candid their online class discussions will be. However, it is not clear if professors consider the amount of anonymity in their classrooms. It is also possible that there might be a relationship between the way professors control their own anonymity and the way they present themselves online and in turn, shape the ways they create their virtual environment.

The Virtual-Physical boundary interface

The focus of this paper is on the differences between the front regions that university professors create in physical space and in virtual space. Very few studies have focused on the professor's perspective and how they think about the relationship between their physical and virtual classrooms. Professors who teach online have a functional role that allows them to use the tools that they are given to create online environments for their students in different ways. At one end of the spectrum, professors can try to duplicate most of the course content, teaching style, and assignments in the online course. At the other end of the spectrum, professors can frame the online course environment as being a separate space and deliver the course material in a completely different way. Thus, there is a wide range of possibilities in terms of how professors can create virtual front regions. The question is, when and why do professors create the virtual front regions?

Coppola, Hiltz, & Rotter's (2002) qualitative study of faculty "becoming virtual professors" focused on the role changes enacted by the instructors. Their study was about how professors presented themselves differently in the virtual domain. Specifically, they found that professors' affective, cognitive, and managerial roles changes changed with they moved to the asynchronous classroom. Their study focused on role performances as opposed to setting creation. The current study builds on Coppola et al's (2002) work by examining when and why professors might want to not only create differences between their physical and virtual classrooms, but also attempt to keep the domains similar.

Research Question:

When and why do professors integrate or segment their physical classrooms and their virtual classrooms?

Methods

The main data gathering technique for this study was a series of 28 semi-structured interviews, which involved interviewing people who had experience teaching both traditional and online courses. Before interviewing the 28 informants, a pilot interview was performed with "Professor D", who taught both online courses and traditional courses. The purpose of the interview was to explore some preliminary themes and to refine the interview protocol. I received written

permission after the fact to include the data from that interview for this study. All of the interviews were conducted in 2013 and 2014.

Sample Description and Procedure

Informants were found by contacting possible interviewees found on LinkedIn and various online university or college course program websites. I also had access to a list of professors who had taught online courses at a University in the Northeastern United States. The sample included professors who taught various types of online courses in different formats (synchronous, asynchronous, blended, and hybrid).

Synchronous courses were those that included a “live” online lecture component, in which the professor was delivering a real-time lecture to the students through a course management system. In all cases, the lectures were recorded. The asynchronous format had no “live” lecture and students could access the materials online whenever it was convenient for them. They typically had weekly readings and assignments. Other variations included the hybrid and blended formats. For this study, four professors had experience with blended learning and two professors had some experience with hybrid courses. The hybrid course was a synchronous only format in which some students were online while others were physically in the classroom with the professor during the lecture. Blended learning was when the students were required to attend at least one FtF class and the remaining class sessions were delivered online, either in a synchronous or asynchronous format. None of the professors had experienced teaching blended synchronous courses, which would entail some lectures being delivered in real time online and some lectures delivered FtF. Table 1 summarizes shows the professors’ experiences teaching in the various formats.

Table 1: Professors’ experiences in different online formats

	Purely online	Blended	Hybrid
Synchronous	Bobby, Jack, Dahlia, Joanne, June, Gordon, Monroe, Ken, Barbara, Lance, Boris, McCallum, Jane, Moulton, Stuart, Mark, Fred, Woodward, Paula, Peter	(None)	Barbara, Lois,
Asynchronous	Janine, Rob, George, Nancy, Linda, Tom, Dahlia, Joanne, June	Jake, Otto, Jerry, Dave	(Impossible)

Interview Protocol

Each interview lasted approximately 30 to minutes to an hour. The interviews were semi-structured and follow-up questions were added if informants mentioned themes that were unexpected. For example, in one of the first interviews, the participant said that she would make

the online course more difficult because she was not sure if students were working or not. In subsequent interviews, I asked informants if they consciously made their online courses more or less difficult than their traditional courses.

All interviews were recorded using a portable recording device after they either gave me verbal consent (if they were on the phone) or signed a consent form agreeing to be interviewed and recorded. All audio files were transcribed using Hyper Transcribe software. The transcriptions were then coded and analyzed with a spreadsheet to organize the codes. Each informant was given a pseudonym to protect their identities in the transcriptions and in this paper. Theoretical saturation was reached at around 25 interviews.

Data Analysis

The purpose of this study was to extend Goffman's (1959) work on performance settings by exploring the virtual classroom domain and develop propositions about why and when professors integrate or segment their physical and virtual domains. Following an iterative process (Glaser & Strauss, 1967) of noting emergent themes in the data and probing further about those themes in subsequent interviews, I was able to create hypotheses for future research (Auerbach & Silverstein, 2003). The transcriptions were coded in Hyper Research Software, which is a type of software designed for analyzing qualitative data.

Findings

Structure

The main common theme that emerged from the interview data was "Structure". More specifically, the online environment required professors to create more structure at the start of the course and once that structure was in place, it was nearly impossible to change that structure during the administration of that course. In a traditional classroom, professors perceived that the structure was more flexible and an element of "co-creation" was possible with the students. This meant that the elements of the course could be changed on the fly and a greater sense of spontaneity was possible. In a way, professors create a mini version of a virtual "iron cage" (Weber, 1904, 1994) whenever they create a new online course. This is not to imply that there is a strict hierarchical order but rather, that once the structure (i.e. syllabus, course materials, etc.) is in place, it is almost impossible to change it midstream during the process of delivering the course.

One of the reasons it was impossible to change the structure of the delivery of the course was rooted in technological constraints. Two professors who taught media courses faced the issue of having to prepare video clips ahead of time. In the traditional classroom, they were able to spontaneously show any video clip that was stored on their computers if the discussion veered towards a direction that made the clip relevant. However, the spontaneity that was possible in the traditional classroom was made impossible in the virtual domain because the video clips had to be converted to a particular format that could be shown in

the online course delivery system. As a result, professors were either required to anticipate the many directions the discussion could take or make their class deliveries more structured and professor-directed so that the video clips they showed would be more predictable.

Keeping Ashforth et al's (2000) integration-segmentation continuum in mind, there were various themes that emerged from the data that could be categorized in terms of integration or segmentation. However, it was not clear that each person's approach to teaching online could necessarily be mapped on a continuum. Rather, there seemed to be roughly three degrees of integration and three types of segmentation. In other words, informants seemed to have varying degrees of replication between the physical and virtual classrooms (i.e. integration) but at the same time, the separation between the two domains could be viewed as three ways that informants separated the two domains but not as degrees or levels of segmentation.

Degrees of Integration

The degrees of integration were related to how much each instructor attempted to replicate the physical and virtual classroom environments. At the low level of integration, there was very little replication. At the mid-level of integration, there was a one-way replication from the physical to the online domain but not from the online to the physical. At the highest level of integration, there was a two-way replication, where the professor would bring elements of the traditional class to the online class and from the online class to the traditional class.

At the lowest level of integration, professors would not attempt to replicate the physical classroom in the virtual domain and take a different approach to delivering the course in each type of classroom. "Jerry" and "Janine" were two professors who had experience teaching asynchronous courses and made no attempts to record lectures or replicate their FtF approaches to teaching by recording themselves giving lectures. According to Jerry,

" And I've taken online classes too and I felt like - one of the things that with - just 'cause there's video doesn't mean that you have to use it. It doesn't mean that it's effective. (laugh) So, like, my idea of sitting, listening to a video with somebody reading the PowerPoint slides and I can't see them - I'm just listening - it's just kinda like a recorded Powerpoint? It didn't seem - that was like my online class that I took in my PhD program, so I thought, well, they spent a lot of time doing that - maybe it wasn't all that engaging."

Comer & Lenaghan (2013) suggested that asynchronous discussions can be more beneficial than FtF discussion for some students in terms of the former being more inclusive and enabling student learning.

Janine also had experience both as an online professor as well as an instructional designer helping faculty create their online courses. She had a similar opinion of the video lecture, "Yeah, my favorite was when the faculty wanted to put in hour-long clips. Like, no. (laugh) From my perspective, I would not want that in my class because the students probably drop out at about 15 minutes into it. It's just attention span." From both Jerry and Janine's perspectives, it seemed that they had no intention to bring the traditional lecture to the online

domain. Even though they thought of the online environment as being an extension of their physical space, they did not have the desire to replicate their traditional class approach online.

Whether it was the asynchronous format or the fact that there was no FtF course to be used as a model, it seemed that the more novelty that was introduced by the virtual environment, the more likely the professor would have a low level of integration between the physical and virtual domains. In this context, the elimination of the lecture or any kind of verbal interaction with students was an indicator of a low level of integration because a traditional class is typically characterized by at least some verbal communication, either in a one-way direction from the teacher to the student in a lecture hall or two-way direction between the teacher and students in a discussion-based course. The professors who taught synchronous courses in which they were required to deliver a real-time lecture through a course management system such as Centra or Blackboard Collaborate were constrained by their course format to deliver a lecture or discussion session that was similar to their FtF class session. Thus,

Proposition 1: The more novelty (e.g. asynchronous communication, content) that is introduced by the virtual environment, the more likely the professor is able to have a low level of integration between the physical and virtual classrooms.

At the mid-level of integration, professors replicated the physical class environment as much as possible in the virtual class. In some cases, they added and used some online tools such as discussion boards, wikis, or blogs in their virtual classes but made no attempt to incorporate those tools in their traditional classrooms. In one case, “Dave” made the transition to online teaching and no longer taught traditional classes and therefore, could only have one-way replication from the physical to the virtual. In addition to the asynchronous dialogs in his courses, Dave incorporated some optional hour-long synchronous “Q & A sessions” about assignments with students to at least somewhat replicate the in-person classroom experience.

Other professors who only had one-way replication from the physical to the virtual domain tended to be those who had many years of teaching FtF courses, were relatively new to online teaching, and did not see any advantages of the online class over the traditional class beyond being able to reach people who were geographically dispersed. For example, “Woodward” had 15 years of experience teaching FtF courses and had taught both hybrid and purely online courses for several years. He made no attempts to use more online tools in his FtF courses. Similarly, “Fred” had 40 years of teaching experience and had taught two online courses. He attempted to replicate the FtF course in the virtual domain and did not use many of the available online tools beyond the video conferencing function for delivering his weekly class sessions. “Monroe”, who had over 20 years teaching experience perceived the differences between the online domain and the physical domain to be negative and therefore did not make any attempts to incorporate tools from the virtual domain in his traditional classes. For these three professors, their perception of the ideal course experience was the FtF class and the virtual course was merely a way to enable more students to take the courses that were offered but offered no advantages over the FtF class environment. Thus,

Proposition 2: Professors who have more years of traditional (face-to-face) teaching experience are more likely to have a one-way replication of the physical to the virtual domains (i.e. a “mid-level” integration).

Proposition 3: Professors who do not perceive any advantages of online courses over the traditional course are more likely to have a one-way replication of the physical to the virtual domains (i.e. a “mid-level” integration).

The one-way replication could be due to the rigidity of one’s mental map (Schultz, 1964) or script, which is defined as, “cognitive structure that when activated organizes comprehension of event-based situations” (Abelson, 1981:717). Professors who had a high level of integration were able to create new experiences in their traditional classes by bringing elements of the online class to the traditional class. For example, “Barbara” used the online course delivery tool, Centra to deliver her FtF classes when there were class cancelations due to weather. She was able to contact the technology department and arrange for her class to be delivered online at the scheduled time during snow storms. Similarly, “Joanne” used the online discussion board tools to run her traditional course if she was away. Both Barbara and Joanne were able to switch cognitive gears from a habitual mode into an active thinking mode (Louis & Sutton, 1991) and were able to draw on their experiences of using online tools.

An extreme case was “Moulton,” who seemed to be very conscientious about making sure that his online and FtF courses were as alike as possible because the course was a required core course and therefore, the standards had to be the same for both domains. For assignments and evaluation, he used McGraw Hill Connect to keep the grading aspect uniform between the two domains. Furthermore, he started recording his FtF classes after he started teaching online courses because he thought that students would benefit from being able to listen to his classes if they needed to do so. For Moulton, there was an intentional aspect of making sure that his delivery of the online and FtF versions of the course would be the same.

Proposition 4: Professors who teach the same course with the same content and syllabus are more likely to have a high level of integration.

Types of Segmentation

When the participants in this study compared and contrasted their virtual and physical classes, their responses seemed to suggest that they perceived the segmentation of the their virtual and physical classrooms in terms of three different categories: (1) process or delivery of each course, (2) content of each course, and (3) the perception of the virtual and physical classrooms as being “separate spaces”. The first two categories are about segmenting the domains in practice while the third category is about segmenting the domains conceptually. An individual could segment one’s virtual and physical domains one, two, or all three ways. For instance, one could imagine a professor who keeps the content of both courses very much the same but delivers the content very differently, and perceives the virtual and physical domains as being separate spaces. The common source of the segmentation seemed to be rooted in the perception of constraints (either positive or

negative) imposed by the technology. “Jerry,” for instance, seemed to see the asynchronous format as an opportunity to present a course without lectures and that was positive for him.

As a result of being able to see only 4 to 8 students at a time, professors often changed who was on the screen at regular intervals to monitor the students’ presence. As a result, the delivery of the virtual course was a little different than that of the traditional course because the delivery was affected by the lack of visual cues that the professor would get in a traditional class. The technology draws the professor away from the traditional class domain mindset. For example, “Fred” said that he could not have the same conversation in the virtual classroom because the students could not talk to one other. He taught a synchronous online course and seemed to be trying to replicate the traditional classroom experience in the virtual domain. The technology prevented him from doing so and therefore, the less comfortable the professors were with the technology, the more likely they were segmenting the virtual from the traditional classroom.

Proposition 5: Professors who are less comfortable with technology are more likely to segment their virtual and physical classes by perceiving them to be separate spaces.

Professors such as “Joanne” and “Moulton” were very comfortable with technology and were able to transcribe the physical world to a greater degree. However, Moulton insisted that his virtual and traditional classes were exactly the same while Joanne acknowledged that she used more internet materials in her online course and found that there was more engagement online than in her FtF class. Even though both Joanne and Moulton saw the virtual world as being an extension of the physical world, they had different approaches to in terms of how they delivered their online courses. “June” described the online environment as a “different ballgame” because she introduced more structure into her virtual class delivery by using PowerPoint slides to direct the conversation about the case. This removed some of the spontaneity from the class discussion about the case because once the slides were set, the discussion direction was not changeable.

“Jerry” and “Janine” mentioned that they did not record themselves delivering lectures for their asynchronous online courses, thereby making the content of their traditional and online courses segmented. Similarly, for “Mark,” the evaluation tools (i.e. tests and assignments) from each domain were different because students could not be given multiple-choice questions that could be easily answered by looking them up online. The idea of segmenting by changing the content and delivery is related to Proposition 1: The more novelty (e.g. asynchronous communication, content) that is introduced by the virtual environment, the more likely the professor will be to have a low level of integration between the physical and virtual classrooms.

Proposition 6: Professors who acknowledge and understand the technological constraints (not necessarily negative) of the virtual domain are more likely to segment their physical and virtual classrooms by creating different content and different approaches to delivering the course material.

Discussion & Conclusions

The first time a professor teaches online, he/she is creating a new script or framework for the course but it is not completely new. The combination of the professor's social role and the traditional classroom script has an influence on the creation of the virtual classroom. Goffman's (1959) assertion that social roles are not entirely created anew is relevant here because even if a professor starts his/her teaching career in the virtual domain, he/she will still have a mental model of what a physical professor's role is. Similarly, one could argue that cyberspace is at least partly transcribed from the physical world (Gunkel & Gunkel, 1997; Papacharissi, 2009). This study's findings and resulting propositions about the various levels of integration between the physical and virtual classrooms suggest that individuals transcribe the physical world in varying degrees while the propositions about the three types of segmentation suggest that technological constraints influence how much individuals can actually integrate their physical and virtual classes.

The propositions also suggest that integration and segmentation are not necessarily opposite sides of a continuum and that complete segmentation is highly unlikely in the physical-virtual context. For example, Jerry and Janine had low levels of integration of their traditional and online classes but they also saw the virtual domain as being extensions of their physical domains (as opposed to being separate spaces). Also, their comfort with technology enabled them to see alternate possibilities in the virtual domain that enabled them to create different approaches to teaching in the virtual domain, thereby segmenting the domains in practice. Moulton, on the other hand, was able to integrate his online and virtual classes at a very high level because his traditional course was centered on the McGraw Hill Connect system, which is also a type of online technology. Because he had that technological focus already in place in his traditional class, moving to the online class domain was fairly easy because the only difference for him in the virtual classroom was the delivery through the computer versus delivery in person. The integration was both conceptual and in practice.

Unidirectional versus bidirectional influence

When considering the integration of one's physical and virtual spaces, it might be more useful to think about the direction of influence, rather than the amount of influence of one domain on the other. The lowest amount of integration is when there is very little influence of one domain on the other. However, the mid and high levels are about whether the influence is just from the physical to the virtual or if it is in both directions. It goes back to the idea of cyberspace being transcribed from the physical world (Gunkel & Gunkel, 1997; Papacharissi, 2009), which is unique to the virtual domain because one would not necessarily think about transcribing one physical domain to another (e.g. home and work domains) in the same way. An individual might place pictures from home on an office desk but that would not be considered a "transcription" but rather a way to remind oneself of home while one is at work.

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COMMUNITY AND CONTEXT IN STRATEGIC PLANNING¹

Strategic planning is an important organizational event, yet there is little research on how individuals experience the process and how it impacts the community. This research examined a recent university strategic planning process, using a sensemaking and critical sensemaking theoretical lens. It provides insight into what strategic planning means to faculty and administration, focusing on how past experiences shape expectations, and how expectations influence sensemaking.

Introduction

Strategic planning is a common practice in all types of organizations, but it is often criticized as ineffective (Birnbaum, 2001; Dooris, Kelley, & Trainer, 2004; Ginsberg, 2011; Hinton, 2012; Wolf & Floyd, 2013). In spite of the popularity of the practice in business, not-for-profit, and public entities, there has been limited study of strategic planning since the late 1990's, (Wolf & Floyd, 2013). Moreover, most of the early studies focused on making connections between the end result of the process – the plan – and organizational performance. Although managers will often express that the process of planning is more important than the result (Lumby, 1999), there have been very few studies of strategic planning as an important organizational event. When the organization is viewed as an enacted environment that is socially constructed by the members, it becomes apparent that studying strategic planning as a cognitive, interactive process could be informative (Smircich & Stubbart, 1985; Spee & Jarzabkowski, 2011). Where there are multiple perspectives within the organization, strategic planning could have different meanings to different participants. This paper presents a case study of strategic planning in a university that examined how faculty and administrators make sense of a recent strategic planning experience using sensemaking and critical sensemaking lenses.

The purpose of this study was to provide empirical insight into how individuals experience the strategic planning process, with a focus on the different perspectives faculty and administration have of a recent university strategic planning initiative. The goal was not to determine whether the process was successful, but to examine how the participants made sense of it and how that impacts the campus community. To analyze the different perspectives, I used

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sensemaking (Weick, 1995) and critical sensemaking (Helms Mills, Thurlow, & Mills, 2010) to examine how the individuals in each group experienced and created their own understanding of the process. Weick (1995) identified seven properties that can be used to identify organizational sensemaking. According to Weick, sensemaking is: grounded in identity construction, social, ongoing, retrospective, focused on extracted cues, driven by plausibility, and enactive of the environment. The critical sensemaking approach adds a focus on how context and power dynamics of the organization contribute to sensemaking (Helms Mills et al., 2010). How faculty and administration make sense of the strategic planning process is based upon individual perceptions of it as well as the long-established roles and the power each group has in the university structure. The research involved an intensive case study of a recently completed strategic planning process at a Canadian university, using both document review and interviews to identify the sensemaking processes. I examined how these two groups, faculty and administration, make sense of how the institution formulated a strategic plan and their own roles in that process. The goal of the research is not to develop advice for strategic planning, but rather to enrich university management by creating an understanding of the role of sensemaking in the context of strategic planning.

What do we know about strategic planning?

Strategic planning was first introduced in the business world and was quickly adopted by not-for-profits and public entities, including universities. It is a “formalized, periodic process that provides a structured approach to strategy formulation, implementation, and control” (Wolf & Floyd, 2013, p. 5). When strategic planning first emerged as a business practice, many lauded it as the best way to align priorities with resources and set direction for the organization (Miller & Cardinal, 1994). The process typically includes establishing a mission and vision, then setting strategic goals and objectives to help the organization achieve that vision (Hinton, 2012; Kotler & Murphy, 1981). Businesses established strategic planning departments, dedicating significant resources to setting up and implementing regular planning processes (Mintzberg, 1994). During the late 1980s and early 1990s, researchers studied strategic planning systems, trying to find connections between planning and performance. The studies were primarily quantitative, using a variety of metrics to compare both systems and results (Wolf & Floyd, 2013). As the research progressed, the results were inconclusive, leading scholars to claim that strategic planning was dysfunctional (Miller & Cardinal, 1994). Perhaps the most well-known critique of strategic planning came from Mintzberg (1994), who unequivocally stated that strategic planning interfered with strategic thinking. While he recognized that planning departments could provide important data to support decision making, he asserted that the dominance of planning was preventing managers from making strategic decisions on emergent issues. He called on organizations to take strategy back from the planners.

After Mintzberg (1994) published his critique of strategic planning, the volume of research on the topic dropped significantly. Wolf and Floyd (2013) conducted an extensive review of the literature on strategic planning and found 65 articles published between 1980 and 1993, and only 52 in the twenty years since then, with more than half of those appearing in *Long Range Planning*, the official journal of the Strategic Planning Society. Even though researchers seemed

to lose interest in strategic planning, the use of the practice continued to grow (Spee & Jarzabkowski, 2011). However, while strategic planning is a common practice, many managers are still not fans of the process. One study found that only eleven percent of managers were satisfied with the results of their planning processes (Mankins & Steele, 2006). As research attempting to find a direct connection between planning and performance declined, researchers turned their attention to what made the planning process work well, particularly how individuals could affect it. Early examinations of the strategic planning process focused on how individual behaviour could obstruct the process (Lyles & Lenz, 1982). Later, researchers began to recognize the importance of adapting the planning process to the organization's culture and engaging individuals in the process (Bonn & Christodoulou, 1996; Wilson, 1994). The focus still remained on what makes a successful plan, rather than on what the experience of the process meant to the organization. Eventually, the focus of research began to shift from the results (the plan) to how the process affected the organization (Bryson, Crosby, & Bryson, 2009). Researchers started to look at strategic planning as a tool that could integrate the organization rather than as a means of improving productivity (Wolf & Floyd, 2013). They found that the process could effectively provide a framework for gradual change and readjustment of focus, depending on how the members of the organization participated in the process (Jarzabkowski & Balogun, 2009; Kaplan & Beinhocker, 2003).

While Wolf and Floyd (2013) identified that there is a trend in more recent research to focus on the role individuals play in the strategic planning process and how they are involved in it, they also found that there is a need for more research based in cognitive theories that examines the different perspectives individuals might have on the process. Given the amount of time and energy organizations dedicate to strategic planning, it is important that we understand what the process means to the individuals involved and how it affects their understanding of their organizations. As Spee and Jarzabkowski (2011) point out, universities provide an excellent context for exploring how individuals construct the strategic planning process because they engage in the practice regularly and include diverse constituent groups who must be involved in it.

Strategic planning in the university context

Researchers have recommended that strategic planning processes be adapted to fit the culture of the organizations involved (Bonn & Christodoulou, 1996; Hinton, 2012; Wilson, 1994). With universities, structure and culture are closely linked. Like other educational organizations, universities are loosely coupled systems (Birnbaum, 2000; Rytmeister, 2009; Weick, 1976), consisting of a number of different segments (e.g., faculties, colleges, academic departments), each with its own priorities, loosely connected to each other through the overarching administration. The connections between the segments develop from shared experiences and values rather than being established and dictated by management (Bess & Dee, 2008). Governance is primarily democratic, rather than having significant power vested in a chief executive. Most have a bicameral structure, where the academic senate or faculty council has significant control over academic issues while the governing board and administration control operational decisions (Doyle & Lynch, 1979). Mintzberg (1991) characterized universities as professional bureaucracies, where the people who provide the "operating core" of the

organization are professional experts (in this case, faculty). In such organizations, members of the operating core work independently with little need to coordinate with co-workers. This structure creates an environment where the faculty operate with considerable autonomy. There are limited restrictions on what and how they teach, and they have a significant level of freedom in choosing the focus for their research, which often results in faculty pursuing their own agendas instead of being aligned with the institutional strategy (Bess & Dee, 2008; Mintzberg & Rose, 2003).

Until the late twentieth century, administrators usually came from the faculty ranks and served in those roles temporarily, returning to scholarly activity at the end of their terms. Thus, even though they might be at odds with faculty over particular issues, they brought an understanding of the faculty perspective to the position. During the past few decades, however, there has been an increasing trend of hiring professional administrators who have limited or no experience as faculty members (Birnbaum, 2001; Ginsberg, 2011). At the same time, the ranks of administrators have grown much faster than those of faculty, and there has been a parallel trend of hiring more part-time faculty instead of tenure-track. From 1985 to 2005, the number of administrators in universities in the United States increased by 85%, while the number of students increased by 56% and the number of faculty increased by 50% (Ginsberg, 2011, p. 28).

Into this environment of shared governance and decision making, university administrators brought formalized strategic planning. When strategic planning was first introduced in universities, management scholars recommended that universities focus on establishing missions, setting clear goals and objectives, and defining strategies to achieve them so that they could allocate resources appropriately (Doyle & Lynch, 1979; Kotler & Murphy, 1981). Up until this point, universities had not been actively engaged in strategic planning, but they were entering a period of more limited resources and increasing competition, so the theorists proposed that adopting the business model for strategic planning would improve efficiency (Kotler & Murphy, 1981). University administrators everywhere embraced the strategic planning process. By 1985, some estimated that 88% of universities in the United States had adopted some sort of formal planning process (Birnbaum, 2001). One driving force behind the widespread adoption of strategic planning was the influence of accreditation requirements. In the United States, most regional accrediting bodies require colleges and universities to demonstrate that they have strategic goals and a plan for achieving them. Some program-specific international accreditation bodies, such as the Association to Advance Collegiate Schools of Business (AACSB), also require schools to prove that they have a strategic plan for their programs. Sometimes, universities are prompted to update their plans only when accreditation is looming (Hinton, 2012).

Some researchers have found that the strategic planning process has not been effective in universities. They have recognized that differences in how faculty and administration view strategic planning affect the process. When administrators introduce new tools or processes, they often encounter resistance from faculty, who are concerned that they will lose their autonomy and flexibility (Birnbaum, 2001; Gioia & Thomas, 1996; Welsh & Metcalf, 2003). They are particularly opposed to any approach that would give administration more control over academic decisions, which are seen as a core function of the faculty (Ginsberg, 2011; Rhoades & Slaughter, 1997). Faculty frequently feel as if they are not part of the strategy formation or strategic

planning process. Ginsberg (2011) was particularly critical of strategic planning. He asserted that the primary purpose of the process is for the administrator leading it to advance within administrative ranks, and expressed distrust and resentment of managerial control of the process.

However, regardless of the perceptions of success or failure, strategic planning continues to be a widely practiced and significant event for the organization. Universities need a better understanding of what this process means to the organization and the impact it has. Wolf and Floyd (2013) noted that there is a need for more research on strategic planning that approaches it from a cognitive theory perspective. Smircich and Stubbart (1985) called for such an approach to strategic management research almost three decades ago. They asserted that strategy is not a result of a plan or outcomes, it is determined by how individuals enact their worlds. Thus, to understand strategic practices, the focus should be on understanding how individuals are socially constructing their environments and their understanding of strategy. They argued that problems with strategy implementation are connected to failure to recognize the social nature of the organization and how that affects the enactment of strategy. Similarly, Weick (2001), using the example of a group that found its way using an incorrect map, asserted that the plan itself did not matter. The key was how individuals made sense of the plan, how they socially constructed the plan and their organization.

There has been some research on the role of actors in the strategic planning process in a university setting, but the focus has been primarily on administrative leaders. Lumby (1999) examined how colleges experienced that strategic planning process by interviewing only top administrators. They expressed that the process of involving people in planning was more important than the strategic plan itself, but thought that the ideal of everyone feeling a sense of “ownership” was unrealistic and unnecessary. In their minds, the plan was for managers to understand and use, not for the entire campus to embrace. Similarly, Gioia and Chittipeddi’s (1991) examination of sensemaking during strategic change at a university focused entirely on what the top executives thought about the university’s strategy, with only a passing reference to the fact that faculty had a different perspective. That study and the follow-up survey examining how leaders at other universities made sense of change (Gioia & Thomas, 1996) provide insight into how administrators make sense of and communicate their strategic priorities, but they do not provide a complete picture of how the university as a community experiences the process. Even where it is recognized that all participants in the system impact strategy and a shared understanding of the organization is necessary for success, the focus is on how university leaders create that shared understanding and communicate strategy to the faculty and staff (Chaffee, 1984; Cowburn, 2005).

To examine the social construction of a process like strategic planning, it is important to explore it from the point of view of the participants while recognizing and embracing the multiple perspectives that may exist (Smircich & Stubbart, 1985). To do this, I used both a theoretical lens and a method that allowed me to develop a deeper understanding of how each group understands and expresses their understanding of the strategic planning process and the resulting plan. Sensemaking and critical sensemaking provide an excellent framework for helping to reveal and understand different social constructions of reality, especially when context and power play an important role.

Theoretical Framework: Sensemaking and Critical Sensemaking

Weick (1995) suggested that sensemaking is both an organizational process and a framework for understanding organizations. All individuals within an organization are constantly “making sense” of what is happening around them and where they fit. However, organizational sensemaking is more than just a collection of individual understandings. As members of the organization interact, they share and adjust their sensemaking. Ultimately, it is this collective interaction that socially constructs the organization (Weick, 1995). Weick formalized his ideas about sensemaking theory by presenting seven characteristics that could be used to analyze and understand how individuals engage in sensemaking. Sensemaking is defined as a process that is: grounded in identity construction, social, ongoing, retrospective, focused on extracted cues, driven by plausibility, and enactive of our environment (Weick, 1995). Weick asserted that sensemaking becomes apparent when there is an event or crisis that requires individuals in the organization to develop a new understanding of reality or justify their reactions. In explaining his framework, he made it clear that sensemaking does not just happen in organizations, it is how people socially construct the organization (Helms Mills et al., 2010). Each element is interconnected with and dependent on the others. Depending on the situation, one or more of the properties may play a more significant role than the others (Weick, Sutcliffe, & Obstfeld, 2005).

Over the years, other researchers have used Weick’s sensemaking framework, expanding our understanding of each characteristic as well as elaborating on the properties he proposed. Through a number of studies, Helms Mills expanded on the prospective nature of sensemaking by discussing the importance of projection and introducing the idea that power and context influence sensemaking (Helms Mills, Dye, & Mills, 2009; Helms Mills et al., 2010; Thurlow & Helms Mills, 2009). Others have taken the approach of examining divergent sensemaking within the same organization and how different perspectives contribute to organizational sensemaking (Brown, Stacey, & Nandhakumar, 2008). Critical sensemaking proposes that identity construction and plausibility are central to sensemaking and brings in the impact power relationships in the organization and context can have on individual sensemaking (Helms Mills et al., 2010; Helms Mills, 2003). In discussing the importance of identity, the critical sensemaking perspective notes that there is a difference between the identity of the organization and the identity of individuals. In addition, identity is changeable, and can be significantly affected by power dynamics (Thurlow, 2007). Power, particularly as manifested in an organization’s informal rules, affects which sensemaking becomes that of the organization (Helms Mills et al., 2010). With respect to university strategic planning, power may determine whose sensemaking is displayed in formal strategy documents, but the informal rules of the organization may affect how individuals view that strategy.

Weick (1995) asserted that sensemaking is revealed where there is an event or crisis that requires more conscious sensemaking or an adjustment of existing sensemaking. I propose that it can also be revealed by examining an issue that is central to the organization that individuals and groups approach differently. The literature on strategic planning in universities reveals that there is different sensemaking around what it is and how it should be done, but the literature does not provide a complete picture of how individual perspectives affect the process. How to “do” strategy in universities is challenging (Fugazzotto, 2009; Rhoades, 2000). By shedding light on

how key groups make sense of strategic planning, I hope that this research will provide valuable insight into how these activities can impact a campus community.

Summary of the Study

For this research, I conducted an intensive case study of a university that has recently completed a strategic planning process. The research site was a small Canadian university that focuses on undergraduate, liberal arts education, with some post-baccalaureate professional programs. The university experienced a contentious labour dispute several years ago, which resulted in significant administrative turnover. This strategic plan was developed during a new president's first year at the institution, but it was not the first planning process for the university. They engaged a consultant to facilitate the process, which included written feedback and several different in-person sessions. Initially, the in-person sessions were limited to specific leadership groups (senior leaders, department chairs, directors), but an all-campus forum was added to the process at the request of some faculty.

Data was gathered through document review and interviews with faculty (10) and administrators (6). The interviews were semi-structured, using open-ended questions to explore the participants' experience of the strategic planning process, how they are involved with it, and how important they think it is. The interviews also gathered information about the participants' backgrounds that may be relevant to the properties of identity and retrospection. All interviews were recorded and transcribed verbatim. I also made notes of my observations of the participants and the campus community. I analyzed the data by reviewing and coding the documents and interview transcripts to identify themes, then reviewed the data again to identify the sensemaking properties. Analysis began and continued during data collection, with a focus on allowing themes to emerge as the research progressed (Phillips & Hardy, 2002). Once I identified the properties of sensemaking that emerged from the data, I analyzed which properties seemed to be most important, both for individuals and collectively. I identified differences and similarities that emerged from the different perspectives, looking for insight into how sensemaking influences the participants' perspectives of their community.

The goal for this study was to develop analytical generalizations, not statistical validity (Eriksson & Kovalainen, 2008). The sample of participants interviewed reflected a variety of perspectives, but it was not designed to be representative. These findings may provide insights that can inform theory, but they may not be applicable to other universities. Sensemaking is a process, not an outcome (Weick, 1995), so a study that examines sensemaking will provide insight and understanding that may lead to new questions and perspectives rather than definitive outcomes. The purpose of my research is to build understanding of how faculty and administration make sense of strategic planning, with the hope that it leads to a better understanding of how these processes can affect a campus community.

Making Sense of Strategic Planning

As noted above, sensemaking is both a process individuals engage in to create their community, as well as a means for examining that community (Weick, 1995). One key theme that emerged from the data was the impact that past experience had on expectations, and how those expectations framed the understanding of the planning process. Within this theme, each of Weick's (1995) sensemaking characteristics played a role in the different perspectives I found. Examining each of the sensemaking characteristics with respect to experience and expectations helps demonstrate how different components of sensemaking influence individual understanding of the community. For each characteristic, the impact of context and power will also be addressed (Helms Mills et al., 2010).

Grounded in identity construction

Identity is a multifaceted concept. It is how we view ourselves, and how others view us. It is the image we want to project, and the one we actually project. Identity can also apply to the organization, or even to subgroups within the organization – the collective identity that is both perceived by the members and by those outside the group (Weick, 1995). Some have asserted that identity construction is the key to sensemaking, that all other elements flow from how individuals and groups formulate their identities (Helms Mills et al., 2010; Weick et al., 2005). Identity plays an important role in how faculty and administration interact; it is deeply rooted in how members of each group perceive themselves and how others perceive them (Birnbaum, 2001; McNaught, 2003).

Identity played an important role in how both faculty and administration developed their expectations of the planning process with three facets of identity emerging: union affiliation, field of study, and definition of "academic." These aspects of identity construction contributed to different expectations of the strategic planning process. Many faculty, and some administrators who came from faculty, took pride in their union affiliation, volunteering the roles they have played within the union executive as part of their description of the role they played in the university. This union focus generally included references to the labour dispute, even though they were not asked directly about it, and several faculty mentioned a lack of trust in the administration which led them to expect something "bad" to be in the plan. With respect to field of study, disciplinary focus was an important part of identity for most informants and contributed to the social context of the university. Several of them referenced an ongoing power struggle within the institution between a "great books" perspective and a social sciences focus, with some being very dissatisfied with how certain disciplines appeared to be favoured with resources while other were more popular with students. Disciplinary affiliation in some cases affected engagement in the planning process, with some faculty from the professional programs not seeing themselves in a plan that focussed on undergraduate education. Disciplinary affiliation also affected how individuals viewed each other in the context of academia. Some faculty viewed the president as not being a true academic because her background was in a professional discipline, while she considered herself to be an academic.

Social

An individual makes sense of the world through interacting with others. Without a social context, there is no point in sensemaking. Without others, there can be no shared meaning or intersubjectivity (Weick, 1995). It is the social aspect that brings individual sensemaking together to create organizational sensemaking. While each individual in an organization is making sense of their experiences, organizational sensemaking cannot happen unless they share their sensemaking and adjust it based on what they hear and learn from others. Another factor that is important to understanding organizational sensemaking is the social context of the organization (Helms Mills et al., 2010). It is through the social interaction that individual sensemaking synchronizes and socially constructs the organization, and it is the social interaction that can provide a window into the sensemaking process (Weick, 1995).

The social context and history of the university was a significant influencer of expectations. Most of the faculty have the shared experience of the labour dispute, whether they agreed with the union's position or not. However, only one of the current administrators served in that role during the dispute, and most of them were not at the university during that time. Many also participated in other planning processes at the university, which framed their expectations of what it should look like, but the president had not been part of those. Within this context, it became apparent that many faculty did not see written, one-way consultation as being sufficient; they were looking for the social interaction that would help them develop a collective sensemaking around the plan. While the president did not initially understand this need, the process was quickly adapted to accommodate it once the faculty raised the issue.

Ongoing

People engage in sensemaking on a daily basis, assessing and reacting to the situations they are involved in based on their understanding of past experiences. However, most studies using sensemaking theory focus on a particular event or crisis, one that caused people to either assess how they understood what was happening or adjust how they understood their organization (Weick, 1990, 1993, 2001). The event being studied can also be a more long-term process, such as organizational change that happens over a significant period of time (Gioia & Chittipeddi, 1991; Helms Mills, 2003; Thurlow, 2007) or gendering of organizational culture (Helms Mills & Mills, 1995). These studies focus more on the sensemaking that is occurring on a daily basis than on what happened in a crisis.

In this case, the informants were continuing to make sense of not just the recent planning process, but their past, as well. The sensemaking around the university's history, including the labour dispute, was an ongoing process. As they reflected on the past and re-told their stories, they shared how their perceptions have been re-framed. For example, several faculty expressed that they had significant concerns about the transparency of the process and were suspicious of what the result would be, and then were surprised to find that the plan seemed to reflect the community goals.

Retrospective

Sensemaking is retrospective in that we make sense of what has happened in the past by reflecting on it and determining how it fits in our reality. How we make sense depends significantly on what our past experiences have been (Weick, 1995). However, it is also affected by the present – what is happening to us right now affects how we filter our memories, which ones we choose to draw upon. The role an individual plays in the organization will also affect what is remembered and how it is applied to the present. Retrospection also has an impact on the future. How we remember the past and apply it in the present will set the stage for what we will do next and how we will react in the future.

Retrospection was also a powerful influencer of sensemaking in this case. The labour dispute was identified as having a continuing impact on relationships, trust, and structure in the university. Most informants spontaneously mentioned the event, noting how it had impacted the university and drawing connections to the recent planning process. Many faculty expressed a lack of trust in the administration that was rooted in that past event and impacted their faith in the transparency of the current process. The informants also used retrospection in developing their expectations of the process. Almost all of them made some reference to past planning experiences to frame their description of this one. One of the challenges of the process arose because of this, as faculty members were expecting an opportunity to provide in-person feedback and were frustrated that it was not planned.

Focused on Extracted Cues

Sensemaking is built around cues we are extracting from our environment, either from the present situation or from the past through retrospection. Which cues are selected depends on a number of factors – who is doing the extraction, what weight the cues have been given by others, what the situation is demanding. Context plays a significant role, both in determining which cues will be selected, and what those cues will mean (Weick, 1995). The extraction of cues and their impact are thus highly interconnected with both identity and retrospection – who we are and our own experiences will affect what we see or hear.

In this case, extracted cues had an impact on how the informants viewed the transparency of the process. When the planning process was first rolled out, the announcement mentioned “consultation” and described the written feedback schedule. Faculty members who had been part of the previous planning process extracted that cue and layered their own understanding of what “consultation” would look like. They were subsequently surprised and upset to find that consultation would not include an in-person feedback session, which made them question the transparency of the process. Another situation involving perceptions of transparency where extracted cues played a significant role arose around the summarizing of written feedback. The consultant, the president, and the vice president academic created a thematic summary of the initial feedback on what the plan should include. In doing so, they extracted information from the feedback that they considered would be relevant to the plan. Several faculty had written regarding the desire to exclude any mention of the university’s religious affiliation from the plan, but there was no mention of this topic in the summary. Some faculty saw the exclusion as a cue that they

were being silenced on this issue, when it appears that senior leadership left it out because there was no intention of including. Again, past experiences (the last plan included a goal to nurture the religious affiliation) drove expectations, which in turn guided the extracted cues.

Driven by plausibility rather than accuracy

Few people are able to accept as truth something that simply does not seem plausible. Even when supported by accurate information, our instinct is to reject it as not possible if it does not fit with our past experiences and understanding of the world until we have new experiences that would make it plausible. Ultimately, what we understand of the world needs to make sense to us (Weick, 1995). Sensemaking is grounded in social constructionist theory – it does not need accurate data to “prove” reality. Reality is created out of what seems plausible. Perception, however inaccurate or skewed, becomes reality. Often what is plausible is driven by the history and stories of the organization. Some argue that plausibility, like identity construction, is pivotal to sensemaking and may be the key property – the entire process fails if the result is not plausible, or does not “make sense” to the participants (Mills & Helms Mills, 2004). Plausibility was perhaps the key to the confusion over what “consultation” should look like. Because of the social context and the history, many could not see one-way input as valid, transparent consultation. It simply was not plausible to them.

Enactive of our environment

Sensemaking is not just thinking about the past and telling a story of what happened. It also involves using that sense to make something. How we perceive the world, how we create the plausible understanding of what has been, is then applied to our current environment. We create a world that fits with our sensemaking, enacting our own environment. But the environment we create and enact may also constrain how we make sense in the future. We enact what fits with our sensemaking, laying the ground work for continuing in the same vein, until a shock or crisis stimulates change (Weick, 1995).

This university’s past has the potential to constrain future sensemaking, as the history of the labour dispute is impacting how the faculty engage with administration and with each other. However, with each new event comes new opportunities for sensemaking and for re-creating the community. While it was possible that a lack of shared context and retrospection between faculty and administration could have de-railed this process and reinforced the enacted reality of mistrust, some key events in the planning process helped enact an adjusted environment. The president responded to the expectation that there would be an opportunity to provide input in-person by adding an all-campus forum to the planning process. In addition, when the faculty noted that the process did not include approval of the final plan by senate, that step was immediately added. By listening and responding, by extracting the cues of frustration and discontent, the president acted in a way that did not fit with the tradition of distrust. Essentially, a new relationship was being enacted, one that led to most faculty expressing that the final plan was a positive thing for the university.

Conclusion

Strategic planning is a significant event for an organization, one that often involves multiple stakeholders in developing a shared statement of the organization's direction. In this case, the process provided a new opportunity for the university community to discuss their identity and shared visions in the context of a history of conflict and distrust. Among the stories shared about the process, there was a consistent theme of how past experiences shape expectations, and how those expectations can influence sensemaking. This study strengthens our understanding of the role context can play in framing individuals' views of their community and how they make sense of organizational events. There were also many other themes within the data that raise additional questions for future analysis and research, including the continuing impact of labour disputes on the community and how collective bargaining and strategic planning intersect. Further exploration will provide insight into our understanding of the impact of strategic planning on a particular organization, as well as contribute to the literature on both strategic planning and sensemaking/critical sensemaking.

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THE POWER AND POLITICS OF NARRATIVES IN BUSINESS TO BUSINESS (B2B) COMMUNITIES: A CASE OF EVOLVING PAKSITAN RETAIL CHANNEL

This paper enhances the understanding the concept of 'power' in marketing channels by bringing the broader social sciences debates on power to the field of Industrial Marketing. Through presentation and analysis of three community narratives in the context of Pakistan's evolving Fast Moving Consumer Goods (FMCG) distribution channel, this paper aims to elaborate the role of narrative in 'power in marketing channels' by showing its implications on both theory and practice.

Introduction

The role of narrative in understanding power has been little worked within Industrial Marketing (or Business to Business) field, yet it has gained importance elsewhere in management studies. Industrial marketing scholars predominantly view talk as the expression of a reality independent of that talk. Text may be more or less accurate and hence often requires collaboration from other sources, from observations – and the more a point is repeated, the greater faith can be placed in its accuracy. We shall in contrast argue that story, or narrative, is neither merely an expression of reality independent of the talk nor a means to understand power as a social fact and as a possession of the individual, relationship or organisation (Meehan and Wright, 2012), rather it is a vehicle 'in' and 'through' which power is produced (Brown, 1998). An elaboration of this point and what it has achieved for the management scholars will be done in the section 'the narrative *power to* in organization studies'.

The paper uses empirical material from the complex channel distribution network of Fast Moving Consumer Goods (FMCG) products in Pakistan. As such it explores an inter-organisational context under change, one in which the recent entry of international entrants renders the future uncertain.

The paper is organised as follows. We open by outlining the *power over* and *power to* debate in broader social sciences. We then show widespread use of *power over* aspect in channels literature in which power is shown to be exerted by one party *over* another. Lack of study of *power to* affect the world through the

production and reproduction of systems of meaning, is highlighted. Narrative method in management studies is reviewed to show its implications on management theory and practice. The empirical context for the study is described and the methodological path we have taken towards our data explained. We then offer a detailed presentation of three collective narratives of groups in an evolving Pakistani channel. Implications of narrative methods in understanding power in inter organizational contexts are highlighted for both theory and practice. Limitations of this research are highlighted and future research paths are outlined.

An brief outline of *Power over* (power as a possession) and *Power to* (power as a process) debate

Broader debate about power in the social sciences offers theories that account for power in social contexts without seeing power as the possession of one person, exercised *over* another (Clegg et al. 2006). The debate is presented elsewhere (see Clegg 1989, Lukes 1974, 2005, Wrong, 1988, Hindess 1996), but here we draw particularly upon the distinction between causal power *over* another's actions and the anonymous and invisible power *to* effect the world through the production and reproduction of systems of meaning.

Social theorists see *power over* as concept which sees power as possession which one party can apply over another. It is linked with understanding of power as a capacity or ability of a party or an entity to affect other. Major contributor in this domain is Robert Dahl who in his 1961 book 'Who Governs' defined power as a quantitative capacity where : "A has power over B to the extent that A can get B to do something that B would not otherwise do"(Dahl 1961). The relevant question in such conceptualization of power is the 'who' of power (Flyvberg 2001, Morriss, 2002) which means that we want to know who has more (quantified) power. In other words who has the capacity to exercise their power *over* others.

Following Foucault (1979, 1980), an alternative view of power developed in social sciences which highlights the discursive aspect of power in which power is seen in the techniques and practices which are normalized into ways of being in the world (Clegg et al, 2006). So instead of seeing power as something exercised by one part over another, power is seen as something ever present and inescapable in 'capillary form' (Foucault, 1979) in all social practices. This power does not have to be possessed by anyone, rather it is anonymous and invisible, and is not necessarily repressive (Clegg, 1989). Following the 'linguistic turn' (Rorty, 1992, Alvesson and Kärreman 2000) in social sciences, power in this area is generally see as *power to* effect the world through creation of meanings systematically. This systematic meaning is produced through the rationalities which are linguistically produced and accepted as truths within a context (Witten ,1993).

Marketing channels: The widespread use of *power over* (power as a possession) and the lack of *power to* (power as a process)

The importance attributed to the concept of power has been central to the development of academic fields with respect to the study of inter-organisational relationships in marketing (for relevant historical reviews of these fields see Wilkinson 2001, Hopkinson and Blois (2014). The notion of inter-dependence between the multiple organisations involved in bringing products to market has lead to two alternative foci. The first of these foci associated dependence with power and conflict and this thesis was developed and investigated amongst channels researchers. Others, notably those working in the tradition of IMP group, gave primacy to interdependence and highlighted, instead, concepts such as trust as critical to the maintenance of long-term, cooperative relationships. Although differences between the traditions remain in terms of places of publication and methodological preferences, both traditions have modified somewhat

their approach to power. Some channel researchers (e.g. Morgan and Hunt, 1994) have argued that power and conflict has too strongly dominated the development of understanding and led a movement towards a more relational approach with a focus upon ostensibly more healthy concepts (Young and Wilkinson, 1989). At the same time, some IMP researchers (Eg. Gadde and Ford, 2008) indicate that a complete understanding of business relationships is hampered by the lack of attention paid to power. Therefore, some convergence is discernible in these two fields originally defined, to a great extent, by different priorities concerning power and conflict or trust and commitment in moving towards and understanding of these types of behaviour as potentially co-present. Elsewhere, and more overtly, the assumed opposition of power and cooperation has been criticised in work by Dapiran and Hogarth-Scott (2003), Hingley 2005, Blois, 2005 and Kumar 2005, amongst others. Imbalances power, it seems, continues to be seen as a point of felt tension even where participants continue to function in imbalance relationships.

Whilst the role of power in inter-organizational relationships had differentiated groups within the marketing academy, and the relevance of the concept within such groups has been questioned over time, there has been very little debate about the nature of power. As explained, it is in channel research that power has been most intensively studied. Here, early research defined a channel member's power as their "ability to control the decision variables in the marketing strategy of another member of a given channel at a different level of distribution" (El Ansary and Stern, 1972, p. 47). Power was depicted as a function of either dependence (following Emerson, 1962) or of the bases (or sometimes termed sources) of power available to the member. Following French and Raven (1959), the sources of power include coercion, reward, expert, referent and legitimate power. This account of power is still used to the current day and problems associated with its usage will shortly be discussed. At the core of this theorisation is the idea of power as a possession; indeed it is frequently written of in such terms. El Ansary and Stern (1972, o. 47) write of the 'locus of power' as the member "with more power than others". Similarly, those writing of franchised channel arrangements will often write of a majority of power being "held by" the franchisor (e.g. Doherty and Alexander, 2006, p. 1294). There were legitimate reasons for the adoption of this definition of power given its wider adoption in the social sciences at the time when channel researchers first sought to empirically investigate power. Furthermore, in seeing power as a possession, attention turned to quite 'how much' power was possessed and by whom, which provided ground for the measurement fundamental to establish a scientific basis for marketing knowledge (El Ansary and Stern, 1972).

The narrative *power to* (or the processual power) in organization studies

In the last two decades, narrative research within organisational studies has proliferated and contributed especially to an understanding of power and politics in organizations (Boje, 1995, Brown, 2006, Cunliffe and Coupland 2012) by showing organization as a storytelling systems (Boje, 2008). In such an understanding of an organization, stories are not seen as accounts 'about' an organizational reality, rather they are seen as vehicles through which reality is produced. In such an understanding of an organization, an organizational event or a situation is not seen as something 'outside of' or 'independent of' the stories which describe it. This could be seen in the early work in the field which demonstrated, for example, the process of organizing in public sector by showing how an event or a situation becomes multiple narratives (Brown, 1998, Brown and Jones, 1998, Currie and Brown, 2003). This view of organizations and organizational events has encouraged management scholars to study the politics of narratives authored by different groups, rather than evaluating the power possessed by narrative authors. By understanding the politics of narratives, management scholars have been able to see how organizational communities deploy meanings effectively to counter alternative narratives or to obtain consent from other groups (Vickers, 2008, other citations).

Longitudinal elements in this field have illustrated the change in a group's story and the gradual merging of these stories over time. For example, Currie and Brown (2003) show how a narrative changed over time to accommodate elements from the counter narrative. Similarly, Ng and Cock (2002) trace the changes in the narratives to two companies in a merger situation. The authors explain these changes as the result of political struggle between groups in describing an event or a situation. The struggles have been widely related to organisational hierarchy in which the senior management authors an official narrative and other members respond by offering counter narratives (Currie and Brown, 2003, Sonenshein, 2010). Alternatively, Ng and Cock (2002) demonstrate the flexibility of senior management's narrative according to those authored by middle management and the general public.

Apart from seeing organizational political struggles through narratives, narrative scholarship also emphasises the role of narrative in establishing a dominant or hegemonic understanding of an event. Within this field some authors have argued that the dominant narrative limits the possibilities of alternative constructions. For example, Rhodes et al (2010) show how a dominant narrative concerning downsizing events construct the events as inevitable and the organization as the victim of some external factors, and in the process restricted the writing of an alternative 'fall from grace' narrative. Alternatively, where an alternative narrative exists this has been shown to be supportive of the hegemonic narrative (Trethewey 2001, Murgia and Poggio, 2009). The impossibility of escape has, for example, been shown by Murgia and Poggio (2009) who found that rebellious narratives authored against the hegemonic narrative which constructed paternal leave policy in a certain manner, supported various constructions in the official narrative. Rather than seeing power as the possession of an individual or group, power is seen as infused in a narrative logic which produces the social world in a way which compels 'belief while shielding truth claims from testing and debate' (Witten, 1993 p. 100). This productive form of power is shown to facilitate worldviews which legitimise particular actions and changes (Rhodes, 2001, Vaara, 2002, Vaara and Tenari, 2011).

By looking at group narratives, organisational theorists therefore offer a distinct theorisation which has not been greatly explored in inter-organisational contexts. It is that power lies in the narrative since a hegemonic narrative that cannot be effectively resisted, brings about effects in the world. This perspective when used in retail channels can help us understand power in channels in two distinct ways. First we can see how a channel event, instead of being objectively real, becomes different group narratives (both inter and intra organizational) and how groups engage in political struggle through their narratives. By looking at the similarities and differences between narratives in terms of how they produce certain truth effects, the informal political alignments of different groups can be highlighted. Second, power when located in the logics of narratives can help us understand the hegemonic constructions a narrative produces and how these can limit the possibilities in which a narrative can be authored (Boje et al, 1999).

In order to explore these possibilities in the retail channel, our study focuses upon differences between the narratives three channel groups tell of the entry of international wholesale to the retail channels for FMCG products in Pakistan.

The Prolegomenon

This study is set in FMCG retail channels in Pakistan using data collected in 2008. This provides a particularly interesting arena in which to look at the politics of narrative in interorganisational contexts or several reasons. The entry of western retailers is a widespread feature in less developed countries, although it has occurred at different times and at different paces. In Pakistan, the first international entry occurred at the wholesale level and in 2007 through both Makro and Metro (MM) in the larger urban markets. As the first international entry, this had the potential to substantially change channels that, until that time, remained both lengthy and fragmented. Through these structures a typical FMCG brand would

be sold to distributors (approximately 120), wholesalers (75,000), and retailers (500,000) (Aman and Hopkinson, 2010). Both wholesalers and retailers were small enterprises operating in a traditional manner. There were, however, a small number of 'modern' stores, meaning stores that operated through self-service and provided a broader selection of goods. By 2008 none had expanded to retail chains. Taking evidence from other countries, organised retail could, potential, favour a development of shorter, less fragmented channels. Indeed, one immediate demand from the organised wholesale sector was to deal directly with the brand owners, removing distributors from that section of the trade. However, the growth of organised retail was far from assured. After one year, the market share of the international entrants totalled 2%. Pakistan continued not to feature on AT Kearney's index of retail market attractiveness.

The magnitude but mere potentiality of change makes this an interesting moment and arena in which to look at channel member narratives. Araujo and Easton (2012) argue the narrative is critical to new product credibility, the organisational literature has demonstrated the multiple narratives that account for moments of change or instability (e.g. Brown, 1998 looks at an IT implementation, look at recent merger, Vaara and Tienari, 2011). Here we are interesting in showing how the events are narrated differently and accordingly we look aim to produce narratives that account for the past, present and imply the future of the channels. Our presentation also picks out certain common elements (topics) that operate hegemonically by asserting one understanding and precluding others.

Research Design

This paper replicates Andrew Brown's narrative method from his 1998 and 2003 (the 2003 paper was co-authored with Graeme Currie) seminal works in the area of power and narratives in management studies. In this method the researcher engages in participant observation and a stream of interviews in an inductive attempt to generate 'thick' descriptions of a situation which are later presented in the form of group narratives.

Data was collected throughout the channel from a range of channel groups including low to senior level management in a multinational FMCG brand owner, mid-level management in Makro and Metro, owners of distribution companies, traditional wholesalers and traditional retailers. 35 semi structured interviews were supplemented by a four month participant observation engagement in the field in 2008, with follow up visits in 2010 and 2011. For the sake of brevity, only three distinct group narratives (Table 1) have been presented in this paper. Primary source of data was interviews which lasted between 60 to 90 minutes, and were recorded on audio media. Sales team interviews were conducted in manufacturer's regional sales offices in Karachi, Lahore, Islamabad and Multan. Interviews of owners of urban distribution companies were conducted in their distribution offices. Participants were asked open questions concerning the entry of MM. The initial questions were 'scene-setting': 'Tell me about the role of the manufacturer in the channel?', and then the interview went on to more specific issues like: 'How was the channel like before MM entered the channel?' 'How would you describe the entry of MM?' etc. Interview data was supplemented by participant observation. This included attending inter and intra organizational meetings of a multinational FMCG brand owner, attending sales and product launch events. Extensive field notes were taken.

Data was analysed in two distinct stages. In the first stage, through content analysis, the data from conventional semi structured interviews and field notes was coded in Atlas ti software on the basis of how a text/talk constructed a channel member or a channel group and how past, present and future of the channel was depicted. In the second stage three group narratives were constructed from this organized data by the researchers.

Table 1: The three groups, their roles and data collection

Group name and code	Description	Channel Member	Employment status	Summary of field engagement	Location
Modern Sales Team (G1)	Lower/Mid level sales managers managing manufacturer's relationship with Makro and Metro accounts	Manufacturer	Mid/Lower Management	6 interviews, key accounts meetings	Karachi, Lahore, Rawalpindi, Multan, Regional Offices
Traditional Sales Team (G2)	Lower/Mid level sales managers managing manufacturer's relationship with distributors, retailers, wholesalers.	Manufacturer	Mid/Lower Management	6 interviews, regional and area sales meetings	Karachi, Lahore, Rawalpindi, Multan, Regional Offices
Distributors – Urban Centres (G3)	Distributors of those territories in which either Makro or Metro had entered at the time of field engagement	Distribution companies	Owner-operators	4 interviews, observed several contacts between distributors and sales managers	Karachi, Islamabad, Lahore

Modern Sales Team's (MST's) narrative

The modern sales team comprises of frontline managers of the manufacturer who manage manufacturer's relationship with the 'modern' channel members, mainly Makro and Metro. Following is their narrative:

Before MM came to Pakistan, 'our (manufacturer's) sales in the big cities were dependent on a few big distributors and these distributors had several issues. All they wanted was a certain number on their ROI. They did all types of tricks to get that number done. For example, they would charge whatever they wanted. Our checks and balances have never been good, and they can never be good enough. After all we are talking about 18,000 outlets in this city (Karachi) alone' (Anis, Key Accounts Manager, Karachi).

'MM have given us (manufacturer) an alternative channel. It is much more sophisticated. At least we get to know who is buying our products and at what price. We also get to know if the trade offers we are giving are being utilized properly. On top of that, MM give us more sales per outlet, which makes it cost effective for us to work with them. Plus, with MM coming in, the hanky panky of Area Managers (managers on the traditional side of the sales function) has also decreased. Now things are not as easy as they were' (Babar, Assistant Key Accounts Manager, Lahore).

'Entry of MM has also given us (i.e. the Pakistan operations of the manufacturer) opportunities for sales growth. This has helped us fulfill the demands of our international head office. Plus Salvatore (Head of the Middle East and South Asia business) is pushing us for a 25% growth every year. This is not an easy task. So we have to improvise and look for new ways to grow. MM have more and more stores opening

up, so this is good' (Ibraheem, Assistant Key Accounts Manager, Rawalpindi). It is good because 'our sales in local superstores in which there are elaborate displays has gone double in the last 3 years. Since MM also have elaborate displays, it is reasonable to believe that our sales in these stores will be significant' (Ibraheem, Assistant Key Accounts Manager, Rawalpindi).

MM have also contributed positively to the country. 'They pay taxes and create new jobs, and these are pretty decent jobs. Many of our salesmen who used to work with distributors and who were educated have left us and joined Makro' (Anis, Key Accounts Manager, Karachi). 'Apart from the job creation, MM stores have also lowered the prices in the market for the people. They are giving tough time to distributors' in this regard' (Nazar, Assistant Key Accounts Manager, Karachi).

With the entry of MM, local superstores have also become very active and have started participating in product displays and promotions. 'Every time I go to AlFatah (name of a local super store), I see all our promotions there. I had never seen this thing before' Nazar, Assistant Key Accounts Manager, Karachi).

Small retailers are also very happy because 'they now have an alternative source. If the distributor cannot provide them a product, they can always go and get it from MM. Plus, the outlets which were uncovered by distributors can now have direct access to products. Plus, they can be sure that the products they are getting from MM are of no. 1 quality (not a counterfeit)' (Nazar, Assistant Key Accounts Manager, Karachi). 'They (retailers) also prefer shopping from one location. Doing business in this country involves a lot of 'tensions'. These Makros and Metros make life easy for them. It saves them time. Every time I visit Makro in Manghu Pir (a locality in Karachi), I see many retailers in the evening bringing vans and loading their weekly stocks from there. This is becoming very common now for A and B class retailers'. (Anis, Key Accounts Manager, Karachi)

In terms of customer response, MM stores have really been a great success. 'I shop from there. My neighbours, my friends and family all want to go and shop there. I have given Makro cards to so many. People want to go there because they want to experience a new way of shopping. There have never been such big stores in the country. So people want to shop like people do abroad. I have seen people going from defence (a posh residential area) all the way to the airport for shopping at Makro. So, it is a sort of craze in consumers. It is the talk of the town really. Plus, the bigger packs offered at Makro and Metro do serve the purpose for the consumers well, especially for consumers with large families. They get these big packs and use them over a month. They do that (bulk shopping) in other modern stores (local superstores) any way' (Head of Key Accounts).

'Sometimes distributors cry, arguing that they are going to lose their business because of MM but they do not realize that they have their own customers that they will continue to serve' (Danish, Assistant Key Accounts Manager, Islamabad). 'They can serve the underserved retailers. For example those retailers who are really small or are on the outskirts of Lahore or those located in the slums. They are not lucky enough to get the distribution salesmen there. They get their products from the local wholesale markets' (Babar, Assistant Key Accounts Manager, Lahore). The distributors can continue serving such retailers through the local wholesale market. 'There has not been any closing down of distribution business because of MM. It's true that MM are going to grow big time in the near future, but the distributors will keep on getting their due share from the market'. (Danish, Assistant Key Accounts Manager, Islamabad)

Traditional Sales Team's (TST) narrative

Traditional Sales Team (TST) comprises of the frontline managers of the manufacturer who manage relationship with the traditional channel members, mainly the distributors. Following is their narrative:

Before MM came in as an alternative channel, we (manufacturer) were quite satisfied, and so were other channel members. We have been improving the distribution of our products for quite some time. 'Distribution in the past was not as sophisticated as it is now. The use of technology was very limited. We had to prepare all the schedules of delivery manually, but it was good fun'(Tariq, Area Sales Manager, Lahore). Other than the fun aspect, 'business wise everyone has always been satisfied. The distributors were happy and made money. Retailers were also happy. There was peace of mind for them (retailers). A retailer knew that he would definitively get his stocks from the distributor salesman on a specific date. He knew the exact time of salesman arrival and would keep the money aside. 'Bill to bill' (revolving credit facility) credit was very common. Overall it was a 'worry free' time for us (manufacturer), the retailers and the distributors' (Rajab, Area Sales Manager, Rawalpindi).

'We (manufacturer) have grown because of the extensive distribution system. This distribution system has also brought us recognition within the international organization of the company. Our distribution network in the past had grown to a level that country managers of other countries used to send their traditional sales staff for training here'(Tariq, Area Sales Manager, Lahore).

There has been a difference in response to MM from the manufacturers. 'National manufacturers such as Shan, National Foods and Tapal were very cautious in entering into a strong relationship with MM. They kept a distance with MM and adopted the wait and see policy, to see if Makro/Metro can really become big accounts. In contrast to these local companies, the reaction of multinational companies like Unilever was overwhelming. Multinational companies gave in to pressure from their head offices and greeted them very warmly even though the cost of doing business with a new channel was pretty high for them. Take example of Unilever, they have deployed two separate sales teams for Makro and Metro accounts, even though these accounts only contribute 2% of their sales' (Rajab, Area Sales Manager, Rawalpindi).

But we (manufacturer) are different from all the other multinational companies. We are smart to know that 'MM is good for its colourfulness but it is not really a good business proposition for us. We understand that the distributors are very important for doing business in this country. We want to establish relationship with the modern formats, but not at the cost of the distributors. This is very very clear. I have attended several meetings with the top management in which Arshad (CEO) has been very vocal about this. He has said repeatedly that he will not support MM at the cost of the traditional channel.' (Shoukat, Area Sales Manager, Karachi)

'Our stance, as a company, is very loud and clear that we will not disrupt the current distribution system with the arrival of international chains. This stance is also reflected in the margins we have agreed with MM. We are treating them like normal wholesalers and that's it. Obviously it makes sense; if we want to reach the masses in such a large country, we must take advantage of the traditional distribution system. We cannot afford to upset them. Plus, given that nobody pays tax in (traditional) wholesale (which gives traditional wholesale competitive advantage over tax paying multinationals businesses), we don't want to bet on the wrong horse.' (Tariq, Area Sales Manager, Lahore).

Apart from the fact that these stores are untested, which makes them unattractive for us (manufacturer), we also feel that these stores are harmful for our business in other ways. For example, 'these accounts play havoc in the market with trade promotions. You cannot find a single brand in the market with the right price.' (Tariq, Area Sales Manager, Lahore).

We are also sceptical about the business value of Makro/Metro stores. We feel that it is not suitable for Pakistani retailers. 'The retailers might want to go to MM for occasional top up purpose, but they cannot become regular customers of MM. It is not possible for them. They are small scale businesses. They have their own ways of working. They cannot just go and buy stocks for the entire week at one of these stores. There are a thousand problems a retailer has to face in this country like leaving the shop, getting transportation, getting cash for purchase etc etc.' (Kazi, Area Sales Manager, Multan). Makro/Metro are

also not suitable for consumers as ‘we are a poor nation. We live on a daily basis. Majority of the people have food for only one day in their kitchens. They (people) buy on a daily basis from a next door shop or from a mobile hawker’ (Kazi, Area Sales Manager, Multan).

Given the fragmented nature of Pakistan’s retail industry and the profile of local retailers, ‘it is impossible to think of Pakistan’s future channels without a significant role of the distributors. These distributors have always been and will always be the back bone of the distribution channels’ (Tariq, Area Sales Manager, Lahore). We see a bright future for distributors as ‘with more growth in population and more migration from rural to urban areas there will be even more growth in the number of retailers. The existing distribution arrangements are not enough. It is already becoming very difficult for us to distribute in large cities like Karachi and Lahore with only three or four distributors. There is certainly room for expansion in the distribution network as many outlets are still left uncovered. Companies are seriously expanding their distribution network with appointment of additional distributors. Unilever has just added distributor in Karachi, whereas Nestlé has added two in Lahore. That is going to happen in our company (manufacturer) too’ (Shoukat, Area Sales Manager, Karachi).

Narrative of Urban Distributors

Makro and Metro had already set up their stores in urban centres at the time of data collection. The urban distributors were directly affected. Following is their narrative.

‘We inherited this business (of distribution) from our fathers and grandfathers. We are in this business for generations now. It has given us our name. Our entire families have been involved in it. We have given our sweat and blood to the business and to the brands (of the manufacturer) in our market’ (Sheikh, Islamabad distributor).

A couple of years ago we started hearing from management of multinational manufacturers about these international chains coming to Pakistan. The manufacturers started giving us trainings regarding these stores. ‘The company (manufacturer) even took us abroad, so that we could see these stores ourselves. I went to Sri Lanka. These were pretty big stores, with a lot of sales. I saw that the manufacturer was selling directly to these outlets. This caused some concern in the distributors circle, as we knew that this could affect our business in Pakistan’ (Sheikh, Islamabad distributor). When we came back, we all got together and tried to raise our concern. But our concern never got heard. The reason is that ‘we are all very coward. When the (manufacturer’s) management is not around, we say that we will do this and we will do that, but when the time comes, we all chicken out. Plus, the manufacturer is always under pressure internationally to cooperate with them. They cannot jeopardize their relationship with these stores internationally. They told us in a straightforward manner that they will sell directly to these outlets’ (Sheikh, Islamabad distributor).

‘Despite all the benefits that we give to the manufacturer, the manufacturer also thinks that it is easier for them to do business with MM than with us. Obviously, they do not have to employ such a large sales force with them. They (manufacturer managers) are clever guys; they know what to do. If I were in their shoes, I might have done the same’ (Sheikh, Islamabad distributor). The inclination of manufacturer towards Makro/Metro stores can also be seen from the fact that ‘sometimes we are out of stock on a product whereas it is available at MM. The manufacturer has also started spending a lot of money on in-store advertising, especially on Makro mail, in these stores. They (manufacturer) can now communicate with over 40,000 retailers every week’ (Seth, Karachi distributor).

Stores like Makro/Metro are also benefiting due to rising income levels around the world. Customers are increasingly shopping monthly and weekly. Thus, the ‘modern formats are becoming popular

internationally. This is happening everywhere' (Seth, Karachi distributor). And this is happening in Pakistan too because Pakistanis are becoming affluent as well as westernized. 'Who says we are a poor nation? We drink mineral water. We want to do whatever the Westerners do and we worship whatever comes from the West. I don't think that we have lack of money. Have you been to City and 7th Avenue (names of local superstores)? Have you seen how many servants are there shopping for the 'Begmaat' (meaning wives of the rich) there? There is abundance of money' (Sheikh, Islamabad distributor).

MM also have governmental support. 'While entering the country they were able to fool the government that they would raise taxes for them but it was just a deception, a deception to enter the country and to get the benefits from the government. They have been able to get the best possible locations in the heart of Karachi and Lahore, including land in cantonment areas (Armed Forces establishments and residential areas). This is almost impossible for a local retailer to get' (Seth Karachi distributor).

Obviously, in this situation distributors are becoming less and less important in the channel. 'We see the change in the behaviour of the sales personnel of the manufacturer. Their attitude towards us has changed a lot. The relationship is not based on respect any more' (Sheikh, Islamabad distributor). 'There isn't any potential left for the distributors in this country now. The government is also encouraging international stores because they can collect taxes from them. Look at my business, my sales and share in the market is decreasing day by day. What alternatives do I have? I have a lot of credit in the market, and it is not easy to just pack up and leave. I will lose a lot of money by doing this. I am forced to continue with this business because of this issue' (Seth, Karachi distributor). While things are becoming tough for us, retailers and manufacturers are OK. 'Manufacturers (as they have powerful brands) will continue to grow. Retailers will go to them (Makro/Metro) if they (the manufacturers) don't go to the retailers (through distributors)' (Seth, Karachi distributor).

Discussion

Consistent with the epistemological stance in management studies which sees organizations as storytelling systems, the narratives presented here are not to be seen as vehicles through which groups exert their power (power which they possess) over other groups, rather they are to be seen as vehicles through which political struggle for meaning is waged. This view of channels not only recognizes plurivocality (Boje, 1995) in channel organizations, but it also helps in evaluating political alignments amongst different channel groups, which has been implied as an area of interest in various recent researches (Troilo et al, 2009, Auh and Merlo, 2012, Webb and Lambe, 2007). In this case we can see the modern sales team's and urban distributors' narratives aligned on the construction of the future (see table 2) since tragic future for urban distributors resonates with the epic future for Makro/Metro as per urban distributors' narrative.

By evaluating these narrative alignments informal and formal links between different channel groups can also be compared (Piercy, 2009, Le Meunier-FitzHugh and Piercy, 2011). For example, in a hierarchical view of channels we would tend to show alignment of traditional sales team with the urban distributors, as both these groups operate alongside each other on the traditional side of the channel, however, 'channels as storytelling systems' view, on the contrary (table 2) shows informal alignment between the urban distributors and the modern sales team through their group narratives (discussed above). Both the aligned narratives are resistant of the epic construction of distributors' future in the traditional sales teams' narrative.

Table 2: An illustration of narrative constructions

Constructions	Modern Sales Team (G1)	Traditional Sales Team (G2)	Urban Distributors (G3)
'tax'	Payment/evasion of tax indicates ethical/unethical business practices	Tax evasion is a competitive advantage for the traditional channel	Tax is a bargaining tool for MNCs to gain unfair government support
'promotions'	Promotions are a tool for traditional sales teams to do <i>hanky panky</i> (price cuts in traditional wholesale) in the market. <i>Hanky Panky</i> is forbidden (officially), but encouraged at the same time (as it increases sales).	Promotions are used by Makro/Metro to disrupt prices in the traditional channel	Promotions in the modern channel help the manufacturer
'people'	Pakistanis are modern and affluent	Pakistanis are poor	Pakistanis are modern and affluent
'employment'	'job at MNC' (usually a graduate level employment)		'Self-employment' (distributors)
'international pressures'	International pressure on subsidiary of an MNC manufacturer is beneficial for the channel	International pressure on subsidiary of an MNC manufacturer harms local interests of the business	
'the future'	Epic future, in which MM is a triumphant hero and distributors and traditional sales team are villains	Epic future, in which traditional channel is a triumphant hero and MM are villains	Tragic future, in which traditional channel is a defeated hero and MM are villains

In the view of power which is seen to be located in the narrative logic, we can see various constructions which limit the possibility of an alternative narrative. For example, the narrative of traditional sales team while describing tax evasion as a competitive advantage for the traditional channel, limits the possibility of (traditional sales team) describing it as something unethical (see table 2). Similarly, the description of Pakistanis as poor in traditional sales teams narrative leads to construction of an epic future for the traditional channel, but in the process, renders an alternative description of Pakistanis (for example, as

affluent and modern) as unacceptable in the narrative. It is precisely this power of narrative logics, which binds these constructions together tightly in a chain, that this paper seeks to show. The table shows the *process* through which certain constructions gain meaning and how they come together in a narrative.

Managerial implications

At a very basic level, by using narrative method, channel managers can acknowledge the plurality of voices in a channel captain which is in sharp contrast to classical channel literature which shows channel captain as a single, objective and distinct organization responsible for changing and shaping the entire channel (e.g. Tucker, 1974; Mayo et al., 1998; Tsay, 2002). Moreover managers can gain a fuller understanding of power by analysing the politics and hegemony of narratives. Subscribing to the view that those groups who are able to make their stories stick (Boje et al, 1999) in a narrative network gain power, channel managers can evaluate the standing of different groups in a channel, at a given point in time. Moreover, channel managers can visualize various informal alignments of groups both inter and intra organizationally. This can help channel management in devising appropriate strategies for different channel groups (Mehta et al., 2002, Keillor et. al, 2000).

At a more nuanced level, channel management, by locating power in the rationalities produced by different narratives can see the basis on which different views rest and to evaluate different narrative logics. In case of formation of narrow/hegemonic constructions in the narrative network (as in table 2)which produce conflict and restrict alternative/positive constructions, conscious effort can be made by managers (who become story artists as per Lowe and Hwang, 2012) to introduce broader and abstract themes in the story network. This could help soften the narrow/hegemonic constructions as these broader themes can be invested with various meanings which could bring the groups together and reduce negativity. For example, to soften the narrow constructions of Pakistani ‘people’ and ‘international pressures’ in the narratives of the three groups (table 2), broader themes such as ‘customer diversity’ and ‘internationalization of business’ could be introduced. ‘Customer diversity’ theme allows description of Pakistanis as both affluent-modern and poor-traditional at the same time. Similarly, ‘internationalization of business’ theme can show a local subsidiary of international business, both losing and gaining its position in relations with the head office.

Limitations and further research

This research looks at the story network as a snapshot, which shows the political struggle between different groups at only a given point in time. A longitudinal ethnographic study of a particular channel can be helpful in studying the effects of the political struggles by evaluation the story network evolution.

Moreover, a study which shows struggle between different group narratives at different levels of hierarchy can help us see how different coalitions are formed within a channel leader organization. For example, it might be interesting to see how the senior management’s narrative in this context forms relations with the narratives told by the modern and traditional sales teams. Additionally, collection and presentation of narratives from multiple channel members e.g. (in this case Makro/Metro, rural distributors, traditional retailers and wholesalers) could also show coalitions and factions formed both inter and intra organizationally.

Referring to ‘managerial implications’ which encourage conscious effort by managers to ‘broaden the themes’ in the story network, formal frameworks from discourse analytics such as Laclau and Mouffes’

(2001) discourse theory can be applied on narratives to show different ‘words’, ‘terms’ (‘nodal points and floating signifiers in Laclau and Mouffe’s language) could be broadened to bring different channel groups with different interest come together (van Bommel and Spicer, 2012).

On the theoretical side one of the limitations of the narrative method is that its results are not ‘generalizable’, ‘valid’ or ‘reliable’ in positivistic sense (Brown and Rhodes, 2005). However, narrative research can be ‘plausible’ (Golden-Biddle and Locke, 1993). Plausibility is as a criterion which refers to whether or not a set of claims are acceptable. The claims of a research should seem reasonable in terms of both what the readers as social beings already know about social life, and what the readers as analysts know about the literature. In this paper plausibility is achieved by identifying possibility of bringing broader social science debates on power to marketing channels. Thereby suggesting that pursuing this possibility offers something new in the area of ‘power and channels’ literature which would make this research acceptable within the relevant research community.

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ACQUISITION PREMIUMS, CEO POWER, AND THE FINANCIAL CRISIS

ABSTRACT

What happens to acquisition price premiums when a powerful bidder CEO confronts a powerful CEO of the target firm? We examine the effect of relative power relationships between the CEOs of the bidder and target firms to explain acquisition overpayment. Our results point to separate sources of power for the acquirer and target CEOs that affect premiums. Acquirer CEOs use power derived from their social networks to improve their ability to judge post-crisis acquisition quality, streamline board decision-making, and reduce premiums. However, target CEOs use only their hierarchical power to reinforce their negotiation stance, driving premiums higher.

INTRODUCTION

Executives worry about mergers and acquisitions (M&A) as a way to create value (Seth *et al.*, 2002) because they are long-term and complex resource commitments (Chen *et al.*, 2002; Nutt, 2001) that typically lose value (Aybar & Ficici, 2009; King *et al.*, 2004; Tuch & O'Sullivan, 2007). Before resources are formally committed (Haspeslagh & Jemison, 1991), the primary challenge facing executives as they negotiate the terms of the acquisition deal is information asymmetry, where the bidder typically has less accurate information about the potential target's asset quality, transferability, and synergy prospects than the target itself does (Coff, 1999). Information asymmetry leads to low-quality decision-making (Hayward & Hambrick, 1997) because the value of target assets is difficult to evaluate (Laamanen, 2007), resulting in a price premium, the amount spent to acquire beyond the market value of the target company. High premiums create a "winner's curse" (Varaiya & Ferris, 1987), putting the merger firm at an immediate performance disadvantage.

M&As also result in dramatic changes to the composition of the executive teams in both the acquired and target firms (Cannella & Hambrick, 1993), suggesting that executive power also plays a role in acquisition negotiation. CEOs have a unique and significant influence on firm actions (Jensen & Zajac, 2004), and a great impact on firm performance (Cannella *et al.*, 1993). While the role of compensation, ownership, and agency factors have been well studied (Cai & Vijh, 2007; Finkelstein & Hambrick, 1989; Kroll *et al.*, 1997; Wright *et al.*, 2002) (Hartzell *et al.*, 2004), the role of CEO power in general is less well understood. The CEO power perspective suggests that information asymmetry is addressed through formal and informal influences on the behaviour of other firm members to manipulate information asymmetry in their favour during the negotiation phase (Chikh & Filbien, 2011; Wulf & Singh, 2011). We consider M&As as complex power plays between the acquirer and target CEOs, each with sources of formal and informal power to influence the acquisition negotiation process. As acquisitions are a dyadic process, involving 'the combination of characteristics of the two merging firms, rather than those of each of the firms considered alone' (Seth, 1990:118), this paper attempts to understand the roles of power of both CEOs in M&As. Earlier studies in the finance literature looked at CEO power from the target firm affected premiums, while management studies noted the effect from the acquirer CEO's perspective (Haleblian *et al.*, 2009). Only a few studies have considered the

premium effects from both firms (Cai *et al.*, 2007; Shelton, 2000), and no study has comprehensively examined CEO power from both CEOs simultaneously.

In this paper, we consider a context in which information asymmetry is affected, the environmental shock of the 2007-2008 financial crisis, and how the various forms of CEO power deal with it. The initial premise of this paper is therefore that differences in CEO power of the acquiring and target firms affect information asymmetry during the negotiation process and hence impact the resulting price premium of the acquisition. What happens to acquisition price premiums when a powerful bidder CEO confronts a powerful CEO of the target firm? More specifically, we ask how do the differences in the various types of power between acquirer and target CEOs affect the acquisition premium?

Our results suggest when powerful CEOs confront each other during the bidding process, their power originates from different sources. Acquirers reduce the effects of information asymmetry through chairman and prestige powers. In effect, they use their external contact networks to improve their ability to judge the target's potential value, and are able to act promptly, securing board approval through streamlined decision-making. But target CEOs exacerbate the effects through hierarchical power, using their power within the firm to prevent information leaks that could compromise their negotiation position.

HYPOTHESIS DEVELOPMENT

The primary challenge facing executives during the negotiation phase is information asymmetry, where the bidder typically has less accurate information about the potential target's asset quality, transferability, and synergy prospects than the target itself does (Coff, 1999). Changes in the external environment affect information asymmetry by confounding how acquirers interpret the relevance of the information they have about the target and affect premiums (Jahera *et al.*, 1985; Slusky & Caves, 1991; Walkling & Edmister, 1985). However, one form of change that has not been studied is an environmental shock (Chizhik *et al.*, 2003), an unexpected event that threatens major corporate goals and has a restricted response time (Smart & Vertinsky, 1984). The shock also exacerbates information asymmetry. Information that was considered relevant before the shock may now be more difficult to interpret, as the context has shifted. In one study, environmental change that resulted in dramatic changes to the number and financial strength of competitors triggered overpayment as executives opportunistically concluded that weaker competitors could be acquired at a discount to their pre-shock price (Shelton, 2000). We therefore predict higher premiums after the crisis.

Hypothesis 1: The financial crisis increases acquisition premiums.

Since the basis for CEO power is the ability to manage information asymmetry (Finkelstein, 1992; Hinings *et al.*, 1974), our initial premise is that CEOs use their own power to manipulate information asymmetry between target and acquiring firms. Executives wield at least two distinct forms of power: vertical power based on structure, and horizontal power based on social contacts outside the firm (Mitsuhashi & Greve, 2004). Finkelstein (1992) identified four distinct types of CEO power – structural, prestige, ownership and expert. CEO structural power refers to the top executive's formal position at the apex of the organization hierarchy that provides unique authority, resource control and network centrality (Astley & Sachdeva, 1984). The CEO's position induces hierarchical subordinates to obey not only because of the CEO's superior rank but also in the belief that the CEO has the right to exercise power (Astley *et al.*, 1984). Structural power can be enhanced if the CEO also occupies the role of Chairman (Finkelstein & D'Aveni, 1994). Secondly, CEO prestige power captures the relationship between the CEO and elite and

powerful contacts outside the firm (Finkelstein, 1992). These contacts provide additional social capital that affects strategic decisions (Geletkanycz & Boyd, 2001). Finkelstein (1992) also identified two other sources of CEO power: ownership power and expert power. We include ownership as a control variable since it has been well studied (Cai *et al.*, 2007; Hubbard & Palia, 1995; Song & Walkling, 1993, 2000). However since he concluded that the effects of expertise were marginal on M&A acquisition price, we did not include expert power in this study.

Of special note, two different dynamics are at play within the acquirer and target firms during the bidding process. While the acquirer is actively seeking and evaluating its next opportunity, the target firm is more passive, only deciding whether to accept or reject an offer (Shelton, 2000). We therefore examine each CEO separately to develop hypotheses.

Structural power. Structural power provides CEOs with a greater ability to bend the organization to serve personal objectives (Pfeffer, 1992). Ocasio (1994) described two mechanisms to explain structural power: institutionalization and circulation. He argued that executives face two pressures that threaten their structural power – obsolescence and contestation – and that given enough power, they can deal with these pressures by institutionalizing their power. In this model, executives consolidate power by escalating commitment, institutionalizing rules and beliefs, and establishing networks of influence (Ocasio, 1994). This power attenuates employee resistance to strategic change (Larsson & Finkelstein, 1999). One method powerful executives use to preserve their power is dramatic strategic change such as acquiring another firm (Finkelstein *et al.*, 1989; Kroll *et al.*, 1997; Wright *et al.*, 2002). For the acquirer CEO then, pursuing M&As can help institutionalize power.

CEOs gain structural power by serving as the chair of the firm's Board of Directors. Finkelstein and D'Aveni (Finkelstein *et al.*, 1994) argued for a contingency model of CEO duality. Duality is to be avoided when performance is good and the environment stable, since CEO-Chairs are in a conflict of interest when they evaluate their own effectiveness (Zajac & Westphal, 1994), restrict a board's ability to effectively monitor and discipline the firm's managers by controlling the board agenda (Finkelstein *et al.*, 1994; Firstenberg & Malkiel, 1994), and steer board attention (Tuggle *et al.*, 2010) towards the CEO's own strategic priorities (Desai *et al.*, 2003). They become entrenched and weaken the board's ability to challenge them (Finkelstein *et al.*, 1994). However, duality may provide advantages in times of poor performance or unstable environment, with benefits including avoiding rivalry between the two positions, streamlining decision-making, and resisting replacing the CEO during times of poor performance, emphasizing longer-term performance (Alexander *et al.*, 1993). For firms facing the environmental shock of the financial crisis, we predict that having CEO-chairman duality enhances the ability of the acquirer CEO to reduce premiums, as well as support the target CEO's desire to resist any takeover attempt, and thereby increase premiums:

Hypothesis 2: Acquirer CEO chairman duality negatively moderates the relationship between the crisis and price premium.

Hypothesis 3: Target CEO chairman duality positively moderates the relationship between the crisis and price premium.

Target CEOs also use their structural power not to convince the board to obscure information about the firm, but to control information leaks from subordinates. Target CEOs recognize that the impending acquisition will represent a significant change in their personal careers, most likely obsolescence (Hartzell *et al.*, 2004). The circulation of power model (Ocasio, 1994) argues that a CEO facing obsolescence will lead to a rise of challenges from other executives, who seek to

contest the CEO's power. They will attempt to bypass the CEO and directly negotiate their own fates with the acquiring firm, potentially revealing key information to the acquirer, and thus critically sabotaging the target CEO's ability to secure the maximum price through information asymmetry. Having more unity of command through high structural power will dampen this tendency through tighter resource control, and support the target CEO's resistance to the takeover bid (Mitchell & Mirvis, 2001). The acquirer is therefore forced to pay to compensate for the target CEO's surrendering control of the target firm, either in the form of a 'golden parachute' compensation (Hartzell *et al.*, 2004), or an executive position in the merged firm (Cai *et al.*, 2007) with sufficient managerial discretion (Wulf *et al.*, 2011). Facing a dramatic increase in information asymmetry due to the financial crisis, we therefore expect target CEOs to be better able to settle their post-acquisition role and secure a higher price if they are structurally powerful, forcing the acquirer to increase their offer to finalize the acquisition deal. Weak CEOs, on the other hand, are less able to obtain a high acquisition price because of information leaks arising from subordinates who seek to secure their own post-acquisition fate. Therefore we predict:

Hypothesis 4: Target CEO hierarchical power positively moderates the relationship between the crisis and price premium

Prestige power. Prestige power is formed through the ability of high-prestige actors to dominate lower-prestige actors because of their superior ability to access and control privileged information (Bunderson & Reagans, 2011). Prestige is therefore seen as a form of informal power (Finkelstein, 1992; Fredrickson *et al.*, 1988) based on associations with powerful and elite contacts as well as tacit knowledge and skills (Finkelstein, 1992), where executives control access to other social networks and the resources those networks control (Brockmann *et al.*, 2004). Prestigious executives have access to privileged strategic information that can be used to reduce information asymmetry and aid strategic decision-making (Carpenter & Westphal, 2001) through a supply of managerial talent (Certo, 2003), or by helping executives stay up-to-date with the latest practices and procedures used in other firms (Davis, 1991). Acquirer CEOs thus reduce the effects of information asymmetry due to the crisis.

Hypothesis 5: Acquirer CEO prestige power negatively moderates the relationship between the crisis and price premium

Target CEOs, however, face loss of prestige and lower post-acquisition morale (Gephardt, 1978). D'Aveni and Kesner (1993) suggested that the prestige power from board connections, and structural power of the target CEO play significant roles in the resistance or acceptance of a takeover offer. They argued that since prestige originates outside the control of the board of directors and of the other members of the organization, it aggravates information asymmetry through privileged relationships with elite and power outsiders (Reuer *et al.*, 2012). Target CEOs with less prestige than acquirers therefore tended to cooperate, but those with more prestige resisted takeover offers.

Hypothesis 6: Target CEO prestige power positively moderates the relationship between the crisis and price premium

METHOD

Sample

We selected a six-year sample centered on the 2007-2008 financial crisis to test the hypotheses. We identified 407 acquisitions with a published price for S&P500 listed companies between 2005

and 2010 according to the Thomson SDC Acquisition database. Removing cases of share buyback and cases of acquired companies without available stock data, the final sample included 242 M&As. A subsequent t-test pointed to no difference in acquisition size between firms in the sample and those buying back shares. The sample spanned 35 2-dig SIC industries, with no single industry representing more than 15% of the sample and thereby suggesting that no single industry dominates. Data was drawn from COMPUSTAT/Research Insight, EXECUCOMP, BusinessWeek Executive Profiles, SEC 10K and DEF14A filings, and company websites.

Variables

Dependent variable. We calculated *acquisition premium* as the difference between the ‘unaffected’ pre-takeover price of the target firm and the actual price paid, all divided by the pre-takeover price (Haleblian *et al.*, 2009). We noted the date of the initial announcement of the acquisition listed in the Thomson SDC M&A database. We then interpreted the stock price one day, one week, and four weeks prior to this date as ‘unaffected’ by the impending announcement, estimating the ‘true’ market value of the target firm (Hayward *et al.*, 1997). We obtained stock price from the Center for Research on Stock Prices (CRSP) database. We used direct measures based on price rather than a ratio measure such as price/(acquirer size) since it allowed for better control of firm size through a separate control variable, and avoided possible spurious results due to correlations among the denominators on both sides of the regression equation (Wiseman, 2009).

Independent variables. First, we captured *CEO chairman duality* as a dichotomous variable, indicating whether the CEO also occupied the Chairman role. Secondly, to capture *CEO hierarchical power*, we used the CEO total compensation relative to the mean compensation of the other members of the top management team. While earlier studies employed ratios of total cash compensation (Daily & Johnson, 1997; Finkelstein, 1992), we used the ratio of the total compensation because long-term compensation is also affected by executive power (Sanders *et al.*, 1995). The total compensation was calculated as the sum of salary, bonus, deferred income, stock grants, and stock options.

Finally, we measured *CEO prestige power* by the number of the CEO’s corporate and non-profit board directorships, where more directorships imply higher power (Finkelstein, 1992). We also considered the relative prestige of the firm on whose board the CEO sits, since being a director of Google would be considered more prestigious than sitting on a board of a small, local company. We therefore noted the stock rating at the end of each calendar year of each company using the rating of the firm’s general financial condition provided by Standard & Poor’s Stock Quality Index (Finkelstein, 1992). The scale extends from a 0 for a non-rated firm, to 10 for a firm rated A+ by S&P. To determine the S&P board rating, we summed the scores of the firms on whose board the CEO sits. Principal component analysis confirmed a single *acquirer CEO prestige* factor (eigenvalue = 1.97), explaining 66% of the total variance. Reliability was acceptable (Cronbach α = 0.74) (Eisenhardt & Bourgeois, 1988; Finkelstein, 1992). Likewise, the *target CEO prestige factor* also loaded onto a single factor (eigenvalue = 2.22), explaining 74% of total variance, with an acceptable reliability (α = 0.82).

Control variables. To control for alternative explanations of acquisition risk-taking, we included firm-level and CEO-level controls for both acquirers and targets. At the firm level, we considered acquirer firm size and prior performance. We controlled for *firm size* by measuring total assets. Poor firm performance can also result in hostile takeovers to replace bad management of the target firm (Morck *et al.*, 1989), or to overconfidence in the bidder CEO resulting in higher-than-necessary premiums (Chatterjee & Hambrick, 2011). *Firm performance* was

measured for acquirers and targets as the firm Return on Assets (ROA). A common gauge of firm profitability, ROA captures the degree to which management has effectively deployed firm assets, thus it is useful in assessing the performance implications of business strategies (Geletkanycz & Hambrick, 1997). At the CEO level, we measured percentage shares owned by the acquirer CEO (*ownership*). CEOs who own a substantial portion of the firm tend to act like owners and diminish agency effects (Moeller, 2005), and result in lower premiums. Following earlier studies, our *ownership* variable is equal to one if the CEO owns more than five percent of shares, and zero otherwise (Cai *et al.*, 2007).

Estimation Model. We used an Ordinary Least Squares (OLS) regression to analyse the relationships between the variables. All independent and control variables were standardized with a mean of zero and a standard deviation of one to aid in interpretation of the influence of each variable, and to reduce the effects of multicollinearity with interaction terms (Jaccard & Turrisi, 2003).

RESULTS

The variable statistics and correlations are listed in Table 1. Our regression model results are listed in Tables 2-4. Multicollinearity was not suspected, as the variance inflation factors of the models did not exceed 4. Hypothesis 1 predicted that the financial crisis would increase information asymmetry and lead to higher price premiums. The positive and significant coefficient for the crisis dummy variable in Model II in Table 2 supports the hypothesis. Hypothesis 2 argued that acquirer CEOs who also occupy the Chairman position can streamline board decision-making and lower bid premiums, while Hypothesis 3 predicted a target CEO-chairman would increase premiums by aligning the board with the CEO's desire to resist any takeover. We considered both CEOs in a single model. The negative and significant interaction coefficient in Model IV supports our acquirer CEO hypothesis. However, we found no support for Hypothesis 3 (target CEO).

Hypothesis 4 predicted target CEOs facing a dramatic increase in information asymmetry due to the financial crisis would secure higher premiums if they were structurally powerful. We tested the difference in hierarchical power between the CEOs in a single model. However, analyzing differences between two continuous variables has well-known difficulties and requires special consideration of implied model equation constraints (Edwards, 1994; Edwards, 1995). Instead of considering a single variable capturing the difference between acquirer and target CEO, we defined a baseline model where we included separate variables for acquirer CEO power and target CEO power (Model V in Table 2). We then added higher order difference terms between the two variables in a second model (Model VI), following Edwards (1994; 1995). The non-significant log-likelihood test improvement between the two models pointed to excluding the higher order terms. We then moderated the acquirer and target CEO power variables with the financial crisis dummy in Model VII. The positive and significant interaction coefficient in Model VII supports Hypothesis 4.

Hypotheses 5 and 6 argued that prestigious executives have access to privileged strategic information that can be used to affect information asymmetry and thus alter premiums. Again, we followed Edward's method of determining difference variables for prestige power. The non-significant log-likelihood test between restricted (Model VIII in Table 4) and unrestricted (Model IX) models confirmed the use of only the restricted model with the two CEO power variables in the interaction model (Model X). The negative and significant interaction coefficient in Model X

supports our hypothesis about the acquirer CEO (Hypothesis 5). However, we found no support for an effect with the target CEO (Hypothesis 6).

Two control variable results in Model I (Table 2) are noteworthy. Target firms with poor performance had lower price premiums, consistent with the idea that poor performance signals lower target quality. We also found no relationship with acquirer CEO ownership, contradicting several studies that suggest high ownership encourages CEOs to think like owners, reduce agency effects and lower premiums.

DISCUSSION AND CONCLUSION

Our results point to distinct power mechanisms at play between acquirer and target CEOs during acquisition negotiation. Acquirer CEOs use horizontal power derived from their personal contact networks (prestige power) to obtain key information that can reduce information asymmetry, and streamline decision-making with the board of directors (chairman duality) to lower acquisition premiums. However, target CEOs leverage vertical power anchored in their ability to minimize challenges from subordinates that might leak information critical to the negotiation. We subsequently developed regression models to test whether these forms of power interacted with each other (details not included in the paper for brevity, but available from the first author). We found no case of interaction, suggesting that these sources of power act independently of each other. So when one talks about powerful CEOs confronting each other, this paper provides evidence that in fact, they use different kinds of power during negotiation. Acquirers reduced information asymmetry through structural and prestige power sources, while targets resisted through hierarchical power.

Naturally this study suffers from limitations. We did not account for ownership effects of the target CEO due to insufficient data. The sample also includes only large, well-capitalized U.S.-based acquirers that list on the S&P 500. We therefore cannot necessarily extend our conclusions to smaller firms, non-U.S. based firms, or privately held firms.

Our results contribute to the discussion about how non-demographic characteristics of executives contribute to strategic action (Hambrick & Mason, 1984), in our case, personal power. They also offer a new context to the discussion about how ‘economies of fitness’ (Larsson *et al.*, 1999) contribute to acquisition performance, where acquisitions typically perform better when targets have different but complementary capabilities. In our case however, it is executives with different power within their respective organizations that provide a complementary power arrangement that affect the initial negotiation phase of the acquisition process. A powerful acquirer CEO dominates the negotiation phase through agency and prestige mechanisms, to obtain lower premiums. On the other had, powerful target CEOs keep a tight lock on firm information to better resist an offer, and drive up premiums. We also respond to King *et al.*’s (2004) assertion that there remain many unidentified variables that may explain variance in post-acquisition performance. We provide three possible mechanisms to create a winner’s curse (Varaiya *et al.*, 1987) and initial pressure on the merged firm to obtain anticipated synergies: the acquirer CEO lacks sufficient horizontal power, the acquirer CEO lacks chairman power, or the target CEO has too much vertical power.

Table 1: Variable Statistics and Correlations

		Mean	S.Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Premium	47.71	51.88	1														
2	Acq Chairman	0.65	0.48	-0.03	1													
3	Tar Chairman	0.54	0.50	-0.03	0.03	1												
4	Acq Hier. Power	1.26	0.55	-0.05	-0.01	-0.02	1											
5	Tar Hier. Power	2.34	1.11	0.09	-0.07	0.09	0.06	1										
6	Acq Prest. Power	0.00	0.80	-0.04	0.23 ***	-0.03	0.03	0.04	1									
7	Tar Prest. Power	0.00	0.86	0.01	-0.03	0.16 *	0.02	0.17**	0.08	1								
8	Acq Status	-0.01	0.89	-0.03	0.07	-0.07	-0.21 ***	-0.10	0.08	0.05	1							
9	Tar Status	-0.02	0.87	-0.04	0.05	0.10	-0.12	-0.05	0.00	0.10	0.07	1						
10	Crisis	0.38	0.49	0.19 **	-0.03	-0.01	-0.05	0.05	-0.01	-0.02	0.03	0.05	1					
11	Acq Firm Size	13867.25	81174.48	0.01	0.20 **	0.00	0.05	0.02	0.10	0.11	-0.03	0.00	0.13 *	1				
12	Tar Firm Size	77943.40	200648.80	-0.17 *	0.03	0.18 **	-0.01	0.27 ***	0.09	0.33 ***	0.00	-0.03	-0.02	0.40 ***	1			
13	Acq Ownership	0.39	0.49	-0.06	-0.21 ***	0.04	0.21 ***	0.07	-0.06	-0.11	-0.35 ***	-0.08	0.00	0.06	-0.07	1		
14	Acq Firm Performance	0.07	0.07	0.02	0.03	0.09	0.08	0.08	0.08	0.03	-0.13 ***	0.03	-0.09	-0.16 *	-0.21 **	0.14 *	1	
15	Tar Firm Performance	-0.04	0.27	-0.32 ***	-0.03	0.15 *	0.08	0.06	0.00	0.11	-0.08	-0.05	-0.18 **	0.01	-0.40 ***	-0.10	-0.07	1

***: p<0.001, **: p<0.01, *:p<0.05

Table 2: Regression Models of CEO Chairman Duality and Acquisition Premium

	Control Model I	Crisis Effect Model II	CEO Chairman Duality Model III	CEO Chairman Duality Crisis Effect Model IV
Difference Between Acquirer and Target CEO				
Acq. Chairman duality			3.47 (6.59)	-7.00 (6.94)
Tar. Chairman duality			-7.98 (7.06)	3.74 (6.45)
Effect of Financial Crisis				
Acq. Chairman duality x Crisis				-18.73 (6.86) **
Tar. Chairman duality x Crisis				7.63 (6.34)
Crisis dummy		7.26 (3.24) *		15.12 (6.44) *
Controls				
Acq. Firm Size	2.51 (3.66)	1.59 (3.54)	3.59 (3.67)	2.20 (3.62)
Tar. Firm Size	-1.99 (2.08)	-1.92 (2.06)	-2.29 (2.11)	-2.10 (2.08)
Acq. Firm Performance	9.15 (44.85)	15.27 (44.40)	9.12 (45.19)	48.22 (46.44)
Tar. Firm Performance	-56.12 (12.92) ***	-51.08 (12.93) ***	-56.63 (12.95) ***	-54.21 (12.84) ***
Acq. CEO ownership Intercept	-23.03 (14.35)	-22.58 (14.23)	-27.49 (14.85) +	-25.18 (14.55) +
	59.65 (15.15) ***	58.78 (15.03) ***		
R ² _{adjusted}	0.093	0.108	0.090	0.129

***: p<0.001, **: p<0.01, *:p<0.05, N=242

Table 3: Regression Models of CEO Hierarchical Power and Acquisition Premium

	CEO Hierarchical Power Restricted Model V	CEO Hierarchical Power Unrestricted Model VI	CEO Hierarchical Power Crisis Effect Model VII
<hr/> Difference Between Acquirer and Target CEO <hr/>			
Acq. CEO Hier. Power (X)	-0.83 (3.27)	0.98 (3.59)	3.16 (3.47)
Tar. CEO Hier. Power (Y)	7.71 (3.34) *	7.65 (3.39) *	6.19 (3.35) +
X ²		-0.12 (1.63)	
Y ²		2.55 (1.82)	
XY		-5.85 (3.53)	
<hr/> Effect of Financial Crisis <hr/>			
Acq. CEO Hier. Power x Crisis			6.81 (4.36)
Tar. CEO Hier. Power x Crisis			9.20 (3.09) **
Crisis dummy			6.75 (3.18) *
<hr/> Controls <hr/>			
Acq. Firm Size	3.42 (3.55)	1.88 (3.63)	1.64 (3.52)
Tar. Firm Size	-3.53 (2.17)	-2.64 (2.21)	-2.65 (2.13)
Acq. Firm Performance	-4.86 (44.71)	-9.81 (44.73)	-12.67 (44.37)
Tar. Firm Performance	-53.35 (12.91) ***	-56.74 (13.01) ***	-53.00 (12.84) ***
Acq. CEO ownership	-24.97 (14.06) +	-26.11 (16.08)	-15.14 (16.25)
R ² _{adjusted}	0.105	0.109	0.151
LR test (restricted vs. unrestricted difference)	-	4.27 (n.s.)	-

***: p<0.001, **: p<0.01, *:p<0.05, N=242

Table 4: Regression Models of CEO Prestige Power and Acquisition Premium

	CEO Prestige Power Restricted Model VIII	CEO Prestige Power Unrestricted Model IX	CEO Prestige Power Crisis Effect Model X
<hr/> Difference Between Acquirer and Target CEO <hr/>			
Acq. CEO Pres. Power (X)	-2.26 (3.24)	-1.11 (3.92)	-4.16 (3.36)
Tar. CEO Pres. Power (Y)	2.98 (3.42)	10.19 (4.54)	2.61 (3.40)
X ²		-1.00 (2.11)	
Y ²		-4.10 (1.76) *	
XY		-2.81 (3.03)	
<hr/> Effect of Financial Crisis <hr/>			
Acq. CEO Pres. Power x Crisis			-8.00 (3.59) *
Tar. CEO Pres. Power x Crisis			2.25 (3.34)
Crisis dummy			7.25 (3.23) *
<hr/> Controls <hr/>			
Acq. Firm Size	2.75 (3.57)	2.08 (3.03)	1.70 (3.54)
Tar. Firm Size	-2.47 (2.19)	-1.80 (2.20)	-2.38 (2.16)
Acq. Firm Performance	5.91 (45.31)	9.65 (45.07)	18.92 (44.90)
Tar. Firm Performance	-55.66 (12.90) ***	-56.68 (12.81) ***	-51.19 (12.87) ***
Acq. CEO ownership	-22.46 (14.50)	-19.96 (14.44)	-20.95 (14.29)
Intercept	62.89 (15.94) ***	63.38 (15.83) ***	61.51 (15.78) ***
R ² _{adjusted}	0.089	0.103	0.118
LR test (restricted vs. unrestricted difference)	-	6.87 +	-

***: p<0.001, **: p<0.01, *:p<0.05, N=242

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**AUTHORS OF OUR OWN MISFORTUNE?
CRANDALL UNIVERSITY BOOKSTORE WRITES ITS FUTURE¹**

In 2014 the eponymous campus bookstore is in a tenuous position – increasing textbook prices and new competitors who are leveraging technology to capture their traditional market (students) have served to deplete revenues and shake the very foundations of an established business model. *Authors of Our Own Misfortune?* traces the experience of the Crandall University Bookstore – an independent campus bookstore at a small university in Moncton, NB, Canada – as its manager seeks to plan for its future. Principal issues explored in the case surround how to respond to new entrants who are exploiting innovation to change industry fundamentals and product diversification in an environment characterized by dominant and powerful suppliers who are moving to become competitors.

All the Information in the World

Amy looked with renewed interest at the spreadsheets covering her desk in the campus bookstore office. She had recently been offered and accepted the position of University Bookstore Manager and with a year as Assistant Bookstore Manager under her belt, she felt ready to tackle the challenges ahead. Before her lay the information she felt would enable her to create a strategy for the store that would fulfill her commitment to the university. Yet she knew that she had to make sense of it – to try and figure out what, exactly, the data was seeking to tell her.

She smiled as she thought back to her days as an undergraduate business student and the lessons taught in her Strategic Management class. “I guess the prof was right,” she thought. “All of the information in the world won’t help if you can’t figure out how to use it... it seems real life is not all that different from the case studies we did!”

Crandall University’s Bookstore

From its humble beginning in 1949 as a Christian high school of 12 students, to its current position as an undergraduate and graduate degree granting institution, the university had grown into an academic institution with a student population of 700 students by 2014. During that time the university had also grown in physical presence, having moved to a 200 acre campus from the single academic and residential building of its origin. It had also undergone three name changes to finally arrive at Crandall University in April 2010.

¹ The authors would like to thank Amy Pattison and Heather Burke of Crandall University for their participation in the development of this case study, as well as Evan Dignam and Evan Power of the BU4723 Advanced Strategy class for their assistance in data collection.

Over the years the campus bookstore had sought to keep pace with the university's growth by providing items traditionally needed by students – an inventory of text books and a few supplies. The inventory management and accounting systems were largely manual in nature – even in recent years only revenue was captured by computer. This antiquated system had trouble managing the inventory, and stock outs and costly returns were accepted as normal bookstore operations. Additional product lines were limited to a few items requested by non-student users of the bookstore, such as Christian fiction books sought by summer residents of campus housing. These non-textbook items were added at the discretion of the bookstore manager² and selected by personal preference or anecdotal “research”. Very little university branded merchandise was available in the store as the manager did not see this as a product line worth pursuing. In addition to stocking the store, the manager was also responsible for overseeing the part-time student staff, which typically consisted of three students who worked various shifts during the week.

As Crandall grew in programs offered and student enrolment, the university's Board of Governors determined that a facilities expansion would be required and by October 2010 a new academic building – Stultz Hall – was put into service. Included in this building was an expanded bookstore space that positioned it in a high traffic area and doubled its retail and storage square footage. Concurrent with the change in locale was the retirement of the previous bookstore manager and the hiring a new one who brought with her many years of retail experience in a Christian bookstore setting.

As part of the new manager's training, visits to other university bookstores were arranged. The process was informative for both the manager and the Vice President of Finance and Administration (VPFA) (Appendix 1) as they learned much about how other stores handled merchandising and systems management. It was clear that there were many opportunities available that might help Crandall increase sales and streamline its reporting system. One concrete result of these visits was the acquisition of a new Point of Sale (POS) system. With it, the bookstore had greater access to inventory information, although the tradeoff was a need for increased attention to numeric detail in data entry that had not been necessary in the manual periodic inventory system. It quickly became apparent that much training and experience would be needed before the new inventory system could produce information useful in decision making.

The 2010 name change created a need to rebrand the university and part of that process included the development of a new logo and a heightened interest in employing Crandall apparel and “swag”³ as a branding tool. Display and sale of the resultant clothing, coffee mugs and logoed stationary became the responsibility of the bookstore manager, while design and selection of the items remained with the university's Communications Manager⁴, who visited the bookstore frequently to rearrange the branded product and add to the non-textbook product lines.

Achieving positive results in this environment proved difficult, and with the added duties of conference services combined with some personal health challenges the new manager became overwhelmed and resigned after 18 months. Management of the bookstore was charged to another employee on an interim basis while day-to-day responsibilities were dealt with by the part-time student staff.

² During the years leading up to Amy's hiring the position included both the management of conference services and the bookstore. The full title of the position was “Auxiliary Services Manager/Bookstore Manager” but was commonly referred to as “Bookstore Manager.”

³ While historically used to describe a looped fabric curtain, “swag” in this context describes products that are designed for promotional and branding purposes.

⁴ The Communications Manager reported not to the VPFA but directly to the VP for Institutional Advancement.

Amy Comes Aboard

Amy's student experience at the university straddled this transitional period and the bookstore provided her with part time employment. She was hired as a third year student to provide front store customer service – along with two other students she ran the cash, accepted returns and stocked shelves. By the time she graduated she possessed a rich understanding of the day-to-day requirements of the bookstore.

After graduating from Crandall's Bachelor of Business Administration degree Amy spent the summer managing a small seasonal café but mid-August found her searching for something more permanent and unsure of what direction to take. It was then that the university posted an opening for a temporary Assistant Bookstore Manager. Her ties to the university paid off – she was contacted by the VPFA and asked to apply.

On the basis of her previous experience and a short interview Amy was offered the position and started work just as the semester began. Reporting directly to the interim Bookstore / Conference Services Manager, Amy took on the task of day-to-day operation of the bookstore. She had accepted the position knowing that there were organizational issues needing attention immediately and set out to clear them out of the way, beginning with a systems cleanup of outstanding purchase orders, mismatched receiving documents and unresolved back orders. Her next order of business was adding additional gift items and clothing merchandise.

Another pressing task was a request by the VPFA to prepare a report assessing the current structure of bookstore/conference services. This report would provide recommendations regarding its structure and purpose going forward and be presented to the President's Council, the university's strategic advisory body. After much research and analysis a document was prepared that included four primary recommendations:

1. The campus residence should not be used as a summer hostel as this is not cost effective.
2. Conference Services should expand its catering services through use of a new brochure.
3. Conference Services event booking policies need to be consistently enforced.
4. Conference Services and Bookstore should be structurally separated.

Council agreed to go forward with the new brochure immediately although it was the following spring before the fourth proposal was actioned and the role of the bookstore manager re-imagined. Conference Services and the Bookstore were separated creating permanent full-time positions in each area. Additionally, the role of accounts payable clerk was added to the bookstore manager position and the job was posted. These changes actually enhanced the position in Amy's eyes given the accounting training she had received in her business degree in addition to her bookstore experience – she eagerly applied for and won the position. Amy found it interesting that an overall vision had been developed for the position and not just a list of delegated tasks (Appendix 2). The long-term vision that she had been informally developing had now become her mandate *and* her problem. Her first priority, she felt, was to determine what long term role the bookstore would have in the life of the university.

Amy's boss, VPFA Heather Burke, had been clear that she was concerned that textbooks were "becoming extinct" and questioned what that would mean to a bookstore whose core business was the sale of textbooks. Heather felt that recent trends in the bookstore's performance were indicative that traditional university students were becoming less likely to purchase textbooks for a number of reasons, ranging from being unable to afford increasingly expensive texts to having cheaper alternatives available elsewhere to simply not seeing the use in owning a textbook. Moreover, mismanaging the ordering process was costly to the university both in terms of return charges and write-offs of obsolete titles.

Amy felt that Heather was right, but as she reviewed the data she wondered whether the current reporting model could validate what *exactly* was going on in the store. In her hands she had the bookstore's only required internal performance report (Appendix 3a) provided by the VPFA. She knew that the "Purchases" number included only the costs of merchandise sold – other costs, like salaries and benefits, were then deducted to provide the net bookstore number shown on the audited financial statements. Given that these operational costs were anywhere from \$40,000 - \$50,000 annually, it didn't leave much for a contribution to the university. Amy felt that increasing this margin should be her first order of business, and part of that process would require an understanding of which product lines were making the biggest contribution, and which were providing little.

Amy knew that this would require a little leg work since product line reports had never been prepared for the store. After some experimenting with the inventory report generator, she was able to create product line information for 2014 (Appendix 3b). Not surprisingly, textbook sales proved to be the largest segment, although Amy was surprised by the extent to which they dominated total sales. If Heather was correct and textbook sales were on the rapid road to extinction, the bookstore had some tough decisions to make. Understanding what was going on in that product line was an obvious place to start – were students actually buying fewer textbooks? Perhaps student acquisition rates – the ratio of books sold to students enrolled – would provide some insight.

In the past Amy had noticed that students' textbook buying habits differed depending on the faculty to which they belonged. She felt that science and business books were least likely to be purchased, whereas religious studies textbooks seemed to sell at a higher level. Before she made any decisions though, she went back to her inventory system to see if she could pull information to support her feelings. The information was available one piece at a time, and required effort to sort and collate it in an excel spreadsheet so that she could begin to look for patterns (Appendix 3c). Unfortunately these reports had never been produced in previous years so Amy had little basis for historic comparison.

Another complication was that textbook sales included books for both the traditional undergraduate degrees offered by the university and the continuing education Bachelor of Arts degree offered by the Adult Learners Professional Studies (ALPS) program. Unique to ALPS was a comprehensive pricing structure that included all tuition, fees and textbooks, which meant that ALPS textbook sales were not impacted by student preferences for alternatives, and acquisition rates for books used in the program were 100%. It also meant that ALPS textbook sales were more directly impacted by changes in student enrollment. For example in 2013 ALPS student enrollment dropped significantly with a resulting decrease in textbook sales, evident in the overall revenue picture. At that time, the POS system was not able to capture data by program type making it impossible to calculate the actual financial impact resulting from this issue.

Bookstore Operations

The bookstore's products fell into broad classes that varied in terms of their marketability and profit potential⁵:

- **Textbooks**

⁵ Amy had little control over the price of the Bookstore's products as margins were set by the VPFA (typically based on SRP), although she could exercise some level of discretion in the setting of the final price based on her professional judgment. While there were six broad categories, the Product Line Sales Report broke some categories – like School Supplies and Convenience Products – into sub-areas.

Textbooks had historically been the bookstore's "bread and butter," accounting for almost 90% of the operation's sales. These books were ordered from publishers which generally sold them to the store at a 20% discount off a Suggested Retail Price (SRP). Most books were then sold at the SRP, effectively generating a 20% margin.

- **University Branded Clothing**

The store carried several lines of clothing (e.g. hoodies, t-shirts, etc.) that were marked with either the Crandall University logo or the logo of the University's sports teams (the Chargers). Most clothing was marked up between 30 and 40%.

- **University Branded "Swag"**

An increasing number of non-clothing branded items were offered for sale that ranged from notebooks to coffee mugs. These items carried a 30-40% markup.

- **Non-Academic Books, Music, and DVDs**

These products offered Amy significant flexibility in terms of what she might stock. For example, if the university was hosting a conference for the Atlantic Baptist Women (a group largely comprised of senior citizens), Amy might order in a selection of adult fiction known to be popular with that demographic. Most of these products could be acquired at a 30 to 40% discount off of the publishers' SRP and then sold at a price determined by adding back the discount.

- **School Supplies and Convenience Products**

The store offered a wide selection of supplies (e.g. pens, paper, notebooks, etc.) and convenience products (e.g. chewing gum, soft drinks, candy, etc.) that would typically be purchased by a university student. The markup on these products varied widely.

- **Canadian Bible Society Books**

The Canadian Bible Society (CBS) was a national organization devoted to the translation, publication, and distribution of Bibles. Founded in 1904 the Society had originally operated a number of retail stores across the country; however the increasing secularization of Canadian society combined with the cost of operating retail operations resulted in a new business model with regional representatives carrying out the Society's mission "on the road." In the fall of 2013, the Society rented office space from the university, and part of the deal provided retail space in the bookstore for its literature. CBS products were not included in inventory, but were held on a consignment basis with the bookstore recognizing a commission on every sale.

Inventory Management

Given the importance of textbooks to the university bookstore it was not surprising that significant effort was devoted to the ordering and managing inventory (Appendix 4). The process of acquiring books typically began months in advance of the beginning of a semester. For example, on May 21st the Registrar's Office released the official listing of courses to be offered in the Fall 2014 semester, which only then enabled the bookstore to call on professors to submit their textbook orders by June 30th. Personally Amy found this to be one of the more frustrating parts of the ordering process, given that course offerings were being finalized only after students had already left for the summer, meaning that many of them would not register for Fall courses until their return. This left Amy ordering textbooks without any sense as to what course enrolments would be and forced her to rely on historic enrolment data and "guesstimates" which carried the risk that she might order too many or too few texts for a given class. Too many texts meant additional expense for the university in unnecessary inventory and return shipping

costs (this year alone the shipping cost for texts returned to publishers was over \$5,000). Too few texts meant upset customers (and professors) as courses got underway.

Professors represented another challenge for the bookstore. Many seemed to take a laissez-faire approach to ordering textbooks, and each year the order deadline would pass with many faculty members not having submitted their requests. This resulted in a laborious process of emailing, telephoning, and otherwise seeking to track down professors to determine their respective needs. On a good day Amy would have orders submitted on time and proceed to input them into the store's POS system. Called "Bookware," the system enabled the store to order, receive, and track inventory as well as process sales, credit and debit card payments, etc. Once an order was input into Bookware a purchase order would be generated that in turn would be used to make a telephone order with a publisher.

Publishers

Since the formation of the first universities in medieval times the written word played an important role in the education of students, although the supply of and demand for books was hampered by the developing state of printing technology and limited accessibility to higher education. This would change however with economic growth in the 20th Century – more students equated to greater demand for more specialized university instruction and textbooks to support them. Corresponding technological advances meant that these texts could be produced and delivered in mass quantities. As the 1960s unfolded the textbook publishing industry experienced a period of buyouts and mergers, giving rise to four major players who would by 2014 come to dominate the higher education segment of a \$14 billion⁶ education publishing industry: Pearson, McGraw-Hill Education, Cengage, and Wiley.

Pearson Education

New Jersey based Pearson Education was owned by the publicly-traded British corporation Pearson PLC.⁷ With holdings like Random House, the Financial Times, and the Economist Group Pearson PLC was recognized as both the largest education company and the largest book publisher in the world.⁸

McGraw-Hill Education

Founded in 1888, New York based McGraw-Hill was sold in 2013 by its parent McGraw Hill Financial to privately owned investment funds affiliated with Apollo Global Management. The publisher had over 6,000 employees in 44 countries and published in over 60 languages. It offered a wide variety of learning products that ranged from pre-kindergarten to post-secondary, and operated in Canada as McGraw-Hill Ryerson.⁹

Cengage Learning

Cengage emerged in 2007 as part of the restructuring of Thompson Publishing. Based in Boston the company operated in over 20 countries, including Canada where its products carried the Nelson

⁶ Lisa Ishamchuk, *History of Textbook Publishing in Canada* and Ioanna Opidee, *College Textbook Forecast*. The \$14 billion size of the industry represented two segments: K-12 and Higher Education publishing, both of which were approximately equal in size.

⁷ Pearson, *Pearson at a Glance*.

⁸ Phillip Jones, *Pearson stays on top as world's largest book publisher*.

⁹ McGraw-Hill Education, *About Us*.

imprint. It offered a range of products from textbooks to journals to magazines, and had strategic partnerships with media companies such as WebMD and Dow Jones.¹⁰

Wiley

Founded in 1807, New Jersey's John Wiley & Sons focused its operations in the areas of research, professional development, and education, and published everything from textbooks to academic journals to databases. The company's education segment had recently begun to focus on innovative solutions for its customers, which included software to manage everything from entire academic programs to individual courses.¹¹

The dominance enjoyed by large publishers could be attributed to the way in which the higher education publishing industry had evolved. Historically publishers had benefitted from a business model that was relatively well protected by high industry entry barriers that included author relationships and established buying and distribution processes. They had also benefitted from a relatively fixed demand for their products which enabled them to maintain healthy margins. For example, between 2006 and 2011 the higher education publishing industry enjoyed a 3.3% annualized rate of growth driven by price increases,¹² the continuation of a longstanding trend that had (according to some economists' renderings) seen the price of textbooks increase over 800% since 1983 versus a consumer price index that had increased only 250% over the same period. The net result was healthy margins for major publishers – e.g. in 2012 McGraw-Hill posted a profit margin of 25% while Wiley generated 15% and Pearson 10%.¹³

The operant business model in the industry was relatively unique, in that it functioned via a fundamental mismatch between supplier and end customer. As one economist explained,

“The textbook market is remarkable because the primary individuals who choose college textbooks (faculty) are not the people that pay for those textbooks (students). Only a few other organized markets... are similar in this regard. A comparable situation exists in medicine where doctors prescribe drugs for their patients, but do not pay for those drugs... Analogous to the market for prescription drugs where prices have risen rapidly, in the market for textbooks the separation of textbook choice and textbook payment profoundly influences pricing... students end up being coerced to pay for someone else's choices.”¹⁴

As the 21st Century unfolded technological change brought with it increased demand for digital content instead of textbooks as course content moved online – for example by 2014 in the U.S. 14% of all collegiate courses were being taken via the internet.¹⁵ Many students were also becoming disenchanted with traditional textbooks – as one somewhat humorous survey of undergraduates seemed to indicate, 100% of the time a new edition of a text was issued nothing changed except the picture on the cover (Appendix 5)¹⁶. Many students were also despairing of the ever-increasing price of textbooks versus their limited wealth – after all, the image of the starving student had long been entrenched in university folklore. After paying tuition, room and board, and travel to and from campus, many students found the prospect of purchasing expensive textbooks too much. According to one survey, 65% of students said

¹⁰ Company Overview of Cengage Learning, Inc., *Bloomberg Business Week*

¹¹ Company Overview of John Wiley & Sons, *Bloomberg Business Week*

¹² Bailey et al., *The Digital Disruption of Education Publishing*

¹³ Jonathan Band, *The Changing Textbook Industry*

¹⁴ James Koch quoted by Thad McIlroy in *The Future of Educational Publishing*

¹⁵ Bailey et al., *The Digital Disruption of Education Publishing*

¹⁶ Lisa Ishamchuk, *Higher Education Textbook Publishing: Past, Present, and Future*

that they had decided not to purchase a required textbook because “it was too expensive” while at the same time almost unanimously stating concern that not owning a textbook would have a negative impact on their final grade. Almost 50% stated that the cost of textbooks determined how many or which courses they would enroll in.¹⁷ Determinations of how much students spent on textbooks varied, though one estimate was that between \$805 and \$1,229 was spent per student on books and supplies.¹⁸

When it came to trying to beat the high cost of textbooks students had a greater range of choices available to them than ever before: electronic, rental, and used textbook options were providing lower priced alternatives to the campus bookstore and flattening the big publishers’ potential market.¹⁹

The Campus Bookstore

The campus bookstore had long been a fixture of universities and colleges and served as the primary conduit via which students acquired course materials. Publishers had benefitted from an established distribution model that relied on the campus bookstore to deliver their products – a model that was built on relationships.²⁰ Publishers employed sales staff who would connect with professors or academic administrators, determine the need, and then suggest resources to fill those needs in the hopes that the professor would choose a product from their company. Textbooks would then be shipped and shelved in the bookstore in anticipation of student purchase.

The price of a textbook was ultimately set by the bookstore, and typically based on an SRP from the publisher, who provided their texts at a discount off of the SRP. Although the profit generated by the sale of textbooks varied by a number of factors (including price and store operating expenses), on average revenue from the sale of a textbook was distributed as follows:²¹

- 64% Publisher
- 22% Bookstore
- 12% Author
- 2% Shipping

Historically the mission of the campus bookstore had been “to give students a convenient source of textbooks,” and for generations that mission had been unchallenged – until now.²² Industry advancements were bringing significant change to the campus bookstore and – in some cases – significant difficulty. From the perspective of one college administrator:

“What we noticed was that more and more students were not buying textbooks, period. They told us that in our surveys. They wrote comments like, ‘I just didn’t buy my textbook this semester’ or ‘I borrowed the chapters I needed from a friend when it was time for an exam.’ Most of them said they didn’t have the money or didn’t want to

¹⁷ Ioanna Opidee, *College Textbook Forecast: Radical Change Ahead*

¹⁸ 2007-2008 amounts estimated by the U.S. College Board quoted by Thad McIlroy in *The Future of Educational Publishing*

¹⁹ Ibid.

²⁰ Ibid.

²¹ Tzu-Chen Huang and Yi-Ling Yang, *The Growing Market in Used Books*

²² Jeffrey Young, *As Textbooks Go Digital, Campus Bookstores May Go Bookless*

spend that much on a textbook. Some said they couldn't afford all their textbooks, or would only buy a few and get by with borrowing the rest. That troubled us greatly..."²³

The National Association of College Stores (NACS) put it bluntly: "Book sales are declining – they're down tremendously... The college stores have to find other ways and other categories [to make money] otherwise they won't survive."²⁴ Industry statistics told the tale – while college bookstores had once generated almost 100% of their sales from textbooks, course materials were now accounting for a shrinking percentage of total sales: 57% in 2009, 56% in 2010, and 54% in 2011. At one university textbooks accounted for only 36% of sales, and were projected to drop to between 20 and 25% in the next five years.²⁵

"I'm a buggy-whip salesman," said one bookstore manager. "I personally believe that the textbook in its current incarnation is as obsolete as buggy whips that people used to steer when we had horses and carriages."²⁶

Some stores had responded to change by reinventing themselves, in some instances even dropping the term "bookstore" from their names and focusing on branded merchandise (like t-shirts and hoodies) and food and convenience store products.²⁷ Such strategies appeared to enjoy the support of the NACS, which reminded college bookstores that "the traditional main source of revenue has leveled out, and we realize that in the future it will decline... shift from being a book store to a campus store in the broadest sense of the phrase."²⁸

The reason behind bookstores' declining textbook sales seemed obvious – students now had more alternatives than ever to the traditional campus bookstore experience.

Electronic Options

The most prevalent of these alternatives was the electronic textbook, or e-book, which was essentially a digital version of a printed book. Students typically purchased e-books either directly from the publisher or from an online retailer like Amazon or Indigo, completely bypassing the bookstore. Given that e-books eliminated traditional printing, inventory, and shipping expenses they could be sold at lower price points (sometimes for up to half of the price of a print version) and thus were attractive to the price sensitive student consumer. Some, like Cindy Clarke, a senior vice president at CourseSmart, felt that e-books were the future:

"Almost 75 percent of students believe that [ten years from now] e-textbooks will be used more than print textbooks... It's happening, and I believe it will start to happen more and more exponentially."²⁹

²³ Teresa Smith, Vice President and Chief Financial Officer, Tallahassee Community College, in *A New Chapter for Campus Bookstores*

²⁴ DeAnn Hazey, Executive Director of NACS quoted by Jeffrey Young in *As Textbooks Go Digital, Campus Bookstores May Go Bookless*

²⁵ Mark Athitakis, *How College Bookstores Are Killing College Bookstores*

²⁶ Liz Hale, manager of bookstore services at Bellingham Technical College, quoted by Jeffrey Young in *As Textbooks Go Digital, Campus Bookstores May Go Bookless*

²⁷ Jeffrey Young, *As Textbooks Go Digital, Campus Bookstores May Go Bookless*

²⁸ Mark Athitakis quotes the NACS White Paper *Defining the College Store of 2015* in *How College Bookstores Are Killing College Bookstores*

²⁹ Quoted by Stephanie Simon and Madeline Will in *Textbook Publishers Revamp E-books to Fight Used Market*. CourseSmart began as an online joint venture of five publishers and is now privately held. It has a catalogue of over 40,000 e-texts.

Other approaches were more novel. Boundless³⁰ offered “Cloud Powered Education” that focused on providing low cost alternative textbooks that sought to match the content of standard textbooks but at a fraction of the price (e.g. a standard text priced at \$175 might have an alternative offered at \$20). Flat World Knowledge³¹ offered over 100 online texts priced at \$20 with the option for professors to customize a text to meet the needs of their respective courses (Appendix 6).³²

One alternative didn’t involve the sale of textbooks at all – Open Educational Resources (OERs) were texts developed by academics (many of whom were supported by educational foundations) that were released under Creative Commons licenses and thus were free to access, use, and in some cases modify. Rice University’s OpenStax College³³ was seen as a groundbreaker in this area, who by 2014 offered 13 college level texts that were peer-reviewed, standardized in format, and accompanied by course support materials – all accessible online and free of charge. Many industry watchers wondered if this might be the disruption to upend the publishing industry, especially after the Affordable Textbook Act was introduced in the US which sought to provide grants to programs intending to develop open texts.³⁴ “The educational materials and publishing industry in five to ten years will be completely remade,” said Richard Baraniuk, founder of OpenStax College, “Just as the music industry, the newspaper industry and the computer software industry were completely remade by the internet.”³⁵

And yet other commentators felt that the whole digital text “revolution” was really nothing more than a flash in the pan. While e-books had surged in the consumer marketplace to capture almost 25% of the market and digital texts appeared to be catching on in the K-12 segment, adoption in the collegiate world was slow. One 2013 survey indicated that only two percent of college students purchased all of their books in electronic format, and another indicated that over 75% indicated a preference for print over digital.³⁶ According to one bookstore manager, “What I hear more than ‘I want digital’ is ‘I want a better price.’”³⁷

Rental Options

One approach employed by some campus bookstores was to offer students a print textbook rental alternative. Rather than purchasing a course text, the student would pay a one semester rental fee (significantly lower than the purchase price of the book) and return it to the bookstore at the end of the course. In most instances the bookstore would require a student’s credit card number, thus mitigating the risk of them returning a damaged book, or no book at all (the store would simply charge the student the full cost of the book). There were, however, risks that bookstores with rental programs could not avoid:

- In order to ensure profitability a book typically had to be rented at least twice. This presented a problem for texts that changed editions frequently (e.g. some texts issued new editions annually and some even more often).
- Textbooks bundled with computer media or online access passwords (for textbook support websites) were generally not rentable.

³⁰ <http://www.boundless.com>

³¹ <http://www.flatworldknowledge.com>

³² Jonathan Band, *The Changing Textbook Industry*

³³ <https://openstaxcollege.org/books>

³⁴ Ibid. Introduced by two US Senators on November 14, 2013.

³⁵ Quoted by Ioanna Opidee in *College Textbook Forecast: Radical Change Ahead*

³⁶ Alan Martin, *Will the Real Textbook Industry Disruptor Please Stand Up?*

³⁷ Estella McCollum, manager of KU Bookstores, quoted by Jeffrey Young in *As Textbooks Go Digital, Campus Bookstores May Go Bookless*

- Professors represented a significant risk in terms of the extent to which they readopted a text semester over semester or year over year. A professor who changed texts or editions frequently generally made for an un-rentable inventory of texts, leading some renting institutions to seek a three or four semester commitment by faculty to their selected texts.³⁸

Several rental alternatives existed that completely bypassed bookstores altogether. Companies such as Chegg³⁹ and Amazon⁴⁰ offered students the option of renting their books for periods of 30 to 180 days – no revenue went to the campus bookstore, and while publishers benefitted from the initial sale of a book, subsequent rentals kept them from earning revenue on the sale of new copies.⁴¹

One interesting arrival on the rental scene was Packback.⁴² Founded by two entrepreneurial students at Illinois State University in 2013, Packback offered e-books like other companies but operated more like an on-demand movie service. Recognizing that many students only dug into a textbook days (or perhaps even hours) before a test or exam, the company provided access to approximately 5,000 texts for 24 hour rental periods, typically at \$5 or less.⁴³

Some analysts considered textbook rental to be a strategy that would truly transform the higher education textbook publishing segment. As one pundit claimed,

“Rental does more than just drop the price of the physical book by more than half, it also forces digital players to completely reconsider how they can even offer digital products competitively when the existing technology, the physical textbook, costs less than half what it did when digital began its march, and looks like it will maintain that price point indefinitely... Rental has changed the economic reality of the textbook industry and students are the ones walking away with the big win.”⁴⁴

Others, however, lamented the idea of leasing a text for a short period of time, seeing it as an abandonment of the bond that can form between a human being and the written word. Mark Sample, an English professor at George Mason University, stated that “as somebody who reads and loves books, I hate the idea that students will just be renting a book. I worry that students won’t connect as much with a book they know they have to return.”⁴⁵

Used Textbooks

The option of purchasing previously owned textbooks had seemingly existed for as long as students had pinned ads on bulletin boards to advertise their old texts. With the advent of social media the practice jumped online and operated as a truly free market with each seller setting his or her own price

³⁸ Tim Goral, *A New Chapter for Campus Bookstores*. Adoption of new editions is pushed from the publisher to the bookstore regardless of the preference of the professor. When new editions are published old editions are often not available to professors or bookstores.

³⁹ <http://www.chegg.com>

⁴⁰ <http://www.amazon.com>

⁴¹ Jonathan Band, *The Changing Textbook Industry*.

⁴² <http://www.packbackbooks.com>

⁴³ Ioanna Opidee, *College Textbook Forecast: Radical Change Ahead*

⁴⁴ Alan Martin, *Will the Real Textbook Industry Disruptor Please Stand Up*. For clarity, when Martin states that physical textbooks cost “less than half” of what they did when e-books first appeared, he’s referring to the rental price.

⁴⁵ Quoted by Mark Athitakis in *How College Bookstores Are Killing College Bookstores*

on each book offered for sale. The end result was a marketplace in which used books approached 10% of total consumer spending on books.⁴⁶

Some of the big book retailers like Amazon had gotten in on the act, and many college bookstores sold used textbooks as well, and in quantity – for example, in 2013 the U.S. College Store Industry Financial Report indicated that new book sales were approximately 2.5 times the amount of used book revenue in college book stores, with a new units to used units ratio 1.7 to 1.⁴⁷ Yet the process employed to facilitate sales was somewhat more complex than the tried and true bulletin board note – a store endeavoring to sell used product had to (a) acquire used texts at a price the store manager deemed to be equitable, (b) maintain an inventory of used product, and (c) sell the used texts at a price lower than that charged for new texts and yet sufficient to generate an acceptable return for the store. If a book store managed the process effectively significant profits could be generated from used book sales – up to a 34% gross margin⁴⁸ versus the 22% gross margin typically generated by new textbook sales. Yet there were also risks entailed in the sale of previously owned books, and some analysts saw the “used option” as limited at best:

“There are multiple factors that limit the total market for used textbooks. Faculty must agree to use the same title from year to year, adoptions must be received in time for stores to obtain used texts; and there [must] be sufficient new text sales of the desired titles to come back into the market as used books. While there are basic courses that fit this model, if all college course offerings are considered, it is easier to see where used books could not be a significant option.”⁴⁹

Other Options

A few other alternatives existed when it came to accessing textbooks. Some college bookstores were experimenting with on-demand textbook printing done right in the store itself. Such was the case at the University of Kansas bookstore which had partnered with Hewlett-Packard and installed high end printing machines that could produce an entire book in about ten minutes. The store put the machine on display so that students could watch the printing process unfold. “It’s kind of like watching a Krispy Kreme doughnut being made. It’s fascinating,” said the bookstore’s manager. The process enabled the bookstore to avoid the risks associated with ordering and holding textbooks that might not sell, and to reduce the price per copy in some cases by almost \$40.⁵⁰

Yet, for some students any price, reduced or not, was too much to pay for a text and thus they pursued other “free” options that ranged from simply borrowing textbooks from friends or the library, to downloading “pirate” copies from illegal download websites. Each tactic carried with it some risk to the student – for the borrower, the text might not be available when needed (or at all), leaving the student high and dry when studying for an exam or preparing an assignment. For the illegal downloader there was the risk of prosecution – up to \$5,000 in fines for being found guilty of downloading copyrighted materials – although the chances of being caught and convicted in Canada were relatively low.⁵¹

⁴⁶ Tzu-Chen Huang and Yi-Ling Yang, *The Growing Market in Used Books*

⁴⁷ National Association of College Stores, *Higher Education Retail Market Facts & Figures, 2013*

⁴⁸ Tzu-Chen Huang and Yi-Ling Yang, *The Growing Market in Used Books*

⁴⁹ National Association of College Stores, *Higher Education Retail Market Facts & Figures, 2013*

⁵⁰ Estella McCollum, manager of KU Bookstores, quoted by Jeffrey Young in *As Textbooks Go Digital, Campus Bookstores May Go Bookless*

⁵¹ Frances Woolley, *When the Textbook Industry Goes the Way of the Music Industry*

Contemplating the Bookstore's Story: Amy's Ideas

As Amy considered the bookstore and what the future might look like, she had a few ideas she thought might be worthy of consideration.

Used Book Sales

Amy knew that many university bookstores purchased used texts back from students to offer for sale in the next semester. The advantage seemed obvious – textbooks that were in good condition could be purchased for a fraction of their original price (say 30%) and then resold at 60-70% of the original price. Students who didn't want to keep their textbooks had an outlet to get rid of them while generating some cash while the university eliminated shipping and handling charges typically applied by publishers. The challenge, thought Amy, lay in being able to determine what books would be immediately salable. Some courses were not offered every semester, and professors would often require new editions of a text. Without that information in hand as students offered their textbooks for sale, the bookstore ran the risk of purchasing used texts that no one would want and end up carrying a burgeoning inventory of old, useless books.

Amy knew that for some years the university's student Business Society had operated a used book sale at the beginning of each semester. The Society accepted books for sale on a consignment basis, and while she knew they had always generated a profit, they had also accumulated piles of obsolete and unsalable books that were taking up space in their storage closet. Amy also knew that there were a number of options available to students for the purchase of used texts, ranging from formal (e.g. Amazon, Atlantic Textbook Recyclers, etc.) to informal (e.g. students posting used books for sale on bulletin boards or social media sites).

E-Commerce

Amy was under no illusion that the bookstore was anything other than a traditional retail store, requiring customers to physically visit the operation in order to make their purchases. In an age characterized by pervasive information technology she felt that this fact was fast making the store obsolete. As part of her studies in business she had explored the concept of a multi-channel retail model and the impact this was having in the marketplace. She remembered that on-line options typically don't cannibalize in-store sales, but rather add new consumers and therefore additional revenue. If an online presence could drive student traffic into the bookstore, it would be the non-textbook product lines that would benefit.

An online presence could also allow purchases by off-campus consumers, like parents and grandparents looking for branded gifts. This market was largely untapped since it required the purchaser to be in the store to browse the product. While she was aware that online sales were still only 6.5% of the total retail market, that percentage was steadily increasing. She knew that other university bookstores enabled purchases to be made online via a secure website. Her preliminary research put the cost of such a system between \$10,000 and \$13,000 with monthly usage fees ranging from \$750 to \$950. Could the cost of additional software be justified by potential increases in sales both online and in store?

Technology Options

Amy was well aware that many textbooks were offering the option to avoid physical books altogether in favour of electronic versions, or e-books, which could then be read on an e-reader or tablet computer. In some cases students were avoiding the bookstore altogether and purchasing e-books directly from the publisher, typically at a substantial discount. Some publishers, however, provided access codes

that could be sold to students via the bookstore. Amy had wondered whether some kind of access / e-reader combination deal might work at the bookstore, providing the student with both content and the hardware to read it in a one stop shopping experience. Shifting to e-books would certainly save the bookstore the many of the costs associated with acquiring and managing inventory, yet the acquisition and support of technology products, not to mention the marketability of such products, represented a significant unknown.

Textbook Rentals

The idea of renting textbooks was one that Amy found intriguing. Students would pay a fee to use a text and be contractually obligated to maintain it in good condition and return it to the bookstore at the end the semester so that it might be rented out again. But while she felt that the option might be viewed by students as attractive, she wondered if the same challenges associated with the trade in used textbooks might not also be faced in the rental business.

Writing the Future

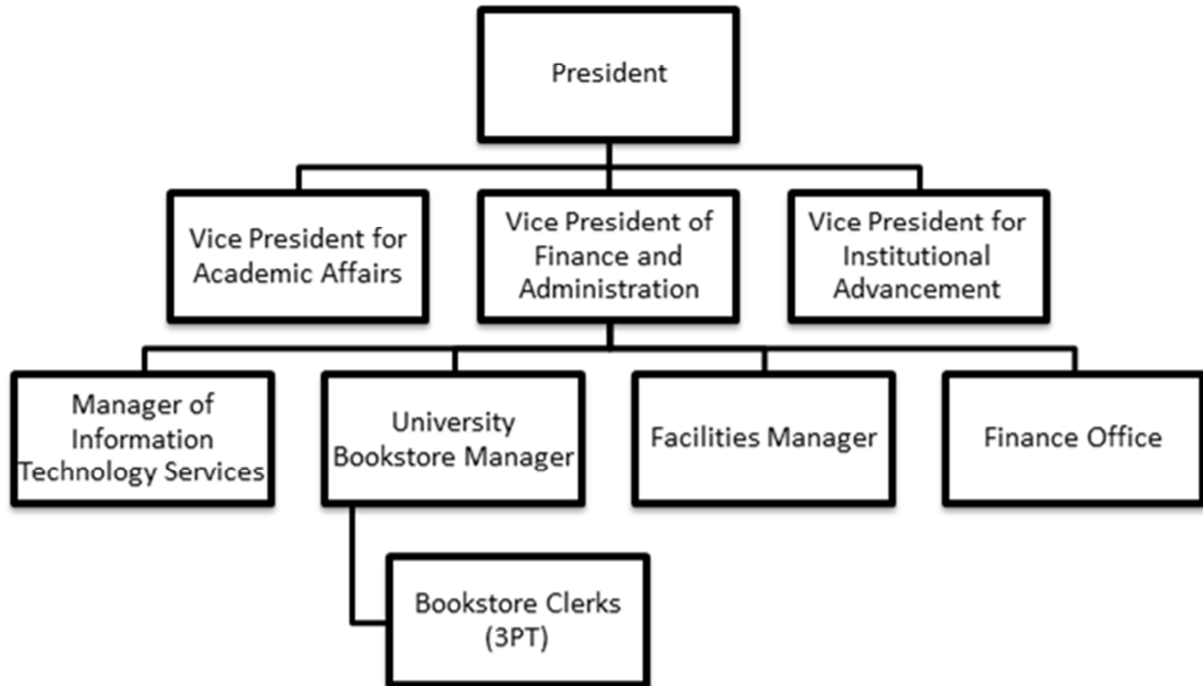
Amy sighed when she considered the data in front of her. She knew from conversations with students, as well as her own recent experience as a student, that the word “textbook” might well be substituted with the word “rip-off.” She was concerned that the store might be tarnished by factors beyond her control, and come to be seen as a place where the prices on everything were just too high. She thought about one article she had read about another bookstore’s experience where the manager had said, “We get a lot of bad press – the mean nasty money-grubbing bookstore... but the margin on textbooks is one of the lowest margins around.” Amy smiled slightly as she recalled that the manager had stated that – in terms of profit margin – she did better selling chips.⁵²

She knew that there were many opportunities that might be pursued going forward, but a hurried fragmented approach would not lead to an optimal strategy. The long-term planning that she was now responsible for would require balancing the needs of many stakeholders in an industry that was changing at an unprecedented rate. Was there a way to satisfy the student customer and support the academic programs of the university?

“There has got to be a way to operate this business profitably,” Amy thought. “I feel like I’ve got all of the information I need right here... I just need to make sense of it.”

⁵² Liz Hale, manager of Bellingham Technical College’s bookstore, quoted by Jeffrey Young in *As Textbooks Go Digital, Campus Bookstores May Go Bookless*

Appendix 1: Crandall University Partial Organization Chart



Appendix 2: Job Description and Specification

UNIVERSITY BOOKSTORE AND ACCOUNTS PAYABLE MANAGER

JOB SUMMARY

The University Bookstore and Accounts Payable Manager is responsible for the operations of the University Bookstore so that it supports the academic programs of the University, provides service to the campus community as a convenience outlet and the primary outlet for Crandall University clothing and memorabilia, and capitalizes on opportunities to provide the public with Christian books, literature, and other goods. The individual is also responsible for ensuring the timely and accurate recording and payment of invoices related to the University operations. The duties of the University Bookstore and Accounts Payable Manager will include bookstore tasks related to day-to-day operations such as pricing, shelving of merchandise, layout and design, purchasing new merchandise, managing of student and part-time staff, preparation of cash/sales reports, and year-end inventory. This person will also function as the primary salesperson for the Bookstore and train part-time staff. As the Accounts Payable Manager, the tasks will include the processing of vendor invoices and the payments to vendors for goods/services received. It also involves the balancing of vendor statements to ensure all invoices are recorded and paid in a timely fashion.

The position of University Bookstore and Accounts Payable Manager reports directly to the Vice President for Administration and Finance.

JOB DIMENSIONS

1.0 University Bookstore

1.01 Maintain and purchase product available in the Bookstore

- 1.01.1 Responsible for the preparation and placement of all merchandise orders.
- 1.01.2 Responsible for identifying new market opportunities and targeted merchandise (eg. Crandall products, school supplies, etc).
- 1.01.2 Responsible for ensuring accuracy and quality of product received and recording receipt of merchandise into inventory system.
- 1.01.3 Responsible for pricing and shelving of all merchandise.
- 1.01.5 Responsible for the completion of year-end inventory including counting and reconciling to inventory system.

1.02 Textbook orders

- 1.02.1 Responsible for communicating with faculty regarding timing of textbook orders.
- 1.02.2 Responsible for ordering all textbooks for all academic programs.
- 1.02.3 Responsible for ensuring textbooks are received on a timely basis for each semester.
- 1.02.4 Responsible for return of unused textbooks to ensure maximum refund capability.
- 1.02.5 Responsible for identifying and implementing new procedures to textbook orders including the possibility of used textbook inventory.

1.03 Maintain appropriate records and correspondence for the Bookstore

- 1.03.1 Prepare deposits and cash/sales reports and ensure delivered to appropriate departments in a timely fashion.
- 1.03.2 Respond to inquiries regarding the bookstore whether internal or external.

1.04 Other duties of the Bookstore

- 1.04.1 Responsible for Bookstore sales, both acting as the lead salesperson and supervising part-time sales staff.
- 1.04.2 Responsible for hiring, training, supervision of part-time/student sales staff.
- 1.04.3 Responsible for all advertising related to the Bookstore including sales.
- 1.04.4 Responsible for store layout and design.
- 1.04.5 Responsible for maintaining cleanliness and proper presentation of the bookstore.
- 1.04.6 Responsible for the continuous improvement of the bookstore, monitoring trends, needs, etc to ensure continued success and fulfillment of Crandall University's mission.

2.0 Accounts Payable

- 2.01 Responsible for processing purchase orders from all departments ensuring proper authorization and allocation to accounts.
- 2.02 Responsible for the maintenance of a master record of issued purchase orders.
- 2.02 Responsible for maintaining vendor masterfile in accounting system.
- 2.03 Responsible for preparing all supporting documentation, getting approval of and processing of all vendor invoices. Ensure processing is done on a timely basis.
- 2.04 Responsible for determining the applicable tax treatment of all invoices ensuring proper allocation to the various general ledger accounts.
- 2.05 Responsible for preparing all vendor cheques on a regular basis (approx. bi-weekly) including taking all available discounts and ensuring no double payment of invoices.
- 2.06 Responsible for reconciling vendor statements to the accounts payable sub-ledger on a regular basis. Includes contacting departments as necessary to acquire proper information for processing; obtaining missing invoices from vendors; and ensuring no service charges are accruing.
- 2.07 Responsible for preparing internal cheques on a weekly basis or when requested by the Vice President for Administration and Finance.
- 2.08 Responsible for the proper distribution of cheques to the appropriate personnel or vendors.
- 2.09 Responsible for communicating with departments regarding policies and procedures around accounts payable including the use of purchase orders and cheque requisitions.
- 2.10 Responsible for maintaining personal information and contracts for part-time faculty.
- 2.11 Responsible for preparing and distributing payments of part-time faculty contracts on timely basis.
- 2.12 Responsible for maintaining proper accounting records for payables, in an organized method, for the use of the Administration and Auditors.
- 2.13 This position will have bank and signing authority as approved by the Board of Governors to facilitate the payment of accounts as requested

3.0 Other duties related as may be assigned from time to time by the Vice President for Administration and Finance.

POSITION SPECIFICATIONS

Education:	University Degree Bachelor of Business Administration, preferable
Experience:	At least five (5) years of experience as a manager or assistant manager in a retail setting Experience in accounts payable is considered an asset
Qualities/ Skills	Excellent interpersonal skills Excellent organizational skills Excellent communication skills (written and verbal) Demonstrated problem solving skills Demonstrated management skills (plan, organize, evaluate, motivate staff) Computer skills in Microsoft Word and Excel Proven ability to multi-task Understanding of confidentiality and privacy rules Ability to work independently and as part of a team
Other:	Overtime may be required at peak times of the year

Appendix 3a: Bookstore Financial Results

Crandall University Bookstore							
Bookstore Financial Results - for Internal Use Only							
	Budget	Unaudited	Audited				
	2015	2014	2013	2012	2011	2010	2009
Revenue	310000	313045	267851	348912	335604	350324	362308
Purchases	245000	263191	235809	284391	271218	304197	305873
Write-offs					14819	11346	
Net	65000	49854	32042	64521	49567	34781	56435

Appendix 3b: Bookstore Product Line Sales Report

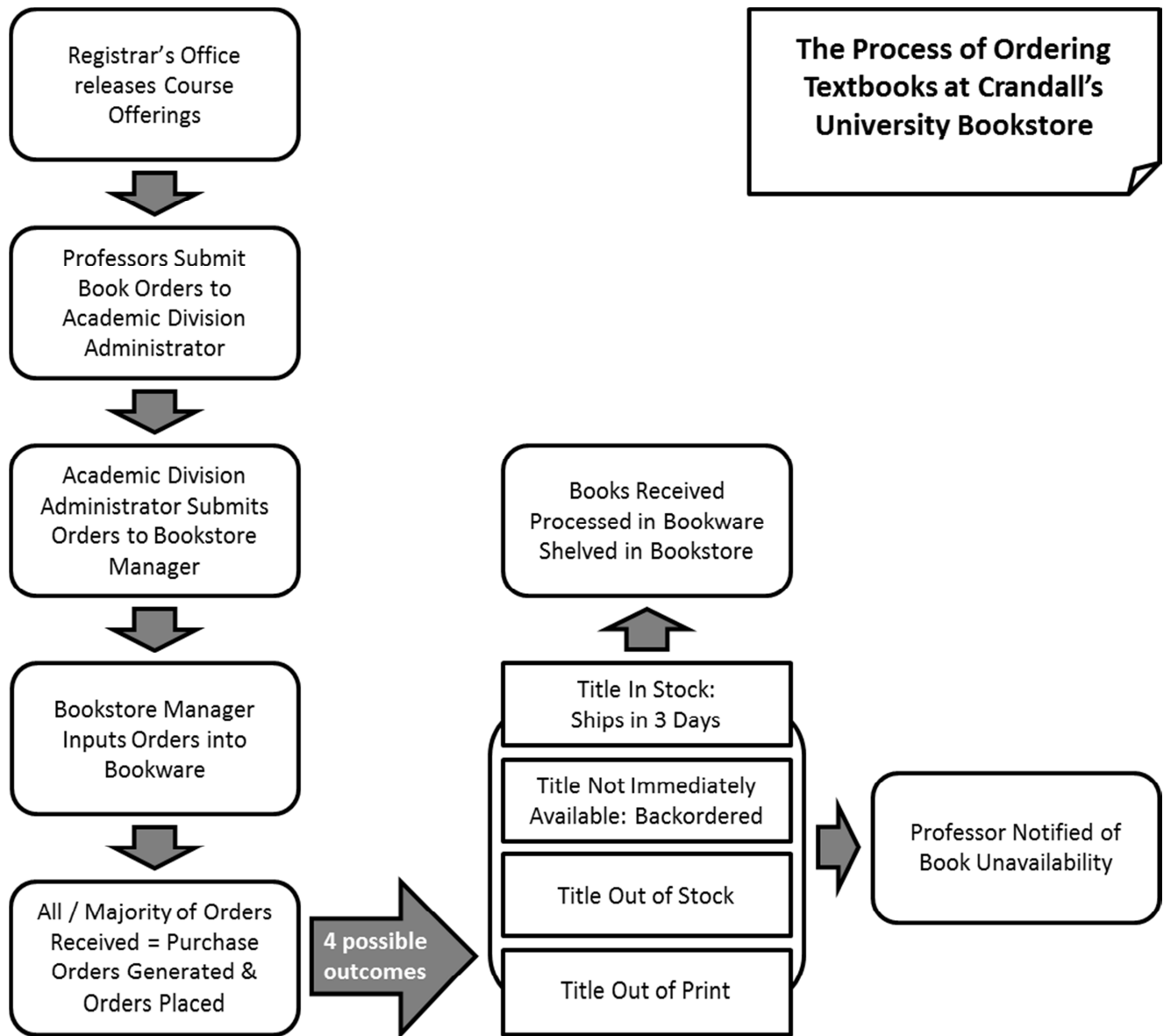
Product Line Sales Report					
July 1, 2013 - June 30, 2014					
Unaudited					
	Sales	Discounts	Cost*	GP\$	GP%
Café	3744	0	0	3744	100.00%
Textbooks	272,275	803	210,545	60,926	22.44%
Bible Society	12,565	841	8,281	3,443	29.37%
Branded Apparel	12,214	906	10,044	1,264	11.18%
Miscellaneous	1,884	264	1,574	46	2.82%
Branded Non-Apparel	2,292	120	1,662	511	23.50%
Convenience Items	2,602	39	1,959	603	23.54%
CD's	439	48	309	82	20.99%
Stationary	473	0	457	16	3.38%
Grocery	2,417	112	755	1,550	67.24%
Convenience-Beverage	2,032	0	1,519	513	25.26%
Convenience-Food	109	0	68	41	37.34%
Total	<u>313,045</u>	<u>3,134</u>	<u>237,172</u>	<u>72,739</u>	<u>23.47%</u>

*Costs are reported at invoice only. Additional amounts including shipping, taxes, duty, etc. are added to the general ledger at the time this invoice is recorded.

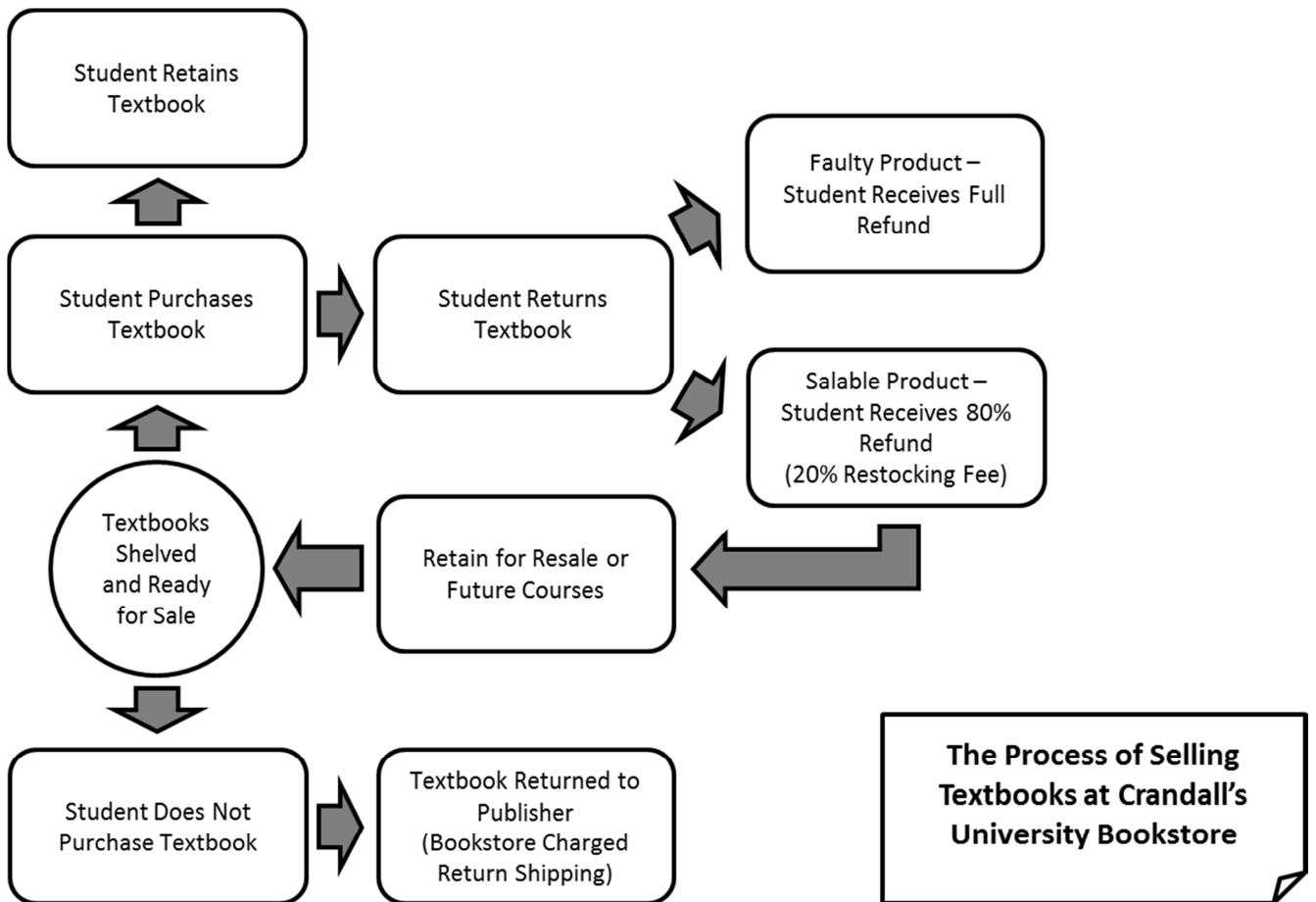
Appendix 3c: Bookstore Textbook Acquisition Rates

Textbook Acquisition Rates By Discipline Academic Year 2013-14		
	Fall	Winter
Science and Math	48.4	54.5
Business	59.6	49.1
Arts	66.8	60.6
Social Sciences	56.6	63.4
Education	60.5	68.0
Religious Studies	68.5	66.6
Average all disciplines	60.1	60.4

Appendix 4: Book Inventory Management



Appendix 4: Book Inventory Management



Appendix 5: Undergraduate Perceptions of Textbooks

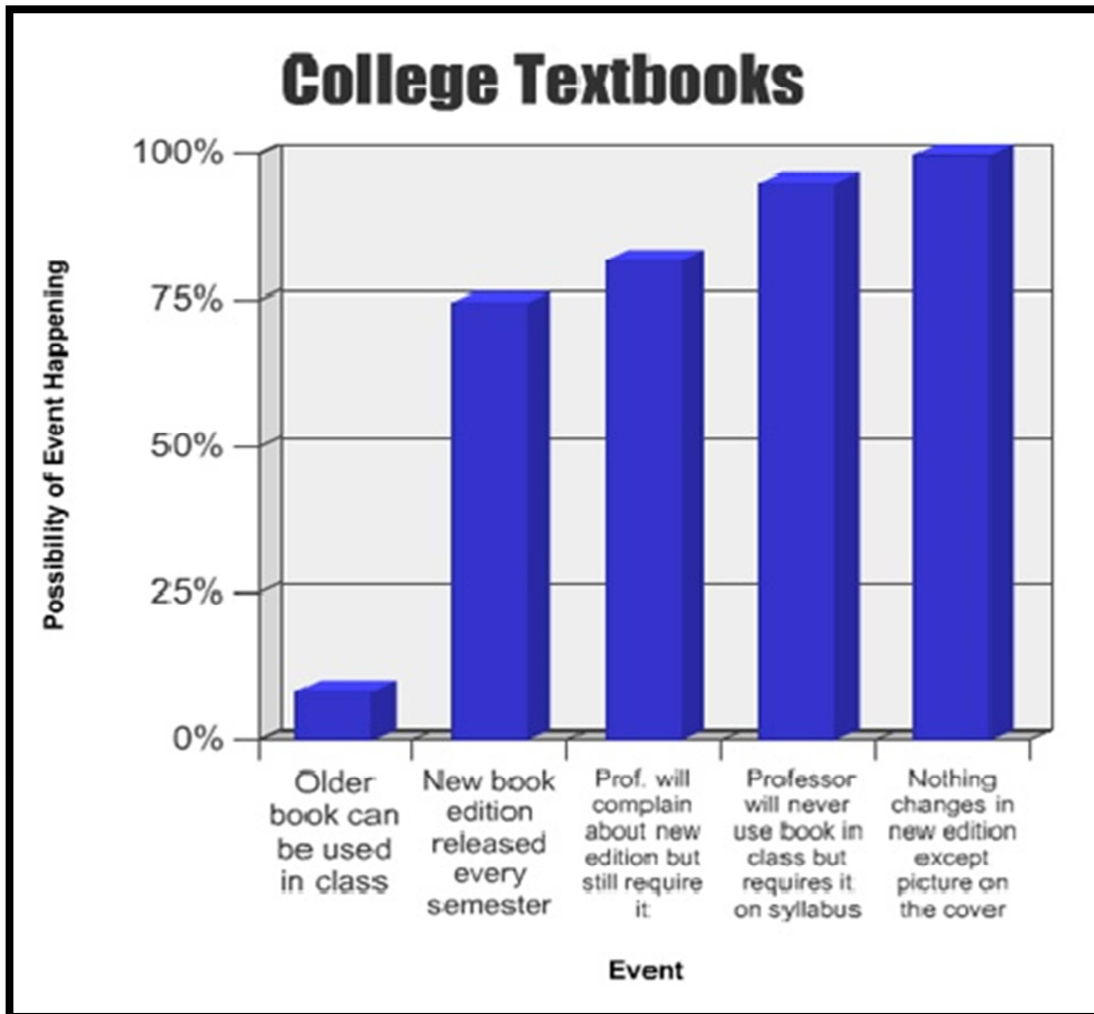
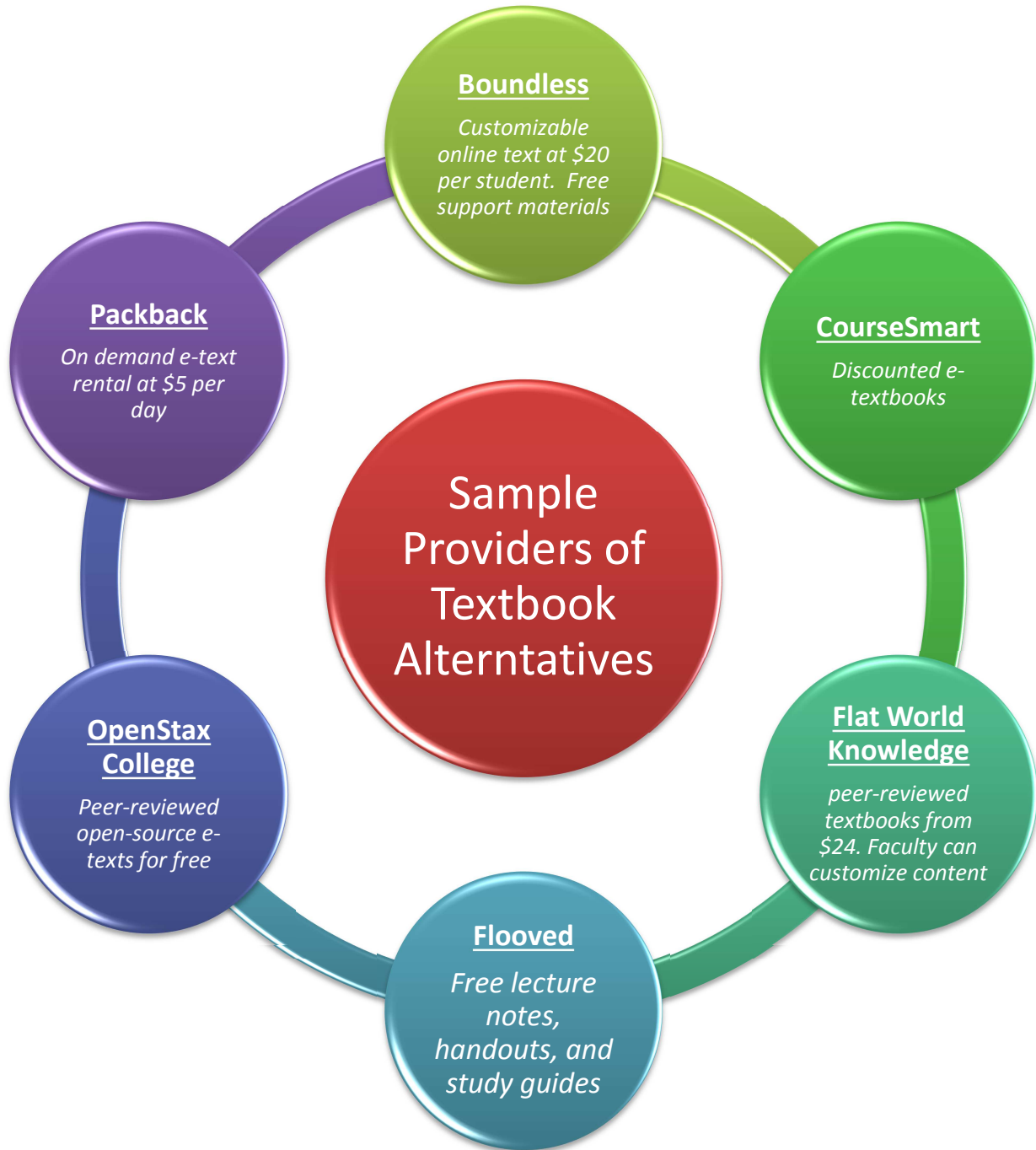


Exhibit 1: Undergraduate Perceptions of New Textbook Editions (Ishamchuk, 2009)

Appendix 6: Players in the Alternative Textbook Market⁵³



⁵³ Ioanna Opidee, *College Textbook Forecast: Radical Change Ahead*

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**Authors Of Our Own Misfortune?
Crandall University Bookstore Writes Its Future**

Instructor's Manual to the Case

Case Summary

Newly hired Bookstore Manager Amy Pattison is faced with the challenge of developing a strategy for the Crandall University Bookstore. The environment in which the independent campus retailer operates has changed substantially, and faced with an eroding traditional customer base and competition from non-traditional players, she must assess the state of her store and its future viability.

Teaching Objectives

Authors of Our Own Misfortune? is targeted at senior undergraduate, graduate, or executive business students in management accounting or strategy related courses. Topics covered by the case include:

- (1) Organizational decision-making
- (2) Decision making in markets negatively impacted by technology

Specific teaching objectives include:

- (a) Strategic management of an enterprise in a changing industry
- (b) The examination of an entrepreneurial enterprise in a not-for-profit setting
- (c) Development of objective decision making criteria in light of identified goals, objectives, and available resources

Basic Pedagogy

Authors of Our Own Misfortune? places the student in the same position as the narrative's decision maker and presents actual information without the intent of simplifying the case solution or directing the path of analysis taken by the student.

Course: The case is recommended for use courses in Strategic Management / Business Policy and Managerial Accounting.

Level: The case is recommended for use at the senior undergraduate, graduate, and executive levels.

Prerequisites: Students should have a reasonable understanding of industry, financial statement, and strategic analysis.

Theoretical Linkages

- Industry Risk Assessment
- Quantitative versus Qualitative Factors in Managerial Decision-Making

- Evaluating Strategic Alternatives

Research Methodology

Primary research for the case included interviews with the case principal and the examination of internally produced financial information from Crandall University and the Crandall University Bookstore. Secondary research involved the consultation of industry reports and other publications that were used to advance the narrative and support the Instructor's Manual. It should be noted that both authors are faculty members at Crandall University, and that a signed permission and release form has been completed that discloses planned uses of the case.

Suggested Teaching Approaches

An important characteristic of technological advancement is the significant impact it may have on entire industries including all members of the business model. This case examines the role of management adaptability for a relatively small player in the industry in the process of undergoing such changes. Two alternatives are suggested for classroom application of the case:

- (a) Classroom Discussion
- (b) Assignment Questions

Suggested Questions for Student Assignment

- 1. In terms of risk, how would you characterize the industry in which the Crandall University Bookstore operates?**
- 2. Some analysts are forecasting the imminent demise of the campus bookstore. In what ways is the Crandall University Bookstore dissimilar to others in the industry? How will this impact Amy's decisions regarding the future of the Crandall University Bookstore?**
- 3. As the case draws to a close Amy is considering different ideas regarding what the future of the Bookstore might be like. Consider the options she presents and comment on their potential for success. Are there other alternatives she might consider?**

Suggested Responses

- 1. In terms of risk, how would you characterize the industry in which the Crandall University Bookstore operates?**

The narrative includes information regarding the operation of college bookstores with particular attention paid to the acquisition and sale of textbooks which make up a substantial (though declining in many cases) portion of bookstore revenues. Fundamental to developing strategy for the Crandall University Bookstore is an understanding of the industry environment and in particular what risks exist. Porter's Five Forces Analysis provides an excellent framework for exploring these risks, and it is expected that all students will have a rudimentary understanding of the model.

We have chosen to render the analysis using a quantitative risk rating assigned to each sub-factor of a given force, where a score of 0 represents no risk, 1-2 low risk, 3 moderate risk, and 4-5 high risk. The ratings are then averaged to provide an Overall Risk Rating associated with the force in question. Student results may differ significantly depending upon what sub-factors they choose to consider and the relative risk they associate with each, although we submit that the overall resultant industry risk profile should appear at least somewhat the same given the data included in the narrative.

One thing to watch for in student results is how they define the dimensions of the industry. Given the importance of textbook sales to the store's revenue picture, particular attention must thus be paid to textbook sales in campus bookstores, and this is reflected in the following analysis. Some students may be tempted to go further and consider other product categories – this however would go beyond the information provided in the case and require supplementary research. Students should avoid the trap of analyzing the publishing industry – while this would be an interesting case study in itself, it is not the purview of this particular narrative.

Industry Rivalry

Industry Rivalry	
Industry growth rate	5
High fixed cost	4
Intermittent overcapacity	5
Product differences	5
Brand identity	4
Switching costs	5
Informational complexity	3
Concentration and balance	4
Industry commitment	4
Exit barriers	4
Overall Risk Rating	4.3

Not surprisingly the analysis illuminates an industry characterized by a high level of rivalry, in large part because of technological innovation in the delivery of product to the end customer.

Industry Growth Rate: The industry is not in a growth phase – it is mature and demand appears to have flattened. Further, new entrants with innovative delivery channels and new types of products have arrived on the scene. These factors serve to increase rivalry. **High Fixed Costs:** A significant portion of costs within the industry – at least among campus bookstores – are fixed due to the bricks and mortar nature of these operations. Bookstores must therefore pursue volume sales in order to meet operational costs, which drive competition as these volumes decline. **Intermittent Overcapacity:** Given an ordering process that results in physical inventories that must be maintained and the existence of other product alternatives to meet student needs, bookstores may find themselves with excess supply, thus increasing competition for customers. **Product Differences:** It is very difficult for bookstores to compete via product differentiation given that the textbook products carried by the store are determined by professors, and in many cases are the same as products offered for less by innovative competitors. **Brand Identity:** When customers exercise brand preference rivalry is diminished – in this type of market, however, all indications are that price is the operant dimension in the purchase decision (although there may be some students who feel that the campus bookstore is *the* place where books are supposed to be purchased, who distrust online ordering, who fear that product may not arrive on time, etc.). **Switching**

Costs: It is relatively easy for students to switch from the campus bookstore as the vendor for course materials. As mentioned, there may be a risk that a text may not arrive in a timely fashion or be inadequate (e.g. a wrong edition purchased used), however in most cases a significantly lower price will serve to mitigate such contingencies. **Informational Complexity:** Difficult to understand products tend to depress competitive forces. In the case of textbooks students may not have a good understanding of the product required nor of acceptable alternatives (in most cases they will have a syllabus that lists a textbook title – can it be acquired more cheaply? Replaced? Avoided? It is unlikely that the customer can answer these questions alone). **Concentration and Balance:** There are many competitors in the retail textbook marketplace that are hungry for a piece of a multi-billion dollar business. From publishers who are now offering e-books and direct purchasing (completely by-passing their retail partners) to OER’s and rentals the industry is becoming crowded and would seem ripe for a shakeout or disruption. **Industry Commitment:** While market competitors *are* diverse in terms of how they approach the student market, they are effectively all pursuing the same customer (with the exception of the publishers who are much more diversified in their product mix and for whom the higher education market is but a part of their business). **Exit Barriers:** Speaking at least for the campus bookstore – truly a fixture at most universities – leaving the industry is not really an option as they are built into the infrastructure of their parent organizations.

The overall conclusion from this analysis of sub-factors is that the Industry Rivalry Risk Rating is **4.3** or **HIGH**.

Threat of New Entrants

Threat of New Entrants	
Economies of scale	2
Proprietary product differences	3
Brand identity	3
Switching costs	4
Capital requirements	3
Access to distribution	5
Absolute cost advantage	4
Government policy	0
Expected retaliation	3
Industry profitability	4
Stage in industry life cycle	3
Overall Risk Rating	3.1

What threat of new entrants that does exist in the industry takes the form of technological innovators who have developed ways to compete without incurring the bricks and mortar costs associated with traditional players.

Economies of Scale: Historically the industry has been comprised of literally thousands of bookstores locked into a business model that was relatively intransigent. New, innovative competitors appear to be making change, however there is no indication as of yet that a few high volume competitors will emerge to dominate (as opposed to the publishing industry where this *is* the case). **Proprietary Product Differences:** Products in the industry are somewhat unique, however a level of interchangeability exists for those students willing to pursue alternatives (e.g. OER’s, etc.). **Brand**

Identity: As mentioned previously university bookstores are centrally positioned within their respective institutions, although students do not appear brand insistent given the numbers who are pursuing alternate textbook sources. **Switching Costs:** Other than the possibility of delivery delays or product mismatch, there are few if any costs associated with customers seeking satisfaction elsewhere. **Capital requirements:** While traditional competitors have a certain level of fixed cost associated with their operations, capital requirements to compete in the industry are decreasing because of innovation (bricks and mortar are no longer required). **Access to distribution:** Once locked up via a traditional model of retail distribution, the arrival of a number of technological innovations have opened the industry for new competitors to enter. **Absolute Cost Advantage:** The continuance of historic relationships with publishers should not be discounted, but these relationships will simply not be sufficient to drive advantage for established competitors (especially now that publishers themselves have become competitors). **Government Policy:** At present there do not appear to be any regulations or policies that protect established competitors by preventing new entrants. **Expected Retaliation:** While limited, campus bookstores are not completely bereft of alternative strategies to respond to competitive pressures – they have the advantage of absolute proximity to most of their customers, and the actions described in the narrative that some stores have taken might be described as retaliatory. At the same time, the fact that suppliers are forward integrating and encroaching on their own customers’ customers will be a constraining factor. **Industry Profitability:** While it is true that the market has slumped and that textbook are declining as a percentage of traditional retail sales, there are billions of dollars in sales that might be pursued by innovators. **Stage in Industry Life Cycle:** The industry is mature, but may be ripe for a shakeout or significant disruption.

The overall conclusion from this analysis of sub-factors is that the Threat of New Entrants Risk Rating is **3.1** or **MODERATE**.

Bargaining Power of Customers

Bargaining Power of Customers	
Differentiation of outputs	3
Switching costs	4
Presence of substitutes	1
Industry concentration vs. buyer conc.	2
Importance of volume to buyers	1
Cost relative to total buyer purchases	3
Impact of outputs on cost or differentiation	3
Buyer information about supplier products	1
Buyer profitability	4
Decision maker incentives	0
Threat of backward integration	0
Overall Risk Rating	2.0

Customers are defined as university students requiring course materials – in particular textbooks – for use in their respective courses of study. The total potential size of the market is substantial, consisting of all university and college students (a number in the millions), broken up by school, then by program, and finally by individual class.

Differentiation of Outputs: While it is true that textbooks are differentiated by subject, the fact that they are available via other outlets makes it difficult for the campus bookstore to differentiate on the basis of product. This is however mitigated by the fact that students will vary in terms of their level of commitment and ability to research other channels and products. **Switching Costs:** As mentioned previously, beyond the possibility of delivery delays or product mismatch, there are few if any costs associated with acquiring product from another retailer. **Presence of Substitutes:** There are few substitutes per se for course support materials like textbooks – a student may choose to forego purchase, but it is unlikely they will seek a substitute. **Industry Concentration versus Buyer Concentration:** The size of the student market is substantial and diverse; further, as the number of alternative retailers grows the industry is becoming less concentrated. **Importance of Volume to Buyers:** Given that most students are in a situation where one (or very few) textbook resources are required per course, volume is not a consideration for the customer. **Cost Relative to Total Buyer Purchases:** As related in the narrative, students are price sensitive and generally have limited financial resources – textbook purchases are relatively significant. **Impact of Outputs on Cost or Differentiation:** Differentiation such as it exists in this market does play a role – students at some level need textbooks (at least their professors think so). They do however have alternatives which serve to mitigate the strength of this sub-factor. **Buyer Information About Supplier Products:** The narrative indicates that students are price driven – it is unlikely that they will otherwise research products (and it is unlikely that they have the expertise at the beginning of a course to make a reasoned decision based on non-price factors). **Buyer Profitability:** While this sub-factor is traditionally associated with actors in a B2B market, at some level it is appropriate in this context. Students may not be “profitable” (especially in an era of debt-financed higher education) however they are price conscious and at least somewhat sensitive to their financial position. **Decision Maker Incentives:** This sub-factor is not particularly relevant given that students are not purchasing agents being remunerated for the quality of their decisions. **Threat of Backward Integration:** Likewise, students are not positioned to integrate backward in the business model.

The overall conclusion from this analysis of sub-factors is that the Bargaining Power of Buyers Risk Rating is **2.0** or **LOW**.

Bargaining Power of Suppliers

Bargaining Power of Suppliers	
Differentiation of inputs	5
Switching costs	5
Substitute products	5
Supplier concentration vs. industry conc.	4
Importance of volume to supplier	5
Cost relative to total purchases in industry	5
Impact of inputs on cost or differentiation	5
Threat of forward integration	3
Overall Risk Rating	4.6

As detailed in the narrative the textbook industry has historically been dominated by four large publishers, the result of consolidation within the publishing industry. While the industry appears poised for a significant shakeout or disruption, the position occupied by suppliers relative to campus bookstores appears firm.

Differentiation of Inputs: Bookstores have little to know control over the textbook products they sell – product decisions are made outside of the operations (i.e. by professors) and with the exception of stores who maintain used inventories, they must purchase what their suppliers have for sale. **Switching Costs:** Switching suppliers is generally not an option – the bookstore must order what a professor has chosen. **Substitute Products:** As mentioned previously, there are few if any substitutes for professor chosen textbooks. The customer may choose forego purchase, but this option is not available to the bookstore. **Supplier Concentration versus Industry Concentration:** The industry has historically been dominated by large suppliers, although the presence of used and rental alternatives is having a mitigating effect (albeit small at this point). **Importance of Volume to Supplier:** In the case of Crandall University’s bookstore, volumes will be small when compared to most other universities with significantly larger enrolments. This diminishes the Crandall Bookstore’s ability to negotiate for supplier concessions. **Cost Relative to Total Purchases in Industry:** Bookstores have little influence over textbook prices regardless of their magnitude / importance to core business. **Impact of Inputs on Cost or Differentiation:** Textbooks play an important role in cost / differentiation given that 87% of Crandall Bookstore’s revenue comes from this product category. **Threat of Forward Integration:** Historically there was little threat that publishers would sell directly to students, however this is beginning to change as suppliers are beginning to embrace innovation to reach the customer without an intermediary.

The overall conclusion from this analysis of sub-factors is that the Bargaining Power of Suppliers Risk Rating is **4.6** or **HIGH**.

Threat of Substitute Products	
Relative price performance of substitutes	1
Switching costs	1
Buyer propensity to substitute	3
Overall Risk Rating	1.7

The threat of substitutes can effectively be defined as the likelihood that students may switch to a product alternative from outside of the industry – a relatively unlikely course of action given the (hypothetically) essential nature of course resource material to the university classroom.

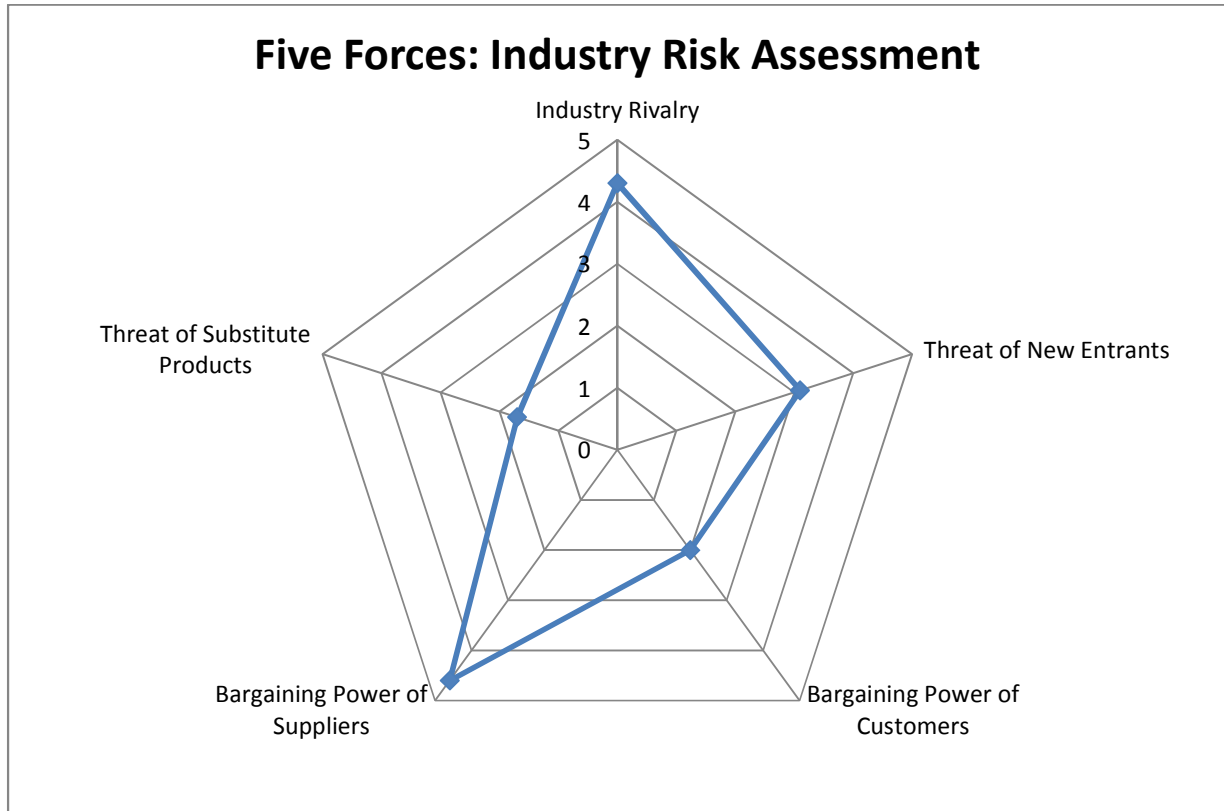
Relative Price of Performance of Substitutes and Switching Costs: Given the relative absence of substitute products these sub-factors have marginal impact. **Buyer Propensity to Substitute:** Given the price sensitivity of students it is possible that they may possess a strong willingness to engage substitutes *if* available.

The overall conclusion from this analysis of sub-factors is that the Threat of Substitute Products Risk Rating is **1.7** or **LOW**.

Conclusion

As the radar plot indicates, the most significant risk factors at play in Crandall University Bookstore’s industry are Rivalry and the Bargaining Power of Suppliers, with the Threat of New Entrants occupying a moderate risk position. As the narrative reveals the industry is becoming increasingly competitive in large part because of new entrants who are exploiting innovation to reach bookstore’s traditional customers (i.e. students) without the cost structures associated with bricks and mortar operations. Bookstores find themselves relatively locked into a traditional model of delivery that gives them very little power over the textbook products they sell. Considering the fact that suppliers

themselves are becoming involved in the retail sale of books using the same innovations being exploited by other competitors, we conclude that the industry is one that is fast becoming less attractive. Crandall University Bookstore should be considering ways in which to diversify its product mix and in so doing mitigate the risk of a deteriorating product category.



2. Some analysts are forecasting the imminent demise of the campus bookstore. In what ways is the Crandall University Bookstore dissimilar to others in the industry? How will this impact Amy’s decisions regarding the future of the Crandall University Bookstore?

There are many ways that Crandall University Bookstore is similar to others in its industry and therefore susceptible to industry changes experienced by its counterparts: pricing structure, gross profit percentage on textbook sales, declining market, and technological advancements. The student should be prepared to factor these similarities into the broader analysis in Question 3. Here, the student is directed to identify the unique characteristics of and opportunities relevant to this bookstore, and to avoid the application of a generalized one-size-fits-all approach. There are significant differences that students should identify including the following:

i. Textbook Sales

Crandall University Bookstore is significantly reliant on textbook sales, more so than others in the industry. Product line gross percentage analysis reveals that textbook sales account for 87% of revenue, considerably higher than the industry average of 54% described in the case.

Product Line Sales Report						
July 1, 2013 - June 30, 2014						
Unaudited						
	% Total					
	Sales	Sales	Discounts	Cost	GP\$	GP%
Café	1%	3744	0	0	3744	100.00%
Textbooks	87%	272,275	803	210,545	60,926	22.44%
Bible Society	4%	12,565	841	8,281	3,443	29.37%
Branded Apparel	4%	12,214	906	10,044	1,264	11.18%
Miscellaneous	1%	1,884	264	1,574	46	2.82%
Branded Non-Apparel	1%	2,292	120	1,662	511	23.50%
Convenience Items	1%	2,602	39	1,959	603	23.54%
CD's	0%	439	48	309	82	20.99%
Stationary	0%	473	0	457	16	3.38%
Grocery	1%	2,417	112	755	1,550	67.24%
Convenience-Beverage	1%	2,032	0	1,519	513	25.26%
Convenience-Food	0%	109	0	68	41	37.34%
Total	100%	313,045	3,134	237,172	72,739	23.47%

The heightened risk created by this high reliance on textbooks should direct students to calculate the potential impact of decreases in this category. A quick calculation would provide the student with concerning evidence that the bookstore's net contribution would be completely eliminated with an 8% decline in textbook sales, e.g.:

	2014
Revenue	313,045
Purchases	263,191
Write-offs	
Net	49,854
Average Staff salaries*	45,000
	4,854
8% Decline in Textbooks CM	4,854
Net CM	0

Not only is this significant due to the heavy reliance on this product line, but it is complicated by recent industry decreases and industry projections. The case quotes alarming industry statistics of an anticipated 20 – 25% decline in textbook sales over the next five years. The current industry average of 54% for this product line reflects a move away from the traditional “bookstore” model to a “campus store” model. Addressing this will require a significant broadening of the vision for the bookstore (the case does suggest that the university is moving in that direction, albeit slowly). Expanded qualitative discussion of this issue is included in Question 3.

ii. Used textbooks

At present, the Crandall University Bookstore provides no used books for sale in spite of industry information that supports this product line. Typically, used book sales amount to approximately 29%* (calculation following) of total textbook sales and provide a higher contribution than new books (new 22% versus used 34%). The positive impact on total bookstore contribution could approach 19% of overall contribution calculated as follows:

*Ratio of used textbooks to new:	1 to 2.5
% Used books to total:	29%

Current Textbook Sales	272,275
Industry Used Sales %	29%
Potential Used Sales	78,960
% Increase in Gross Profit	12%
\$ Increase in Gross Profit	9,475
Total Gross Profit 2014	49,854
% Increase in Gross Profit	19%

iii. Returns and write offs

Of significant impact to the Bookstore’s net contribution are the losses related to returns and write-offs. An interesting trend emerges: losses have only been identified when the Bookstore has undergone significant physical changes (the 2010 move to its new location) or management personnel changes (2011) and the amounts are significant as noted below. This analysis points to worrisome on-going inventory control issues that support Amy’s efforts to better understand student buying patterns. Moreover, with a reported \$5,000 annual cost to ship returns back to publishers, and differences between the general ledger number reported in the unaudited statements and the cost number produced by Bookware, it is apparent that work is still required in the capture of inventory information. The creation of accurate trend data for textbook acquisition rates will help manage this going forward and will be essential if Amy is to be successful stepping into the used market.

	2014	2013	2012	2011	2010	2009
Revenue	313,045	267,851	348,912	335,604	350,324	362,308
Purchases	263,191	235,809	284,391	271,218	304,197	305,873
Write-offs				14,819	11,346	
Gross margin	49,854	32,042	64,521	49,567	34,781	56,435
% Write-offs/GM	N/A	N/A	N/A	30%	33%	N/A

iv. On-line sales

Students may be quick to articulate a preference for on-line sales as a panacea for all things retail, but the reality for the Bookstore (and for many others) is that the cost of these new technologies is often higher than any potential savings, or in this case additional revenue. Amy’s research in this area is very preliminary but still provides enough insight to calculate the financial risk involved. Based on Amy’s research, annual software costs plus monthly usage costs, even at the most conservative estimates, amount to \$19,000 requiring a 38% increase in total gross margin – unrealistic in the current circumstances. Moreover, given that the increase in sales and gross margin is likely limited to increases in non-textbook product lines such as branded merchandise, these categories would have to increase more than tenfold in order to support the on-going costs of such software. Finally, the current industry data quoting online sales as a mere 6.5% of total retail sales suggests that while future growth may require review of this decision, it is currently not a feasible option for the Bookstore.

Conclusion

Given that textbooks form a significant category (87%) and therefore a significant risk to the sales of the bookstore, Amy must work to curtail the erosion of the textbook market. The least costly option is the used textbook option. Plans around this however will be hindered to the extent that the university does not administratively support this program. The industry and financial evidence overwhelmingly supports the used market. Given the student population’s consistently voiced desire for cheaper textbook alternatives, demand is not at issue. Moreover, it would be virtually impossible to acquire more used books than could be sold. One area of risk that remains at issue is unquantifiable: the risk of potentially acquiring unsaleable books. Any plans going forward will therefore have to include clear parameters around administering the program, but the potential to increase gross profit by 19% provides significant incentive to do so.

Considering the potential for erosion of the textbook market, Amy must consider the financial potential of other product(s). Once again a review of product line information previously calculated will provide Amy with the information to go forward. Two product lines stand out as most significant (albeit small compared to textbooks): Bible Society and Branded Apparel each at 4% of total sales. Bible Society sales provide a healthy margin but management of this product line is largely out of Amy’s control. These sales are made on a consignment basis and true to the definition Amy has no input over product selection, pricing or promotion of the product. The well informed accounting student will no doubt balk at the inclusion of the gross revenue and purchases dollars in the University’s financial presentation which admittedly is not GAAP, but the amounts are not material and the 2014 numbers are presented as unaudited, so the issue is not relevant to the case.

Branded Apparel surprisingly has the lowest margin of any product line (ignoring the insignificant Stationary category). Here Amy has a monopoly in the market and much discretion over

merchandising options. Capitalizing on this position would contribute additional margin to the bookstore and be in keeping with the direction the industry is taking. One untapped market mentioned in the case for these products is those who are off-campus, particularly parents/grandparents who are unlikely to create in store traffic. In Amy's opinion, the solution is of course creating an online presence to support growth in this market. Even though industry information suggests that an online presence will also increase in store traffic driving rather than cannibalizing sales, quantifying this increase will be complex and as demonstrated previously, not financially viable at the current time.

A case could be made to establish an on-line presence that would not include a secure sales function, perhaps as an addition to the university website which would require little out-of-pocket cost. Although no financial information has been provided in the case, this may be a reasonable, low risk next step that addresses the potential for non-campus customers and the possibility of driving in store sales.

3. As the case draws to a close Amy is considering different ideas regarding what the future of the Bookstore might be like. Consider the options she presents and comment on their potential for success. Are there other alternatives she might consider?

Johnson and Scholes (2008) provide a model for the evaluation of strategic options. Alternatives are considered against three criteria for success:

- Suitability
- Feasibility
- Acceptability

Each criterion is then broken down into component parts that help determine the extent to which an alternative meets the criterion. We have adapted a modified version of the framework by assessing each alternative's sub-factors on a three point scale where 1 is low, 2 is moderate, and 3 is high. These ratings are then averaged to provide a decimal score for each criterion. Finally, the Suitability, Feasibility, and Acceptability scores are averaged to provide an overall score that represents the potential effectiveness of the strategy being considered. The results of the analysis are tabulated and discussed following (TN-Table 1).

Strategic Option	Suitability				Feasibility					Acceptability				Overall S+F+A %
	Econ Logic	Economy	Enviro/Capa	S-Score	Funding	People	Time	Information	F-Score	Return	Risk	Stakeholders	A-Score	
Used book sales	3	2	3	0.89	2	2	2	1	0.58	3	1	3	0.78	0.75
E-commerce	1	2	1	0.44	1	3	2	1	0.58	2	3	2	0.78	0.60
E-books	3	2	2	0.78	3	3	2	1	0.75	2	2	2	0.67	0.73
Book rentals	3	2	2	0.78	2	2	2	1	0.58	2	1	3	0.67	0.68

TN-Table 1. Modified Evaluation of Strategic Options Framework

Used Book Sales

The option to sell used texts generates the highest potential effectiveness score, albeit marginally. In terms of suitability, selling used texts is a reasonable course of action given its potential to generate superior margins while selling at below new textbook prices. That said, the option will involve cash outlay to purchase a used text inventory, and will generate inventory management expenses while being non-returnable (an important difference from traditional new textbooks).

Regarding feasibility, there are a number of unknowns that will need to be mitigated. Little is known at this point regarding the University's willingness to finance such a venture, nor whether additional staffing resources will be required to manage inventory. A serious deficiency with the alternative lies in the textbook ordering process into which the bookstore is locked – should a professor decide to change textbooks or order a new edition, the store will be stuck with obsolete and potentially unsalable inventory.

The acceptability of the alternative is reasonably high, given the superior return that used books generate and the attractiveness of less expensive textbooks to the store's student clientele. A mitigating consideration however is the risk associated with the maintenance of an inventory that may have a short shelf life.

E-Commerce

Developing a retail presence online will doubtless be a popular alternative among students given the prevalence of online retail. It must be considered however that this option might not be the most suitable given the Crandall Bookstore's present situation. In terms of economic logic, narrative data indicates that students are motivated primarily by price – there is no indication that they suffer from a lack of access to textbooks via brick and mortar operations. Thus while developing an online presence may assist with the sale of non-textbook products and possibly access new customer segments (e.g. parents, etc.) it will not likely help with the present textbook problem.

In terms of feasibility not too much is known from the narrative – it may be speculated though that this will be the most expensive of all options as an e-commerce website would need to be developed and maintained. Further, the issue of asynchronous communication regarding the ordering of textbooks (i.e. professors not ordering in a timely manner) would continue to plague an online store in the same way it would a physical one.

Acceptability would likely be high – the risk entailed by an online presence is not overly high (no buildings need be constructed). The return on such an investment at this point is relatively unknown however, and students may not embrace online purchasing to meet their textbook needs – again, the narrative indicates that price, not access, is the issue for them

E-Books

E-books stand out as a tantalizing option, given their growing presence in the market and the fact that publishers appear to be embracing the technology (and that e-books sell for less than print books). At the same time it must be remembered that university student adoption rates of e-books at present appears to be low, perhaps diminishing the suitability of the option somewhat.

The feasibility of moving to an e-book platform for the Bookstore is high, given that there will be no additional cost associated with the venture, and that inventory management expenses would decrease

substantially should shelves of print textbooks no longer be required. The option would still however struggle with the vagaries of the ordering process.

Regarding acceptability, e-books are a middle of the road alternative. A reasonable margin might be obtained from their sale, but the makeup of the sales price will continue to be dominated by the publishers, who interestingly enough are now also functioning as competitors. The most substantial risk associated with the venture lies in the fact that students appear hesitant to leave the printed page behind – if this trend continues the Bookstore could find that it had ultimately hurt itself by moving to an e-book footing.

Book Rentals

The option of renting textbooks carries with it some of the same advantages of selling used textbooks – if a particular book can be rented multiple times there is significant revenue producing potential. There are also the same concerns regarding financing requirements to purchase a rental inventory, the costs associated with its maintenance, and the risk of holding obsolete product should titles or editions change.

Accordingly, there are unknowns regarding resource requirements to establish and maintain a rental operation that serve to downgrade the option's feasibility. And as with every other option, the challenges associated with the textbook ordering process remain.

Acceptability of this alternative should be reasonably high – as mentioned the profit potential is substantial, though offset by some significant risks. Students should welcome the option as it would provide them with a needed product at a substantial discount off of the price of a new textbook

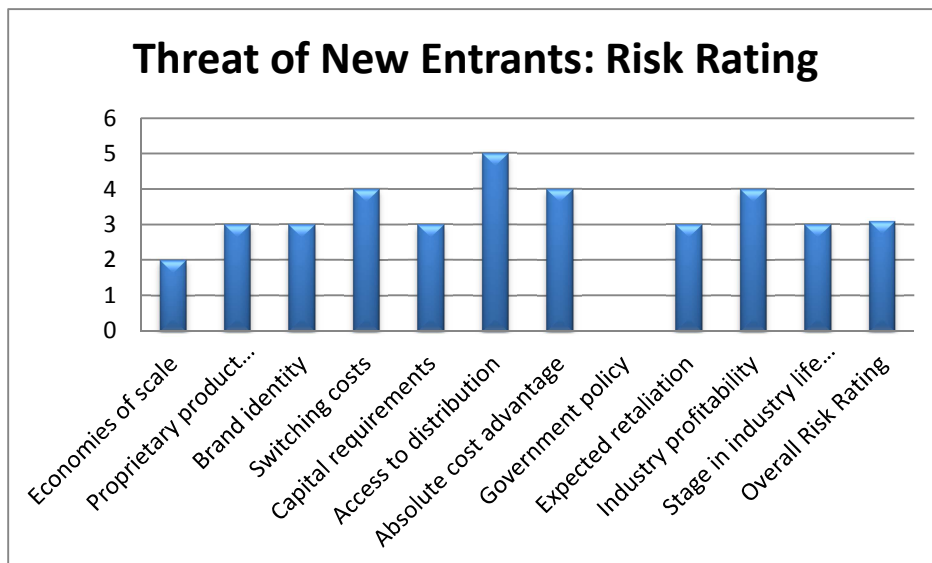
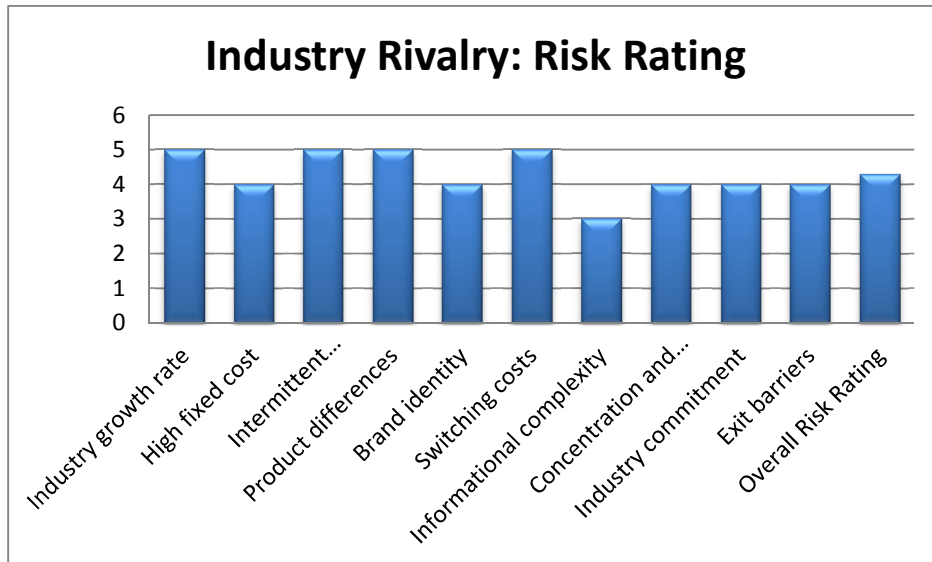
Conclusion

On the basis of the analysis rendered, adopting a used book selling strategy carries with it the greatest potential effectiveness. While not without risk, the alternative will provide the store with a way to deal its primary product to its primary customer in a way that will appeal to the price sensitivity of the market.

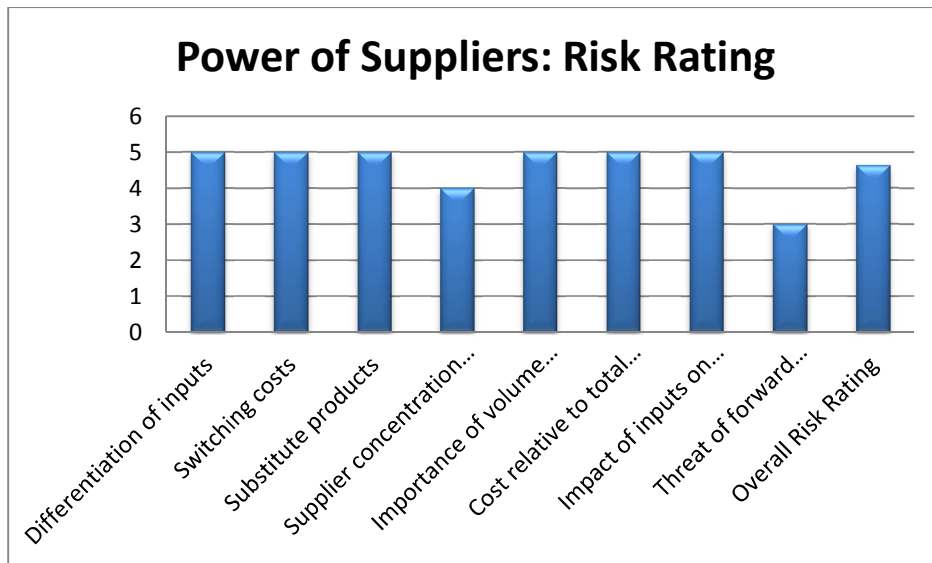
Teaching Note Exhibits

The following graphs are visual representations of the analysis in Question 1. They may be useful during discussion of the case and/or comparison with student results.

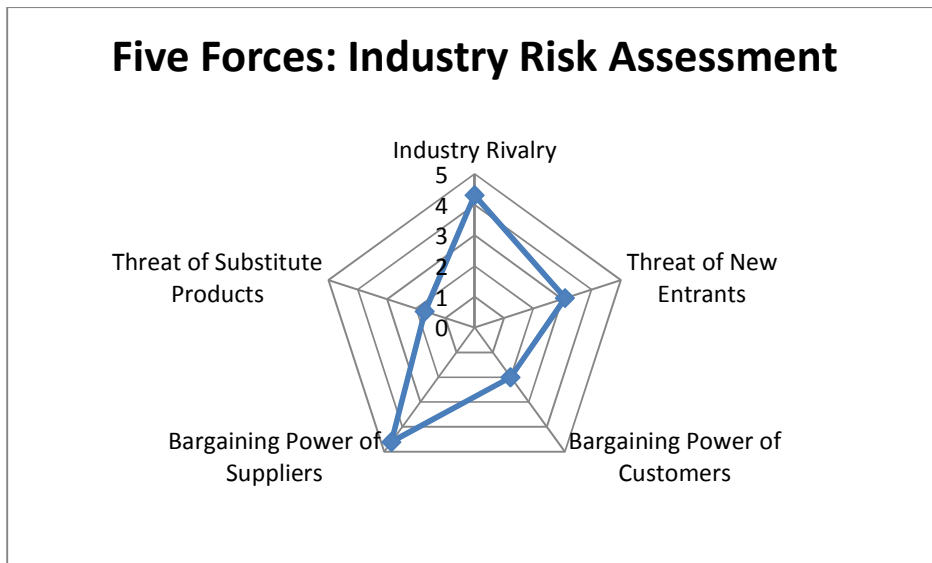
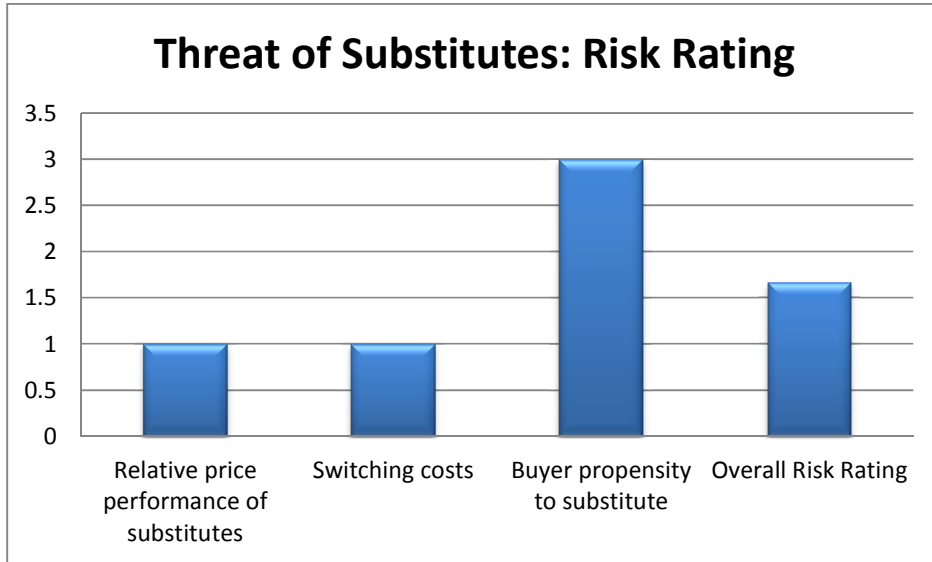
Teaching Note Exhibit 1: Five Forces Analysis



Teaching Note Exhibit 1: Five Forces Analysis



Teaching Note Exhibit 1: Five Forces Analysis



THE FUTURE OF SPRINGHILL¹

In just over a five week period, three towns located in Nova Scotia voted for the dissolution of their municipal status: Springhill on March 4, 2014; Bridgetown on April 1, 2014; and Hantsport on April 16, 2014. *The Future of Springhill* is a case study that examines several of the financial and economic challenges faced by the Town of Springhill that contributed to such a decision.

Introduction

It was 4:30 p.m. on March 4, 2014 and the Mayor, Acting CAO and four councillors for the Town of Springhill were about to attend a special council meeting. There was only one item was on the agenda - the dissolution of the Town of Springhill. The town was struggling financially and its future uncertain. Council had looked for ways to increase revenue and decrease costs over the past 16 months but was not successful. And with a decreasing population, how could the town continue to sustain itself? Would it follow Canso's lead and give up its charter as a town and amalgamate with the surrounding rural municipality of Cumberland County?

Springhill – A Brief History

Springhill is a small town that occupies only 11.5 square kilometres in Cumberland County, Nova Scotia. When the town was incorporated in 1889, coal mining had already been established as a community mainstay, an industry that grew and proved to be the economic lifeblood for the town throughout the first half of the twentieth century.

Over the years, the Springhill coal mines experienced several disasters including the 'Big Bump' in 1958. At 8:00 p.m. on October 23, an underground earthquake shook both the town and the 4,200 metre mine, the deepest coal mine in North America at the time, trapping 174 miners underground. Seventy-four miners perished in the disaster and 100 miners were rescued, 12 of whom were saved 8 ½ days after the disaster struck. The operator of the mines, Dominion Steel & Coal Corporation Ltd, shut down its mining operations in Springhill in 1959 and by 1962 the mines were closed and never reopened.

While the closure of the mining industry was an economic blow and marked the end of an era for Springhill, it was not the end for the town. Although an economically depressed area, the town houses numerous businesses, a modern hospital and other health care facilities, a new Community Centre and Arena, and a Nova Scotia Community College Campus. In addition, the Springhill Institution is located in the town, a medium-security federal penitentiary that opened in 1967 and has capacity for 550 male inmates. The town boasts numerous tourism attractions including the Miners Museum where visitors can tour an underground coal mine and the Anne Murray Centre. The centre showcases the life and times of the internationally known singer Anne Murray who was born and raised in Springhill.

¹ This case is based on historical events and not intended to illustrate either effective or ineffective decision-making.

Ground water has since filled the abandoned coal mines, providing a geothermal energy resource that is currently utilized by several Springhill businesses. In January 2014, the province of Nova Scotia granted final approval for the town of Springhill's municipal geothermal program to use underground water to help provide clean and efficient energy to the town.

Demographic and Income Challenges – Nova Scotia and Springhill

Statistics Canada reported that the population of Nova Scotia increased from 913,462 in 2006 to 921,727 in 2011. This modest growth rate of 0.9% was the lowest of the four Atlantic Canadian provinces and significantly lower than the national increase of 5.9%. Over the same timeframe, the population of Springhill dropped from 3,941 to 3,868 people. In 2011, the proportion of population that was 65 and older was 15.7% for province of Nova Scotia and 18.3% in the town of Springhill.

While Nova Scotia's population increased to 948,700 people in 2012, such increases are not expected to be long-lived. The Report of the Nova Scotia Commission on Building Our New Economy (2014) projects that by 2038, the province's population will decline to 926,300. 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%.

Nova Scotia continues to experience an outmigration of skilled workers and educated youth to other regions of Canada, most notably Alberta. By 2036, it is anticipated that Nova Scotia will have 100,000 fewer working age people as compared to 2010.

The government of Nova Scotia (Community Counts Profiles) reported that in 2011, the average income for individuals in Town of Springhill was \$29,470 per year, compared with the average of \$35,478 for Nova Scotia and \$40,650 for Canada. Families in Springhill had an average annual income of \$61,667, compared with the average of \$79,838 for Nova Scotia. In 2011, 34.3% of the population in private households in Town of Springhill had low income status. In Nova Scotia, 17.4% of the population in private households had low income status in 2011 compared to 14.9% for Canada.

Property Taxes in Nova Scotia

Significant increases in the housing market across Canada in the early part of the 21st century caused large increases in property tax assessments and resulted in increased taxes for many property owners. To control the fast growth of property assessments, the government of Nova Scotia put legislation in place in 2004 to limit property assessment increases. Known as the Capped Assessment Program (CAP), it provided the provincial government with the ability to limit or 'cap' increases in assessed residential and resource property values thereby protecting long-time residents of the province.

Since April 1, 2008, the Property Valuation Services Corporation (PVSC), a municipally-controlled non-profit corporation, calculates assessment values of properties located in Nova Scotia. These assessments (called the assessment role) are provided to municipalities each January and are used by municipalities to set the property tax rate required to generate sufficient revenues to provide programs and services. Those property owners eligible for the CAP receive a capped assessment value in addition to a market value assessment.² Municipalities calculate taxes based on the lower capped value. For example,

²The program limits the annual increase of property assessments to 10% for eligible properties, regardless of the property's market value. In 2008, Nova Scotia linked the prescribed rate to the CPI rate and made registration automatic whereby a property facing an assessment increase more than the CPI is automatically eligible for the CAP.

assume the tax rate set by a municipality for 2013 is \$2.25 per \$100 of taxable assessment, the market value of the property is \$200,000 and the ‘capped’ assessment value is \$150,000. The property tax would be based on the capped value and amount to \$3,375.

Municipal Tax Revenues - Springhill

For the fiscal year ended March 31, 2013, Springhill’s audited financial statements reported total revenue of \$7,805,925, the largest component coming from net municipal taxes in the amount of \$5,411,047 (Exhibit 2). Property taxes were assessed at a rate \$2.25 per \$100 of taxable assessment and represented the second-highest tax rate in Nova Scotia. Tax billings are issued by the town once per year. Table 1 details the town’s assessment rate history from 2010 to 2014.

Table 1. Assessment History - Residential

Year	Market Assessment	Capped Assessment	% Growth (Market)	% Growth (CAP)	Residential Tax Rate (per \$100 of assessment)
2010	\$ 92,072,400	\$ 89,821,000			\$ 2.25
2011	97,850,500	92,536,800	6.3%	3.0%	\$ 2.25
2012	99,754,600	95,427,900	1.9%	3.1%	\$ 2.25
2013	100,082,300	96,195,000	0.7%	0.8%	\$ 2.25
2014	100,773,400	96,725,900	0.3%	0.6%	\$ 2.25

Source: “Overview of Information that Led to the Decision by Council to Consider Dissolving”, Town of Springhill, May 15, 2014.

Commercial taxes were assessed at a rate of \$5.53 per \$100 of taxable assessment and generated tax revenue amounting to \$603,648 for the 2013 fiscal year. Table 2 details the town’s commercial assessment rate history from 2010 to 2014.

Table 2. Assessment History - Commercial

Year	Market Assessment	% Growth	Commercial Tax Rate (per \$100 of assessment)
2010	\$ 10,325,600		\$ 5.38
2011	10,880,400	5%	\$ 5.53
2012	11,141,700	2%	\$ 5.53
2013	10,720,900	-4%	\$ 5.53
2014	10,201,300	-5%	\$ 5.53

Source: “Overview of Information that Led to the Decision by Council to Consider Dissolving”, Town of Springhill, May 15, 2014.

For the same fiscal year, Springhill reported Government Grants-in-lieu of property taxes in the amount \$1,809,565. This was the second largest component of revenue for the town. These legislated grants are determined by multiplying the tax rate times the assessment and represent the amount that would be paid if a property was not tax-exempt. The major provincial and federal grants-in-lieu for the town of Springhill are summarized in Table 3.

Table 3. Federal and Provincial Assessments for Grants in Lieu (2013/14)

	Market Value Assessment	
	Commercial	Residential
<i>Provincial</i>		
Land & Fire Tower	\$ 22,500	-
<i>Federal</i>		
Canada Post	\$ 171,400	-
Springhill Penitentiary	\$ 3,543,300	\$ 31,218,400

Source: Application to UARB for Dissolution, Town of Springhill, (filed May 15, 2014).

Taxes and Rates Receivable

At March 31, 2013, Springhill's audited consolidated financial statements reported taxes and rates receivable of \$1,328,743 (2012 - \$1,126,805). The notes to the financial statements disclosed that taxes receivable were recorded net of an allowance of for doubtful accounts of \$596,801 (2012 - \$818,606) and that the allowance represented 100% of all business occupancy taxes and a review of all other accounts for potential uncollectible amounts.

Springhill estimates that that the taxes receivable increased to \$1.743 million at March 31, 2014 and anticipates that a further \$500,000 in uncollectible accounts will need to be recognized³ (Application to UARB for Dissolution).

Policing Costs

Policing services in the Town of Springhill are provided by the municipal police service. In early 2013, a contract was ratified providing unionized officers an 18.5% increase over the term of the contract (2010 to 2013). Worried about the escalating policing costs, Town Council approved a review process on February 26, 2013 to determine if cost saving alternatives could be sourced.

The review generated two proposals: one from the Springhill Police Chief to provide services for \$1,578,500 and one from the RCMP to provide services for \$1,331,000. The municipal police contract requires a 12 month termination notice. There would be no pension obligation beyond the termination date should the town decide to terminate the municipal policing services contract.

Financial Condition Index

The Financial Condition Index (FCI) was developed⁴ by the Province of Nova Scotia, the Union of Nova Scotia Municipalities and the Association of Municipal Administrators and reports on a variety of sources of municipal financial information in one document. The report focuses on three dimensions: Revenue Dimension, Budget Dimension, and the Debt & Capital Dimension. A municipality's report provides a score for five indicators in each of the above-noted dimensions and a comparative Nova Scotia municipal average. A recommended town threshold score or municipal performance guideline is also

³ Financial statements for the fiscal year ending March 31, 2014 were not available at the time of writing this case.

⁴ The municipal indicators were developed in 2002. The design was finalized in December 2012 following a series of joint reviews and initiatives to evaluate the program and develop new features. A municipalities report can be generated by visiting <http://www.novascotia.ca/dma/finance/indicator/fci.asp>.

provided for each indicator. The performance guidelines are based on research in other jurisdictions, best practice literature reviews, and considers the normal operating range for Nova Scotia municipalities. Definitions for each of the indicators can be found in Exhibit 5.

The provincial government advises users of FCI reports that they have been designed as an early warning sign to identify potential areas for further investigation and not meant to be a comprehensive assessment of performance for a municipality. Springhill's FCI Report for the 2011/12 fiscal year can be found in Table 4.

Table 4. Town of Springhill - Financial Condition Index (2011 -2012)

Indicator	Springhill	Provincial Average	Recommended Town Threshold
<i>Revenue Dimension</i>			
Reliance on Government Transfers (%)	13.8	11.0	Below 15.0
Uncollected Taxes (%)	53.8	9.7	Below 10.0
3-Year Change in Tax Base (%)	6.4	5.4	Above 8.4
Commercial Property Assessment (%)	10.5	23.1	Above 20.0
Reliance on Single Business/Institution (%)	22.4	7.2	Below 10.0
<i>Budget Dimension</i>			
Residential Tax Effort (%)	2.9	3.3	Below 4.0
Deficits in the Last Five Years	1.0	1.0	Below 1.0
Budgeted Expenditures Accuracy (%)	-1.0	3.8	Between -5.0 and 5.0
Liquidity	1.0	1.5	Above 1.0
Operating Reserves	0.0	8.0	Above 5.0
<i>Debt & Capital Dimension</i>			
Debt Service (%)	8.5	7.4	Below 15.0
Outstanding Debt (%)	2.3	1.3	Below 3.5
Undepreciated Assets (%)	65.2	58.6	Above 60.0
5-year Capital Purchases (%)	155.1	211.6	Above 100.0
5-year Contributions to Capital Reserves (%)	0.0	13.8	Above 10.0

Source: <http://www.novascotia.ca/dma/finance/indicator/fci.asp?yer=2012&muns=46>

Conclusion

The summer of 2014 would mark the Town of Springhill's 125th anniversary but if the Mayor and council choose to vote in favour of the town's dissolution, the milestone anniversary could be the last one celebrated by the community. The town was struggling financially and on March 4, 2014, the process of deciding on its future as a town was about to be decided. Establishing a new governance model by amalgamating with the surrounding municipality of Cumberland County was an option. But first, the Mayor and his council have to make a decision. Would a motion be passed to apply to the Nova Scotia Utility and Review Board for dissolution?

EXHIBIT 1
Additional Case Information

1. The audited consolidated financial statements for the fiscal year ended March 31, 2013 were issued on September 24, 2013. An unqualified audit opinion was issued. The financial statements were prepared in accordance with Canadian Public Sector Accounting Standards for local governments as established by the Public Sector Accounting Board (PSAB) and reported on municipal operations, the Town of Springhill Water Utility and Cumberland Joint Services Management Authority (CJSMA). The Town of Springhill has a partnership with CJSMA which operates a landfill site.
2. On June 19, 2014, a request for proposal (RFP) was issued for external auditing services for the Town of Springhill and the Springhill Water Utility for the two fiscal years ending March 31, 2014 and 2015. The RFP notes that the Auditor's Report and the Financial Statements must be presented at a council meeting prior to August 26, 2014.
3. For the fiscal year ending March 31, 2014, the Town of Springhill reported a preliminary deficit of \$342,111 before a providing for an estimated additional \$500,000 in uncollectible bad debts.
4. In Nova Scotia, municipalities are not allowed to incur debt as a result of operating deficits, but they are allowed to borrow funds to purchase or construct capital assets.
5. Property taxes in Cumberland County for 2014/15 are \$1.04/100 for residential property and \$2.63/100 for commercial

EXHIBIT 2⁵
Town of Springhill
Schedule of Property and Other Taxes
For the Year Ended March 31, 2013

	Budget (2013)	2013	2012
Taxation			
Real property taxes	\$ 2,049,996	\$ 2,095,749	\$ 2,029,175
Waste collection fees	225,500	220,847	220,654
Business taxes	601,244	603,648	597,692
Government grants in lieu of property taxes	1,812,814	1,809,566	1,775,696
Special assessments and local improvement taxes	17,220	16,287	20,345
Water rates	1,180,800	1,223,653	1,572,162
	<u>5,884,574</u>	<u>5,969,549</u>	<u>6,215,724</u>
Requisitions			
Appropriations to Cumberland District School Board	415,411	415,411	401,335
NS Department of Housing	140,000	143,091	137,066
	<u>555,411</u>	<u>558,502</u>	<u>538,401</u>
Net Municipal Taxes	<u>\$ 5,329,163</u>	<u>\$ 5,411,047</u>	<u>\$ 5,677,32</u>

⁵ Financial Statement excerpts obtained from Application to UARB for Dissolution, Town of Springhill.

EXHIBIT 3
Town of Springhill
Consolidated Statement of Financial Activities
For the Year Ended March 31, 2013

	Budget (2013)	2013	2012
Revenue			
Net municipal taxes (Exhibit 2)	\$ 5,329,163	\$ 5,411,047	\$ 5,677,323
User fees and sales of goods	1,159,711	1,235,535	1,246,829
Government transfers for operating	925,116	924,719	944,378
Investment income (loss)	1,240	(23,281)	(6,619)
Penalties and costs of taxes	183,652	246,841	222,547
Other	5,625	11,064	13,052
Total Revenue	<u>7,604,507</u>	<u>7,805,925</u>	<u>8,097,510</u>
Expenses			
General Government Services	911,579	917,357	1,011,156
Protective Services ⁶	1,830,095	2,072,488	2,232,535
Transportations Services	968,252	1,113,485	972,702
Environmental Health Services	553,944	556,802	491,450
Public Health Services	1,700	(138)	1,433
Environmental Development Services	152,525	57,049	64,729
Recreation and Cultural Services	850,556	872,236	841,878
Water utility	935,559	1,003,336	1,025,050
Cumberland Joint Services Management Authority	283,242	286,203	245,942
Amortization of tangible capital assets	160,000	933,188	939,344
Total Expenses	<u>6,647,452</u>	<u>7,812,004</u>	<u>7,826,219</u>
Excess (Shortfall of Revenue over Expenses before Other)		<u>(6,079)</u>	<u>271,291</u>
Other			
Contributed assets		24,948	312,964
Government transfers for capital		404,879	661,634
Other revenue (expenses) from reserve funds		22,097	(40,959)
Excess of Revenue over Expenses		445,845	1,204,930
Accumulated surplus, beginning of year		25,839,735	25,122,139
Rate differential – CJSMA		87,744	(176,126)
Adjustment to tangible capital assets – CJSMA		-	(311,209)
Accumulated surplus, end of year		<u>\$26,373,324</u>	<u>\$25,839,734</u>

⁶ Protective Services includes municipal policing costs, traffic activities, animal control, and fire department costs. The town has a volunteer fire department.

EXHIBIT 4
Town of Springhill
Consolidated Statement of Financial Position
March 31, 2013

	2013	2012
Financial Assets		
Cash and temporary investments	\$ 1,581,583	\$ 1,207,115
Restricted cash and temporary investments	1,164,636	922,841
Taxes and rates receivable	1,328,743	1,126,805
Other receivables	588,489	822,808
	4,633,451	4,079,659
Liabilities		
Accounts payable – trade	727,815	806,724
Bank indebtedness	2,936,090	2,547,214
Deferred revenue	50,599	50,599
Long term debt	5,144,381	5,855,465
	8,858,885	9,260,002
Net Debt	(4,195,434)	(5,180,433)
Non Financial Assets		
Prepaid expenses	207,220	164,657
Inventory of supplies	288,721	233,719
Deferred charges	15,545	17,958
Tangible capital assets (Net of Accumulated Depreciation)	30,057,272	30,604,193
Total Non Financial Assets	30,568,758	31,020,167
Accumulated Surplus	\$26,373,324	\$25,839,734

EXHIBIT 5
Financial Condition Index – Definitions

Indicator	Definition
Reliance on Government Transfers (%)	How much a municipality relies on transfers from provincial and federal governments.
Uncollected Taxes (%)	Compares unpaid taxes with the total amount billed by the municipality.
3-Year Change in Tax Base (%)	The rate of growth in the municipality's tax base.
Commercial Property Assessment (%)	Commercial assessment is in the municipality.
Reliance on Single Business/Institution (%)	How much a municipality relies on a single property owner for revenue.
Residential Tax Effort (%)	How much household income is needed to pay an average residential tax bill.
Deficits in the Last Five Years	How often a municipality ran a deficit in the last five years.
Budgeted Expenditures Accuracy (%)	The difference between budgeted and actual expenditures.

Liquidity	The municipality's ability to pay short term bills
Operating Reserves	Compares total operating reserves with the total budget.
Debt Service (%)	How much of the municipality's revenue is being used to pay off debt.
Outstanding Debt (%)	How much debt the municipality has compared to its tax base.
Undepreciated Assets (%)	The useful life left in a municipality's capital assets.
5-year Capital Purchases (%)	Compares capital spending with the need for replacing existing assets.
5-year Contributions to Capital Reserves (%)	Compares savings for capital projects with the need for replacing existing assets.

Source: <http://www.novascotia.ca/dma/finance/indicator/fci.asp?yer=2012&muns=46>

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THE FUTURE OF SPRINGHILL **TEACHING NOTE TO THE CASE**

Case Summary

Springhill’s Mayor and council are about to vote on a motion to apply to the Nova Scotia Utility and Review Board for dissolution of the Town of Springhill. The town was struggling financially with increasing costs and growing debt. And with a decreasing population that is aging, there is concern for the sustainability of the town. The case presents some of the information that would be considered by the Mayor and the council in reaching their decision.

Objectives of the Case

While such a decision warrants the consideration of facts that extend beyond those presented in the case, it does provide students with select information that council would consider prior to casting a vote on the matter of dissolution. Economic considerations, municipal condition indicators and limited analysis of financial statements prepared using the PSA handbook are required.

Basic Pedagogy

Courses: the case may be used in a public administration course or an upper level business course that requires financial analysis.

Level: the case is recommended for use in an undergraduate business program.

Prerequisites: students should have completed an introductory level economics course and financial accounting course. Students enrolled in an advanced financial accounting course will find that the component of the course covering public sector accounting to be useful.

Key Issues

- Financial and economic considerations relevant to the sustainability of a town.

Research Methodology

This is a research case based upon secondary public sources.

Relevant Theory

- Public sector accounting in Canada.
- Analysis of select public sector financial statements.
- Use of the Financial Condition Index (Province of Nova Scotia) as an analysis tool.
- Strategic decision making in the public sector.
- Budgeting as an element of managerial control in a public sector organization.

Discussion Questions

- 1. Perform a financial analysis on the financial statements and other financial information provided in the case. In particular, consider the Financial Condition Index and the Consolidated Statements of Financial Position and Financial Activities.**
- 2. Pursuant to Section 72 (4) of Nova Scotia's *Municipal Government Act*, any deficit incurred in the year shall be included in estimates for the following year. Estimate the increase in tax rate required to cover the deficit projected for the fiscal year ending March 31, 2014. Is increasing the tax rate a feasible option? Why or why not?**
- 3. Comment on additional information that you would like to see or examine before a decision could be made.**

Suggested Responses

- 1. Perform a financial analysis on the financial statements and other financial information provided in the case. In particular, consider the Financial Condition Index and the Consolidated Statements of Financial Position and Financial Activities.**

a. Financial Condition Index (FCI)

As noted in the case, the provincial government advises that FCI reports have been designed as an early warning sign to identify potential areas for further investigation. Students should not only comment on the Town of Springhill's FCI Report for the 2011/12 fiscal year as found in Table 4, but also consider the report when they examine the town's financial statements. This should assist with determining if the town's situation deteriorated in 2013.

Three indicators included in the Revenue Dimension component of the FCI Report warrant discussion. First, Springhill's uncollected tax score of 53.8% is particularly troubling as it was significantly higher than the Nova Scotia average of 9.7% and the recommended threshold of below 10%. Uncollected tax revenues have a negative impact on cash flow and results in using bank indebtedness to

meet cash flow needs, thereby increasing interest charges. Springhill's 10.5% score for the commercial property assessment indicator fell below the provincial average and recommended threshold of 23.1% and 20%, respectively, suggesting a low level of economic activity. Springhill's score for reliance on a single business/institution was 22.4%, much higher than the Nova Scotia average score of 7.2% and the recommended threshold of below 10%. However, Springhill has a significant reliance on the Springhill Penitentiary. Also, while the town's commercial base is small, it is reasonable to assume a large portion of these revenues will remain constant because of the reliance on the penitentiary.

The operating reserve score for the budget dimension is also quite troublesome. Springhill's score for 2012 was 0% compared to the provincial average score of 8%. The recommended threshold for operating reserves is above 5%. The lack of operating reserves will restrict the town's ability to plan for the future and may have a negative impact on its sustainability.

Under the Debt & Capital Dimension, the 5-year contributions to capital reserves score of 0% indicates that any future capital or infrastructure projects needed to invest in the town's future will have to be financed with debt (if it can be obtained). Debt servicing can put a strain on cash flow. The recommended threshold score for municipalities in Nova Scotia for the year under review was above 10%.

b. Consolidated Statement of Financial Position

Public sector accounting requires that the statement of financial position first present financial assets and then deduct liabilities to determine net debt. Net debt is an important indicator of a government's financial position as it provides a measure of future revenues required to pay for past transactions and events. (PS 1201.037) The town of Springhill's consolidated statement of financial position reflects a net financial liability position which indicates that at March 31, 2013, the financial resources on hand were insufficient to finance future operations.

Students should discuss bank indebtedness as disclosed on the Consolidated Statement of Financial Position and how uncollected taxes are contributing to cash flow issues. In 2012, 53.8% of the taxes Springhill billed remained uncollected, signalling serious implications for cash flow (see FCI discussion). Taxes and rates receivable for the year ended March 31, 2013 increased by \$201,938 over the prior year. Springhill estimated that the taxes receivable increased to \$1.743 million at March 31, 2014 and anticipated that a further \$500,000 in uncollectible accounts would need to be recognized. As such, the uncollected tax score for both 2013 and 2014 will likely deteriorate.⁷ While the following allows one to quickly calculate that net bank indebtedness has increased by \$14,408, most concerning is the fact that such a high level of indebtedness has occurred over the two fiscal periods. Students should note that collection of the outstanding taxes receivable would relieve this situation and reduce interest charged on the debt. Also, the town does not have any operating reserves available.

	2013	2012
Cash and temporary investments	\$ 1,581,583	\$ 1,207,115
Bank indebtedness	(2,936,090)	(2,547,214)
Net cash position, excluding restricted cash and temporary investments	<u>\$(1,354,507)</u>	<u>\$(1,340,099)</u>

(Note: Even though the Consolidated Statement of Cash Flows is required for a more thorough analysis, students were provided with sufficient information in the case to signal a cash flow issue.)

⁷ Not available at the time of writing the case.

As PS 1201.038 indicates, reporting on liabilities and financial assets alone is not sufficient to provide an adequate description of a government's financial position. By reporting on non-financial assets, a more complete understanding of a government's debt position, financial position and future operating requirements is presented. Non-financial assets are those that are normally employed to provide future services and include prepaid expenses, supplies inventory and deferred charges. In addition, it also includes tangible capital assets, those assets that have economic lives extending beyond the accounting period and used by government units to provide services (e.g. - land, buildings, equipment and roads). Such assets require operating and maintenance expenditures, costs that will likely increase as capital assets age. In addition, they may need to be replaced in the future and with no capital reserves available, acquisitions would have to be financed with debt.

c. Consolidated Statement of Financial Activities

The statement of operations (financial activities) reports the surplus or deficit from a government's operations and the change in accumulated operating surplus or deficit in the accounting period. While students can easily prepare an excel spreadsheet to identify variances from the 2013 fiscal year as compared to budget and the 2012 actual results, additional information would be required in many instances to explain the variances determined. However, it is still a useful exercise that can identify several interesting variances, summarized as follows:

- *Net municipal taxes.* Actual net municipal tax revenues for 2013 were \$81,884 above the budget figure of \$5,329,163 but down \$266,276 over the prior year. Exhibit 2 provides detail on what is included in net municipal taxes and a review of this indicates that the decrease compared to 2012 is primarily due to the fact that revenues from the water utility are down by \$348,509.
- *Penalties and costs of taxes.* This revenue line came in \$63,189 over budget and was up \$24,294 over the prior year. The higher taxes receivable base would generate additional interest and penalties. However, this amount would in turn drive up the account receivable balance, and if collection is doubtful, increase the related bad debts expense. Springhill will likely encounter difficulty collecting these amounts, just as it does with the taxes.
- *General government services.* This expense it only \$5,778 over budget and down \$93,799 over 2012. Is this reflective of a town trying to reduce costs?
- *Water utility.* This expense came in at \$67,777 over budget and only down \$21,714 over the prior year. One explanation could be that the town anticipated a lower water rate revenue base, set the budget to reflect this, but not able to achieve the lower costs anticipated.

Note: A complete set of financial statements for the Town of Springhill are contained in the UARB application.

Students do not have to examine policing costs in detail. These costs are reported in the consolidated statement of financial activities as a component of protective services which includes municipal policing costs, traffic activities, animal control, and costs for the volunteer fire department. The actual expense of \$2,072,488 reported for 2013 came in at \$242,393 over the budgeted figure of \$1,830,095. The expense was \$160,047 less the 2012 actual expense of \$2,232,535. Perhaps fiscal control decreased costs, but the budget was not realistic. We do not know the portion of this expense line that is attributable to policing services.

Springhill received two proposals for policing services: a municipal policing proposal (\$1,578,500) and one from the RCMP (\$1,331,000). While the RCMP proposal does appear to offer an annual saving of \$247,500, we do not have sufficient detail to assess the proposal. What is important to discuss here is the fact that the municipal police contract requires a 12 month termination notice. As such, if the dissolution of the town proceeds, students should note that a termination notice must be given immediately.

2. Pursuant to Section 72 (4) of the *Municipal Government Act*, any deficit incurred in the year shall be included in estimates for the following year. Estimate the increase in tax rate required to cover the deficit projected for the fiscal year ending March 31, 2014. Is increasing the tax rate a feasible option? Why or why not?

Estimate of increase in tax rate required to cover the deficit

Step 1: Determine taxable assessment base.

	<u>Residential</u>	<u>Commercial</u>
Residential assessment (capped)	\$ 96,725,900	
Commercial assessment		\$ 10,201,300
Grants in Lieu		
Provincial	22,500	
Federal	3,543,300	31,218,400
	<u>\$100,291,700</u>	<u>\$ 41,419,700</u>

Step 2: Estimate increase to tax rates required to fund estimated deficit.

Total taxable assessment base [(residential + commercial)/\$100]	\$1,417,114
Projected deficit for 2014 (\$342,111 + \$500,000)	\$ 842,111
Increased rate per \$100 of assessment required to fund deficit	\$0.59

This is a simplistic estimate that is based on two key assumptions. First, there is a balanced budget which is a reasonable assumption. Second, there will be no change in the tax base. A significant portion of the residential tax base is subject to CAP and the percentage increase under CAP was less than 1% for both 2013 and 2014. (See Table 1) The commercial sector tax base has receded over the same time period, decreasing by 4% in 2013 and 5% in 2014. Students should not use the FCI 3-year change in tax base of 6.4% to estimate a tax base as it is for 2012 and does not include the lower rate for 2013 and 2014.

The calculation demonstrates the significant tax burden that could be imposed on taxpayers. The \$0.59 increase to the current tax rates would see the commercial tax rate increase by 11%, and the residential tax rate increase by a whopping 26.2% increase. So, an owner of a property with taxable value of \$150,000 would see their property taxes increase from \$3,325 to \$4,260.

Most students would likely argue that such an increase is not feasible option. Arguments that could be put forward to support this position include:

- While the increase in tax may cover the deficit, it would not provide increased services to the town's population.
- Springhill faces demographic challenges, a situation that will likely deteriorate without economic growth (decreasing and aging population). This will impact on Springhill's ability to generate revenue from property taxes as fewer people owning property means a lower tax base on which to assess property taxes.
- Even if tax rates are increased, that doesn't mean property taxes will be collected. Springhill is already experiencing collection problems, so an increase in the rate could mean a higher amount of uncollectible accounts and no improvement to cash flow. (Note that in 2011, 34.3% of the population in private households in Town of Springhill have low income status.)
- If there is any economic growth in Cumberland County, new businesses or homeowners would likely set up outside the town boundaries. Springhill is a small town, occupying only 11.5 square kilometres

and the county, with rates that are substantially lower than those set for the town, would be more attractive to new residents.

A discussion of the tax base would be appropriate. Table 1 (Assessment History – Residential) discloses that the market rate year-on-year increases in residential property are less than the capped percentage increase. While the market value is higher than the capped value, removing the CAP would only generate \$91,069 in additional property taxes in 2014 and not likely help the financial difficulties to a great extent. Table 3 (Assessment History – Commercial) discloses the erosion of Springhill’s commercial tax base.

3. Comment on additional information that you would like to see or examine before a decision could be made.

Students should readily recognize that sufficient information has not been presented in the case. Encourage students to propose additional information that they would require to assist with making a decision, explaining why such information could assist them with a decision. Some items or questions that may be proposed are as follows:

- *How might the residents of Springhill feel about the potential dissolution?* (Loss of identity, potential for decreased services, other considerations.) Inform students that a town plebiscite is not required prior to a council vote. So if students consider that this is ‘an appropriate thing to do,’ remind them that there will be associated costs. What would be accomplished by a ‘no’ vote from residents (next steps)?
- *Transitions costs.* What costs could the town incur as a result of transition? (Legal, HR support and other one-time implementation costs.)
- *Is the Municipality of Cumberland County agreeable to a merger?* Does the county have to assume Springhill’s debt? Will the taxpayers of Springhill continue to be slow in paying their tax bills and could this mean cash flow issues for the county?
- *Will Springhill’s tax rates decrease?* Town services are greater than those provided by the county, so will this lead to a multi-tiered tax rate tied to the services provided to taxpayers located in different areas of the county?

Students should be made aware of the fact that the application for dissolution is only the beginning of a very detailed process, and that dissolution is not necessarily the outcome. In Nova Scotia, an application for dissolution must be made with the Utility and Review Board (UARB). Following this, the town will be notified of additional requirements to comply with the UARB process including a preliminary order and other hearings, the preparation and filing of studies and reports to assist with the decision process and other information as deemed relevant by the UARB.

Epilogue

On March 4, 2014, a motion to move forward with the process of the Dissolution of the Town of Springhill was carried at a special meeting of the Springhill Town Council. The application was filed with the UARB on May 15, 2014 and included a recommended dissolution date of April 1, 2015. Case number M06158, “MB-14-05: Town of Springhill - Application to dissolve the Town” can be found at <http://uarb.novascotia.ca/fmi/iwp/cgi?-db=UARBV12&-loadframes>. The case file includes a copy of the application, the preliminary response from UARB, and correspondence from a variety of individuals and groups, many of whom are not in favour of the dissolution.

The Town of Springhill passed a motion on March 25, 2014 to dismiss the Springhill Police Service at the end of March 2015, in accordance with its agreement to provide 12-months notice to terminate the contract.