The Effect of Discontinuous and Unpredictable Environmental Change on the Use of Management Accounting during Organizational Decline: A Field Study*

Christie Hayne

Pamplin College of Business, Virginia Tech
880 West Campus Drive, Blacksburg, VA 24060
Email: christie.hayne@vt.edu
Phone: 1.540.231.3181

March 2016

* I would like to sincerely thank Steven Salterio, Bertrand Malsch, Teri Shearer, Ranjani Krishnan, Todd Thornock, Michael Williamson, Kerry Humphreys, and Theresa Libby for their helpful guidance, comments and suggestions. This manuscript has also benefited from feedback received from workshops at Queen’s University, University of Ottawa, Ivey Business School, University of Saskatchewan, University of Calgary, London School of Economics, Virginia Tech, and Bocconi University. I gratefully acknowledge financial support received from the CPA Centre for Governance at Smith School of Business and the Social Sciences and Humanities Research Council.
The Effect of Discontinuous and Unpredictable Environmental Change on the Use of Management Accounting during Organizational Decline: A Field Study

Abstract

This paper investigates whether and how organizations use management accounting during decline. Based on interviews, observation, and extensive secondary documents from five private sector organizations and one in the public sector, I employ a theoretical lens distinguishing the continuity and predictability of environmental change. I find that members in organizations facing decline due to a discontinuous and unpredictable environmental change engage in a comprehensive review of their management accounting systems and reports to convince themselves that they can be relied upon. Following this process, they use accounting to understand the past, develop metrics intended to reach all employees, and institute various forms of accountability to support the management of decline. In contrast, members in organizations facing decline due to a continuous and predictable environmental change question the truth and value of their management accounting practices and, as a result, do not change their use of management accounting to manage decline.

Keywords: Management accounting; organizational decline; environmental change; discontinuous change; unpredictable change
I. INTRODUCTION

The purpose of this study is to investigate the role of management accounting in organizations experiencing decline. Organizational decline is characterized by a significant and long-lasting decrease in an organization’s resource base. In this study, I focus on organizations experiencing decline due to an external shift in their environment. Organizational members may perceive the environmental change they face as arising in a discontinuous and unpredictable way or unfolding in a continuous and relatively predictable way. In the theoretical lens I employ in this study, organizational members’ perceptions of how environmental change arises and leads to organizational decline (referred to as the pattern of change) determines an organization’s opportunities to recognize and respond to decline. Specifically, I investigate the research question of whether and how management accounting is leveraged by organizations to manage decline.

My focus on the role of management accounting in organizations experiencing decline is of importance to researchers and practitioners for two reasons. First, an increasing number of organizations are facing significant challenges as a result of intensifying competition and challenging economic times. A 2013 consulting report found 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 note that the 2008–2009 recession continues to impact the way business is conducted, highlighting the persistence of tighter cost controls as well as cautious borrowing and risk acceptance (The Gandalf Group 2013). Despite the concern regarding decline, little is known about whether and how organizations leverage management accounting to manage decline. Second, this study is important because management accounting is intended to be a valuable resource and tool for organizational members to collect, analyze and interpret information to support decision making (Macintosh 1994, Luft and Shields 2003)—a
function that may become more critical during decline.¹ However, 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. Researchers have been calling for attention to be redirected at decline and, in particular, the use of accounting during decline (Hopwood 2009, Van der Stede 2011, Bozeman 2010).²

Qualitative research is aptly suited to investigating whether and how organizations leverage management accounting to manage decline, allowing me to observe and understand the context within which organizational participants use information, make decisions, and elicit behavior (Myers 2009). I conduct 34 interviews in five private sector organizations and one public sector organization that have recently experienced or are currently experiencing decline. I employ a theoretical lens that distinguishes the continuity and predictability of environmental change, in which external shifts in the environment create the circumstances for organizational decline, to analyze the cases. 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 used during decline.

From this analysis, I find that organizations mobilize management accounting differently when their decline is perceived by members to be due to discontinuous and unpredictable environmental change than when the change is perceived as more predictable. Organizational members go through a process in which they carefully review and “clean” their accounting systems and reports to convince themselves that the information can be trusted and relied upon. Following from this process, members (1) use accounting to help them understand their past; (2)

¹ “Management accounting” refers to any accounting information used internally to manage the organization (defined fully in Section II). Throughout the manuscript, I use “management accounting” and “accounting” interchangeably.

² 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, 606) and thus call for research on decline.
develop digestible (i.e., accessible) metrics to assist and, ideally, ensure all employees understand and share the realities of decline; and (3) institute various relationships and mechanisms of accountability to support the management of decline. Despite the various challenges associated with discontinuous and unpredictable decline (e.g., no early warning signals, perceived threats to organizational survival, heightened feelings of uncertainty and time pressure) organizational members are motivated to revisit and revise their use of management accounting.

In contrast, I find that organizations do not actively mobilize management accounting during decline when it is perceived by members to be due to continuous and relatively predictable environmental change compared to those in less predictable environments. Organizational members who perceive this type of decline express significant concern for the “truth” and “value” of their management accounting systems and reports. Members of these organizations use management accounting tools during the ordinary course of business but do not adapt these tools or develop new tools to manage decline. Consistent with my theoretical lens, these organizations’ members become aware of decline more slowly and define the resulting circumstances as an opportunity to improve performance rather than a threat to organizational survival even as it eventually becomes increasingly threatening. Still, organizational members do not change their use of management accounting apparently due in part to its continuous and more routine nature.

II. CONTEXT AND THEORY DEVELOPMENT

Context of Organizational Decline and the Role of Accounting

Organizational decline refers to a “substantial, absolute decrease in an organization’s resource base [that] occurs over a specified period of time” (Cameron, Kim, and Whetten 1987, 224) and is not avoided, neutralized, or adapted to, putting organizational survival at risk (Weitzel and
Organizations experiencing decline face immense pressure (Trahms, Ndofor, and Sirmon 2013) and routinely implement employee termination measures or experience employee resignations as employees pursue safer employment (Gandolfi and Hansson 2011, Cameron, Whetten, and Kim 1987). This loss of key decision makers and valued employees results in a loss of organizational history, experience, and expertise (Weitzel and Jonsson 1991).

Organizational participants that remain face work overload and potential burnout in addition to the stress associated with employment uncertainty (Sweeney and Quirin 2009, Mishra and Spreitzer 1998). 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 (Selto and Widener 2004, Macintosh 1994).

There are a number of reasons why we might not expect an organization to manage decline, especially via management accounting. 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); be blinded by prior success (Moulton, Thomas, and Pruett 1996); or be unaware of declining performance due to organization size, complexity, or managerial cognition (Gopinath 2005, Whetten 1987). For any of these reasons, organizations may not feel compelled to mobilize management accounting. 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 to declining performance (Barker and Mone 1998, Rosenblatt and Sheaffer 2001). For any of these reasons, organizations might feel compelled but be unable to mobilize management accounting to respond to decline.

Alternatively, decline could also motivate organizational members’ efforts to stabilize
operations and restore profitability (McKinley 1993). Researchers have examined specific tactics used by organizations to manage decline and pursue turnaround. Possible strategies include retrenching assets, seeking operational efficiencies, reconsidering products/services, or revitalizing leadership and/or culture (see Schoenberg, Collier, and Bowman 2013 for a recent review). Though a substantial amount of research focuses on the effectiveness of specific management tactics, there is little within-firm research on how accounting is employed in organizations facing decline specifically.³ For this study, I define management accounting as “the information support system that… facilitates communication, motivation and performance evaluation” (Atkinson et al. 1997, 88).

There is, however, research examining the use of management accounting during situations that are similar to decline. For example, a crisis is defined as a “low-probability, high-impact event that threatens the viability of the organization” (Pearson and Clair 1998, 60).⁴ Researchers have shown that accounting information systems shape decision makers’ perceptions of a funding crisis and improve the rationality of their decision making (Ezzamel and Bourn 1990). They have further shown that budgeting practices shift under crisis from a relatively loose, informal and decentralized coordination focus to tight systems focused on formal planning and centralized goals (Colignon and Covaleski 1988, Czarniawska-Joerges 1988). More recently, Becker, Mahlendorf, Schäffer, and Thaten (2016) distributed a survey at three points during the 2007–2008 financial crisis and found that the planning and resource

³ External to the firm, researchers have examined the use of accounting information in related circumstances (e.g., bankruptcy predictions) (for recent reviews, see Hotchkiss et al. 2008, Ayotte, Hotchkiss, and Thorburn 2013).

⁴ Decline and crisis refer to ambiguous situations that threaten organizational survival; consequently, many researchers use the terms interchangeably (e.g., Rosenblatt and Sheaffer 2001, Lamberg and Pajunen 2005). When researchers do make a distinction, it is in “the speed with which the two phenomena occur and the amount of time decision makers have to respond” (McKinley, Latham, and Braun 2014, 90). Because I focus on the pattern of change and, in particular, discontinuous/unpredictable change, decline in my setting is related to crisis. However, definitions of crises do not refer to the enduring effects on performance that characterize decline, the focus of my study.
allocation functions of budgeting become more important during crisis while performance evaluation activities become less important. These studies, which identify changes to accounting in response to crisis, are relevant to decline because the researchers focus their analyses on the enduring nature of the performance decline resulting from crisis.

This collection of research highlights ways in which accounting changes during decline be it a move from loosely coupled to tightly controlled budgets or a greater emphasis on planning and resource allocation; however, they do not identify the conditions under which such management accounting tools are mobilized during decline, nor do they detail how management accounting is used to manage organizational decline specifically.

**The Pattern of Environmental Change**

As I discuss in the methods section, I arrived iteratively at the theoretical lens I adapt from Zammuto and Cameron (1982, 1985; Cameron & Zammuto, 1983) to analyze my research question. For ease of exposition, I introduce this theoretical lens here while acknowledging that this was not an ex ante theoretical decision but, rather, emerged from the interaction between a set of potential theoretical frameworks and my early observations in the field. Justification for this approach is found in the Research Methods section.

Focusing on environmental change, Zammuto and Cameron develop a typology that examines how two dimensions of environmental change can lead an organization into decline and why organizations experience and respond to decline differently. Drawing on one of these dimensions, the theoretical lens I employ distinguishes the “pattern of change”—that is, the way organizational members perceive environmental change to arise and lead to organizational decline—as either discontinuous and unpredictable or continuous and predictable (others who distinguish between discontinuous and continuous environmental change include, for example,
Weick and Quinn 1999, Romanelli and Tushman 1994, Meyer, Brooks, and Goes 1990, Eisner 2003). In this study, I focus on the behaviors expected of organizations as they relate to the pattern of change dimension highlighted in my analysis. I draw on other studies that emphasize the dichotomy of discontinuous/continuous change to validate and enrich this lens.

The pattern of change describes the onset of an organization’s decline, which determines the organization’s opportunities to recognize and respond to decline. Discontinuous and unpredictable change refers to a sudden change or unprecedented event that deviates significantly from the past whereas continuous and predictable change refers to a slow, gradual change that is consistent with past experience (Zammuto and Cameron 1985, Cameron and Zammuto 1983, Meyer 1982). Importantly, the difference between discontinuous and continuous change “reflects differences in the perspective of the observer” (Weick and Quinn 1999, 362); organizational members’ perceptions of the pattern of change impact their response behavior. When decline results from discontinuous and unpredictable change, it is not that the sum of the losses is greater than that found in continuous and predictable change but, rather, that the decline arises quickly and severely enough that managers perceive it this way.

**Expected Behaviors during (Dis)continuous and (Un)predictable Decline**

Depending on the pattern of change that leads an organization to face decline, a number of behaviors are expected from an organizations’ members. Discontinuous and unpredictable change, which disrupts organizations’ established activity patterns and understandings

---

5 Researchers use various labels for discontinuous and continuous change, for example, episodic versus incremental (Weick and Quinn 1999) and revolutionary versus evolutionary (Romanelli and Tushman 1994). I use the labels “(dis)continuous” and “(un)predictable” since they originate from Zammuto and Cameron’s typology, which initially guided my analysis.

6 The other dimension in the typology of environmental decline refers to the type of change faced by organizations competing in the same market (referred to as a “niche”). Since organizations competing in the same niche produce the same products/services, they are in competition with each other for the resources required to produce their product/service as well as to capture a significant portion of consumer demand (Hannan and Freeman 1977). This dimension (formally called “niche configuration”) is necessary to describe the strategic responses and other behaviors of organizations in decline, which is what Zammuto and Cameron intended their typology to explain; however, because this dimension does not highlight any differences in organizations’ use of management accounting during decline, I do not retain it in my theoretical lens or subsequent analysis.
(Romanelli and Tushman 1994), results in immediate awareness by organizational members. Decline in this case arises in a short period of time and, as a result of this rapid onset, is perceived as more significant to members, leading to clear awareness of their changed environment (Zammuto and Cameron 1982, Zammuto 1985). The discontinuous nature of change is shocking to organizational members. With no early warning signals—since the environmental change was neither gradual nor anticipated—members define the change and the resulting organizational decline as a threat (Zammuto and Cameron 1982). Here, threat refers to a negative situation in which members feel a loss of control and believe performance losses are likely (Chattopadhyay, Glick, and Huber 2001, Dutton and Jackson 1987). Furthermore, no predictability means that members are afforded fewer, if any, opportunities to anticipate change or take early action (Zammuto and Cameron 1982). 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 rely on behaviors and actions that are reactive and experimental in nature due to the speed of the required response (Zammuto and Cameron 1982, 1985).

Alternately, 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 members will become aware of their organizations’ decline more slowly (Zammuto and Cameron 1982). The gradual nature and ability to anticipate this type of change means organizational members will not feel any major shock. As a result, they are expected to define the environmental change and their organization’s resulting decline as an opportunity (Zammuto and Cameron 1982). Here, opportunity refers to a positive situation in which members feel in control and believe performance improvements are likely (Chattopadhyay et al. 2001, Dutton
Additionally, members are better able to cope when their organization’s circumstances are predictable. Organizational members can rely on past experiences and trends as a guide for decision making and action (Cameron and Zammuto 1983). Further, early warning signals enable members to potentially anticipate change; make contingency plans; and be proactive to minimize, delay, or avoid the effects of decline. If there is less awareness of decline, members will instead be inactive (Zammuto and Cameron 1982, 1985). Following this argument, some researchers suggest that organizations are able to adapt to change that is incremental and continuous in nature (Eisner 2003) while others suggest that the continuous pattern of change fails to “break the grip of strong inertia” (Romanelli and Tushman 1994, 1143).

Whether organizational members perceive decline as a threat or an opportunity is important since managers’ interpretations of environmental change have a key influence on their actions (Thomas, Clark, and Gioia 1993, Dutton 1993). Research shows that threats result in poor decision making due to the limiting effects of threat-rigidity (Staw, Sandelands, and Dutton 1981), especially during organizational decline (McKinley et al. 2014, Mone, McKinley, and Barker 1998). When organizations face a threat such as decline, the threat-rigidity thesis suggests that organizations will experience increased centralization, reduced information processing, and conservation of resources. 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 the 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). These effects lead to rigidity such that organizational members rely on learned routines and past behaviors (Staw et al. 1981).
In summary, the interactions among organizational members’ awareness, perceptions and definitions, and response behaviours are expected to vary according to the pattern of environmental change perceived by an organization’s members. Accordingly, I expect the pattern of change to illuminate differences in the use of management accounting. In particular, immediate and clear awareness is important to triggering a response to decline, so I expect it to influence whether and how organizational members use accounting to manage decline. Likewise, I expect the consequences of threat-rigidity to extend to whether organizations mobilize accounting during decline. Finally, I expect whether members are able to predict environmental change (or not) and behave proactively (reactively) to influence how they use accounting (e.g., planning versus monitoring) as well as the focus of the metrics they choose to rely on.

III. RESEARCH METHODS

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

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 for 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.\textsuperscript{7,8} I intentionally do not include

\textsuperscript{7} I conducted a pilot study in one organization to ensure that my methods were appropriate, organizational access was possible, and data were amenable to analysis. This organization is included in my final set of six organizations.

\textsuperscript{8} Two recruited organizations (AutoCo and MiningCo) are organizations that I or personal contacts were familiar with. They were referred to me because they were currently facing or had 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
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 objectives, and, hence, their managers’ use of accounting is likely to differ from that of managers of organizations in decline that are pursuing turnaround. I also avoid relatively new or small organizations because of their higher propensity to fail as discussed in research on the “liability of newness” and the “liability of smallness” (Baum and Shipilov 2006). Following prior research on these concerns (D’Aveni 1989), my sites are at least nine years old and have revenues greater than $100 million (prior to the onset of decline).

INSERT TABLE 1 HERE

These six organizations were not selected in pursuit of generalizability but, instead, to include replication within my research design. Yin (2013) distinguishes “sampling logic,” where the aim is to select a sample that will represent a larger universe, from “replication logic,” where the aim is congruence (i.e., to confirm expected findings) across multiple case studies (see Yin 2013 pp. 57-59 for a discussion of sampling versus replication logic). In this study, I follow replication logic to increase validity and make my findings more robust.

Interviews

I complete 34 interviews between April 2013 and June 2014. Within each organization, I target 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.

Several dozen organizations were contacted to see if they met the criteria for decline that would have led, if eligible, to an invitation to participate in the project. Numerous organizations that met the criteria declined to participate citing concerns of the time that would be required or that key executives would not be interested. This leads to selection bias concern. To dispel this concern, I offer two rejoinders. First, it seems as though organizations were not motivated to participate (or decline) based on their use of accounting (or lack thereof) since three organizations in this study mobilized accounting during decline while three others did not. Second, before inviting organizations to participate, I carefully screened each organization to ensure it met my definitions and criteria for decline (see Table 1). Not only did I exclude organizations during this initial screening process but I also declined to conduct fieldwork in some organizations that agreed to participate (i.e., when a preliminary interview highlighted that the organization was not a suitable research site). In sum, my primary focus while determining research sites was to maximize my variable of interest—an organization’s experience with decline—in order to learn whether and how organizations use accounting during these circumstances.
key executives including accountants. I also follow up on specific suggestions made by interviewees regarding others 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 interview details). Nearly all of the interviews are conducted face to face and are recorded to allow for accurate and comprehensive transcriptions.\textsuperscript{10} I personally transcribe each interview and review it multiple times during my analysis. Each transcript is sent to the interviewee to make corrections and provide clarifications.

\textbf{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 their organization’s challenges, their use of accounting in their positions, and what information helps them understand or manage decline. I let the interviewees talk openly and at length. I use prompting questions to refocus interviewees by pointing to a challenge they previously identified and asking him or her to talk about how accounting informed the issue.

In each organization, I terminate interviews at the point of saturation (Eisenhardt 1989, Malsch and Salterio 2015)—that is, when respondents provide no new information that informs my understanding of the use of management accounting during organizational decline. This resulted in a greater number of interviews conducted in HealthCo to ensure I had principled

\textsuperscript{10} For two interviewees who decided not to be taped (and in four instances in which 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 to confirm my note-taking.
reasons for determining when saturation was reached. At subsequent research sites, respondents’
descriptions of their use of management accounting (or lack thereof) converged after only a
small number of interviews from carefully selected participants.

**Theory Development and Data Analysis**

Ahead of entering the field to collect data, I develop 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.
Iteratively, I focus 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 lead me to focus on a
theoretical lens based on the pattern of environmental change (introduced in Section II), which I
employ to guide my analysis and frame my results.

I follow Ahrens and Chapman’s (2006, 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 NVivo to code the interview transcripts to facilitate the
sorting and extraction of data. I use theory to illuminate and discipline my observations and to
help me organize and understand my data (Ahrens and 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 and Chapman 2006). Once the majority of
interviews are complete for a single research site, I integrate interviews with secondary data
sources to compose a case study of each organization.

Upon completing 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. I employ within-case analysis to understand each organization’s experience with and response to decline, whereas cross-case analysis helps me understand the similarities and differences in the use of management accounting and enhances the credibility of my findings (Lillis and Mundy 2005, Eisenhardt 1989). My aim is to isolate instances in which 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 my theoretical lens and retain and explore ideas when they are supported. I remain alert to anomalous data and their 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).11

Introduction to Case Sites and Pattern of Change Classification

In this section, I introduce each organization, the various challenges they faced leading to perceived decline, and their classification of facing either discontinuous/unpredictable or continuous/predictable environmental change. Table 3 provides high-level descriptive data (consistent with protecting each organization’s anonymity) for each organization and Table 4 summarizes the evidence supporting the contention that each organization was in decline.

INSERT TABLES 3 & 4 HERE

---

11 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.
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 11 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 labor 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 as well as additional challenges. First, because two of the “Big Three” North American automobile manufacturers were in bankruptcy protection, the number of orders AutoCo was accustomed 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 constant balancing act between AutoCo’s suppliers 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.

AutoCo’s decline was due to environmental change perceived by organizational members
as discontinuous and unpredictable. 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 in 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, 22), which led AutoCo to face performance challenges beyond those predicted and discontinuous compared to ordinary cycles in the industry.

**HealthCo**

HealthCo is a public sector organization operating in the healthcare facilities service industry (i.e., hospital).¹² 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 sites in its respective catchment area. HealthCo is a research and teaching hospital affiliated with a medical school 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.

---

¹² There are two key differences in this public sector case study compared to the other cases in this research. First, performance objectives are different. Instead of profits, delivering quality patient care is the primary objective, though it is still very important for hospitals to monitor their finances and achieve a balanced budget. Second, unlike for-profit organizations, which aim to grow revenues, HealthCo is a publicly-funded institution with limited opportunities to seek funding increases or access alternative revenue sources.
and accumulated years of drawing on the capital budget to fund operations. In the mid-2000s, the government began enforcing accountability agreements including balanced budgets. By then, HealthCo faced assets in disrepair, fully drawn credit facilities, declining performance indicators, and growing deficits. Compared to its peer hospitals, HealthCo believed that it had higher costs for various reasons (e.g., old infrastructure, older than average population; diagnosis-related groups are used to establish standard cost-based reimbursements not adjusted for factors such as age) 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 majority of the leadership team including the president.

HealthCo’s decline was due to environmental change perceived by organizational members as discontinuous and unpredictable. The government made a sudden change to begin enforcing accountability agreements with hospitals rather than continue to permit deficit spending (HealthCo had previously been able to secure funding increases as high as 19 percent 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 required to immediately eliminate their intended budget deficit and begin to restore significant dollars that had been diverted from the capital budget to fund operations.

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 (still connected to retail). 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 until 2007/08.

A number of challenges led to RetailCo’s decline. A large number of international competitors entered the Canadian retail landscape—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 either have committed to or are seriously considering entering the Canadian market. Additionally, 2008 and 2009 in particular were years of 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.

RetailCo’s decline was due to environmental change perceived by members as 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. First, the transition from in-store to online sales has not remained gradual (e.g., total retail sales in Canada increased 2.9 percent

---

13 It might seem that, with such varied revenue lines, diverse store types, and wide range of products/services, RetailCo should benefit from cross-subsidization in which 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, so all of RetailCo is facing decline.
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 the 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.

**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, which operates a production plant belonging to one of MiningParent’s business units. MiningCo manufactures and markets tools 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 ranked the top exploration country since 2002) (SNL 2013, 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.

MiningCo’s decline was due to environmental change perceived by organizational members as continuous and predictable. 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 in the purchase of MiningCo’s tools lag behind changes to exploration activity. Speaking of the market intelligence accessible to MiningCo, 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, 2014), members at MiningCo described the decrease as a trend they had been following and which did not surprise them.

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. In commodity markets, intense competition usually 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 (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 that 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 that 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 previously dominated by three producers but also because AgriCo’s particular geographic region has not faced the entry of any new mines in nearly 40 years. Additionally, 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.

AgriCo’s decline was due to environmental change perceived by members as continuous and predictable. 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).

**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 (on which media businesses are highly dependent) 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.

MediaCo’s decline was due to environmental change perceived as continuous and predictable. 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, and Mitchell 2013). Further, book publishing revenues shifted from print to digital by five percent per year from 2008 through 2013 (CEO 21).

IV. ANALYSIS

It was a common theme for executives of all organizations regardless of the pattern of change they faced to indicate that, during the “good years”, they had not paid as much attention to their systems and uses of accounting. One respondent typified this theme: “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 stated, “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)

Discontinuous and Unpredictable Environmental Change

As indicated in the case introductions in Section III, AutoCo, HealthCo, and RetailCo all face decline due to a discontinuous and unpredictable change in their environment, as perceived by their members. Consistent with this classification, the events that led to AutoCo’s and HealthCo’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 confirm 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 in Section III, 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). I discuss these three organizations’ use of accounting during decline in the next section.

**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 reactively 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 could 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). Hence, with the onset of decline, 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 were tying into reports correctly. For example, the CEO described “deep diving” into labor; it was “a whole lot of tinkering and adjusting, insanity [i.e, intensive, “painful” analytical work] 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 reacquiring 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 respondents 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, which a respondent referred to as “cleansing of the data” (Program Director 4). First, they consolidated the number of cost centres and then hosted meetings in which they educated managers to ensure accurate cost assignment. Second, the performance management team met with one director at a time to review existing spending habits aiming to cut 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 employed at HealthCo resulted in the introduction of new performance metrics, which are distributed regularly across the organization. The process was facilitated by pairing each director with a financial analyst to support new accounting requirements; establishing a performance management team to perform the analytical work; and bringing in peers from other hospitals as well as a consulting firm for additional expertise. These were important structures enabling an organization facing unfamiliar circumstances to engage in experimental behavior while having experts in place to ensure nothing too extreme is attempted.
RetailCo executives also questioned the value of their accounting systems prior to decline. All agreed that “this corporation has never lacked reports..., [but] we have a lot of reports that lack insights”, 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 reviewed the volume and content of reports. The VP Financial Planning and Analysis (FP&A), reflecting on this review, described a cursory process that was “based on more of a high-level view”. The VP and Controller elaborated on an outcome of the process:

“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 cleansing that RetailCo executives described suggests that use of the process 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 that 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 easy-to-understand, digestible indicators; and implemented organization-wide accountability. I describe these uses in the sections that follow.

**Using Accounting to Make Sense of the Past**

The first characteristic common to organizations in decline perceived by members to be due to
discontinuous and unpredictable change is executives’ use of 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’s income statements for another subsidiary of AutoParent located in Mexico. He intentionally selected a subsidiary that manufactures the same auto part as AutoCo but 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 their 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) with respect to performance.

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 at a deficit reaching seven percent of revenues. 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 too much to be able to reference prior performance years as a tool to understand RetailCo’s decline. To garner similar information of how RetailCo should be performing, executives 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 1995, 1993). 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 to make sense of their present circumstances. By redefining their understandings and perceptions, organizational members are
able to reduce feelings of threat and begin to attempt recovery (Gioia and Chittipeddi 1991).

**Creating Digestible Indicators that are Easy to Understand**

The second commonality—arising from feelings of perceived threat, imminent risk of failure, and the immediacy of a required response—is that executives 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 clearly communicates the realities of decline.

At AutoCo, executives created unique measures to communicate to employees the role they hold in the organization’s poor performance and to persuade them of the need for change. Leading up to and during AutoCo’s decline, executives felt that a significant amount of labor was lost production time. Upon further investigation, executives uncovered that they “had paid 27 people effectively to do nothing” (Financial Analyst 9) in the prior week. Instead of relying on traditional metrics, executives found a more effective way to emphasize their concern for labor efficiency to employees: “Let’s rope off an area, let’s put 27 people in it, [and] 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). These types of metrics were referred to 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 behavior. Executives felt these metrics were the best way to use accounting principles with frontline employees, because they were easy to understand and clearly communicated AutoCo’s decline.

HealthCo adopted a similar strategy by drawing connections to things employees know and understand from their everyday lives. To explain to employees the financial difficulties
HealthCo was facing, 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). 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 promptly. 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 connect to an idea personally (e.g., thinking of budgeting in terms of personal spending), they were more likely to understand it.

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 (e.g., average selling price, basket size, gross profit return on inventory, which differ from other retailers that rely on sales per square foot) indicators. Executives explained that basing metrics on sales per square foot—the most commonly used metric by retailers—did not have the
necessary intuitive appeal for use with employees and prevented them from fully understanding RetailCo’s decline. The VP and Controller reflected on the changes to RetailCo’s use of 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 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 indicators were implemented to help executives become aware of performance problems earlier than financial results would allow.

Faced with discontinuous and unpredictable onset of decline, the digestible metrics implemented at AutoCo, HealthCo, and RetailCo helped establish a clear understanding of the challenges faced and need for cautious behavior—not just by accountants but by employees across the organizations. Recall that organizational members are expected to define discontinuous change as a threat (Zammuto and Cameron 1982) and also to feel a loss of control and believe further performance losses are likely (Chattopadhyay et al. 2001). In such circumstances, fast ways to communicate key ideas to members reduce the shock and uncertainty associated with discontinuous change, thereby reducing perceptions of threat. Vivid indicators like the ones described help make the realities of decline clear and, as one respondent said pointedly, “put it in a way that people can digest” (AutoCo, CEO 10), thereby restoring organizational members’ sense of control.

**Implementing Organization-wide Accountability**

The third characteristic common to organizations facing change perceived as discontinuous and unpredictable is the heightened level of accountability instituted to manage the resulting 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 in which 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; otherwise, there was no way to 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 to ensure that everyone knew AutoCo’s prior day and week-to-date performance and, thus, would be able to invoke accountability, which became important to ensuring spending did not exceed the budget, production was efficient, and 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 as a key element in the management of AutoCo’s decline.

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 included more parties in the process: executives, doctors, nurses, employees, government, and 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 performance targets were met. And, indeed, with this increase in information sharing, employees right down to the front lines held the executive team accountable. The COO described:

> When we go and talk to the staff around the hospital—even the [union] departments, etc.—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, both of which were initiated to support HealthCo’s cleansing process, helped ensure the necessary knowledge was in place so that it would be fair to hold directors accountable. In addition, HealthCo introduced new performance metrics for invoking accountability and performance agreements to hold organizational members accountable. With no link to a bonus of any kind, the agreements with managers were instituted to ensure targets were met whereas the agreements instituted with non-managers were focused on refining processes and learning new skills and capabilities.

Consistent with the emergent 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 explained:

> This forges the team, where people not only feel pride in what they accomplish but 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.... Someone needs to be there that establishes the 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. (RetailCo, VP Operations 25)

On the other hand, this use of accountability was not familiar to other respondents who instead
highlighted other ways they felt accountability had changed to support the management of
decline. For example, category teams meet weekly to present progress and results to key
executives (VP FP&A 28). The CEO also 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). That there appeared to be neither a consistent approach nor buy-in across
RetailCo suggests again that the adoption of accountability may be in an earlier stage.

Recall that the theoretical lens I employ expects organizational members to define
discontinuous and unpredictable change as a threat and, therefore, to conserve resources
(including increased accountability pressure) (Staw et al. 1981). Though the threat-rigidity thesis
suggests accountability pressures will focus on a concern for efficiency, respondents 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, respondents felt that the varied operationalizations of accountability were
critical to the management of decline by ensuring resources are spent wisely and members follow
through on intended plans. This observation counters the reduced information processing and
increased centralization expected in threat-rigidity; instead, I observe greater sharing of
information and control. When organizations face discontinuous change, greater sharing of
information and control permits prudent oversight at a time when members are challenged by an
inability to plan and, consequently, must behave reactively and experimentally.

**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 experimental actions. In fact, all of the mobilizations of accounting were deployed in reaction to decline, and many exhibit experimental qualities. Respondents appeared to define the jolting change as a threat and, as a result, were focused on the gravity of their organization’s situation, spoke with concern, and demonstrated a need to manoeuvre 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 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. Organizational members used accounting to make sense of the past, developed digestible metrics intended to reach employees at all levels, and instituted various relationships and mechanisms of accountability to support engagement with and monitoring of decline. 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 prevents

---

14 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.
members from relying exclusively on past experience and affords little time to plan a careful response—and management accounting enabled them to do so. Respondents at HealthCo and AutoCo in particular felt that the changes to and mobilization of various management accounting tools and practices were critical to the management of decline.

**Continuous and Predictable Environmental Change**

As indicated in the case introductions in Section III, MiningCo, AgriCo, and MediaCo all face decline due to a continuous and predictable change in their environment, as perceived by their members. Consistent with this classification, MiningCo, AgriCo, and MediaCo members appeared to be less aware of their decline. I emphasize “less” awareness because respondents did highlight significant performance challenges when they described their organizations’ circumstances. Respondents at these organizations exhibited no significant concerns or heightened emotions with regard to decline but instead put forth a “business as usual” feeling.

For example, 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). In alignment with the expectation that continuous and predictable change is defined as an opportunity, MediaCo respondents, in particular, made frequent references to this effect. For example, 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.” Many comments, from MiningCo and AgriCo in particular, reflected the inactive behavior expected in
the theoretical lens I employ, which translated to these organizations’ inactive use of accounting.\textsuperscript{15}

Unlike organizations that face change perceived as discontinuous and unpredictable, members of organizations facing change perceived as continuous and predictable do 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.

\textit{Organizations facing Continuous and Predictable Change do not Mobilize Accounting}

Facing change perceived as continuous and predictable, the theoretical lens I employ expects organizational members to be inactive due to less awareness. Following this expectation, respondents at MiningCo and AgriCo 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 common 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).\textsuperscript{16}

Respondents at MediaCo also contend their use of accounting has not changed. They described a range of decisions (e.g., location of free publications) driven by considerations of

\textsuperscript{15} Reflecting the predictability aspect of continuous change, respondents described instances in which proactive strategies were used (especially at MediaCo), but because they do not implicate these organizations’ use of accounting, I do not include them.\textsuperscript{16} 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, 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).
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 was not 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).

**Questioning the Truth and Value of Accounting**

A common theme across interviews with respondents at MiningCo, AgriCo, 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—key 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”. Similar to 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 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 those displayed in AutoCo’s “Accountability Room”.\footnote{This observation aligns with an expectation in Zammuto and Cameron’s typology not previously described in which organizational members facing decreasing niche size (see also footnote 5) are expected to focus on efficiency over effectiveness.} Compared to AutoCo, the extent of adoption and actual use of these scoreboards was limited at MiningCo and AgriCo. They were not featured in high traffic areas, updated as frequently or used on a regular basis, or connected to accountability pressures. At MiningCo, the scoreboards had such limited impact that only one respondent mentioned them incidentally. The fact that MiningCo and AgriCo 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:

\textit{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 concerns prevented him from relying on accounting. This hesitancy 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 behavior expected in the theoretical lens. All respondents suggested that 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). However, they assured me that this had always been the case.

**Summary**

Compared to organizations facing a discontinuous and unpredictable change, decline for these organizations was perceived as arising gradually and predictably. Owing to their perception of the change as continuous in nature, respondents at MiningCo, AgriCo, and MediaCo were more positive in accounts of their organizations’ circumstances. Members defined decline as an opportunity and made references suggesting they felt in control and believed performance improvements were likely. I show that these organizational members questioned the truth and value of their management accounting practices and that, as a result, they were not driven to mobilize them to manage decline. These organizations’ non-reliance on accounting cannot be explained by a lack of awareness of decline, because respondents themselves highlighted the realities of decline early in their cataloguing of challenges faced by their organization.

**V. DISCUSSION AND CONCLUSION**

I carried out a cross-sectional field study that examined six organizations facing decline due to environmental change. Faced with change perceived as discontinuous and unpredictable, AutoCo and HealthCo actively mobilized management accounting to manage decline. RetailCo, faced with continuous and predictable change in early years—after which the pattern of change

---

18 The Corporate EVP and CFO expressed, “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).
became discontinuous and unpredictable—demonstrated a move towards mobilizing accounting in recent years. In contrast, faced with change perceived as continuous and predictable, MiningCo, AgriCo, and MediaCo did not mobilize management accounting to manage decline.

Using a theoretical lens that distinguishes the pattern of environmental change to analyze my six organizations, I offer a theory-based explanation for why some organizations mobilize accounting during decline while others do not. Organizations mobilized management accounting when their decline was perceived to be due to discontinuous and unpredictable change. They 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 actively mobilized accounting as part of their attempt to manage decline. Management accounting information was not only improved through the cleansing process but also refocused on information that would be meaningful and useful to organizational members. In contrast, organizations in decline due to continuous and predictable environmental change, as perceived by their members, had serious concerns about the truth and value of their management accounting practices. As a result, these organizations made limited or no changes to their use of management accounting. Though it would seem possible that the gradual onset of decline was imperceptible to members and that this explains why they did not actively use accounting, respondents not only readily acknowledged the significant challenges faced by their organizations but also clearly pointed to their disbelief in the truth and value of accounting to support decision making during decline.

Among the organizations that mobilized accounting during decline, I identify three common uses of accounting that respondents described as helpful ways to manage decline. Consistent with being motivated by perceptions of threat and more tenuous existence of these
organizations, members reacted by (1) using accounting to help them understand precisely how and where performance declined, (2) adopting or creating “digestible” measures to ensure that all employees clearly understood the realities of decline, and (3) implementing accountability across the organization to support careful engagement with and monitoring of decline. These uses of accounting relate to Burchell, Clubb, Hopwood, Hughes, and Nahapiet’s (1980) early theorizations on the function of accounting when objectives are certain (i.e., to recover) but the cause and effect of actions remain uncertain (i.e., how to recover). The authors suggest that, as a decision support system, the role of accounting is either a “learning machine” to conduct ad hoc analyses and what-if models or an “answer machine” to impose rationality and feelings of certainty. For the organizations that mobilized accounting in my study, the observed role of accounting generally aligns with Burchell et al.’s theorizations.

These research findings imply that, when decline is discontinuous, the shock 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 favorable given the tight timelines and limited resources 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 and 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 increased centralization, reduced information processing, and conservation of resources, which leads to rigidity such that organizations rely on learned routines and past behaviors (Staw et al. 1981). The theoretical lens I employ indicates that 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, improved their processing and use of information as well as their sharing of control. By using accounting to understand their organization’s past, members learned that their past behaviors 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 members are able to minimize or avoid rigidity.

This study is subject to two limitations that provide a basis for future research. 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. Another limitation is that I include organizations in various stages of decline. This means that members of organizations that do not mobilize management accounting might not yet realize, like RetailCo, that their organization’s decline requires careful management through the use of accounting. Accordingly, continuing to engage in understanding how accounting is used to prevent, detect and manage decline is fruitful given these limitations as well as the operational and accounting differences between similar organizations and potential differences across industries. Researchers could also explore further the identified uses of accounting—namely, how organizations make sense with accounting, through what other mediums employees might better digest accounting, and how accountability helps an organization manage decline.

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 and 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 the environmental change that led to organizational decline.
References


### Table 1 – Steps used to identify research sites

<table>
<thead>
<tr>
<th>Step 1 – Identify possible organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Review major and local newspapers for organizations that signal symptoms of decline.</td>
</tr>
<tr>
<td>- 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).</td>
</tr>
<tr>
<td>- 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 and Mannheim 1999). Decline must be involuntary and unintended (versus a strategic choice to downsize) (McKinley et al. 2014).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 2 – Analyze financial situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Analyze key ratios and year-over-year changes to confirm the occurrence of organizational decline.</td>
</tr>
<tr>
<td>- Possible measures include:</td>
</tr>
<tr>
<td>- 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) (Trahms et al. 2013, Audia and Greve 2006).</td>
</tr>
<tr>
<td>- Market ratios such as decreases to EPS (Bolton 1993) or unmet investor expectations (Morrow et al. 2007).</td>
</tr>
<tr>
<td>- Liquidity ratios such as current ratio and working capital must be interpreted with caution since they can be manipulated through asset retrenchment (Barker, Patterson, and Mueller 2001).</td>
</tr>
<tr>
<td>- Debt ratios such as unused borrowing capacity (equity/debt) (D’Aveni 1989).</td>
</tr>
<tr>
<td>- Measures should have a two-year declining trend (Barker and Mone 1994, Chen and Hambrick 2012, McKinley et al. 2014), and when the decline is longer lasting, the years need not necessarily be consecutive (Wiseman and Bromiley 1991).</td>
</tr>
<tr>
<td>- 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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 3 – Review other reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Review internal and external reports (e.g., quarterly/annual reports, MD&amp;A) to understand the organization’s circumstances and confirm recognition of decline.</td>
</tr>
<tr>
<td>- Possible signals include:</td>
</tr>
<tr>
<td>- Hiring transformation officers</td>
</tr>
<tr>
<td>- Major restructuring initiatives such as layoffs (ranging from 30 to 60% of employees) or other curtailments (e.g., divestitures of stores, business units/segments)</td>
</tr>
<tr>
<td>- Discussion of other challenges and pressures</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 4 – Confirm diagnosis via preliminary interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Arrange for a preliminary interview (by phone or face to face) to collect an executive’s perceptions of his or her organization’s performance and verify understanding attained in Steps 2 and 3 (similar approach used in other research; e.g., Hoffi-Hofstetter and Mannheim 1999).</td>
</tr>
</tbody>
</table>
Table 2 – Interview and observation details

<table>
<thead>
<tr>
<th>#</th>
<th>Job position</th>
<th>Date</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chief Operating Officer (COO)</td>
<td>2/22/2013</td>
<td>60 min.</td>
</tr>
<tr>
<td>2</td>
<td>Chief Financial Officer (CFO)</td>
<td>3/25/2013</td>
<td>80</td>
</tr>
<tr>
<td>(1)</td>
<td>COO</td>
<td>4/2/2013</td>
<td>75</td>
</tr>
<tr>
<td>3</td>
<td>Performance Management Director (PM Director)</td>
<td>4/26/2013</td>
<td>65</td>
</tr>
<tr>
<td>4</td>
<td>Program Director</td>
<td>5/17/2013</td>
<td>35</td>
</tr>
<tr>
<td>5</td>
<td>Program Director</td>
<td>5/28/2013</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>Program Director</td>
<td>6/10/2013</td>
<td>55</td>
</tr>
<tr>
<td>7</td>
<td>Board Director</td>
<td>6/13/2013</td>
<td>50</td>
</tr>
<tr>
<td>(1)</td>
<td>COO</td>
<td>7/16/2013</td>
<td>30</td>
</tr>
<tr>
<td>8</td>
<td>CEO, Regional Health Authority</td>
<td>7/30/2013</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Observation: Self-Guided Tour of Facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Financial Analyst (initially a Viability Consultant)</td>
<td>3/14/2013</td>
<td>45</td>
</tr>
<tr>
<td>10</td>
<td>Chief Executive Officer (CEO)</td>
<td>4/22/2013</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Observation: Tour of Production Plant</td>
<td>4/22/2013</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Observation: Daily Accountability Meeting</td>
<td>5/23/2013</td>
<td>50</td>
</tr>
<tr>
<td>11</td>
<td>Controller</td>
<td>5/23/2013</td>
<td>85</td>
</tr>
<tr>
<td>(9)</td>
<td>Financial Analyst</td>
<td>5/23/2013</td>
<td>45</td>
</tr>
<tr>
<td>12</td>
<td>Finance Manager</td>
<td>7/11/2013</td>
<td>20</td>
</tr>
<tr>
<td>(12)</td>
<td>Finance Manager</td>
<td>8/9/2013</td>
<td>45</td>
</tr>
<tr>
<td>13</td>
<td>Production Manager</td>
<td>8/9/2013</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Observation: Tour of Production Plant</td>
<td>8/9/2013</td>
<td>25</td>
</tr>
<tr>
<td>14</td>
<td>Accounting Manager</td>
<td>8/12/2013</td>
<td>25</td>
</tr>
<tr>
<td>15</td>
<td>Chief Executive Officer (CEO)</td>
<td>8/12/2013</td>
<td>35</td>
</tr>
<tr>
<td>16</td>
<td>Strategic Business Unit Planning Manager (SBU Planning Manager)</td>
<td>6/15/2013</td>
<td>30</td>
</tr>
<tr>
<td>(16)</td>
<td>SBU Planning Manager</td>
<td>8/15/2013</td>
<td>45</td>
</tr>
<tr>
<td>17</td>
<td>Financial Planning and Analysis Manager (FP&amp;A Manager)</td>
<td>8/15/2013</td>
<td>65</td>
</tr>
<tr>
<td>18</td>
<td>Finance Manager</td>
<td>8/15/2013</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Observation: Tour of Headquarters</td>
<td>8/15/2013</td>
<td>15</td>
</tr>
<tr>
<td>19</td>
<td>Senior Vice President Operations (SVP Operations)</td>
<td>8/16/2013</td>
<td>60</td>
</tr>
<tr>
<td>20</td>
<td>Vice President Operations (VP Operations)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(20)</td>
<td>VP Operations</td>
<td>8/16/2013</td>
<td>45</td>
</tr>
<tr>
<td>21</td>
<td>Chief Executive Officer (CEO)</td>
<td>6/5/2013</td>
<td>20</td>
</tr>
<tr>
<td>(21)</td>
<td>CEO</td>
<td>7/3/2013</td>
<td>75</td>
</tr>
<tr>
<td>22</td>
<td>Segment Vice President and Chief Financial Officer (Segment VP &amp; CFO)</td>
<td>10/21/2013</td>
<td>55</td>
</tr>
<tr>
<td>23</td>
<td>Corporate Executive Vice President and Chief Financial Officer (Corporate EVP &amp; CFO)</td>
<td>10/22/2013</td>
<td>45</td>
</tr>
<tr>
<td>(20)</td>
<td>VP Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Senior Strategy Manager</td>
<td>6/5/2013</td>
<td>20</td>
</tr>
<tr>
<td>25</td>
<td>Vice President Operations (VP Operations)</td>
<td>4/21/2013</td>
<td>75</td>
</tr>
<tr>
<td>26</td>
<td>Vice President Communications (VP Communications)</td>
<td>6/19/2014</td>
<td>35</td>
</tr>
<tr>
<td>27</td>
<td>Vice President and Controller (VP &amp; Controller)</td>
<td>6/20/2014</td>
<td>55</td>
</tr>
<tr>
<td>28</td>
<td>Vice President Financial Planning and Analysis (VP FP&amp;A)</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Note: Interview numbers in brackets indicate an interview held with a repeat participant.
### Table 3 – Details of research sites

<table>
<thead>
<tr>
<th>Organization</th>
<th>Organization type</th>
<th>Industry</th>
<th>Organization size</th>
</tr>
</thead>
<tbody>
<tr>
<td>AutoCo</td>
<td>Operating subsidiary of a public company listed on the Korea Exchange</td>
<td>Auto Parts and Equipment</td>
<td>&gt; $100 M revenue ~ 500 employees</td>
</tr>
<tr>
<td>HealthCo</td>
<td>Public sector company</td>
<td>Healthcare Facilities</td>
<td>&gt; $300 M revenue ~ 2,500 employees</td>
</tr>
<tr>
<td>RetailCo</td>
<td>Public company listed on the Toronto Stock Exchange</td>
<td>Department Stores</td>
<td>&gt; $4,500 M revenue ~ 30,000 employees</td>
</tr>
<tr>
<td>MiningCo</td>
<td>Operating subsidiary of a public company listed on the Swedish Exchange</td>
<td>Metal and Mineral Mining Machinery and Equipment</td>
<td>&gt; $100 M revenue ~ 120 employees</td>
</tr>
<tr>
<td>AgriCo</td>
<td>Operating subsidiary of a public company listed on the New York Stock Exchange</td>
<td>Fertilizers and Agricultural Chemicals</td>
<td>&gt; $3,000 M revenue ~ 3,500 employees</td>
</tr>
<tr>
<td>MediaCo</td>
<td>Public company listed on the Toronto Stock Exchange</td>
<td>Publishing</td>
<td>&gt; $1,200 M revenue ~ 7,000 employees</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue as a % of 2007 Revenue</td>
<td>100%</td>
<td>60%</td>
<td>45–50%</td>
<td>60%</td>
<td>85–90%</td>
</tr>
<tr>
<td>Growth over Prior Year</td>
<td>(40%)</td>
<td>(21%)</td>
<td>(26%)</td>
<td></td>
<td>46%</td>
</tr>
</tbody>
</table>

Note: According to EBITDA, AutoCo was ranked in the bottom 10% of AutoParent’s businesses.

<table>
<thead>
<tr>
<th>HealthCo</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surplus / (Deficit) as a % of Revenue*</td>
<td>0%</td>
<td>(3%)</td>
<td>(4%)</td>
<td>(7%)</td>
<td>(6%)</td>
<td>(2%)</td>
</tr>
<tr>
<td>Growth over Prior Year</td>
<td>580%</td>
<td>49%</td>
<td>121%</td>
<td>(10%)</td>
<td>(73%)</td>
<td></td>
</tr>
<tr>
<td>Cost / Weighted Case, Increase over Prior Year</td>
<td>9%</td>
<td>12%</td>
<td>12%</td>
<td>3%</td>
<td>(10%)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Where indicated (*), the impact of one-time funding is removed to show full extent of decline.

<table>
<thead>
<tr>
<th>RetailCo</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue as a % of 2009 Revenue</td>
<td>100%</td>
<td>91%</td>
<td>86%</td>
<td>81%</td>
<td>76%</td>
<td>70%</td>
</tr>
<tr>
<td>Growth over Prior Year</td>
<td>(2%)</td>
<td>(9%)</td>
<td>(5%)</td>
<td>(6%)</td>
<td>(6%)</td>
<td>(8%)</td>
</tr>
<tr>
<td>Gross Profit as a % of Revenue</td>
<td>48%</td>
<td>48%</td>
<td>39%</td>
<td>37%</td>
<td>37%</td>
<td>36%</td>
</tr>
<tr>
<td>Growth over Prior Year</td>
<td>(9%)</td>
<td>(22%)</td>
<td>(13%)</td>
<td>(5%)</td>
<td>(5%)</td>
<td>(10%)</td>
</tr>
<tr>
<td>Same Store Sales Growth</td>
<td>(7%)</td>
<td>(4%)</td>
<td>(8%)</td>
<td>(6%)</td>
<td>(3%)</td>
<td>(7%)</td>
</tr>
</tbody>
</table>

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 for opening (closing) new stores.

<table>
<thead>
<tr>
<th>MiningCo</th>
<th>2010–11</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue as a % of 2011 Revenue</td>
<td>100%</td>
<td>75%</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Growth over Prior Year</td>
<td>(25%)</td>
<td>(20%)</td>
<td>(0%)</td>
<td></td>
</tr>
</tbody>
</table>

Note: A respondent noted that, while 2013 revenues were down 40%, the bottom line was actually off 60%.

<table>
<thead>
<tr>
<th>AgriCo</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue as a % of 2011 Revenue</td>
<td>100%</td>
<td>95%</td>
<td>67%</td>
<td>(17%)</td>
</tr>
<tr>
<td>Growth over Prior Year</td>
<td>(5%)</td>
<td>(30%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Profit as a % of Revenue</td>
<td>46%</td>
<td>47%</td>
<td>27%</td>
<td>(41%)</td>
</tr>
<tr>
<td>Growth over Prior Year</td>
<td>(2%)</td>
<td>(60%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ResourceX Price as a % of 2011 Price</td>
<td>100%</td>
<td>89%</td>
<td>70%</td>
<td>60%</td>
</tr>
<tr>
<td>Increase over Prior Year</td>
<td>(11%)</td>
<td>(22%)</td>
<td></td>
<td>(14%)</td>
</tr>
</tbody>
</table>

Note: Though ResourceX benefited from a price increase in 2011, the price in 2009 was 300% of current price.

<table>
<thead>
<tr>
<th>MediaCo</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue as a % of 2008 Revenue</td>
<td>100%</td>
<td>95%</td>
<td>97%</td>
<td>101%</td>
<td>92%</td>
<td>85%</td>
</tr>
<tr>
<td>Growth over Prior Year</td>
<td>(1%)</td>
<td>(5%)</td>
<td>2%</td>
<td>4%</td>
<td>(9%)</td>
<td>(7%)</td>
</tr>
<tr>
<td>Net Income as a % of Revenue</td>
<td>(12%)</td>
<td>2%</td>
<td>14%</td>
<td>14%</td>
<td>6%</td>
<td>(2%)</td>
</tr>
<tr>
<td>Growth over Prior Year</td>
<td>(279%)</td>
<td>120%</td>
<td>490%</td>
<td>4%</td>
<td>(62%)</td>
<td>(134%)</td>
</tr>
</tbody>
</table>

Note: A decreasing trend in total assets disguises a more significant decreasing ROA trend.

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.