The Role of Continuous and Predictable Environmental Change on the Use of Management Accounting during Organizational Decline: A Field Study*

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Comments welcome. Please do not quote.

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Abstract

This paper investigates whether and how organizations use management accounting as they experience decline. Organizations in decline face tighter timelines and constrained financial resources, a loss of key stakeholders, and corresponding increases in stress and uncertainty. All of these factors can impact the production and ability to use management accounting in organizational decision making. I engage in a field study in five private sector organizations and one public sector organization that are currently or recently facing decline due to external environmental changes. Based on 34 semi-structured interviews with key executives including accountants, as well as observations and an extensive set of secondary documents, I employ Zammuto and Cameron's typology of environmental decline to examine these issues. I find that members in organizations that face decline due to a discontinuous and unpredictable change in the external environment engage in a comprehensive review of their management accounting systems and reports so that they believe these systems can be relied upon. Following this process, organizational members use accounting to understand their past, develop metrics intended to reach employees at all levels, and institute various types of accountability to support the management of decline. In contrast, members in organizations that face decline due to a continuous and predictable change in the external environment question the truth and value of their management accounting practices, and as a result, they do not change their use of management accounting to manage decline. My research findings imply that when organizations experience discontinuous and unpredictable decline, the shock and surprise drives organizational members to first convince themselves of the "truth and accuracy" of their accounting systems and reports, and then to use this accounting information in novel ways to manage decline. Further, my research findings imply that without significant discontinuity or unpredictability, organizational members are not driven to mobilize management accounting to manage decline.

Keywords: Management accounting; organizational decline; environmental change; continuous change; predictable change

1. Introduction

Organizational decline is characterized by a significant and long-lasting decrease in an organization's resource base. The purpose of this paper is to investigate the use of management accounting in organizations that are experiencing decline due to external shifts in the environment. The environmental change that organizations face may arise in a discontinuous and unpredictable way or else it may unfold in a continuous and relatively predictable way. I investigate whether and how management accounting is leveraged by organizations to manage decline.

This study is important because an increasing number of organizations are facing significant challenges as a result of intensifying competition and challenging economic times more generally. A 2013 consulting report finds that less than 50 percent of C-Suite executives in Canada believe their organization has fully recovered from the 2007-2008 financial crisis. Further, 68 percent of the executives surveyed note that the recession of 2008-2009 continues to impact the way business is conducted, highlighting that tighter cost controls as well as cautious borrowing and risk acceptance persist in the present day (*The Gandalf Group,* 2013). Despite the concern regarding decline, little is known about whether and how organizations leverage management accounting to manage decline. Likewise, researchers have been calling for attention to be redirected at decline, and in particular, the use of accounting during decline (Bozeman, 2010; Hopwood, 2009; Van der Stede, 2011).[1]

A second motivation for this study is that management accounting is intended to be an important resource and tool for organizational members to collect, analyze and interpret information to support decision making (Luft & Shields, 2003; Macintosh, 1994) – a function

[1] I note that Hopwood (2009) and Van der Stede (2011) describe the accounting implications of the "economic crisis" and call for researchers to examine the management accounting implications of crises. Both researchers also point to the long-lasting effects in the "wake of the crisis" (Van der Stede, 2011, p. 606) and thus call for research on decline.

that may become more critical during conditions of decline. Organizations in decline are less likely to have the time or resources to consider implementing or revising these tools given that management accounting tools are costly for organizations to implement at the best of times.

Qualitative research is aptly suited to address this research question because I am able to observe and understand the context within which organizational participants use information, make decisions and elicit behaviour (Myers, 2009). Specifically, I conduct 34 semi-structured interviews in five private sector organizations and one public sector organization that have recently or are currently experiencing decline. I adapt a typology devised by Zammuto and Cameron, in which external shifts in the environment create the circumstances for organizational decline, to analyze the cases.[2] A combination of interviews, observations and an extensive set of secondary documents allow me to compose a case study for each organization and to then analyze the similarities and differences of how management accounting is deployed during decline.

I find that organizations in decline due to discontinuous and unpredictable environmental change mobilize management accounting. Organizational members go through a process in which they carefully review and "clean" their accounting systems and reports in order to convince themselves that the information can be trusted and relied upon. Following this process, organizational members use accounting to help them understand their past, develop digestible (i.e., accessible) metrics to ensure that all organizational members understand and share the realities of decline, and institute various operationalizations of accountability to support the management response to decline. Despite the various challenges associated with discontinuous and unpredictable decline – for example, no early warning, perceived threats to organizational

[2] Several papers contribute towards the typology of environmental decline, particularly Cameron and Zammuto (1983) and Zammuto and Cameron (1982, 1985) within which the core ideas are developed. When I refer to "Zammuto and Cameron" with no publication date, I am referring to these articles collectively.

survival, heightened feelings of uncertainty and time pressure – organizational members are motivated to revisit and revise their use of management accounting.

In stark contrast, I find that organizations in decline due to continuous and relatively predictable environmental change do not mobilize management accounting during decline. Members of organizations characterized by this type of decline express significant concern for the "truth" and "value" of their management accounting systems and reports. These organizations have management accounting tools that organizational members use during the ordinary course of business, but they do not adapt these tools or mobilize new tools to manage decline. Consistent with Zammuto and Cameron's typology, these organizations' members become aware of decline more slowly and they define the resulting circumstances as an opportunity to improve performance rather than a threat to organizational survival. But because of the gradual nature of continuous and predictable decline, organizational members are not motivated to change their use of management accounting.

The next section highlights key research findings concerning the context of organizational decline, and then introduces the theoretical framework that provided a set of explanatory concepts with which I engaged to evaluate my research question, formulate my interview questions and analyze my data. The third section describes my research methods and introduces each organization. In the fourth section, I analyze these organizations' use of management accounting according to an adapted version of Zammuto and Cameron's typology. The fifth section concludes by outlining the contributions of this research.

2. Context and Theory Development

2.1 Context of organizational decline

Organizational decline refers to a "substantial, absolute decrease in an organization's resource base [that] occurs over a specified period of time” (Cameron, Kim, & Whetten, 1987, p. 224) which “they fail to anticipate, recognize, avoid, neutralize or adapt” (Weitzel & Jonsson, 1991, p. 8), and as a result, organizational survival is at risk. While most researchers operationalize decline based on decreased revenue or funding (Cameron, Whetten, & Kim, 1987; see Trahms, Ndofor, & Sirmon, 2013 Table 1 for a summary), others highlight the need to pay attention to both financial and nonfinancial conditions of the organization (van Witteloostuijn, 1998). Further, since not all signals of decline are clear (e.g., declaring bankruptcy), it is also important to consider perceptions of decline (Gautum, Whetten, & Cameron, 1997).

Organizations that are in decline face immense pressure (Trahms, et al., 2013). Such organizations routinely implement employee termination measures, or experience employee resignations as employees pursue safer employment (Cameron, Whetten, et al., 1987; Gandolfi & Hansson, 2011). A loss of key decision makers and valued employees results in a loss of organizational history, experience and expertise (Weitzel & Jonsson, 1991). Organizational participants that remain now face work overload and potential burnout, in addition to the stress associated with employment uncertainty (Galbraith, 1973; Mishra & Spreitzer, 1998; Sweeney & Quirin, 2009). All of these consequences affect the ability of management accounting to play a decision influencing and facilitating role at a time when organizations need information for decision making (Macintosh, 1994; Selto & Widener, 2004).

There are a number of reasons why we might not expect an organization to manage decline. On the one hand, organizations might not recognize the problem, its severity or the need to respond. They could ignore or refuse to believe the signals (Weick, 1993); they could be blinded by prior success (Cahill, 1998); or else their size, complexity, managerial cognition or organizational processes could make them unaware of declining performance (Gopinath, 2005;

Whetten, 1987). On the other hand, organizations might not manage decline because they are not able to respond. Here, inadequate competencies, feelings of uncertainty, increased time pressure, loss of employees and constrained resources could prevent an organization from responding (Barker & Mone, 1998; Galbraith, 1973; Rosenblatt & Sheaffer, 2001). In contrast, decline could also motivate efforts to stabilize operations and restore profitability (McKinley, 1993). Researchers have examined specific tactics organizations deploy to manage decline and pursue turnaround (see Schoenberg, Collier, & Bowman, 2013 for a recent review). Though a substantial amount of research focuses on the efficacy of specific management tactics, little is known about the use of management accounting during decline.

2.2 Accounting and organizational decline

There is little within-firm research on how accounting is employed in organizations specifically facing decline.[3] A collection of research examines the use of accounting in crisis situations.[4] This research is relevant because the researchers focus their analyses on the enduring nature of the performance declines resulting from the crises. Ezzamel and Bourn (1990), who consider various roles of accounting information systems in decision making, show that accounting information systems sometimes (but not always) provide relevant information to improve the rationality of decision making as a university navigates through a funding crisis. Colignon and Covaleski (1988) and Czarniawska-Joerges (1988) examine organizations that face significant changes to oil prices and severe changes to technology, respectively. Together, these studies show that

[3] External to the firm, researchers have examined the use of accounting information in related circumstances (e.g., bankruptcy predictions) (for recent reviews, see Ayotte, Hotchkiss, & Thorburn, 2013; Hotchkiss, John, Mooradian, & Thorburn, 2008).
[4] A crisis is defined as a “low-probability, high-impact event that threatens the viability of the organization” (Pearson & Clair, 1998, p. 60). Decline and crisis refer to ambiguous situations that threaten organizational survival and consequently many researchers use the terms interchangeably (e.g., Lamberg & Pajunen, 2005; Rosenblatt & Sheaffer, 2001). When researchers do make a distinction, it is “the speed with which the two phenomena occur and the amount of time decision makers have to respond” (McKinley, Latham, & Braun, 2014, p. 90). Because I focus on the pattern of environmental change and in particular discontinuous and unpredictable change, it would appear that decline in my setting is related to crisis. However, definitions of crises do not refer to the enduring and sustained effects on performance which characterizes decline, the focus of my study.

budgeting practices shift from relatively loose, informal and decentralized coordination to tight systems comprising of formal planning and centralized goals. More recently, Mahlendorf, Becker, Thaten and Schäffer (2014), through a survey distributed at three points during the 2007-2008 financial crisis, find that the planning and resource allocation functions of budgeting become more important during crisis while performance evaluation becomes less important.

In addition, two studies examine the role of accounting in shaping organizations' strategies but offer insights relevant to my study because the researchers select poorly performing organizations in which to conduct their investigations. Roberts (1990) describes how accounting is used in the design and implementation of strategy in an organization recently formed through a merger and acquisition. He identifies that decentralization and the introduction of annual conferences (held for organizational members to establish shared understandings and knowledge) are helpful ways to institute accountability. Similarly, Skaerbaek and Tryggestad (2010) investigate the role of accounting in shaping the strategy of a ferry operator slated for closure. They show that accounting tools were used passively and subordinate to strategy initially but that these tools were eventually actively used to reframe the ferry's strategy and to recognize that external challenges could be managed by the organization. For my study, I define management accounting as "the information support system that… facilitates communication, motivation and performance evaluation" (Atkinson, Balakrishnan, Booth, Cote, & et al., 1997, p. 88).

2.3 Theory development

Ahead of entering the field to collect data, I developed a range of theories and frameworks (across a range of topics, and at micro and macro levels) to prepare for and sensitize myself to be able to recognize and understand various tentative ideas as they materialize in preliminary interviews (to be discussed further in the Research Methods section). Iteratively I focused in on the theories that appear to be most helpful to analyze data and construct significance. The interplay from my initial interviews and this theorization led me to focus on Zammuto and Cameron's typology of environmental decline which I introduce next.

2.4 Typology of environmental decline

Focusing on environmental change, Zammuto and Cameron develop a typology that distinguishes four types of decline experienced by organizations (see Figure 1). Specifically, the typology examines how change in the environment can lead an organization into decline, and why organizations experience and respond to decline differently.

INSERT FIGURE 1 HERE

2.4.1 Key theoretical terms

I begin by defining two key theoretical terms. The typology requires an understanding of an ecological *niche*.[5] The environment is comprised of various niches. A niche, which is essentially a sub-population of an industry, represents a collection of organizations that produce the same products/services (Zammuto, 1988; Zammuto & Cameron, 1985). Organizations in a niche are thus in competition with each other for the resources required to produce their product/service and they are also in competition to capture a favourable portion of consumer demand (Hannan & Freeman, 1977; Hutchinson, 1957). That organizations in a niche are bound by the same resources, constraints and consumer demand means there is a limit to the amount of products/ services a niche can support, and hence, a limit to the number of organizations a niche can sustain. This limit refers to a niche's *carrying capacity* (Zammuto & Cameron, 1985). Appendix A compiles these and subsequent key terms for reference (in the order they appear in text).

[5] Porter (1985) uses the term "niche strategy" to refer to an organization's decision to focus on a particular target segment (i.e., customer, product or geographic). In the theoretical framework I use in this research, "niche" refers to a market in which a population of organizations competes.

2.4.2 Dimensions of environmental change

As shown in Figure 1, the type of organizational decline is determined by two dimensions of environmental change. The first dimension identifies two ways in which a niche's configuration may change; either niche size or niche shape is impacted (see Appendix A for complete definition of terms).[6] A decrease in niche size suggests that the volume of products/services once supported by the niche's carrying capacity (i.e., the maximum number of organizations a niche can support) can no longer be supported (Zammuto & Cameron, 1982). The size of a niche decreases when consumer demand weakens, supply of an input decreases or other resources supporting the niche become restricted. Alternatively, a shift in niche shape suggests that the type of products/services once supported by the niche's carrying capacity has changed. The shape of a niche shifts when consumer preferences and tastes evolve or when technological innovation renders a product/service obsolete (Zammuto & Cameron, 1982, 1985).

The second dimension in Figure 1 distinguishes the pattern of environmental change. When change is discontinuous and unpredictable, organizational members are afforded fewer, if any, opportunities to anticipate change or take early action (Zammuto & Cameron, 1982). When decline results from discontinuous change, it's not that the sum of the losses is greater but that the decline arises quickly and severely enough to have managers perceive it this way. Alternatively, when change is continuous and predictable, organizational members can rely on past experiences and trends (Cameron & Zammuto, 1983). Organizational members benefit by having early warning which enables them to anticipate environmental change and potentially minimize, delay or avoid the effects of decline.

[6] If an organization operates with a single product/service or a narrow set of products/services (i.e., a specialist), it will be more affected by changes to niche size and/or shape since revenue from other products/services is not available to subsidize the product/service in decline. This is an important consideration for selecting research sites. I aim to avoid generalist organizations (that can cross-subsidize variations in performance with a broad range of products/services) and instead target specialist organizations in which the effects of decline are especially prevalent. In cases where I do recruit a generalist organization, I have sought to include ones where all of its segments are experiencing decline to ensure the challenges of decline are still felt.

These two dimensions of environmental change combine to highlight four types of organizational decline: (1) contraction due to a discontinuous and unpredictable decrease in niche size, (2) catastrophe due to a discontinuous and unpredictable shift in niche shape, (3) erosion due to a continuous and predictable decrease in niche size, and (4) dissolution due to a continuous and predictable shift in niche shape (see Figure 1). Depending on the type of decline an organization faces, Zammuto and Cameron describe a number of behaviours that are to be expected from organizational members. Refer to Hayne (2014) for an analysis of the six organizations in this study according to the expected behaviours unique to each of the four types of organizational decline.

Originally, I selected Zammuto and Cameron's typology because, as can be seen in Figure 2, both dimensions of environmental change helped situate each organization into one of four types of decline. However, my analysis of the similarities and differences of these organizations' use of accounting during decline, apart from one minor observation noted later, was illuminated only by the pattern of change dimension. Because organizations' use of accounting did not differ with the type of change in niche configuration (i.e., decrease in niche size or shift in niche shape), I do not retain this dimension in this study. Instead, I focus on the dimension that distinguishes the pattern of environmental change (i.e., (dis)continuity and (un)predictability). Next, I highlight the expected behaviours related to this dimension, which are key ones used in my analysis.

INSERT FIGURE 2 HERE

2.4.3 Expected behaviours during (dis)continuous and (un)predictable decline

Discontinuous and unpredictable change results in immediate awareness by organizational members. Decline in this case arises in a short period of time; the instant nature is perceived as more significant to organizational members leading to clear awareness of their changed environment (Zammuto, 1985; Zammuto & Cameron, 1982). The discontinuous nature of change is shocking and surprising to organizational members. With no early warning signals – since the environmental change was neither gradual nor anticipated – organizational members define the change and their organization's resulting decline as a threat (Zammuto & Cameron, 1982). Here, threat refers to a negative situation in which organizational members do not feel in control and believe performance losses are likely (Chattopadhyay, Glick, & Huber, 2001; Dutton & Jackson, 1987). Furthermore, no predictability means that organizational members are not able to anticipate change or take early action. Organizational members cannot rely on past experience (since their environment has changed so quickly) and are afforded little time to plan a careful response when change is discontinuous and unpredictable. Instead they must rely on reactive behavioural tactics, which may be somewhat experimental due to the speed of the required response (Zammuto & Cameron, 1982, 1985). Reactive and experimentation behavioural tactics is a subtle distinction made between contraction and catastrophe, respectively.

In contrast, when change is continuous, decline is the result of an accumulation of small-scale gradual changes. Decline that arises from these potentially imperceptible changes suggests that organizational members will become aware of their organizations' decline more slowly (if at all) (Zammuto & Cameron, 1982). The gradual nature and ability to anticipate this type of change means organizational members will not feel any major shock or surprise. As a result, they are expected to define the environmental change and their organization's resulting decline as an opportunity (Zammuto & Cameron, 1982). Here, opportunity refers to a positive situation in which organizational members feel in control and believe performance improvements are likely (Chattopadhyay, et al., 2001; Dutton & Jackson, 1987). As well, organizational members are better able to cope when their organization’s circumstances are predictable. Early warning signals enable organizational members to anticipate change, contingency plans can be made, and proactive behavioural tactics can be used to minimize, delay or avoid the effects of decline (Zammuto & Cameron, 1982, 1985). If there is less awareness of decline, behavioural tactics will instead be inactive. Proactive and inactive behavioural tactics is a subtle distinction made between dissolution and erosion, respectively.

Whether organizational members perceive decline as a threat or an opportunity is important since managers’ interpretations of environmental change have a key influence on actions and adaptations taken (Thomas, Clark, & Gioia, 1993). Research shows that threats lead to poor decision making via the limiting effects of threat-rigidity (Staw, Sandelands, & Dutton, 1981), especially during organizational decline (McKinley, et al., 2014; Mone, McKinley, & Barker, 1998). When organizations face a threat such as decline, the threat-rigidity thesis suggests increased centralization, reduced information processing and conservation of resources. These effects lead to rigidity in which organizational members rely on learned routines and past behaviours (Staw, et al., 1981). To elaborate, increased centralization refers to a mechanistic shift in which authority is centralized and there is an increase in the use of formalized procedures and standardized activities. Reduced information processing includes a reduction in both the number of alternatives considered and information channels used. Finally, conservation of resources results in a focus on efficiency, which is suggested to include budget tightening, cost cutting and increased accountability pressure (Staw, et al., 1981).

Awareness is important to triggering a response to decline and I expect it to influence whether and how organizational members use management accounting to manage decline. Likewise, I expect the consequences of threat-rigidity to extend to whether organizations mobilize management accounting during decline. Finally, I expect that whether organizational members are able to predict environmental change (or not) and use proactive (reactive) tactics to influence how management accounting is used (e.g., planning versus monitoring) and the focus of the metrics they choose to rely on.

2.5 Summary

In summary, “the interactions among organizational characteristics, perceptions, actions, and environmental conditions will affect the type of decline that each individual organization within a population experiences” (Zammuto & Cameron, 1985, pp. 244-245). Further, Zammuto and Cameron (1985, p. 232) suggest that “the value of the typology lies in its ability to explain why differences exist in the population dynamics and organizational behaviour that are observed” when faced with different dimensions of environmental change. Motivated by this reasoning, I expect the pattern of change dimension in the typology to illuminate differences in the use of management accounting in organizations.

3. Research Methods

Case study methods are valuable when researchers want to ask “how” questions about contemporary events, especially when researchers want to observe and understand the context within which people behave and make decisions (Myers, 2009; Yin, 2013). Accordingly, case study methods are well suited to address my research question.

3.1 Site selection

To provide an initial broad-based context for my research, I start by interviewing five “turnaround” consultants to collect insights on their experiences with clients in decline (i.e., clients to whom they consulted or interim management positions they held). I then recruit five private sector organizations and one public sector organization to participate in this research by following a four stage approach outlined in Table 1.[7,8] I intentionally do not include organizations facing bankruptcy proceedings or organizational "death" in my site selection since their circumstances and uses of accounting could be quite different. Organizations that are undergoing restructuring or divesting assets in preparation for closure face different organizational objectives, and hence, their managers' use of accounting is likely to differ from the behavior of managers of organizations in decline that are pursuing turnaround. I also avoid organizations that are relatively new or small because of their higher propensity to fail as discussed extensively in research on the "liability of newness" and the "liability of smallness" (Baum & Shipilov, 2006). Following prior research on these concerns (D'Aveni, 1989), my research sites are at least nine years old and have revenues greater than $100 million (prior to the onset of decline).

INSERT TABLE 1 HERE

3.2 Interviews

I complete 34 interviews between April 2013 and June 2014. Within each organization, I target key executives including accountants. I also follow up on specific suggestions made by interviewees on whom else I should speak with. I had the opportunity to conduct field observations on six occasions (including site tours of most organizations). Interviews are semi-structured and average 50 minutes in length (see Table 2 for details of interviews conducted). Nearly all of the interviews are conducted face-to-face and are recorded allowing for accurate

[7] I conducted a pilot study in one organization to ensure that my methods were appropriate, organizational access was possible, and data was amenable to analysis. This organization is included in my final set of six organizations.
[8] Two organizations that I recruited (AutoCo and MiningCo) are organizations that I or personal contacts were familiar with. They were referred to me because they were currently facing or recently faced decline. Since they are private subsidiaries I did not gain access to their financial statements. In addition to the referrer's feedback, I made sure to at least confirm decline through decreasing revenues (the most commonly used metric in decline research), as well as through steps 3 (when possible) and 4 as described in Table 1. Organizations recruited later were rigidly assessed according to steps 1 through 4.

and comprehensive transcriptions.[9] I personally transcribe each interview and review it multiple times during my analysis. Each transcript is sent to the interviewee for an opportunity to make corrections and provide clarifications.

INSERT TABLE 2 HERE

My approach to interviews is to position myself as a learner and active listener. I use open-ended questions but ultimately try to keep my own words to a minimum so that participants can describe their experiences, provide instructive examples and think out loud (Patton, 2002; Yin, 2013). I use the first part of an interview to gain additional contextual knowledge about the organization beyond publicly available documents. In the second part I elicit from interviewees their perceptions of the challenges they perceive of their organization, how they use accounting in their positions, and what information helps them understand or manage decline. I let interviewees talk openly and at length. I use prompting questions to refocus interviewees by pointing to a challenge they previously identified and requesting the interviewee talk about how accounting informed the issue (see Appendix B for sample interview questions).

3.3 Data analysis

I follow Ahrens and Chapman's (2006, p. 836) prescriptions of "iteratively seeking to generate a plausible fit between problem, theory and data" as I conduct interviews, review transcripts and analyze data. I use theory to illuminate and discipline my observations, and also to help me organize and understand my data (Ahrens & Chapman, 2006). During each interview and from one interview to the next, my aim is to test, refute or refine suitable theories to help me understand interviewees' narratives (Ahrens & Chapman, 2006). Once the majority of interviews

[9] For two interviewees who decided not to be taped (and in four instances where I did not ask permission to record the interview because they were preliminary interviews intended to recruit an organization that evolved into discussions relevant to this study), I took notes during the interviews to capture their responses. I prepared a question guide with a significant amount of white space in advance, recorded as many comments as possible in shorthand, and made a deliberate attempt to confirm responses with interviewees so that I was able to confirm my note-taking.

are complete for a single research site, I integrate interviews with secondary data sources to compose a case study of the organization.

Upon completing individual case studies for each organization, I engage in patternmaking to search for compatible and contradictory findings between organizations, compare interview perspectives across themes, and reflexively consider explanations and fit with theory (Yin, 2013). This consists of ongoing hypothesizing and theorizing. My aim is to isolate instances when organizations use accounting to manage decline, to identify similar uses between organizations, and to examine plausible theoretical explanations for their occurrence. I test and challenge key insights from Zammuto and Cameron's typology, and retain and explore ideas when they are supported. I remain alert to anomalous data and its effect on my theorizations.

In addition to interview data, other documents that inform my analysis include: (1) field notes of my initial thoughts, reactions and observations of each interview (including notes taken during opportunities to conduct observation), (2) internal documents provided by interviewees (e.g., company overviews, industry information), and (3) an extensive number of secondary materials (e.g., news articles, annual reports, financial statements).[10] Next, I introduce each organization and the various challenges that led to its decline.

3.4 Introduction to case sites and classification into Zammuto and Cameron's typology

Refer to Table 3 for descriptive information of each organization, Table 4 for evidence of each organization's decline, and Figure 2 for classification into Zammuto and Cameron's typology.

INSERT TABLES 3 AND 4 HERE

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[10] Because of the confidentiality assured to organizations and participants, I do not reference or cite these materials in my analysis. However, several hundred news articles and dozens of publicly available company reports were critical to my interview preparation, for confirming interviewees' narratives, and for composing each organization's case study.

3.4.1 HealthCo

HealthCo is a public sector organization operating in the healthcare facilities service industry (i.e., hospital).[11] HealthCo is a leading institution in providing complex-acute and specialty care to patients. Most services are delivered at its main hospital but HealthCo also services patients at a number of satellite and affiliate sites in its respective catchment area. HealthCo is also linked to a university to help train students and conduct research. HealthCo receives approximately 90 percent of its funding from the provincial government, which is distributed on behalf of the government through a Regional Health Authority responsible for planning, funding and integrating the provision of healthcare according to geographic regions.

Throughout the late 1990s and early 2000s the government cultivated an environment in which spending was encouraged, deficit budgets became customary, and hospitals were routinely bailed out and provided additional funds at year end. HealthCo assumed a culture of overspending and accumulated years of diverting capital spending to operations. In the mid-2000s the government began enforcing accountability agreements including balanced budgets. HealthCo found itself with assets in disrepair, credit facilities fully drawn, declining performance indicators and growing deficits. HealthCo believed that it had higher costs for various reasons (e.g., old infrastructure, older than average population) and that it was receiving a disproportionately low amount of funding. Continued annual deficits followed by submission of a significant deficit budget led the government to assign a supervisor to investigate HealthCo's circumstances. The supervisor immediately dismissed the existing board of directors and the

[11] There are two key differences in this public sector case study compared to the other cases in this research. First, performance metrics are different. Instead of profits, delivering quality patient care is the key performance metric, though, it is still very important for hospitals to monitor their finances and achieve a balanced budget. Second, unlike for-profit organizations that aim to grow revenues, HealthCo is a publicly-funded institution with limited opportunities to seek funding increases or access alternative revenue sources. It is important to note that while HealthCo is a public sector organization, it still faces some of the same risks as private sector organizations concerning decline and bankruptcy; see, for example, the increasing number of public sector bankruptcies in the news (e.g., "Detroit's bankruptcy," 2014; Wells, 2012).

majority of the leadership team including the president.

The environmental change that led to HealthCo's decline was discontinuous and unpredictable (see Figure 2). The government made a sudden change to begin enforcing accountability agreements with hospitals rather than continue to permit deficit spending (HealthCo had been able to secure as high as a 19 percent funding increase in 2004 to fund deficit spending). This change was shocking to executives at HealthCo since they had budgeted an eight percent operating budget deficit for this same year. As a result, HealthCo executives were not only required to immediately eliminate their intended budget deficit but also begin to restore significant dollars that had been diverted from the capital budget to operations.

3.4.2 *AutoCo*

AutoParent is a public company listed on the Korea Exchange operating in the auto parts and equipment industry. I obtained access to AutoCo, one of AutoParent's eleven subsidiaries. AutoCo manufactures, sells and distributes PartX for automobiles at its two production plants. AutoCo is affected by the cyclical nature of the automobile industry which is associated with a range of economic and social factors (e.g., consumer spending and preferences, oil supply and gasoline prices, environmental issues). As a result, declines in sales, production cutbacks and shutdowns, and labour issues at AutoCo mirror the automotive industry.

AutoCo's decline began in 2008 in relation to the crisis in the automotive industry that resulted in government bailouts for two of the top manufacturers in North America. In describing how the crisis affected AutoCo, the leadership team identified many of the economic and social factors that affected the economy generally and they also identified additional challenges. First, because two of the "Big Three" North American automobile manufacturers were in bankruptcy protection, the number of orders AutoCo was accustom to receiving as an auto parts supplier decreased rapidly. Second, respondents emphasized the significant swing in CDN/USD exchange rates over a very short period such that AutoCo's primarily US customer base shifted from having strong buying power in Canada to being charged a premium for Canadian auto parts. Respondents also noted higher operating costs in Canada compared to major competitors in Mexico and a balancing act between AutoCo's suppliers always increasing their prices while major auto manufacturers (i.e., AutoCo's customers) expect ongoing price decreases. Motivated by AutoCo's poor performance, executives engaged consultants in a viability study to determine whether the organization should remain open.

The environmental change that led to AutoCo's decline was discontinuous and unpredictable (see Figure 2). Though the automobile industry is customarily deemed to be a cyclical industry, the combination of the 2008-2009 recession and financial crisis and the 2008-2009 automotive industry crisis resulted in unprecedented decreases to automobile sales and production levels. Canadian automotive industry sales decreased from a peak of $120 billion to $53.5 billion in 2007 (the lowest level since 1992) while North American vehicle production levels decreased from 15.1 million units in 2007 to 8.6 million units in 2009 (*McKinsey*, 2012). The automobile industry was "on the brink of collapse" (*The Financial Crisis*, 2013, p. 22) which led AutoCo to face performance challenges beyond what were predicted and discontinuous compared to ordinary cycles in the industry.

3.4.3 *MiningCo*

MiningParent is a public company listed on the OMX Stockholm Stock Exchange. It operates in the metal and mineral mining machinery and equipment industry. MiningParent has four general business areas that manufacture industrial tools and equipment. I obtained access to MiningCo that operates a production plant belonging to one of MiningParent's business units. MiningCo manufactures and markets tools that are used with mining exploration equipment. MiningCo's performance closely mirrors business cycles experienced in the mining sector since the first activity mining companies cut in downward cycles is exploration leading to corresponding decreases in orders for mining tools at MiningCo.

In recent years, mineral exploration spending has decreased significantly across the globe and especially in Canada which experienced the largest spending decline across the globe (Canada has been the ranked the top exploration country since 2002) (*SNL*, 2013; *SNL*, 2014). Unlike its competitors, MiningCo does not conduct exploration and is thus not able to counterbalance the cyclical nature of the industry by initiating its own exploration activity to generate an alternative revenue stream (i.e., exploration stimulates demand for MiningCo's tools). Accordingly, demand for MiningCo's tools began to soften in 2012, decreased throughout 2013 and stabilized at this low level in 2014. MiningCo's performance is also affected by the fact that its key raw material is steel. Compared to other industries, MiningCo is considered a relatively small buyer but heavily dependent on steel suppliers. As a result, it has difficulty negotiating competitive prices, especially when steel companies face decline as well.

The environmental change that led to MiningCo's decline was continuous and predictable (see Figure 2). MiningCo has access to extensive industry information by following exploration activity, mining industry cycles and steel industry cycles. This makes change in the environment relatively predictable, especially since decreases to purchases of MiningCo's tools lag changes to exploration activity. Speaking of the market intelligence MiningCo is able to access, the CEO noted, "it's very predictable actually". Although mining exploration spending decreased by 41 percent (29 percent) in Canada (globally) in 2013 (*SNL*, 2013; *SNL*, 2014), members at MiningCo described the decrease as a trend they had been following and were thus not surprised.

3.4.4 AgriCo

AgriParent is a public company listed on the New York Stock Exchange operating in the fertilizers and agricultural chemicals industry. AgriParent has two business units. I obtained access to AgriCo, the unit that mines a single product, ResourceX, at several sites. AgriCo is a commodity-based business. Commodity markets usually mean that intense competition results in organizations competing primarily on price leading to low profit margins. In the case of AgriCo, the organization is involved in a marketing and distribution joint-venture – which is responsible for the logistics of all ResourceX shipped outside of North America – with its two main competitors in North America. This cartel-like agreement means AgriCo is a price-taker and hence focuses mainly on cost. In addition to competing in a commodity market, AgriCo's key customer category of crop growers are also commodity-based which means AgriCo's industry suffers when farmers experience variable grain prices, poor crops and difficult weather. With these various factors beyond its control, AgriCo is known to suffer downturns in business.

Recently, AgriCo has faced several challenges. Over 2011-2012 two of AgriCo's competitors made major announcements: Competitor 1 announced the construction of a new mine that would extract ResourceX in the same geographic region, and Competitor 2 began construction on what will become the world's largest ResourceX mine. These new mines were significant not only because they add two major competitors to the fertilizers and agricultural chemicals landscape which was previously dominated by three producers, but also because AgriCo's particular geographic region has not had any new mines in nearly 40 years. Expansion projects were underway at several existing mines as well. Also, an international competitor, Competitor 3, caused a major disruption with another marketing and distribution joint-venture and announced its intent to maximize production of ResourceX to disrupt the practice of limiting supply in pursuit of higher prices.

The environmental change that led to AgriCo's decline was continuous and predictable (see Figure 2). Though it might seem that the number of challenges AgriCo faced indicates discontinuous and unpredictable change, respondents at AgriCo did not perceive them as such. The VP Operations (who had been with the organization for more than 30 years) noted that "[he'd] seen these fluctuations many, many, many times" and stressed that "the fundamentals of the business didn't change" (VP Operations 20). AgriCo benefits from the relative predictability of residing in a commodity market into which future product can be sold at a predetermined price. The use of futures and hedging as well as global agreements among major competitors provide stability since price and production levels are predetermined. Further, while ResourceX prices used to be extremely variable (ranging from 50 to 300 percent of current price), they have become relatively more stable since 2010 (ranging from 100 to 150 percent of current price).

3.4.5 *MediaCo*

MediaCo is a public company listed on the Toronto Stock Exchange operating in the publishing industry. MediaCo has two key reporting segments – media and book publishing – that include several related business units. I obtained access to the entire corporation. During the course of my study MediaCo sold one segment to a global competitor and integrated its digital business unit within other units. With its remaining segment, MediaCo produces and disseminates a range of news-related publications, conducts business by providing services related to these publications, and has a variety of joint ventures and equity investments in related businesses.

A number of challenges – driven by the evolution of digital technologies – led to MediaCo's decline. The publishing industry started to change 15 years ago as the internet became popular and consumers gradually began to shift away from print towards digital consumption. For MediaCo's media segment, the emergence of the internet created low barriers to entry which led to numerous alternate digital news sources for customers. As a result, a product once accessed via a subscription fee became widely available and in many cases free of charge. Furthermore, advertising revenues (which media businesses are highly dependent on) decreased significantly because of the lower costs and extensive options available to advertise digitally. MediaCo's book publishing segment faced a similar shift towards digital consumption. As an added consequence, MediaCo must now deal with a few powerful distributors instead of relying on a large network of brick and mortar distributors for its book sales.

The environmental change that led to MediaCo's decline was continuous and predictable (see Figure 2). In the publishing industry, the introduction of the internet and various digital reading devices began in the early-2000s. Confirming the continuous nature of change, media print consumption decreased from 41 to 29 percent while online consumption increased from 24 to 39 percent from 2004 to 2012 (Sasseen, Olmstead, & Mitchell, 2013). Also, book publishing revenues shifted from print to digital by 5 percent per year from 2008 through 2013 (CEO 21).

3.4.6 *RetailCo*

RetailCo is a public company listed on the Toronto Stock Exchange operating in the department stores industry. As a multiline retailer, RetailCo operates a number of merchandising formats, engages in direct sales, earns revenue from retail-related commission-based businesses, and earns real estate revenue from several joint ventures (these properties are still connected to retail).[12] For RetailCo's case study, I obtained access to the entire corporation. RetailCo experienced a period of growth throughout the 1990s and early 2000s leading to stable revenues

[12] It might seem that with such varied revenue lines, diverse store types, and wide range of products/services, RetailCo should benefit from cross-subsidization where different products/services succeed at different times to avoid or minimize decline. RetailCo has not had much success with any particular segment (even at the department level within stores) to benefit from this and so all of RetailCo is facing decline.

until 2007/08.

A number of challenges led to RetailCo's decline. A large number of international competitors entered the Canadian retail landscape – which was referred to as "the American invasion" of the mid-2000s (VP Communications 26). This same time period also saw real estate transition from enclosed malls to big-box layouts and hence the arrival of big-box stores to Canada, which are appropriately referred to as "category killers". Even now, there are a number of major US retailers (as well as retailers outside North America; e.g., China, United Kingdom) that have either committed or are seriously considering entering the Canadian market. As well, 2008 and 2009 in particular were years in which there was tremendous growth in e-commerce sales resulting in consumers gaining an extensive number of retail alternatives. RetailCo's situation is not helped by the fact that 80 percent of Canadians live within 150 kilometers of the US border, which offers an assortment of unique retail alternatives. Additional challenges common to the retail industry include: fickle fashion trends, high rates of employee turnover and weather/seasonality – the latter of which can lead to significant effects on performance.

The environmental change that led to RetailCo's decline was continuous and predictable in early years: the introduction of e-commerce resulted in a gradual replacement of in-store sales with online sales over a ten year period. However, the pattern of environmental change became discontinuous and unpredictable (see Figure 2). First, the transition from in-store to online sales has not remained gradual (e.g., total retail sales in Canada increased 2.9 percent while total e-commerce sales increased by 16.3 percent from 2011 to 2012 ("Statistics Canada," 2013)). Second, both the unprecedented number of new competitors to the Canadian retail landscape and increasing number of retailers willing to ship their products internationally in recent years were not anticipated and thus led to discontinuous and unpredictable change. The shift to discontinuous and unpredictable change is supported by the fact that RetailCo has experienced repeated failures in its transformation efforts (e.g., “recovered” business lines are no longer recovered) and has responded by adopting multiple different transformation plans over the years.

4. Analysis

It was a common theme for all organizations regardless of their classification into Zammuto and Cameron’s typology to indicate that during the “good years” they had not paid as much attention to their systems and uses of accounting. Typifying such a statement, one respondent described, “You have to remember that prior to this downfall, [we were] very successful. And unfortunately when you are very successful you sometimes let your reporting slip – it’s not so important because you just make money” (AutoCo, Financial Analyst 9). More pointedly a respondent from another organization described “the seeds of your demise are sown in the good times” (AgriCo, SVP Operations 19). This phenomenon was highlighted as a problem not exclusive to the accounting function but one that applied more generally as organizations shift into decline:

> *When you're going along at a pretty good pace you tend not to have as many issues – there's more visibility. It's like, you know when you're in a swamp and you lower the swamp, and all the deadheads come up? It's the same idea. When things slow down then you start to see where you've got issues and then you have to address them. They become much more visible.* (MiningCo, Finance Manager 12)

4.1 Discontinuous and unpredictable environmental change

As indicated in the case introductions in Section 3.4, HealthCo, AutoCo and RetailCo all face decline due to a discontinuous and unpredictable change in their environment.

Consistent with this classification, the events that led to HealthCo’s and AutoCo’s decline established immediate awareness and were defined as threatening. The viability study initiated by AutoCo executives, and the appointment of a supervisor and dismissal of key leaders and board members at HealthCo confirms awareness. Indicating feelings of threat, a respondent at AutoCo specified a particular revenue range that was “very difficult to survive in” and then noted that AutoCo's revenues were even lower (Financial Analyst 9). Reflecting on HealthCo's situation, a respondent described that "everything [was] doom and gloom" (Program Director 6).

As noted earlier, RetailCo's decline began as continuous change but more recently reflects emergent discontinuous change. Consistent with this classification, organizational members' awareness and perceptions of decline varied. Accounting respondents spoke with concern and were forthcoming in noting, for example, that "it's no secret that we're not performing [well]" (VP & Controller 27). In contrast, non-accounting respondents spoke with excitement regarding "opportunities to grow [the] business" (VP Operations 25) or else stressed that it was "business as usual" (VP Communications 26).[13] I discuss these three organizations' use of accounting during decline in the next section.

4.1.1 *Cleansing the numbers so they can be relied upon*

Owing to the jolting nature of discontinuous change and resulting perceptions of threat, executives at AutoCo, HealthCo and RetailCo responded to decline with reactive behavioural tactics by engaging in extensive reviews of their accounting systems and reports – referred to as "cleansing the numbers" (AutoCo, CEO 10) – in order to convince themselves that the information can be trusted and relied upon.

Before the onset of AutoCo's decline, respondents described a relative non-reliance on accounting (i.e., antiquated systems, numbers that did not tie in, no daily/weekly reporting). AutoCo engaged in an extensive process to "cleanse and recalibrate" (CEO 10) its accounting system and "re-establish some credibility for the function" (Controller 11). Executives reviewed cost centre allocations and confirmed data was tying into reports correctly. For example, the CEO described "deep diving" into labour; it was "a whole lot of tinkering and adjusting, insanity

[13] The variation here might also be explained by the fact that RetailCo made several sales of significant assets (e.g., joint ventures, investments, lease terminations) such that cash inflows generated slack to withstand feeling the full effect of decline.

and cleansing”. The credibility that started to build from reviewing and cleaning AutoCo’s accounting system helped the accounting group reintroduce reporting. Key to reviewing and re-engaging with accounting was to reacquire some of the legacy knowledge (and passwords) pertaining to reporting that was lost during many rounds of layoffs at AutoCo. This cleansing process had carryover effects on improving the information used to quote for new business, inputs to budgeting and forecasting, and implementation of “Daily Accountability” meetings.

Like AutoCo, HealthCo organizational members criticized their prior use of accounting (i.e., no transparency/accountability, scratching for data, untimely reporting). HealthCo’s executives also performed an extensive review of the existing accounting system. First, they consolidated the number of cost centres and then hosted meetings where they educated managers to ensure they were accurately assigning costs. Second, the performance management team met with one director at a time to review existing spending habits in search of cutting out $30 million of expenses. The Performance Management Director described the process as follows:

> *So, we put a team of people together, and we literally set up a process – an exhaustive process – where we dragged every director or program leader of a budget of a functional area in the organization through a process where we would – it took months to prepare this – but we would go through their budgets line by line in relation to percentile performance and benchmarks from other teaching hospitals...* (HealthCo, PM Director 3)

The cleansing process resulted in the introduction of new performance metrics which are distributed regularly to program directors and other organizational members.[14]

RetailCo executives also questioned the truth and value of accounting. All agreed that, “this corporation has never lacked reports... [but] we have a lot of reports that lack insights” and so the objective was to “get to one version of the truth” (VP Operations 25). Rather than have this disbelief prevent RetailCo executives from using accounting to manage decline, they

[14] This review process was facilitated by pairing each director with a financial analyst to support new accounting requirements; by establishing a performance management group to perform the analytical work; and also by bringing in peers from other institutions as well as a consulting firm for additional expertise. These were important structures that help an organization in catastrophe engage in necessary experimentation tactics while having experts in place to ensure nothing too drastic is attempted.

reviewed the volume and content of reports. The VP FP&A, reflecting on this process, described a cursory process that was “based on more of a high-level view”. Elaborating on the outcome of the process, the VP and Controller described:

> *One of the things we’ve done is we’ve locked down a lot of the reports that people can use so everybody is sort of looking at the same data in the same way… if someone comes to a meeting and they’ve got a report that no one else has seen, it immediately gets discounted because it wouldn’t have gone through the same QA [quality assurance] process.* (RetailCo, VP & Controller 27)

The less extensive review process that executives described suggests it may be in an earlier stage in alignment with the emergent discontinuity of RetailCo’s decline.

Because of the discontinuous pattern of change that led to awareness, AutoCo, HealthCo and RetailCo were driven to reconsider their accounting systems and reports. Consistent with the expectation that organizations conserve resources due to threat-rigidity, organizational members (especially at AutoCo and HealthCo) engaged in cleansing processes to revise their accounting systems and reports so they could rely on the accuracy of the information and facilitate efficient resource use. Following these cleansing processes, and in reaction to each organization’s decline, members at AutoCo, HealthCo and RetailCo mobilized accounting to make sense of their past, created digestible indicators that are easy to understand, and implemented organization-wide accountability. I describe these uses in the sections that follow.

4.1.2 *Using accounting to make sense of the past*

The first characteristic common to organizations in decline due to discontinuous and unpredictable change is that executives use accounting to make sense of their past and garner an understanding of why and how declining performance set in.

AutoCo’s CEO requested the prior year income statements for another subsidiary of AutoParent located in Mexico. He intentionally selected a subsidiary that does the exact same thing as AutoCo except that it was experiencing growth. He then analyzed the comparator’s income statements to get a "snapshot of their cost structure" (CEO 10) and to understand how the comparator had maintained good performance. The CEO also examined AutoCo's own statements and focused in on what costs had been during the best years of performance. Costs were further refined by taking out the influence of exchange rates to make sense of the decline. Executives stressed that it was not just about finding out what had happened but also critical for the organization to leverage this information in striving for a performance turnaround:

> *You have to go to the data to sort of go through it and find the answers then you gotta use the data to drive the behavior. And, if we don't do that, then the data's just a pile of information. We're not using it to draw any conclusions, we're just accumulating – and previously we were accumulating piles of data, not turning it into any kind of usable information and not using it to make any decisions. We were just looking at it like you would an autopsy, "Oh the person died of a gunshot wound". Okay I can see that, but how are we going to try not to get shot?* (AutoCo, CEO 10)

At the end of this exercise, the goal was to "go back to where [AutoCo was]... and even to go back a little bit further" (CEO 10).

By performing a similar exercise, HealthCo's CFO set out to deconstruct the organization's previous financial statements in order to understand how HealthCo had arrived to a $30 million deficit. The CFO described the analysis as follows:

> *We called it 'Understanding the Past' – so we went back to the last time this hospital had a balanced operating budget and a positive working capital position. You had to go back to 1995/1996.... So we had to go back, at that time, 13 years, to find where we had a good fiscal position.... So, we were trying to sort out, you know, why did we [the new executive] find ourselves at the hospital and on the Board? Why did we find ourselves in such a position of debt?*
>
> *... So we went and took the 13 years worth of audited financial statements and just compared, you know, what happened each year...* (HealthCo, CFO 2)

This information-seeking process was particularly important for HealthCo since firing most of the former leadership team and suspending the board meant departed leaders took with them important organizational history and information.

Unlike AutoCo and HealthCo, executives at RetailCo did not use historical accounting information to make sense of their organization's past. Respondents noted that the retail landscape had changed far too much to be able to reference prior performance years as a tool to understand RetailCo's decline. To garner similar information of where RetailCo should be performance-wise, they relied on benchmarking to competitors in Canada and the US asking questions such as, "What are the successful retailers? What do they do right and what are their metrics?" (VP Communications 26). This information-seeking and comparison exercise enabled organizational members to make sense of their current situation and determine what improvements should be made going forward.

These sensemaking exercises were important to AutoCo, HealthCo and RetailCo because discontinuous change means organizational members cannot rely exclusively on past experiences and trends. Instead, the shock of discontinuous change urged members to seek an understanding of the past in order to regain feelings of control that are lost when decline is defined as a threat. Researchers have long held that managers do not accurately perceive their environment which results in poor decision making (Simon, 1991; Sutcliffe, 1994). In lieu of accurately perceiving the environment, managers only need to make plausible sense of it in order to construct a basis for action and timely decision making (Weick, 1993, 1995). This is particularly true for organizations in decline and aligns with the observation that AutoCo, HealthCo and RetailCo all used accounting to understand how decline developed and make sense of the present circumstances. By redefining their understandings and perceptions, organizational members are able to reduce feelings of threat and begin to attempt recovery (Gioia & Chittipeddi, 1991).

4.1.3 *Creating digestible indicators that are easy to understand*

The second commonality – arising from feelings of perceived threat, imminent risk of failure and immediacy of a required response – is that organizations found it was more effective to use indicators that were easy to "digest". Digestible indicators refer to metrics that avoid technical accounting jargon that is unfamiliar to most organizational members and instead use language that is easy to understand and communicates an organization's situation and needs very clearly.

At AutoCo, the executive team created unique measures to communicate to employees the role they play in the organization's poor performance and to persuade them of the need for change. Leading up to and during AutoCo's decline, a significant amount of labour seemed to be lost production time. Upon running the numbers for the week prior, executives uncovered that they "had paid 27 people effectively to do nothing" (Financial Analyst 9). Instead of relying on traditional metrics, executives found a more effective way to emphasize their concern for labour efficiency to employees: "Let's rope off an area, let's put 27 people in it, let's give them all Margaritas and lawn chairs while everyone else is working" (Financial Analyst 9). The metric was calculated by "still using the accounting data principles but then we were presenting it in a way to really exaggerate [the time lost]" (CEO 10). AutoCo referred to these types of metrics as "hands-on" – metrics that everyone on the production floor will understand – and the CEO specified that they used a lot of them to challenge employees to evaluate their own behaviour. Executives felt these metrics were the best way to use accounting principles with frontline workers because they were easy to understand and clearly communicated AutoCo's decline.

HealthCo adopted a similar approach to explain the organization's circumstances by drawing connections to things that people know and understand from their everyday lives. To explain the dire financial situation HealthCo was facing to employees, the COO likened the organization's debt to personal credit cards and the high interest rates that accompany overdraft:

> *They [employees] understand how money works. They all have, as I've said, their own lives. And when you put it in the context of a credit card – if we're in overdraft we're paying higher rates, just as you do with your credit card – it didn't take long [to get the message out]*. (HealthCo, COO 1)

In meetings, the CFO would "try and put it in laymen's terms" to help others understand how significant debt levels had accumulated: "We had this *great big* MasterCard and people took significant advantage of it – just like people do in their personal lives" (CFO 2).[15] Executives believed that explaining HealthCo's situation in this way shortened employees' learning curves, which meant that the organization was able to begin reacting to change more quickly. The COO explained that, "people in the organization – the leadership – even in their personal lives are used to tracking and measuring and having goals in place" (COO 1). HealthCo executives felt that if organizational members could attach to an idea personally, they were more likely to understand it (e.g., thinking of budgeting in terms of personal spending).

RetailCo executives were focused on adding performance indicators that respondents described as "business-friendly" meaning they were digestible and easy to intuit (VP FP&A 28). Executives described being motivated by the frustration that measuring performance is "not always as clear cut as we would like it to be and financial performance is always a lagging indicator" (VP Operations 25). The solution was to implement a collection of "real-time leading indicators and operational key performance indicators" to help manage decline (VP Operations 25). Respondents gave examples of operational (e.g., number of redesigned stores) and financial indicators (e.g., average selling price, basket size, gross profit return on inventory; which differ from other retailers that rely on sales per square foot). Executives explained that basing metrics on sales per square foot – the most heavily used metric by retailers – did not have the necessary intuitive appeal for use with employees which prevented them from fully understanding RetailCo's decline. The VP and Controller reflected on the changes to RetailCo's metrics:

> *As a company, we haven't been KPI-heavy until recently. We've really started to put more focus on it… We don't really look at some of the more traditional metrics on a*

[15] Every time the CFO referred to HealthCo's "great big MasterCard", she stretched her arms out as wide as possible to invoke the image of a credit card that was larger than life.

> *regular basis [because] when a company is in financial distress, it puts a lot more focus on the working capital and cash generation. As a result, the metrics are kind of following that – like GPROI [gross profit return on inventory].* (RetailCo, VP & Controller 27)

The collection of indicators was implemented to help executives become aware of performance problems much sooner than waiting for financial results.

Faced with decline that arose quickly and severely, the digestible metrics implemented at AutoCo, HealthCo and RetailCo helped establish a clear understanding of the challenges faced and need for cautious behaviour – not just by accountants but by employees across the organizations. Organizational members are expected to define discontinuous change as threatening which leads to rigidity (Staw, et al., 1981). Further, they are expected to feel a loss of control and to believe performance losses are likely (Chattopadhyay, et al., 2001). In such circumstances, fast ways to communicate key ideas to members reduces the shock and uncertainty associated with discontinuous change thereby reducing perceptions of threat. Vivid indicators like the ones described help make the message clear and as one respondent said pointedly, "put it in a way that people can digest" (AutoCo, CEO 10).

4.1.4 *Implementing organization-wide accountability*

The third characteristic common to organizations facing discontinuous and unpredictable change is the heightened level of accountability implemented to help manage decline. Mobilized in different ways within the organizations, respondents' references to accountability were pervasive as they described how their respective organization managed decline.

AutoCo recognized that improving the accuracy and sharing of information was only part of the solution; employees also needed to be held accountable. The executives envisioned and implemented "Daily Accountability" meetings where managers and employees united in the "Accountability Room" – a room dedicated to displaying large-scale performance scoreboards – every morning at nine o'clock to review prior day performance (Controller 11).

> *We had to hold each other accountable, we had to have measurements, we had to show achievement of the measurements, and if there are roadblocks to achieving those, we need to know about those so we can remove them. That's our job as managers, we are barrier removers.* (AutoCo, Financial Analyst 9)

Early on, the CEO realized that to garner the most benefit, attendance had to be mandatory, or else there was no way to truly hold people accountable. A respondent confirmed this directly: "You had to bring a death certificate if you weren't at that meeting" (Financial Analyst 9). Everyone was required to attend so that everyone knew AutoCo's prior day and week-to-date position so that everyone would be able to play a role in holding each other accountable.

Managing decline at AutoCo meant "getting back to the theory of being data driven" (Financial Analyst 9). Sharing performance results at "Daily Accountability" meetings gave everyone something to hold others accountable to, which was important to ensuring spending was on track, production was efficient and other goals were met. The CEO described: "I think that style – of giving people the numbers and the data and then giving them some time to go through it and then challenging them on it and just being fully accountable and transparent – is crucial". During interviews, respondents continually brought the focus back to accountability having a key role in managing AutoCo's decline. The pervasive and visual way of holding employees accountable was in stark contrast to the "cloak and dagger" (Controller 11) approach prior to AutoCo's decline. "Accountability is huge. If people don't know what they're accountable for, they probably don't know what they're supposed to do in a day" (CEO 10).

References to accountability were also pervasive in the narratives of respondents at HealthCo, but were operationalized in more varied ways. For example, a respondent made repeated references to "being accountable", not only as an employee of HealthCo and to her team, but also as a taxpayer and a patient – none of which made it okay to waste money (Program Director 4). One major change concerning the adoption of accountability was that

HealthCo added more parties to the process: executives, doctors, nurses, employees, government and even patients. The COO referred to accounting as "the backbone" of accountability such that by being provided with information anyone would be able to tell whether they were hitting targets and delivering on their part of the operation. And indeed, with this increase in information sharing, employees right down to the front lines did not hold back from holding the executive team accountable. The COO described:

> *When we go and talk to the staff around the hospital – even the [union] departments, etcetera – they want to know how we're doing against the debt. They want to know it's being paid off and when it's gone, they're going to want to know what we are going to spend the money on.* (HealthCo, COO 1)

Pairing directors with financial analysts and enacting a performance management team, which were initiated to support HealthCo's cleansing process, helped ensure the requisite knowledge was in place so that it would be fair to hold directors accountable.

Respondents described various ways HealthCo had updated and introduced new accountability practices. It was not uncommon for respondents to refer to "red", "yellow" or "green" in describing the status of a performance target. To hold organizational members accountable, performance agreements were implemented with all managers, and more recently with employees outside of management. With no link to a bonus of any kind, the agreements with managers were instituted to ensure targets were met whereas the agreements struck with non-managers were about refining processes and learning new skills and capabilities.

Consistent with the emergent discontinuous and unpredictable pattern of change affecting RetailCo, the adoption of accountability also appeared to be emergent. On the one hand, the VP Operations asserted, "What we are really big on is driving accountability, accountability across the board" and showed me one of the organization's "pledges" for a transformation initiative. On the back of the boardroom door was a large poster board of priorities for a particular initiative (e.g., converting single appliance purchases into bundles) and related performance standards with staff signatures all over it signifying their commitment. The VP Operations described:

> *This forges the team, brings people together, where people not only feel pride in what they accomplish but they also know that they are doing this for the team. They're not just doing it for the corporation, they are doing it for the other people in the room who also have a vested interest in making [RetailCo] successful.* (RetailCo, VP Operations 25)

On the other hand, this use of accountability was not familiar to other respondents at RetailCo who instead highlighted other ways they felt accountability had changed in order to manage decline. For example, category teams meet weekly to present progress and results to key executives (VP FP&A 28). As well, the CEO records a quarterly town-hall video summarizing performance plans/progress and shares it with all segments/stores so everyone remains informed and understands what they are accountable for (VP Communications 26). It was also mentioned that compensation had been modified to support RetailCo's transformation plan by including measures linked to specific areas of responsibility and also to organization-wide performance (VP & Controller 27). Explaining the importance of accountability at RetailCo, the VP Operations suggested, "Someone needs to be there that establishes that path, the roadmap, and then holds people accountable… We may lose some battles but we are going to win the war, and we've got to keep fighting". That there appeared to be neither a consistent approach nor buy-in across the organization suggests RetailCo's adoption of accountability may be in an earlier stage.

The typology, motivated by the threat-rigidity thesis, expects organizational members that define discontinuous and unpredictable change as threatening to conserve resources which includes increased accountability pressure (Staw, et al., 1981). Though the threat-rigidity thesis suggests accountability pressures will focus on a concern for efficiency, organizational members at AutoCo, HealthCo and RetailCo described a much broader role for accountability. Decline leads organizational members into unfamiliar circumstances with limited ability to rely on past experience. Furthermore, organizations in decline, particularly when caused by sudden change, are in very fragile states and often on the verge of failure. Since any move could be an organization's last move, respondents felt that the varied operationalizations of accountability were critical to the management of decline by ensuring resources are spent wisely and organizational members follow through on intended plans. This observation counters increased centralization and reduced information processing expected in threat-rigidity; instead, I observe greater sharing of control and information. Greater sharing of control and information is valuable to organizations facing discontinuous change because it introduces assurance against members' inability to plan and consequent use of reactive and experimentation behavioural tactics.

4.1.5 *Summary*

Leading up to decline, AutoCo and HealthCo received no early or predictable signals – at least not ones management recognized and took seriously. RetailCo's decline arose gradually in the beginning; however, members received no predictable signals of the discontinuous and unpredictable pattern of change experienced more recently. The discontinuity of change meant these organizations' members became aware of decline quickly and were required to employ reactive or experimentation behavioural tactics.[16] In fact, all of the mobilizations of accounting were deployed in reaction to decline and many exhibit experimental qualities. Organizational members appeared to define the jolting change as a threat, and as a result, respondents were focused on the gravity of their organization's situation, spoke with concern, and demonstrated a need to maneuver cautiously.

Executives at all three organizations initiated a review of their accounting systems and reports upon becoming aware of decline. Once this initial cleansing process enabled executives

[16] I imply "quickly" compared to organizations facing continuous change that are at risk of slowly developed awareness due to the gradual onset of decline. Admittedly, "noticing quickly" should be reserved for organizations that perceive the environmental shift quickly enough that they are able to make preventative changes to avoid decline.

to become comfortable with the numbers, they adopted a broader approach to managing decline in which they engaged organizational members more widely, particularly through the use of accounting. These organizations mobilized management accounting in ways that are more easily understood by employees organization-wide, which reduces the effects of threat-rigidity. AutoCo, HealthCo and RetailCo were required to act quickly – even though discontinuous change means organizational members cannot rely exclusively on past experience and are afforded little time to plan a careful response – and management accounting enabled them to do so. Respondents at HealthCo and AutoCo in particular felt the changes to and mobilization of various management accounting tools and practices were critical to managing decline.

4.2 Continuous and predictable environmental change

As indicated in the case introductions in Section 3.4, MiningCo, AgriCo and MediaCo all face decline due to a continuous and predictable change in their environment.

Consistent with this classification, MiningCo and AgriCo organizational members appeared to be less aware of their decline. Respondents at both organizations exhibited no significant concerns or heightened emotions with regard to decline but instead put forth a "business as usual" feeling. Respondents at MiningCo explained, "We need a fixed pattern of habits because the efficiencies are coming from that" (CEO 15) and also suggested, "You're really at the mercy of the market" (Finance Manager 12). AgriCo shared similar feelings as one respondent made repeated references to the organization's "wait-and-see-type attitude" (Finance Manager 18) and another stressed that "the fundamentals of the business didn't change" (SVP Operations 19). I emphasize "less" awareness because respondents did highlight significant performance challenges when they described their organizations' circumstances. In alignment with the expectation that continuous and predictable change is defined as an opportunity, MediaCo respondents made frequent references to this effect. Typifying such a statement, the CEO suggested that identifying "growth opportunities [is] a big imperative for [MediaCo] and using the asset base we've got to think through those opportunities". The longer period over which MediaCo has been in decline suggests that awareness developed more slowly. Many comments, from MiningCo and AgriCo in particular, reflected the inactive behavioural tactics expected in the typology which translated to these organizations' inactive use of accounting.[17]

Unlike organizations that face discontinuous and unpredictable change, members in organizations facing continuous and predictable change did not mobilize management accounting to manage decline. In the next sections, I describe these organizations' non-reliance on accounting and discuss reasons why they do not mobilize accounting during decline.

4.2.1 *Organizations facing continuous and predictable change do not mobilize accounting*

Facing continuous and predictable change, Zammuto and Cameron expect behavioural tactics to be inactive due to less awareness. Following this expectation, respondents at AgriCo and MiningCo described a very passive role for accounting during decline. MiningCo's CEO identified the utilization ratio (i.e., targeting 100 percent asset utilization) as a key metric, and AgriCo's FP&A Manager pointed to econometric modeling used to garner a picture of the long-term outlook – but these tools were not specific to decline, they are used all of the time. When I pushed further and tried to get respondents to describe the tools or analysis they might employ to manage decline, or the changes to accounting brought on by decline, it was not uncommon to get responses like, "Nothing. I just do the same thing I always do" (MiningCo, Accounting Manager 14) or "I wouldn't say that AgriCo has great tools" (AgriCo, Finance Manager 18).[18]

[17] Reflecting the predictability aspect of continuous change in the typology, respondents described instances where proactive behavioural tactics were used (especially at MediaCo) but because they do not implicate these organizations' use of accounting, I do not include them in this study (see Hayne, 2014 for more details).
[18] At AgriCo, respondents spoke about plans to review their cost structures, suspected that their budgeting processes would change to a top-down approach, and expected that management would soon set performance targets. At the time of interviews,

Respondents at MediaCo also contend their use of accounting has not changed. They described a range of decisions (e.g., location of free publications) that were driven by considerations of incremental revenues compared to costs, but these calculations and analyses had always been performed and were not new during decline. When I asked respondents if any new metrics had been adopted or if any existing metrics had changed, respondents suggested that what mattered had changed slightly but the metrics themselves had not. At the end of an interview, a respondent deliberated openly that perhaps MediaCo wasn't mobilizing internal reporting to the fullest: "Not every company drives by the numbers. And you've got to kind of recognize that. For us, would it be a good thing to shift our focus to be a little bit more numbers driven? I'd say probably yes" (Segment VP & CFO 22).

4.2.2 *Questioning the truth and value of accounting*

A common theme across interviews with organizational members at AgriCo, MiningCo and MediaCo – which explains their unwillingness to engage with and rely on accounting to manage decline – is that none felt that accounting provided truthful accounts or valuable information. For example, and perhaps unsurprisingly given AgriCo's "wait-and-see" attitude and sparing use of accounting, the two top executives felt that accounting did not add much value to them (AgriCo, SVP Operations 19, VP Operations 20). They criticized the accounting function for being too historical and lacking in good financial analysis. Much like AgriCo, the reason MiningCo's executives did not embrace accounting information during decline was due to a lack of faith in the numbers. The Production Manager described:

> *When you run everything on a spreadsheet, numbers are not lying. Period. But numbers, they don't have souls. You don't understand what under that number really is. So the decision made based on a spreadsheet turns out being more wrong than right.... Even if I have this tool, I don't want to use it… numbers are numbers; everybody interprets them*

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none of these changes had actually taken place; they were just possibilities for the future. Executives explained that they did not want to set specific approaches and dollar targets and risk stifling innovative ideas (SVP Operations 19, VP Operations 20).

> *in a different way.* (MiningCo, Production Manager 13)

In fact, MiningCo did not even appear interested in having accounting become a shared language since it sought to replace employees through automation. When the VP Operations compared AgriCo to other companies and the range of "things" the organization could track, he cautioned of the risk that AgriCo could "lose [its] soul" (AgriCo, VP Operations 19).

One exception is that MiningCo and AgriCo implemented large-scale visual performance scoreboards similar to the ones displayed in AutoCo's "Accountability Room". This observation aligns with an expectation in Zammuto and Cameron's typology not previously described in which organizational members facing decreasing niche size are expected to focus on efficiency (see "outcome emphasis" in Appendix A). Compared to AutoCo, the extent of adoption and actual use of these scoreboards was limited at AgriCo and MiningCo. They were not featured in high traffic areas, not updated as frequently or used on a regular basis, and not connected to accountability pressures. At MiningCo, the scoreboards had such limited impact that only one respondent thought to mention them and did so incidentally. That AgriCo and MiningCo members did not believe in their accounting systems and reports and had not engaged in a cleansing process explains their lack of use of these scoreboards, which is why I do not highlight this observation as an example of "using" accounting to manage decline.

Skepticism towards accounting was no different at MediaCo. The CEO sought to explain why accounting was not actively mobilized:

> *The danger in financial or management reporting is you can get – there's always a story behind the numbers and it's actually determining the accurate story behind the numbers and not getting fooled by what might appear to be, for example, good results when in fact what's going on underlying the numbers is not as positive.* (MediaCo, CEO 21)

He elaborated that "there's a very substantial role for accounting, whether it's financial or management reporting, to play in development of the thinking around the future" but various concerns prevented him from relying on accounting just yet. The hesitancy to rely on accounting was demonstrated through the use of budgeting. Noting that the advertising revenue forecast was incredibly difficult to get right, MediaCo executives found themselves maintaining multiple budgets and described the entire process as “schizophrenic” (Corporate EVP & CFO 23). The Corporate EVP and CFO did highlight one benefit to MediaCo’s planning and budgeting during decline – the use of a “rip cord” (i.e., knowing when to abandon a course of action) – which reflects the proactive behavioural tactics expected in the typology.[19] All respondents suggested there was more focus on revenue since it was dissipating quickly, and that “at the end of the day, you’ve got to bring it back to return on capital employed and ability to generate cash off investment” (Corporate EVP & CFO 23) – but assured me that this had always been the case.

4.2.3 *Summary*

Compared to organizations facing a discontinuous and unpredictable pattern of change, decline for these organizations arose gradually and predictably. Owing to the continuous nature of change, respondents at MiningCo, AgriCo and MediaCo were more positive in accounts of their organizations’ circumstances. Organizational members defined decline as an opportunity, and as a result, they were not affected by threat-rigidity but instead appeared to feel in control and believed performance improvements were likely (Chattopadhyay, et al., 2001; Dutton & Jackson, 1987). As well, these organizational members questioned the truth and value of their management accounting practices. On account of these two observations, organizational members were not driven to mobilize management accounting to manage decline. These organizations’ non-reliance on accounting cannot be explained by a lack of awareness of decline

[19] The Corporate EVP and CFO described, “these are the parameters which I am going to set, that, if I get over these hurdles, I’ll keep going. If I fall below these hurdles, I’m going to bail out”. Motivated by this explanation (and to confirm, again), I responded with, “Oh, so have the indicators changed over time?” The respondent still insisted “No, I don’t think so… the fundamental metrics I don’t think have” (Corporate EVP & CFO 23).

because organizational members themselves highlighted this reality early in their cataloguing of challenges faced by their organization.

5. Discussion and Conclusion

I carried out a cross-sectional field study that examined six organizations facing decline due to environmental change. Faced with discontinuous and predictable change, AutoCo and HealthCo actively mobilized management accounting to manage decline. RetailCo, faced with continuous and predictable change in early years – whereby the pattern of change became discontinuous and unpredictable – demonstrated a move towards mobilizing accounting in recent years. In contrast, faced with continuous and predictable change, AgriCo, MiningCo and MediaCo did not mobilize management accounting.

Using Zammuto and Cameron's typology to analyze my six organizations, I offer a theory-based explanation for why some organizations mobilize accounting during decline while others do not. Organizations facing discontinuous environmental change mobilized management accounting. These organizations engaged in comprehensive processes to review and "clean" their accounting numbers and reports. Once organizational members established an understanding of and confidence in their accounting – that is, once they could use accounting to tell a story about organizational decline – they then mobilized accounting actively as part of their attempts to manage decline. In contrast, organizations in decline due to continuous environmental change had serious concerns about the truth and value of their management accounting practices. As a result, these organizations made limited or no changes in their use of management accounting practices. Though it would seem possible that the gradual onset of decline was imperceptible to organizational members and that this explains why they did not actively use accounting, not only did respondents readily acknowledge the significant challenges faced by their organizations but they also clearly pointed to their disbelief in the value of accounting numbers and reports to support their decision making during decline.

Among the organizations that mobilized accounting during decline, I identify three common uses of accounting that organizational members described as helpful ways to manage decline. Consistent with being motivated by the perceptions of threat and more tenuous existence of these organizations, organizational members reacted by (1) using accounting to help them understand precisely how and where performance had fallen off course, (2) adopting or creating "digestible" measures to ensure that organizational members clearly understood the realities of decline, and (3) implementing accountability across the organization to support careful engagement with and monitoring of attempts at turnaround. Compared to the non-reliance on accounting in organizations facing continuous change, the conditions of decline in organizations facing discontinuous change led them to leverage accounting in new ways.

These research findings imply that when decline is discontinuous, the shock and surprise drives organizational members to first convince themselves of the truth and accuracy of their accounting information, and then to react by using this information in novel ways to manage decline. Further, my research findings imply that without any significant discontinuity at the onset of decline, organizational members are not driven to mobilize management accounting to manage decline. My research responds to calls to investigate the use of accounting in decline (Bozeman, 2010; Hopwood, 2009; Van der Stede, 2011). Of interest to practitioners, my research identifies uses of accounting that are low-cost and simple to implement, which are favourable given the tight timelines and limited resources commonly associated with decline.

I also contribute to a long line of research that seeks to understand whether decline leads to rigidity or instead stimulates organizational action and innovation (e.g., Barker & Mone, 1998;

McKinley, et al., 2014; Mone, et al., 1998). Recall that when organizations face a threat such as decline, the threat-rigidity thesis suggests a constriction of control, restriction in information processing and conservation of resources, which leads to rigidity in which organizations rely on learned routines and past behaviours (Staw, et al., 1981). Zammuto and Cameron’s typology indicates that organizational members will perceive discontinuous change as a threat. Counter to the predictions of much decline and threat-rigidity literature, the organizations facing discontinuous change in this research mobilized accounting, and in doing so, they improved their processing and use of information as well as their sharing of control. By using accounting to understand their organization’s past, organizational members learned that their past behaviours and routines were not safe to rely on during decline. This finding suggests that when decline is perceived as threatening, management accounting is a tool through which organizational members are able to minimize or avoid rigidity.

Of course, this paper is subject to the traditional limitations associated with field research. I describe and follow a comprehensive approach to my research methods and include representative quotations so that readers have the opportunity to verify my conclusions (Stake, 2005). My focus on environmental change means that I examine external causes of decline at the exclusion of internal causes such as the loss of a key leader, scarce financial resources, or even poor use of accounting. As well, I include organizations in various stages of decline. This means that members of organizations that do not mobilize accounting might not yet realize, like RetailCo, that their organization’s decline requires careful management through the use of management accounting practices.

This study is the basis of a number of future research opportunities. I intend to maintain access to the organizations in this study to continue field work in those that were not driven to use accounting to monitor whether and how their use of accounting changes as decline evolves. Further leveraging my access and in-depth knowledge of the organizations in this study, I intend to conduct field work as they achieve performance turnarounds or determine organizational "death" is inescapable. More generally, continuing to engage in understanding how accounting is used to prevent, detect and manage decline is fruitful given the operational and accounting differences between similar organizations and potential differences across industries. In the long term, I hope to conduct field work in different organizations to test the generalizability of the findings of this study and further explore the uses of accounting identified in this study.

In sum, a cross-sectional field study provided the opportunity to capitalize on depth of analysis while also offering breadth for comparison across organizations (Lillis & Mundy, 2005). I find that management accounting fills an important decision influencing and facilitating role at a time when organizations need information for decision making but that this varies according to the pattern of environmental change that led to organizational decline.

References

The 32nd Quarterly C-Suite Survey: Profit Shifting, Taxation & the 5th Anniversary of the 2008-09 Recession. (2013). The Gandalf Group.

Ahrens, T., & Chapman, C. S. (2006). Doing Qualitative Field Research in Management Accounting: Positioning Data to Contribute to Theory. *Accounting, Organizations and Society, 31*, 819-841.

Atkinson, A. A., Balakrishnan, R., Booth, P., Cote, J. M., & et al. (1997). New Directions in Management Accounting Research. *Journal of Management Accounting Research, 9*, 79-108.

Audia, P. G., & Greve, H. R. (2006). Less Likely to Fail: Low Performance, Firm Size, and Factory Expansion in the Shipbuilding Industry. *Management Science, 52*(1), 83-94.

Ayotte, K. M., Hotchkiss, E. S., & Thorburn, K. S. (2013). Governance in Financial Distress and Bankruptcy. In M. Wright, D. S. Siegel, K. Keasey & I. Filatotchev (Eds.), *Oxford Handbook of Corporate Governance*. Oxford, UK: Oxford University Press.

Barker, V. L., & Mone, M. A. (1994). Retrenchment: Cause of turnaround or consequence of decline? *Strategic Management Journal, 15*(5), 395-405.

Barker, V. L., & Mone, M. A. (1998). The mechanistic structure shift and strategic reorientation in declining firms attempting turnarounds. *Human Relations, 51*(10), 1227-1258.

Barker, V. L., Patterson, P. W., Jr., & Mueller, G. C. (2001). Organizational causes and strategic consequences of the extent of top management team replacement during turnaround attempts. *The Journal of Management Studies, 38*(2), 235-269.

Baum, J. A. C., & Shipilov, A. V. (2006). Ecological Approaches to Organizations. In S. R. Clegg, C. Hardy, T. Lawrence & W. R. Nord (Eds.), *The SAGE Handbook for Organization Studies* (2nd ed., pp. 55-110). London: SAGE Publications Ltd.

Bolton, M. K. (1993). Organizational innovation and substandard performance: When is necessity the mother of innovation? *Organization Science, 4*(1), 57-75.

Bozeman, B. (2010). Hard Lessons from Hard Times: Reconsidering and Reorienting the "Managing Decline" Literature. *Public Administration Review, 70*(4), 557-563.

Bruton, G. D., Oviatt, B. M., & White, M. A. (1994). Performance of acquisitions of distressed firms. *Academy of Management Journal, 37*(4), 972-989.

Cahill, D. J. (1998). Organizational decline and innovation: Are entrepreneurs a special case? *The Academy of Management Review, 23*(3), 387-388.

Cameron, K. S., Kim, M. U., & Whetten, D. A. (1987). Organizational Effects of Decline and Turbulence. *Administrative Science Quarterly, 32*(2), 222-240.

Cameron, K. S., Whetten, D. A., & Kim, M. U. (1987). Organizational Dysfunctions of Decline. *Academy of Management Journal, 30*(1), 126-138.

Cameron, K. S., & Zammuto, R. F. (1983). Matching Managerial Strategies to Conditions of Decline. *Human Resource Management, 22*(4), 359-375.

Chattopadhyay, P., Glick, W. H., & Huber, G. P. (2001). Organizational Actions in Response to Threats and Opportunities. *The Academy of Management Journal, 44*(5), 937-955.

Chen, G., & Hambrick, D. C. (2012). CEO Replacement in Turnaround Situations: Executive (Mis)Fit and Its Performance Implications. *Organization Science, 23*(1), 225-243.

Colignon, R., & Covaleski, M. (1988). An Examination of Managerial Accounting Practices as a Process of Mutual Adjustment. *Accounting, Organizations and Society, 13*(6), 559-579.

Corporate Exploration Strategies: A Worldwide Analysis. (2013). SNL Metals Economics Group.
Czarniawska-Joerges, B. (1988). Dynamics of Organizational Control: The Case of Berol Kemi AB. *Accounting, Organizations and Society, 13*(4), 415-430.
D'Aveni, R. A. (1989). The Aftermath Of Organizational Decline: A Longitudinal Study Of The Strategic And Managerial Characteristics Of Declining Firms. *Academy of Management Journal, 32*(3), 577-605.
Detroit's bankruptcy: Revenge of the 99%. (2014, February 24, 2014). *The Economist*. Retrieved from http://www.economist.com/blogs/democracyinamerica/2014/02/detroits-bankruptcy
Dutton, J. E., & Jackson, S. E. (1987). Categorizing Strategic Issues: Links to Organizational Action. *The Academy of Management Review, 12*(1), 76-90.
Ezzamel, M., & Bourn, M. (1990). The Roles of Accounting Information Systems in an Organization Experiencing Financial Crisis. *Accounting, Organizations and Society, 15*(5), 399-424.
The Financial Crisis: Five Years Later. (2013). Washington: The White House.
The Future of the North American Automotive Supplier Industry: Evolution of Component Costs, Penetration, and Value Creation Potential Through 2020. (2012). McKinsey & Company, Inc.
Galbraith, J. R. (1973). *Designing complex organizations*. Reading, MA: Addison-Wesley Publishing Company.
Gandolfi, F., & Hansson, M. (2011). Causes and consequences of downsizing: Towards an integrative framework. *Journal of Management and Organization, 17*(4), 498-521.
Gautum, K., Whetten, D. A., & Cameron, K. S. (1997). Theoretical Implications of Measurement Inconsistencies in Organizational Decline Research. *The Review of Higher Education, 20*(2), 181-198.
Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and Sensegiving in Strategic Change Initiation. *Strategic Management Journal, 12*(6), 433-448.
Gopinath, C. (2005). Recognizing Decline: The Role of Triggers. *Mid - American Journal of Business, 20*(1), 21-27.
Hannan, M. T., & Freeman, J. (1977). The Population Ecology of Organizations. *American Journal of Sociology, 82*(5), 929-964.
Hayne, C. (2014). A Field Study of Organizations in Decline: A Test of Zammuto and Cameron's Typology of Environmental Decline. Unpublished working paper. Queen's University.
Hoffi-Hofstetter, H., & Mannheim, B. (1999). Managers' coping resources, perceived organizational patterns, and responses during organizational recover from decline. *Journal of Organizational Behavior, 20*(5), 665-685.
Hopwood, A. G. (2009). The economic crisis and accounting: Implications for the research community. *Accounting, Organizations and Society*, *34*(6/7), 797-802.
Hotchkiss, E. S., John, K., Mooradian, R. M., & Thorburn, K. S. (2008). Bankruptcy and the Resolution of Financial Distress. In B. E. Eckbo (Ed.), *Handbook of Empirical Corporate Finance* (Vol. 2). Amsterdam: Elsevier.
Hutchinson, G. E. (1957). Concluding Remarks. *Cold Spring Harbor Symosium on Quantitative Biology, 22*, 415-427.
Lamberg, J.-A., & Pajunen, K. (2005). Beyond the metaphor: The morphology of organizational decline and turnaround. *Human Relations, 58*(8), 947-980.

Lillis, A. M., & Mundy, J. (2005). Cross-Sectional Field Studies in Management Accounting Research-Closing the Gaps between Surveys and Case Studies. *Journal of Management Accounting Research, 17*, 119-141.

Luft, J., & Shields, M. D. (2003). Mapping management accounting: graphics and guidelines for theory-consistent empirical research. *Accounting, Organizations and Society, 28*(2–3), 169-249.

Macintosh, N. B. (1994). *Management Accounting and Control Systems – An Organizational and Behavioural Approach*. Chichester, UK: John Wiley and Sons.

Mahlendorf, M., Becker, S., Thaten, M., & Schäffer, U. (2014). Budgeting in times of economic crisis. Unpublished Working Paper.

McKinley, W. (1993). Organizational decline and adaptation: Theoretical controversies. *Organization Science, 4*(1), 1-9.

McKinley, W., Latham, S., & Braun, M. (2014). Organizational Decline and Innovation: Turnarounds and Downward Spirals. *The Academy of Management Review, 39*(1), 88-110.

Mishra, A. K., & Spreitzer, G. M. (1998). Explaining how survivors respond to downsizing: The role of trust, empowerment, justice, and work redesign. *The Academy of Management Review, 23*(3), 567-588.

Mone, M. A., McKinley, W., & Barker, V. L. (1998). Organizational decline and innovation: A contingency framework. *The Academy of Management Review, 23*(1), 115-132.

Morrow, J. L., Jr., Sirmon, D. G., Hitt, M. A., & Holcomb, T. R. (2007). Creating value in the face of declining performance: firm strategies and organizational recovery. *Strategic Management Journal, 28*(3), 271-283.

Myers, M. D. (2009). *Qualitative Research in Business & Management*. Thousand Oakes, CA: Sage Publications Ltd.

Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.

Retail at a glance: E-commerce sales, 2012. (2013). from http://www.statcan.gc.ca/daily-quotidien/140708/t140708b001-eng.htm

Roberts, J. (1990). Strategy and Accounting in a U.K. Conglomerate. *Accounting, Organizations and Society, 15*(1/2), 107-126.

Rosenblatt, Z., & Sheaffer, Z. (2001). Brain drain in declining organizations: Toward a research agenda. *Journal of Organizational Behavior, 22*(4), 409-424.

Sasseen, J., Olmstead, K., & Mitchell, A. (2013). *The State of the News Media 2013: An Annual Report on American Journalism*.

Schoenberg, R., Collier, N., & Bowman, C. (2013). Strategies for business turnaround and recovery: a review and synthesis. *European Business Review, 25*(3), 243-262.

Selto, F. H., & Widener, S. K. (2004). New Directions in Management Accounting Research: Insights from Practice. In M. Epstein & J. Y. Lee (Eds.), *Advances in Management Accounting* (pp. 1-35): Emerald Group Publishing Limited.

Simon, H. A. (1991). Bounded Rationality and Organizational Learning. *Organization Science, 2*(1), 125-134.

Skaerbaek, P., & Tryggestad, K. (2010). The role of accounting devices in performing corporate strategy. *Accounting, Organizations and Society, 35*(1), 108-124.

State of the Market: Exploration Report. (2014). SNL Metals & Mining.
Staw, B. M., Sandelands, L. E., & Dutton, J. E. (1981). Threat-Rigidity Effects in Organizational Behavior: A Multilevel Analysis. *Administrative Science Quarterly, 26*(4), 501-524.
Sutcliffe, K. M. (1994). What Executives Notice: Accurate Perceptions in Top Management Teams. *The Academy of Management Journal, 37*(5), 1360-1378.
Sweeney, J. T., & Quirin, J. J. (2009). Accountants as layoff survivors: A research note. *Accounting, Organizations and Society, 34*(6/7), 787-795.
Thomas, J. B., Clark, S. M., & Gioia, D. A. (1993). Strategic sensemaking and organizational performance: Linkages among scanning, interpretation, action, and outcomes. *Academy of Management Journal, 36*(2), 239-270.
Trahms, C., Ndofor, H., & Sirmon, D. (2013). Organizational Decline and Turnaround: A Review and Agenda for Future Research. *Journal of Management, 39*(5), 1277-1307.
Van der Stede, W. A. (2011). Management Accounting Research in the Wake of the Crisis: Some Reflections. *European Accounting Review*, *20*(4), 605-623.
van Witteloostuijn, A. (1998). Bridging Behavioral and Economic Theories of Decline: Organizational Inertia, Strategic Competition, and Chronic Failure. *Management Science, 44*(4), 501-519.
Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly, 38*(4), 628-652.
Weick, K. E. (1995). *Sensemaking in Organizations*. Thousand Oaks, CA: SAGE Publications, Inc.
Weitzel, W., & Jonsson, E. (1991). Reversing the Downward Spiral: Lessons from W. T. Grant and Sears Roebuck. *The Executive, 5*(3), 7-22.
Wells, J. (2012, October 4, 2012). Fourth California city faces bankruptcy as municipal 'disease' spreads. *NBC News*. Retrieved from http://usnews.nbcnews.com/_news/2012/10/04/14218808-fourth-california-city-faces-bankruptcy-as-municipal-disease-spreads?lite
Whetten, D. A. (1987). Organizational Growth and Decline Processes. *Annual Review of Sociology, 13*, 335-358.
Wiseman, R. M., & Bromiley, P. (1991). Research Notes and Communications Risk-Return Associations: Paradox or Artifact? An Empirically Tested Explanation. *Strategic Management Journal, 12*(3), 231-241.
Yin, R. K. (2013). *Case Study Research: Design and Methods* (5th ed.). Thousand Oaks, CA: Sage Publications.
Zammuto, R. F. (1985). Managing Decline: Lessons from the U.S. Auto Industry. *Administration & Society, 17*(1), 71-95.
Zammuto, R. F. (1988). Organizational Adaptation: Some Implications of Organizational Ecology for Strategic Choice. *The Journal of Management Studies, 25*(2), 105-120.
Zammuto, R. F., & Cameron, K. S. (1982). Environmental Decline and Organizational Response. *Academy of Management Conference Proceedings*, 250-254.
Zammuto, R. F., & Cameron, K. S. (1985). Environmental decline and organizational response. *Research in Organizational Behavioural, 7*, 223-262.

Table 1 – Steps Used to Identify Research Sites

Step 1 – Identify possible organizations
– Review major and local newspapers for organizations that signal symptoms of decline. – Possible signals include: increasing competition, increasing supply, decreasing demand, decreasing market share, decreasing revenues, increasing costs, decreasing margins, decreasing cash flows, reductions in funding or other restricted resources (Cameron, Kim, et al., 1987; Cameron, Whetten, et al., 1987). – Retrenchment initiatives (e.g., layoffs, business unit/segment divestiture) can also signal decline but must be interpreted with caution since organizations that are performing well also use retrenchment (D'Aveni, 1989; Hoffi-Hofstetter & Mannheim, 1999). Decline must be involuntary and unintended (versus a strategic choice to downsize) (McKinley, et al., 2014).
Step 2 – Analyze financial situation
– Analyze key ratios and year-over-year changes to confirm the occurrence of organizational decline. – Possible measures include: o Profitability ratios such as ROA, ROE and ROI (decreasing or net loss); must be interpreted with caution since they can be manipulated by altering the denominator (e.g., asset retrenchment makes performance appear better) (Audia & Greve, 2006; Trahms, et al., 2013). o Revenue (Cameron, Kim, et al., 1987; Cameron, Whetten, et al., 1987) and net income normalized by GNP (Bruton, Oviatt, & White, 1994). o Market ratios such as decreases to EPS (Bolton, 1993) or unmet investor expectations (Morrow, Sirmon, Hitt, & Holcomb, 2007). o Liquidity ratios such as current ratio and working capital; must be interpreted with caution since they can be manipulated through asset retrenchment (Barker, Patterson, & Mueller, 2001). o Debt ratios such as unused borrowing capacity (equity/debt) (D'Aveni, 1989). – Measures should have a two year declining trend (Barker & Mone, 1994; Chen & Hambrick, 2012; McKinley, et al., 2014), and when the decline is longer lasting the years need not necessarily be consecutive (Wiseman & Bromiley, 1991). – Extent of decline shown in these measures also varies; ranging from absolute levels (i.e., loss), to a 5% decrease in one year or 20% decrease over three years.
Step 3 – Review other reports
– Review internal and external reports (e.g., quarterly/annual reports, MD&A) to understand the organization's circumstances and confirm recognition of decline. – Possible signals include: o Hiring transformation officers o Major restructuring initiatives; such as layoffs (ranging from 30-60% of employees) or other curtailments (e.g., divestitures of stores, business units/segments) o Discussion of other challenges and pressures
Step 4 – Confirm diagnosis via preliminary interview
– Arrange for a preliminary interview (by phone or face-to-face) to collect an executive's perceptions of their organization's performance and verify understanding attained in Steps 2 and 3 (similar approach used in other research; e.g., Hoffi-Hofstetter & Mannheim, 1999).

Table 2 – Interview & Observation Details

#	Job Position	Interview Date	Length (minutes)
HealthCo			
1	Chief Operating Officer (COO)	2/22/2013	60
2	Chief Financial Officer (CFO)	3/25/2013	80
(1)	COO	4/2/2013	75
3	Performance Management Director (PM Director)	4/26/2013	65
4	Program Director	5/17/2013	35
5	Program Director	5/28/2013	40
6	Program Director	6/10/2013	55
7	Board Director	6/13/2013	50
(1)	COO	7/16/2013	30
8	CEO, Regional Health Authority	7/30/2013	70
--	Observation: Self-Guided Tour of Facilities	N/A	N/A
AutoCo			
9	Financial Analyst (initially a Viability Consultant)	3/14/2013	45
10	Chief Executive Officer (CEO)	4/22/2013	60
--	Observation: Tour of Production Plant	4/22/2013	30
--	Observation: Daily Accountability Meeting	5/23/2013	50
11	Controller	5/23/2013	85
(9)	Financial Analyst	5/23/2013	45
MiningCo			
12	Finance Manager	7/11/2013	20
(12)	Finance Manager	8/9/2013	45
13	Production Manager	8/9/2013	40
--	Observation: Tour of Production Plant	8/9/2013	25
14	Accounting Manager	8/12/2013	25
15	Chief Executive Officer (CEO)	8/12/2013	35

AgriCo			
16	Strategic Business Unit Planning Manager (SBU Planning Manager)	6/15/2013	30
(16)	SBU Planning Manager	8/15/2013	45
17	Financial Planning and Analysis Manager (FP&A Manager)	8/15/2013	65
18	Finance Manager	8/15/2013	30
--	Observation: Tour of Headquarters	8/15/2013	15
19 20	Senior Vice President Operations (SVP Operations) Vice President Operations (VP Operations)	8/16/2013	60
(20)	VP Operations	8/16/2013	45
(16)	SBU Planning Manager	8/16/2013	60
MediaCo			
21	Chief Executive Officer (CEO)	6/5/2013	20
(21)	CEO	7/3/2013	75
22	Segment Vice President and Chief Financial Officer (Segment VP & CFO)	10/21/2013	55
23	Corporate Executive Vice President and Chief Financial Officer (Corporate EVP & CFO)	10/22/2013	45
RetailCo			
24	Senior Strategy Manager	6/5/2013	20
25	Vice President Operations (VP Operations)	4/21/2013	75
26	Vice President Communications (VP Communications)	6/19/2014	35
27 28	Vice President and Controller (VP & Controller) Vice President Financial Planning and Analysis (VP FP&A)	6/20/2014	55
--	Observation: Self-Guided Tour of Various Retail Formats	N/A	N/A

Note: Interview numbers in brackets indicate an interview held with a repeat participant.

Table 3 – Details of Research Sites

Organization[a]	Organization Type	Industry	Organization Size[b]
HealthCo	Public sector company	Healthcare Facilities	> $300 M revenue ~ 2,500 employees
AutoCo	Operating subsidiary of a public company listed on the Korea Exchange	Auto Parts and Equipment	> $100 M revenue ~ 500 employees
MiningCo	Operating subsidiary of a public company listed on the Swedish Exchange	Metal and Mineral Mining Machinery and Equipment	> $100 M revenue ~ 120 employees
AgriCo	Operating subsidiary of a public company listed on the New York Stock Exchange	Fertilizers and Agricultural Chemicals	> $3,000 M revenue ~ 3,500 employees
MediaCo	Public company listed on the Toronto Stock Exchange	Publishing	> $1,200 M revenue ~ 7,000 employees
RetailCo	Public company listed on the Toronto Stock Exchange	Department Stores	> $4,500 M revenue ~ 30,000 employees

Notes:

a. Confidentiality was promised to participating organizations. Pseudonyms have been used to disguise the organizations and where necessary other details have been generalized to minimize the risk of an organization being identified. Further, I do not reference cities or provinces but note that all of the research sites I obtained access to are located in Canada.

b. These are approximate figures before the onset of decline.

Table 4 – Evidence of Organizational Decline

HealthCo	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Surplus / (Deficit), As a % of Revenue* Growth over Prior Year	0%	(3%) 580%	(4%) 49%	(7%) 121%	(6%) (10%)	(2%) (73%)
Working Capital, As a % of Total Assets	7%	(14%)	(16%)	(14%)	(19%)	(20%)
Current Ratio	1.28	0.61	0.54	0.64	0.54	0.51
Cost / Weighted Case, Increase over Prior Year		9%	12%	12%	3%	(10%)
Note: Where indicated (*), the impact of one-time funding removed to show full extent of decline.						

AutoCo	**2002-07**	**2008**	**2009**	**2010**	**2011-13**
Revenue, As a % of 2007 Revenue Growth over Prior Year	100%	60% (40%)	45-50% (21%)	60% (26%)	85-90% 46%
Note: According to EBITDA, AutoCo was ranked in the bottom 10% of AutoParent's businesses.					

MiningCo	**2010-11**	**2012**	**2013**	**2014**
Revenue, As a % of 2011 Revenue Growth over Prior Year	100%	75% (25%)	60% (20%)	60% (0%)
Note: A respondent noted that while 2013 revenues were down 40%, the bottom line was actually off 60%.				

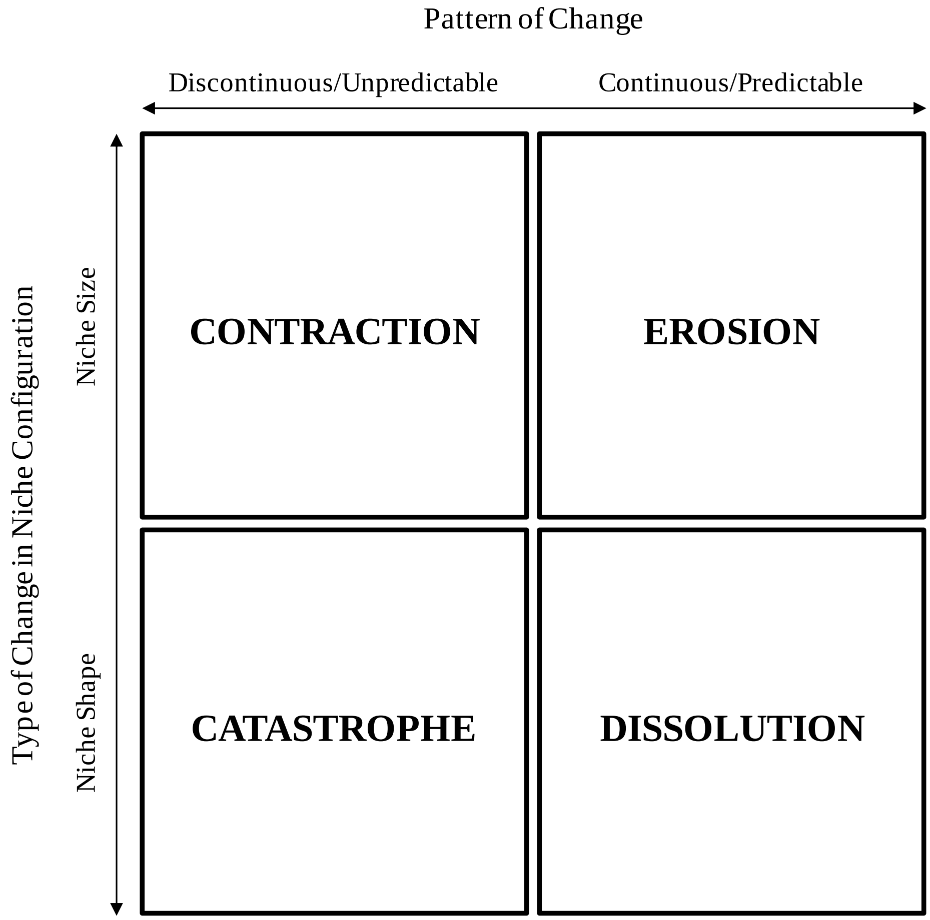
AgriCo	**2011**	**2012**	**2013**	**2014**
Total Revenue, As a % of 2011 Revenue Growth over Prior Year	100%	95% (5%)	67% (30%)	 (17%)
Gross Profit, As a % of Revenue Growth over Prior Year	46%	47% (2%)	27% (60%)	 (41%)
ResourceX Price, As a % of 2011 Price Increase over Prior Year	100% 34%	89% (11%)	70% (22%)	60% (14%)
Note: Though ResourceX benefited from a price increase in 2011, the price in 2009 was 300% of current price.				

MediaCo	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Total Revenue, As a % of 2008 Revenue Growth over Prior Year	100% (1%)	95% (5%)	97% 2%	101% 4 %	92% (9%)	85% (7%)
Net Income, As a % of Revenue Growth over Prior Year	(12%) (279%)	2% 120%	14% 490%	14% 4%	6% (62%)	(2%) (134%)
Return on Assets	(10%)	2%	13%	14%	6%	(2%)
Working Capital, As a % of Total Assets	12%	10%	8%	(3%)	10%	9%
Note: A decreasing trend in total assets disguises a more significant decreasing ROA trend.						

RetailCo	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Total Revenue, As a % of 2009 Revenue Growth over Prior Year	100% (2%)	91% (9%)	86% (5%)	81% (6%)	76% (6%)	70% (8%)
Gross Profit, As a % of Revenue Growth over Prior Year	48%	48% (9%)	39% (22%)	37% (13%)	37% (5%)	36% (10%)
Return on Assets	9%	7%	4%	(2%)	4%	18%
Working Capital, As a % of Total Assets	35%	33%	18%	17%	16%	24%
Same Store Sales Growth	(7%)	(4%)	(8%)	(6%)	(3%)	(7%)
Notes: A decreasing trend in total assets disguises a more significant decreasing ROA trend. Same-store sales is an industry-specific metric that removes store openings/closures so that sales growth (decreases) in existing stores is observed and not mistaken opening (closing) new stores.						

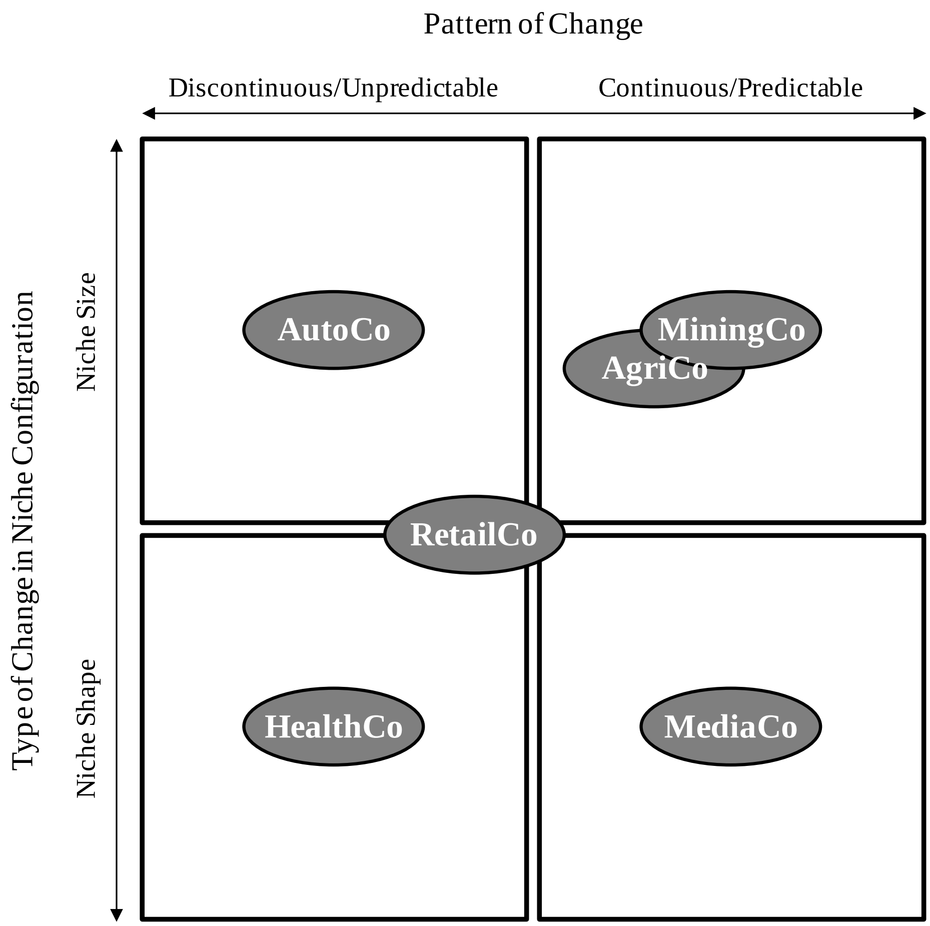
Note: The financial information presented is limited and at a high level of analysis to maintain the confidentiality of participating organizations. I include only an excerpt of the years and variables analyzed in order to provide evidence of decline. More extensive evidence is available by request.

Figure 1 – Zammuto and Cameron's Typology of Environmental Decline



Note: All quadrants in the typology refer to threats to survival and not ultimate outcomes. Hence, I use "catastrophe" in place of "collapse" from Zammuto and Cameron's theorizations. "Collapse" in accounting terms is taken as synonyms with bankruptcy and total failure when in fact the quadrant in Zammuto and Cameron's typology is intended to refer to significant organizational change ensuing from a discontinuous/unpredictable market shift.

Figure 2 – Research Sites located in the Typology of Environmental Decline



Appendix A – Key Terminology

Niche – A resource space defined by productive capacities and resource requirements within which a population of organizations produce similar products/services and compete with one another.

Carrying Capacity – The maximum number of organizations that an environmental niche can sustain; determined by the interaction between available resources, constraints and demand.

Niche Configuration Change – An environmental shift that impacts either the size or shape of the niche.

- **Niche Size** determines the level of performance supported in a niche.
- **Niche Shape** determines the type of performance supported in a niche.

Pattern of Environmental Change – The pattern of change in the external environment.

- **Discontinuous/Unpredictable Change** – Sudden change that deviates significantly from the past.
- **Continuous/Predictable Change** – Slow, gradual change that is consistent with past experience.

Types of Organizational Decline

- **Contraction** results from a discontinuous/unpredictable decrease in niche size.
- **Catastrophe** results from a discontinuous/unpredictable shift in niche shape.
- **Erosion** results from a continuous/predictable decrease in niche size.
- **Dissolution** results from a continuous/predictable shift in niche shape.

Perceptions – How organizational members become aware of decline impacts whether they define the resulting circumstances as an opportunity or a threat. Perceptions refer to both the level/speed of awareness and then how decline is defined.

Behavioural Tactics – Managers' predispositions and coping strategies depend first on awareness but also on whether predictable (unpredictable) onset permitted foresight (or not).

- **Reactive Tactics** refer to actions taken in response to contraction.
- **Experimentation Tactics** refer to trial-and-error actions in response to catastrophe.
- **Inactive Tactics** refer to a passive response (i.e., no action) to erosion.
- **Proactive Tactics** refer to actions taken to prepare for or in anticipation of dissolution.

Outcome Emphasis – Managers are expected to be focused either on efficiency (i.e., achieve more output with less input) when faced with decreasing niche size or effectiveness (i.e., responsive to consumer preferences) when faced with shifting niche shape.

Appendix B – Sample Interview Questions

Note: This is a list of sample interview questions. The interview script was customized according to the organization, interviewee's position, and information already collected.

Can you help me understand what you as a [job position] do at [organization]?
- How does your role fit into the accounting/finance function here?

How does the accounting/finance function work with your organization's decision makers?
- What values or criteria guide the decisions management/executives make?

What is your perception of how [organization] is doing?
- What does this mean for you, your department and the organization as a whole?

In thinking of your organization's recent performance, what changes or challenges have you noticed around the organization?
- Within your department? Within your own role?
- How has accounting been affected by [this change or challenge]?

Considering your organization's performance, how have you been able to understand what is going on?
- How have other organizational members helped you understand what is going on?

Can you reflect on a particular event or moment when you realized your organization's performance was changing drastically? Tell me about this.
- When/how did you/your organization notice? Could it have been avoided?

How has your organization's current state affected the nature of your work?

How do you think your work and your team's work influences decision makers here?
- How do you think others use the information you provide?

As your organization deals with these conditions, have you noticed any changes to:
- The types of tasks you are asked to perform?
- The level of detail you are asked to include in reports?
- The frequency you are asked to do certain tasks?

How has communication been affected by your organization's current state?
- Between different parties? Frequency, intensity, topic of focus?

Can you reflect on any recent occasions in which you were surprised by a request or a change in some of the internal reporting you do?

If circumstances are changing so quickly (or are so uncertain), how does management accounting meet your organization's needs?