CBS COPENHAGEN BUSINESS SCHOOL
HANDELSHØJSKOLEN

Management Controls and Crisis
Evidence from the Banking Sector

Rikhardsson, Pall ; Rohde, Carsten; Christensen, Leif; Batt, Catherine E.

Document Version
Accepted author manuscript

Published in:
Accounting, Auditing and Accountability Journal

DOI:
10.1108/AAAJ-01-2020-4400

Publication date:
2021

License
Unspecified

Citation for published version (APA):
Rikhardsson, P., Rohde, C., Christensen, L., & Batt, C. E. (2021). Management Controls and Crisis: Evidence from the Banking Sector. *Accounting, Auditing and Accountability Journal*, *34*(4), 757-785. https://doi.org/10.1108/AAAJ-01-2020-4400

Link to publication in CBS Research Portal

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy
If you believe that this document breaches copyright please contact us (research.lib@cbs.dk) providing details, and we will remove access to the work immediately and investigate your claim.

Download date: 12. Oct. 2024

Management controls and crisis: evidence from the banking sector

Pall Rikhardsson, PhD
(corresponding author)
Professor
Reykjavik University
School of Business
Menntavegur 1, 101 Reykjavik,
Reykjavik, Iceland
Telephone: (+354) 599 6200
e-mail: pallrik@ru.is
Visiting Professor
Copenhagen Business School,
Denmark

Carsten Rohde, PhD
Professor
Copenhagen Business School
Department of Accounting
Solbjerg Plads 3
2000 Frederiksberg, Denmark
Telephone: (+45) 38153815
e-mail: cr.acc@cbs.dk

Leif Christensen, PhD
Assistant professor
Copenhagen Business School
Department of Accounting
Solbjerg Plads 3
2000 Frederiksberg, Denmark
Telephone: (+45) 38153815
e-mail: lc.acc@cbs.dk

Catherine E. Batt, PhD
Assistant professor
Copenhagen Business School
Department of Accounting
Solbjerg Plads 3
2000 Frederiksberg, Denmark
Telephone: (+45) 38153815
e-mail: caba.acc@cbs.dk

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Management controls and crisis: evidence from the banking sector

Abstract

Purpose: This paper investigates the use of management controls when environmental uncertainty and hostility increase abruptly. Specifically, it explores this in the context of the 2008 financial crisis in six banks located in two countries.

Design/methodology/approach: The paper is based on 26 qualitative interviews with selected managers employed by the six banks. Eight interview guides were developed based on the typology of controls in Malmi and Brown (2008). Respondents explained which changes in management controls occurred after the crisis.

Findings: Both organic and mechanistic management controls were mobilized at the same time to deal with the change. The use of controls played three main roles: i) guide and control behavior, ii) change internal and external perceptions, iii) discharge accountability. Finally, control use during a crisis evolves as individual managers design and implement controls. There is no "grand design" rationally guiding the design of the overall system of controls.

Originality/value: The use of management controls in dealing with an increase in uncertainty and hostility cannot be labeled either organic or mechanistic, but will depend on the specific type of change in environmental characteristics. Management controls evolve by interaction with outside actors, as well as internal techniques.

Keywords

Financial crisis, Management controls, Iceland, Denmark, Banking

Management controls and crisis: evidence from the banking sector

Abstract

Purpose: This paper investigates the use of management controls when environmental uncertainty and hostility increase abruptly. Specifically, it explores this in the context of the 2008 financial crisis in six banks located in two countries.

Design/methodology/approach: The paper is based on 26 qualitative interviews with selected managers employed by the six banks. Eight interview guides were developed based on the typology of controls in Malmi and Brown (2008). Respondents explained which changes in management controls occurred after the crisis.

Findings: Both organic and mechanistic management controls were mobilized at the same time to deal with the change. The use of controls played three main roles: i) guide and control behavior, ii) change internal and external perceptions, iii) discharge accountability. Finally, control use during a crisis evolves as individual managers design and implement controls. There is no "grand design" rationally guiding the design of the overall system of controls.

Originality/value: The use of management controls in dealing with an increase in uncertainty and hostility cannot be labeled either organic or mechanistic, but will depend on the specific type of change in environmental characteristics.

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Management controls evolve by interaction with outside actors, as well as internal techniques.

Keywords
Financial crisis, Management controls, Iceland, Denmark, Banking

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Management controls and crisis: evidence from the banking sector

1. Introduction

When organizations go through a severe and abrupt environmental change due to events like the financial crisis of 2008 environmental uncertainty and hostility can increase. Such events have significant economic consequences. The financial crisis of 2008 is estimated to have cost the United States (US) economy alone 22 trillion US dollars (Melendez, 2013). The potential economic impact makes such events an important study object. They also present unique opportunities for management research (Arnold, 2009; Czarniawska, 2012; Janke *et al.*, 2014; van der Steen, 2011).

Contingency theory has been used for decades to frame and interpret evidence regarding the links between organizational environments and management control. One tenet of this theory is that hierarchical bureaucracies, such as banks, apply mechanistic control systems (Chenhall, 2003; Chenhall and Euske, 2007; Otley, 2016) that function best in relatively stable environments (Burns and Stalker, 1961; Daft and Macintosh, 1984). When the environment changes and uncertainty increases, contingency theory predicts that such organizations adopt more organic control structures. However, recent studies find that mechanistic control configurations are also used in uncertain environments. Instead of controls becoming more organic in uncertain environments, controls can become more mechanistic and the organization more bureaucratic. Bedford and Malmi (2015, p. 16) conclude that "This is in contrast to conventional thought that mechanistic-type structures are most 'appropriate to an enterprise operating under relatively stable conditions' (Burns and Stalker, 1961, p. 5)".

The organizational environment can exhibit other characteristics than uncertainty, such as hostility (Child, 1972; Khandwalla, 1973; Miller and Friesen, 1983). The financial crisis of 2008 led to more hostility towards banks in many countries in the sense that banks' social legitimacy was threatened, as they were perceived as the culprits of the crisis by outside actors (Ioannou *et al.*, 2019; Petersen and Wiegelmann, 2013). Contingency theory suggests that in such hostile environments, when actions and options are restricted, more mechanistic control systems, in general, would be in use (Chenhall, 2006). Contingency theory thus predicts that more uncertain environments lead to more organic controls and more hostile environments lead to more mechanistic controls. However, when the external environment becomes uncertain and hostile simultaneously, contingency theory offers conflicting predictions of how management controls will be designed and used.

Finally, contingency theory assumes that management controls are internal techniques and processes influenced by external contingencies (Otley, 1980). However, organizations continuously attempt to influence their environments' characteristics through lobbying and corporate communications. These and other activities are focused on influencing and controlling some of the contingencies that theory assumes are outside of organizational influence. This could indicate that the concept of management control might be broader than the control categories usually referred to (Chenhall and Euske, 2007; Jollands *et al.*, 2015; Malmi and Brown, 2008; Otley, 2016).

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

To shed more light on these inconsistencies regarding the "in-house theoretical assumptions" (Alvesson and Sandberg, 2011) of contingency theory and management control, we ask: What happens to management control design and use when an organization like a bank is subject to a severe and abrupt increase in both uncertainty and hostility simultaneously? The answer is important for several reasons. First, it seems that despite considerable research on the subject, knowledge of the influence of environmental characteristics on management controls can be elaborated on—both in terms of changes in control design as well as the impact of different environmental characteristics (Gerdin *et al*., 2019; Granlund and Lukka, 2017; Otley and Soin, 2014). Second, it can be argued that the rate of environmental change is increasing (Otley, 2016) and events that exert large scale influence on environmental characteristics happen more frequently. A more detailed understanding of how to "manage management controls" (Tessier and Otley, 2012) to prepare for and manage such events is valuable for managers and academics alike.

Our research comprises a qualitative comparative case study of six organizations in two countries following the financial crisis of 2008. One country experienced severe impacts of the crisis and will occupy center stage in our analysis. To provide a contrasting point of view, we include comparable organizations in a culturally similar country which was not affected by the crisis to the same extent. As in Tessier and Otley (2012), this draws out the differences in the use of management controls in each context for comparison and broadens our understanding of their use in different contexts. The data collection is based on retrospective accounts (Brewer, 1994; Miller *et al.*, 1997) of managers who designed and implemented management controls after the onset of the financial crisis. We use the typology of control categories presented by Malmi and Brown (2008) to guide the data collection and organize our observations. As explained further in the next section, this framework is theoretically well anchored and allows us to examine management controls from a configuration-based perspective. As expanded on in the next section, we discuss our findings by mainly drawing on current developments in contingency theory.

The paper is organized as follows. The next section presents the literature and theoretical expectations formed at the outset of the study. Section 3 presents the methodology employed, and Section 4 presents the context of our study. Section 5 presents the findings of the study, and Section 6 provides a discussion of these findings. Lastly, Section 7 concludes the paper.

2. Changes in the organizational environment and management controls

A sudden change in the environment can impact an organization and force it to react (Laughlin, 1991; Suarez and Oliva, 2005). These events can lead to significant environmental uncertainty changes, affecting managers' ability to anticipate variations in the environment and assess the effects of changes in the organization (Bedford and Malmi, 2015; Child, 1972; Dess and Beard, 1984; Miller and Friesen, 1983). They can also alter characteristics such as hostility, which is the general restrictiveness of the environment in limiting possible actions (Chenhall, 2003; Kach *et al.*, 2016; Khandwalla, 1973; Lindelof and Lofsten, 2006; Miller and Friesen, 1983).

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

2.1. *Management Control and Contingency Theory*

Management controls are defined as supporting decision-making and controlling individuals' and groups' behavior to ensure that an organization meets its objectives (Anthony and Govindarajan, 2006; Otley, 1980, 1994). Management control types and designs have been characterized by descriptors such as diagnostic/interactive (Simons, 1994), enabling/coercive (Adler and Borys, 1996), and mechanistic/organic (Chenhall, 2003). We use the terms mechanistic and organic based on the definitions and examples in Chenhall (2003). These indicate the difference in reliance on formal policies, rules, standardized operating procedures and routines (mechanistic controls) and personal interactions between managers and employees, participation, communication, norms and values governing action and flexibility in terms of defining action and responses (organic controls) (Bedford *et al.*, 2016; Chenhall, 2003; Otley, 1978, 1980, 1994, 2016; Ylinen and Gullkvist, 2014). Table 1 presents the main types and definitions of management controls used in this research.

-INSERT TABLE 1 ABOUT HERE-

Otley (1980) specifies that "a contingency theory must identify specific aspects of an accounting system which are associated with certain defined circumstances and demonstrate an appropriate matching" (p. 413). According to Granlund and Lukka (2017), this research seeks to understand how management controls operation and effect depend on the context within which they operate. Applications of contingency theory have examined individual management controls to determine what conditions or contingencies they match. For example, research on individual controls shows that when environmental uncertainty increases, management controls tend to become more organic (Abernethy and Brownell, 1999; Bastian and Muchlish, 2012; Burns and Stalker, 1961; Chenhall, 2003; Donaldson, 2001, 2006; Hoque, 2005; Khandwalla, 1973; Lawrence and Lorsch, 1967; Otley and Soin, 2014). However, recent studies show that increasing environmental uncertainty prompts some organizations to adopt more mechanistic control structures (Bedford and Malmi, 2015; Sandelin, 2008). For example, Bedford and Malmi (2015) find two control configurations: results control and action control, which operate in uncertain and hostile environments. Their finding is at odds with earlier evidence that mechanistic controls are most "appropriate to an enterprise operating under relatively stable conditions" (Burns and Stalker, 1961, p. 5). Bedford and Malmi's study (2015) also identifies organizations with combinations of organic and mechanistic forms of controls. They label this hybrid control and conclude that the "hybridization of multiple control types is in contrast to the conventional assumption that firms emphasize a single control mode, such as results or action control" (p. 17). Further, they find that "interweaving of bureaucratic and socio-ideological controls may provide an alternative, and possibly substitutable, way of organizing in relatively dynamic and complex conditions" (p. 17). This could indicate that combinations of organic and mechanistic controls are used "ambidextrously" to balance exploitation and exploration when faced with uncertain and hostile environments.

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Otley (2016) and Chenhall and Euske (2007) note that organizations may face different environmental characteristics, such as uncertainty and hostility simultaneously. Contingency-based research concludes that when the external environment is more hostile, there is a greater reliance on mechanistic controls such as less participative management styles, formalization and reliance on formal controls (Chenhall, 2006; Kach *et al.*, 2016; Khandwalla, 1973). Based on the above, contingency theory offers conflicting management control predictions for organizations faced with uncertainty and hostility. Otley (2016, p. 51) notes that "it is an open question how the tension between these two factors (uncertainty and hostility) should be managed in an MCS given they may often occur simultaneously".

Contingency based management control research also rests on the assumption that management controls are solely an internal matter (Otley, 1980). Management controls influence employee's behavior, and external contingent variables influence control design. These contingent variables are "outside the control of the organization, although it is recognized that organizations may try to influence some such supposedly exogenous variables" (Otley, 1980, p. 422). Furthermore, the organization "adapts to the contingencies it faces by arranging the factors it can control into an appropriate configuration that it hopes will lead to effective performance" (Otley, 1980). This presumes a clear delimitation between those contingencies that can be controlled and those that cannot. However, organizations continuously attempt to influence the characteristics of their environment. Examples include lobbying for new legislation or changes to existing legislation, defending patents and copyrights, and influencing consumer behavior. This indicates that management control might have additional roles beyond merely influencing employees' behavior (Jollands *et al.*, 2018).

The above inconsistencies in what might be called the "in-house assumptions" (Alvesson and Sandberg, 2011) of management control research has led to calls for exploration along three lines of inquiry (Demartini and Otley, 2019; Granlund and Lukka, 2017; Merchant and Otley, 2020; Otley, 2016).

One is to bring organizational context back into applications of contingency theory. Contingency theory has traditionally been applied when the empirical evidence stems from quantitative surveys of how individual management controls are designed and works within varying firm sizes and industries. Granlund and Lukka (2017) note that such research applies generalized measurements of variables and has difficulties explaining contextual differences. Others have shown that contextuality matters when addressing contextual influence in dialogue with practitioners (Messner, 2016). There have been calls to revive genuine contextuality in the spirit suggested by early contingency researchers such as Chapman (1997) and Otley (1980).

A second line of inquiry is to examine how management controls impact and are impacted by other management controls. To conclude which type of controls are relevant in different contingencies, and advise managers on design and implementation, controls could be studied as configurations rather than individual controls. Otley (1980, 2016) and Chenhall (2003, 2006) have earlier pointed out that studying how configurations of management controls are created, implemented, and changed in specific contexts could yield more valuable results than studying individual controls in isolation. Otley (1980) describes these configurations as packages of controls. Malmi and Brown (2008)

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

expand on Otley's work (1980) and provide a typology of control categories that together comprise a "package of controls". There have been debates on whether such configurations of management controls are systems or packages. Grabner and Moers (2013) explain management controls as a system that has a "grand designer" who, based on a rational goal maximization, designs controls as "interdependent and the design choices take these interdependencies into account" (p. 408). Packages of controls on the other hand are composed of controls that are "packaged together" and "loosely coupled" in the sense that there might not exist an integrated and coordinated logic underlying the configuration of controls (Malmi and Brown, 2008; Mundy, 2010; Otley, 2016). Demartini and Otley (2019) and Merchant and Otley (2020) reject this dualism debate as being unfruitful. They doubt if control system components actually form a tightly-coupled and integrated overall system and propose that systems and packages are at the opposite ends of a spectrum of rational design and evolutionary change. It might be more reasonable to assume that control systems are the result of both rational choices and 'natural' evolution because of past organizational contingencies (Demartini and Otley, 2019; Merchant and Otley, 2020).

A third line of inquiry is to examine the role of management controls in a broader perspective by including how management controls are connected to external contingencies and actors outside the firm (Jollands *et al.*, 2015, 2018). This research examines how management controls are used to control how actors in society interpret an organization's activities and how they are used to manage organizational boundaries (Brivot *et al.*, 2017; Llewellyn, 1994). This view allows for examining communication through annual reports, social media, press releases, and stakeholder events as management efforts to influence and control environmental characteristics to minimize uncertainty and dampen hostility. Brivot *et al*. (2017) examine how managers use social media strategies to control reputational risk and the risk of hostility. Tessier and Otley (2012) examine how administrative controls in the form of policies and procedures change through dialectic and teleological change cycles to ensure compliance with regulatory changes that dictate certain responses and create new accountability structures (Tessier and Otley, 2012). Actors in society generate environmental characteristics such as uncertainty and hostility. Management controls could influence behavior and perceptions of external actors to minimize uncertainty or dampen hostility.

2.2. Management controls and (financial) crisis

In the wake of the financial crisis of 2008, there were several calls for research into management accounting and control. van der Stede (2011) points out that the crisis could renew interest in researching incentive structures, risk management, and budgeting. Others adopt a more critical view, such as Arnold (2009) who states that the financial crisis in 2008 makes it obvious that there is a gap between accounting research and practice and urges academics to move closer to practice. In answering these calls, Pavlatos and Kostakis (2015) report an increase in the importance of advanced costing systems during a crisis to increase efficiency and effectiveness. However, contrary to other authors' expectations, they found limited changes in budgeting practices (Gooneratne and Hoque, 2013; van der Stede, 2011). Endenich (2014) observed changes in

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

budgeting practices after the 2008 crisis, with an emphasis placed on increased frequency of rolling budgets and increased power among organizations' management accountants. Becker *et al*. (2016) found that the importance of budgeting increases in times of crisis, and the importance of performance evaluations declines. Endenich (2014) also found that companies adopt a more continuous form of budgeting with more automation and simplification of budgeting processes during a financial crisis. Janke *et al*. (2014) examined whether management perceptions of a financial crisis affect the interactive use of management controls. The results show that if management perceives a crisis, this leads to more interactive use of management controls, echoing conclusions reached regarding the use of controls in uncertain environments. Mikes (2011) studied the definition and development of risk management in two banking organizations and how risk control relates to management control. Although her study took place before the 2008 crisis struck, it shows that the definition and codification of risk management in "calculative cultures", such as banks, are important in bank management. Risk management integrates into bank management as either "risk management by the numbers" or "holistic risk management", where risk managers adopt different roles. Mikes (2011) shows that the risk management function of a bank develops through applications of codified best practice standards and the interaction with financial supervisory authorities.

The 2008 financial crisis spurred crises in many organizations. Crisis management research suggests that internal organizational structures, strategic flexibility, and task complexity influence the success of crisis preparedness and responses (Bundy *et al.*, 2017). Corporate cultures, targeted communication, and certain governance structures have enabled organizations to avoid a crisis and effectively deal with one (Borodzicz, 2005; Bundy *et al.*, 2017). Considerable importance is placed on the communication of corporate image and identity during a crisis (Arendt *et al.*, 2017; Lacerda, 2019). Research shows that it is important to manage and communicate the organizational identity, communicate the company interpretations of the causes of and responses to the events leading to the crisis and make explicit what values govern the crisis response (Arendt *et al.*, 2017; Bundy *et al.*, 2017; Lin *et al.*, 2006).

3. The study context: the 2008 financial crisis in Iceland and Denmark

To answer the research question, we chose to include banks from two contexts. One context had experienced severe and abrupt changes in both uncertainty and hostility due to the crisis. The second – to provide a contrast in terms of the severity of environmental change - had weathered the crisis with relative ease. The methodological reasoning is further explained in section 4. However, these contexts could not be too dissimilar in terms of culture and banking regulations. Additionally, we needed contexts where the researchers had local contacts to ensure access to the organizations to be studied. The two contexts chosen are Iceland and Denmark.

The banking sectors in Iceland and Denmark share many similarities. Iceland was a Danish colony since the dissolution of the Calmar Union in 1523 but achieved independence and became a republic in 1944. The two countries' legal environments are similar, as most Icelandic law draws on Danish law and judicial practice. For example, the Icelandic banking system's establishment was

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

based on Danish laws and practices at the turn of the twentieth century. Since Iceland became an independent republic, similarities to the Danish banking system have continued (CB, 2015). Unlike Denmark, Iceland is not a member of the European Union (EU) but is a member of the European Free Trade Association (EFTA). In 1994, Iceland was one of the founding countries of the European Economic Area (EEA) agreement, which obliged it to implement the EU regulatory framework (Mixa and Sigurjonsson, 2013). The Icelandic and Danish populations share similar Scandinavian cultural roots and have strong cultural, research, educational, and trade ties.

Before the crisis struck Iceland in 2008, the country had experienced one of the most rapid growth periods in the republic's history. From 2003 to 2007, the GDP grew on average with more than 7% annually[1], unemployment was negligible, private consumption grew rapidly, and the 300 largest companies' aggregated turnover quadrupled (Rikhardsson *et al.*, 2012). The three largest banks in Iceland were state-owned for some time but were all privatized in 2003 with subsequent ownership changes. From 2003 to 2008, the Icelandic banking sector's collective assets grew to nine times the Icelandic GDP (Jackson, 2010; SIC, 2010). This means that the three largest banks' total assets had grown from about 17 billion Euros in 2003 to 144 billion Euros in the first quarter of 2008.[2] The three banks' average internal growth rates were 49% in 2004, 66% in 2005, 36% in 2006, and 36% in 2007. In this period, according to their annual reports, all three banks focused strategically on investment banking.

In 2008, shortly after the bankruptcy of Lehman-Brothers, the tide turned in the space of just a few days. Bankruptcy was declared for the three largest banks, the Icelandic stock market lost approximately 90% of its market value, and the country was placed at risk of state bankruptcy (Mixa and Sigurjonsson, 2013). Immediately after the bankruptcies in 2008, through emergency laws enacted by the Icelandic parliament, the three Icelandic banks were re-established as new legal entities with new executive boards and boards of directors, allowing them to continue domestic operations (Thorgeirsson and van den Noord, 2013). The banks' foreign assets and liabilities were separated from domestic assets and liabilities through the same laws. The domestic ones were moved into the new legal entities, leaving the foreign assets and liabilities in the bankrupt entities. This was deemed necessary as the three banks encompassed more than 95% of all domestic banking activities in Iceland. If they had ceased operations, the banking infrastructure of the country would have collapsed. Although the Icelandic state took over the three largest banks, they were, in effect, "too big to save" (World Bank, 2010). The International Monetary Fund (IMF) stepped in with emergency measures and loans, negotiated assistance with the other Scandinavian countries, and capital controls were imposed by the Icelandic government (Jackson, 2010; SIC, 2010). The consequences for the Icelandic economy proved severe: output contracted by 10% between its pre-crisis peak in 2008, and in 2010 consumption was reduced by 23%.[3] Unemployment increased from 2% to 7% of the workforce in 2010, and personal

[1] https://countryeconomy.com/gdp/iceland?year=2008 Accessed 10/6/2020

[2] Based on the value of euro to the Icelandic krona on these dates available here: https://www.sedlabanki.is/hagtolur/opinber-gengisskraning/

[3] The Icelandic National Bank: https://www.cb.is/library/Skraarsafn---EN/Economy-of-Iceland/2018/EOI_2018_Kafli%206.pdf (Accessed 10/6/2020)

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

as well as corporate bankruptcies doubled in number between 2008 and 2011 (Byggdastofnun, 2013). Many private individuals lost significant amounts of savings in shares or investment funds. With the devaluation of the national currency, payments and principals of loans in foreign currency rose markedly. Inflation increased significantly, and as most private housing loans in Iceland are inflation-indexed, the payments on these loans increased sharply.

The usually peaceful Icelandic society was in turmoil as the population lost trust in the banks and the political system (IMF, 2014; Jännäri, 2009). Social unrest and anger towards the financial sector in general, the three largest banks, politicians, and the political system characterize 2008-2010 in Iceland. The image of the banks deteriorated in these years, reaching an all-time low in annual image surveys, as they were associated with negative terms such as "greed", "dishonesty", "crime", and "criminals" (Bryant *et al.*, 2014; Gudlaugsson and Eysteinsson, 2010).

While Iceland experienced a near collapse of its banking sector, Denmark weathered the crisis with comparatively less impact on its banking sector. Measured in equity, the immediate effect in Iceland was a "bankruptcy ratio" of 100%, whereas Danish banks lost 2.2% of reported equity. The average annual growth in Danish banks before the financial crisis was approximately 17%, and the total assets of all financial institutions in Denmark accounted for approximately four times the Danish GNP in 2007. Both ratios are at the same level as several other European countries (Rangvid *et al.*, 2013). The annual growth of 17% before the crisis was high, though not higher than that seen in the mid-1980s. After the financial crisis, the growth rate fell, became negative in 2009, but recovered in 2010. Comparing total lending, before and after the crisis, the total amount did not decrease in Danish banks (Rangvid *et al.*, 2013). Unemployment was at a historical low of 1.8% in 2008 and rose to an average of 3.6% in 2009 and 2010.[4] Unemployment of 3.6% is considered low in Denmark and is within a level of normal structural unemployment (Rangvid *et al.*, 2013). There were no protests or demonstrations to speak of, and Danish citizens did not experience any losses or reduction in living standards of note (Rangvid *et al.*, 2013).

Even though no new major regulatory requirements were implemented in the months following the financial crisis (Sturluson, 2018), both countries' supervisory practices were changed immediately. In Denmark, before the crisis, supervision was based on a relative mechanistic approach overseeing the banks' compliance with regulatory requirements, ensuring that systems and processes were correctly defined. Following the financial crisis, this approach was adjusted, and a new practice for reporting the results of supervisory reviews was introduced, with the reports having to be public and available from the banks' website for three years (Rangvid *et al.*, 2013). In Iceland, before the crisis, the financial supervision practice did not seem to be at the same level as in Denmark. The special investigative committee charged with analyzing the causes and impact of the financial crisis concluded that "in its supervisory duties the FME (the Icelandic Financial Authority) was lacking in firmness and assertiveness, as regards the resolution of and the follow-up of cases. The Authority did not sufficiently ensure that formal procedures were followed in cases where it had

[4] Figures are available from Statistics Denmark - "Unemployment": https://www.dst.dk/en/Statistik/emner/arbejde-indkomst-og-formue/arbejdsloeshed

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

been discovered that regulated entities did not comply with the laws and regulations applicable to their operations" (SIC, 2010, p. 17). Changes to the supervision practice in Iceland were implemented in late 2008 and early 2009, which resulted in stricter rules (Bingham *et al.*, 2012). This included increased information requirements from the banks in terms of demonstrating risk awareness and compliance.

4. The field study approach

The methodology applied in this paper is a comparative case study with two units of three cases in Iceland and Denmark (Eisenhardt, 1989; Scapens, 2004; Simões and Rodrigues, 2011). The three Icelandic banks selected as cases are currently responsible for more than 90% of the country's banking activities. These three banks are the new legal entities formed after the crisis of 2008, based on bankrupt pre-crisis entities. Inspired by Tessier and Otley (2012), and to render the cases as comparable as possible, the three Icelandic banks were paired with three Danish banks. The Danish cases contrast the results from the Icelandic cases and enhance the understanding of the use and development of controls in the two contexts. The three considered Danish banks are not of the same systemic importance to the Danish economy. However, the aim was to isolate the effects of specific environmental characteristic changes on management control to understand how controls were used in response to environmental change. Danish banks were selected to be as comparable to the Icelandic banks as possible, except for the impact of the financial crisis of 2008. This formed the basis for a comparative case study to identify similarities and differences in the development and use of controls in the two sets of cases (Eisenhardt, 1989; Gerring, 2004). The banks' selection was based on informal personal contact made with the banks' CFOs and heads of internal audits, an analysis of 2015 annual reports, and publicly available information. Table 2 presents an overview of key statistics for each bank, retrieved from the 2015 annual reports. None of the banks are/were public companies, and their shares are not publicly traded.

-INSERT TABLE 2 ABOUT HERE-

The empirical data were collected through semi-structured interviews (Brinkman and Kvale, 2014). Based on the typology of management controls shown in Table 1, a total of eight semi-structured interview guides were developed. Some management controls were combined into one interview guide because the issues explored were related and could be addressed by the same respondent. Other controls, such as administrative controls, were divided into three interview guides because they were inherently different and required different respondents. The interview guides were created based on the same overall structure of asking open questions: (i) questions regarding the current design of management control, including structures and techniques; (ii) questions regarding main operating processes for management control, including communication patterns and responsibilities; (iii) questions regarding methods and tools used in connection with control, including technological and information systems; and (iv) questions regarding changes in (i)–(iii). The interview guides are available from the authors upon request.

The questionnaires themes were presented to the CFOs or chief internal

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

auditors of the participating banks. These actors then referred bank managers best suited to be interviewed on each theme. Most managers had been working with the banks since 2008 or had been instrumental in designing post-crisis practices and could offer an overview of the practices employed pre and post-crisis. This matching resulted in 26 interviews conducted in as many meetings with the six banks, comprising ten different management functions. Appendix A provides an overview of the interviews, the main interview guides, and the corresponding management functions[5].

The interviews, each lasting 45–75 minutes, were conducted between June and August 2015. Each interview was carried out in English, Danish, or Icelandic, depending on the respondent's language proficiency level. The interviews were recorded, transcribed in English, and then sent to the relevant respondents for fact-checking. The coding method used was a blend of top-down and bottom-up coding (Brinkman and Kvale, 2014; Corbin and Strauss, 2015) based on management controls addressed in the interviews. For example, all responses to the cybernetic control questionnaire were read and coded based on the interview guide's structure, i.e., importance, design, processes, methods, tools, and changes. These responses were analyzed, and sub-codes created. For instance, under "Design" in "Cybernetic controls", the sub-codes included "Financial indicators", "Non-financial indicators", "Design changes", "Problems with", and "Balanced scorecard"[6].

Some weaknesses of this methodological approach must be noted, i.e., for retrospective reports in general. The primary weakness concerns the respondents' perceptions and memory regarding management control before and after the crisis (Brewer, 1994). We countered this by selecting respondents who had worked in the banking industry before and after the crisis. Most of them did not hold executive management positions before the crisis. However, because we only selected managers responsible for designing and applying new or altered management controls in the wake of the crisis, we are confident that they considered the management controls used before the crisis and what needed to be changed and why.

5. Findings: management controls during and after the financial crisis of 2008

5.1. Overview of changes observed in Icelandic and Danish banks after 2008

When the financial crisis struck, the three Icelandic banks experienced a severe organizational crisis with restructuring, introduction of new top management teams, employee layoffs, significantly stricter legislation, changed accountability regimes, and criminal investigations against previous top executives, and a deteriorating image. The Icelandic managers describe the autumn of 2008 as a period of "chaos", "panic", "nightmare", "turmoil" and "shock". Within a few weeks, the banks went from being powerful, high-growth organizations highly regarded in society to organizations at risk of dissolution and blamed for the Icelandic financial crisis (Mixa and Sigurjonsson, 2013).

[5] On some occasions two or more interview guides were used for a single management function

[6] The coding schemes are available from the authors upon request.

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Until as late as 2011, psychologists provided some bank employees with crisis counseling for the perceived trauma they had been through:

> *We still had a few departments that we provided with psychologists who were talking to employees to get them to move on. (HR Manager – ICE Bank 2)*

It was not until late 2010 that some operational stability was achieved with relative clarity regarding the Icelandic economy's future. After 2013, the Icelandic economy further improved due to favorable financial conditions driven by significant growth in the tourist industry, requiring investments and development (Icelandic Chamber of Commerce, 2017).

In contrast, Danish bank managers describe the period following 2008 more in terms of business-related reactions to changed operating conditions. The crisis was viewed as a challenge but not as something that threatened the survival of the responding banks:

> *We had much more capital than was required because the crisis was not as bad as expected. We were never under pressure in terms of liquidity during the crisis. (CFO – DK Bank 1)*

Following 2008, although there were tightened regulations and government programs called "bank packages"[7], no significant changes to Danish banks' business models were reported. Instead, a realignment of business strategies occurred, where the focus shifted from commercial banking, investments, and financial instruments to retail banking and customers. One Danish manager described this focus on local customers after the crisis:

> *It is part of our business model, and we believe that customers are making a conscious decision when they bank with us. That is to say, they choose our bank because the bank has chosen to remain in their town. We now focus on this partnership to do something for local areas. (HR Director – DK Bank 1)*

For the Icelandic banks, the developments after 2008 were perceived as chaotic, survival-oriented, and traumatic. After a short period of uncertainty in late 2008, the Danish banks perceived the developments as more business-oriented and aimed at shifting strategic priorities towards retaining and serving retail customers.

5.2. Cultural controls

After the restructuring and launching of the new legal entities, to counter their deteriorating image and regain organizational legitimacy, the Icelandic banks redefined their values. A manager described when the bank's new CEO called all employees into a meeting shortly after the crisis hit:

[7] Danish: Bankpakker

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

At the beginning of 2009, the new CEO set up meetings to which all employees were invited. People thought the CEO was crazy, as most employees were concerned with putting out fires and had no time to think about strategies. We counted about 700 employees at that meeting. One of the goals of the meeting was to define new values. It was a very democratic approach and actually very good for the bank. (CFO – ICE Bank 3)

Similar processes were reported in the other Icelandic banks as well. This resulted in significantly different values defined within the banks. One bank had operated under the value statement "Smart – Fast – Thorough" until the crisis struck, though changed this to "Serve – Simplify – Multiply – Unify". Much effort went into communicating new values to society and contrasting the new values with the 'old banks' values. For example, before the crisis, the 2005 annual report from one of the Icelandic banks stated:

In order for "The Bank" to fulfill its potential as a prime corporate and investment bank in northern Europe, the Bank maintains a number of key business objectives that it believes are necessary stepping-stones towards achieving its long-term goals. In recent years, these objectives have been demonstrated by "The Bank's" determined strategy of international expansion, both through organic and acquisitive means.

In the 2009 annual report, the same bank points out that it is now a new legal entity and will focus on regaining the trust of society based on new values and a strategy:

One of the greatest challenges faced by the Icelandic banks during 2009 was to rebuild the confidence lost following the crisis of 2008. This goal of rebuilding or earning trust has been "The New Bank's" guiding principle in all its actions. "The New Bank" also introduced a new strategy and a new set of values during the year. Progressive thinking, professionalism, trust, and care are the values that the employees of "The New Bank" chose themselves.

According to the Icelandic managers, the definition of new values was critical to influencing employees' behavior:

New employees understand the values, and they are included in training courses, and sometimes in meetings, we discuss if we should just inform a limited group about a decision or a broader group. Then we say, you know, one of our values is to be transparent, so let's tell the larger group. This is supporting what we are doing. (HR director – ICE Bank 1)

Apart from the link to behavior, this enabled the employees to construct a new workplace identity. Cultural controls in the form of clan controls were used

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

to cement the new organizational values. More focus was directed towards hiring practices and to the training of new managers after the crisis, with new values being discussed and expressed in gatherings and social events and being formalized into codes of conduct and value statements:

> *We have an annual full-day staff meeting during which we discuss our values and new ideas with both internal and external speakers, and the values are really an important part of that day. We then hold similar divisional meetings twice a year. (HR Director – ICE Bank 1)*

Finally, the symbols used by all Icelandic banks were changed, with two of the banks changing their names. These two banks also changed their new visual identities in terms of color and graphics, logos on buildings and advertisements.

The Danish banks did not experience the same discord between organizational and societal values. The crisis of 2008 was described as something that had to be dealt with based on existing values. Changes in values were mostly associated with internal adjustments regarding their focus, such as a shift from products to customers:

> *For example, which employees are the most important? Is it those who can design a product? Or is it those who have contact with customers who will ensure that customers are happy? Previously, it was clearly the financial engineers, but now it is those who serve the customers who are the most important employees. (HR Director – DK Bank 1)*

In the Danish banks, values were thus linked to the execution of a more customer-oriented strategy. Furthermore, the respondents saw the Danish banks' values as something that would be similar to any other bank and not as something that would differentiate each bank or be of much interest to society at large.

> *One of the employees once said, "These are the same values as when I worked in [name of a competing bank]". You can laugh about this, but it is to some extent true that you will find the same values on the other side of the road. (HR Director – DK Bank 2)*

5.3. Long-range planning

From 2008 to 2010, Icelandic banks did not engage in long-range planning, while Danish banks continued these processes and practices as they had previously. According to the respondents, long-range planning processes employed in Icelandic banks were also difficult to facilitate before the crisis, due to a complex business environment and rapid organizational growth:

> *Then you can say that before the collapse, too little time was spent on planning, and the decisions made were not always the best ones as history shows. But at that time, it was an extremely rapid growth*

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

of the banks. Often the growth was much more rapid than had been planned. Maybe not so much discipline, and everything was moving very fast. (CFO – ICE Bank 3)

Then, for a period after the crisis of 2008, there was no strong focus on long-range planning as the banks' survival was uncertain, and managers were preoccupied with putting out fires and tackling the immediate effects of the crisis. The importance of long-range planning grew, however, as business returned to more normal conditions:

We basically did not start [long-range planning] until 2010. Before that, no plan had been formalized within the new bank. Obviously, some financial plans were made when capitalization needs were estimated and so on, but all management focus at that time was placed on day-to-day operations. (CFO – ICE Bank 2)

In 2010, the Icelandic banks' long-range plans aimed at defining future organizational business models. Before the crisis, investment banking activities had grown significantly in proportion to consumer and commercial banking activities. After the crisis, investment banking was scaled back, and strategic focus was assigned to other areas:

We have retail banking, corporate banking, investment banking, and asset management today. The old bank was extremely big on investment banking, and everything was supporting that function. Today we have completely changed the structure of the bank, and the focus is now balanced across all four functions. (CFO – ICE Bank 3)

The Danish banks reported following long-range plans before and after the crisis. In the immediate aftermath of the crisis, the importance of long-range planning was to a greater extent tied to capital management:

Yes, capital planning is important to the bank. We were not restricted by liquidity or capital 10 years ago, and that's why we did not focus on it in the same way as we do now. (CEO – DK Bank 2)

While these plans' content changed as strategies changed, the long-range planning processes remained the same in the Danish banks.

5.4. Action planning and financial budgeting

Regarding action planning, this was for all six banks linked to budgeting, which is why we combine the presentation of these here. Bank management viewed budgeting as being of paramount importance given the impact of the economic environment on banking businesses:

Action planning and budgeting are integrated. When people do their budgeting in the autumn, they consider what they are going to do next year. They then must have those costs in the plan. Such a plan is

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

based on assumptions made on the income and cost side. (Director: Planning and Analysis – ICE Bank 2)

Action planning and the budgeting process were described as an annual process, with top management communicating assumptions and guidelines before managers engaged in planning. After initial plans were made, a period of adjustment involved negotiations and top management making changes to plans and budgets. When plans were accepted and put into action, they were monitored through periodic meetings and variance analysis:

Budgeting is extremely important. When we do our external reporting, we compare to actuals, but internally with management reporting we are comparing to budgets. We also have quarterly meetings during which we review costs and compare them to the budget. We have been extremely focused on that side. (Director: Planning and Analysis – ICE Bank 2)

According to those who had participated in action planning and budgeting processes before and after the crisis, these processes had not changed much:

If anything, the budgeting process was more detailed prior to 2008, but we have been trying to simplify it. For example, we have an annual budget, and then we have a five-year budget. We first finalize the annual budget, and then we carry out the five-year plan. However, overall, the planning and budgeting process has been quite stable over the years. (CFO – ICE Bank 3).

The Danish managers also reported very little change in budgeting processes and approaches. Some mentioned that after the crisis, they were more interested in how the general banking industry was doing when evaluating performance, rather than focusing strictly on budget vs. actual numbers:

No changes really. There has perhaps been a change in how we look at things, but often it is that what we are focusing on when we evaluate the actual result is the development compared with others. This is an important part of the follow-up, perhaps as important as how we have performed compared with the budget. It can be value adjustments, changes in the market, which result in a situation where the others are earning much more. Then we will not be satisfied with just meeting the budget. (CFO – DK Bank 3).

5.5 Cybernetic controls: financial measurement systems, non-financial measurement systems, and hybrid measurement systems

In the pre-crisis period, the Icelandic banks had a growth and expansion strategy measured by financial KPIs (Key Performance Indicators), such as revenue (sales), net interest income, return on equity, and asset value. If those performance measures showed growth, the organization and its managers could claim legitimacy due to good performance. The process involved in generating

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

these returns was composed of increasingly more complex financial transactions, co-ownerships, financial instruments, mergers, acquisitions, and buyouts:

> *Before the crisis, we were strongly focused on meeting financial targets and generating quarterly results. That was all there was: meeting the financial targets for growth. (CFO – ICE Bank 3)*

After the crisis, in the wake of the restructuring, new values and more extensive regulatory compliance, there was a change in what constituted good performance, which KPIs were required to capture and convey performance and the performance measurement process itself. Financial measures such as return on equity, capital ratios, liquidity ratios, and cost/profit ratios still played an important role in evaluating performance. However, non-financial measures such as compliance measures, risk scores, service quality, net promoter scores, and employee satisfaction are now used to evaluate the organization's performance:

> *Of course, you have a lot of financial KPIs, but the KPIs that we have introduced are not that focused on finance. We are using these non-financial KPIs to move people in a strategic direction. First, you have KPIs for the bank that help facilitate that the overall goals are achieved. So, each division has its own set of KPIs. They need to fulfill those financial KPIs as well as other measures. So that is usually put on display and updated monthly or quarterly depending on the data that is used. (CFO – ICE Bank 1)*

Using a blend of KPIs also became more formalized and more tightly integrated into the day-to-day management of employees:

> *The old bank used to have a balanced scorecard taken all the way, but we didn't see a lot of follow-through on that. But what we have done for the last three or four years is that each manager with his or her employees, goes through a schedule where they try to agree on a focus for the individual. The manager then mark how well the individual is performing on a predefined list of items. (CFO – ICE Bank 2)*

The financial supervisory authorities (FSA) demanded more focus on risk and compliance, and new cultural values within banks, emphasizing prudence, carefulness, and control. "Risk" and "compliance" emerged as critical performance constructs and criteria for evaluating performance and communicating this to the external environment. These measures became an important facet of risk management, compliance, and internal auditing:

> *All divisions must meet certain minimum requirements regarding return on equity, costs vs. net incomes, etc., but also risk management criteria. You might say that front-line divisions are concerned with income, while other divisions follow more complicated criteria, but all of this is dependent on risk management and compliance. If you*

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

do very well in increasing the division's income but don't achieve compliance, your bonus is lowered. (HR director – ICE Bank 3)

Among Danish banks, growth was also a primary objective before the crisis, as reflected in the measure of performance:

We prepared the first strategy covering the period running to 2012. We then established a target to achieve a net annual growth of 5%. I can still remember the discussions we had because this involved a major shift from negative growth and then suddenly achieving 5% growth. (HR Director – DK Bank 2)

However, when compared to the Icelandic banks, which had something of an oligopoly position in their local market, pre-crisis growth in the Danish banks was limited by market conditions and the number of competitors:

We have a very competitive market in which the total does not seem to grow. More and more businesses were and are based on providing loans. This means that we can choose to grow, but then, we must compromise with other objectives, such as taking bigger risks. (CEO and CFO – DK Bank 2)

After the crisis, Danish banks reorientated their performance measurement to achieve coherence with changes in their strategy, reflecting a stronger focus on retail customers compared to commercial customers:

What we had before the crisis was focus on business customers – more exact on big companies. This has changed. We have customer satisfaction measures and are focusing much more on full customer engagements. (CEO and CFO – DK Bank 1)

This reorientation resulted in the increased importance of measuring "customer" performance. In fact, Danish respondents mentioned the word *customer* 71 times in the interviews, while the Icelandic respondents only mentioned *customers* 27 times.

5.6 Reward and compensation

Before the crisis, multiple bonus schemes were in place in the Icelandic banks for most employee groups, combined with ad hoc management bonuses based on subjective criteria. Bonus levels for top managers could reach amounts several times their ordinary annual salary. For other employees, bonus payments could reach more than 50% of ordinary annual salaries. The reward systems became the subject of regulatory and public debate after the crisis. In their report, the Special Investigative Committee concluded that the banks' incentive systems had a major role in focusing management attention on growth without focusing on risk management and compliance (SIC, 2010). Regulatory agencies now monitor the extent and scope of incentive systems, while banks manage their implementation. The media also monitors bonuses; major newspapers

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

periodically run stories about the size of bonuses in the banking sector and individual banks.[8] In the aftermath of the crisis, one of the Icelandic banks suspended all bonus incentives for a while:

> *After the collapse, there was no bonus scheme from 2009 to 2011. Salaries were fixed. (HR Director – ICE Bank 3)*

One of the studied Icelandic banks currently does not implement bonus schemes at all, while the other two employ a significantly reduced scope in compliance with external regulations. Bonuses are explicitly linked to non-financial criteria, such as those of compliance and risk management, according to which employees must meet certain targets:

> *Today, we base the bonus system on 65% financial and operational metrics. Then, we have 35% based on what we call judgmental areas. These are five to eight metrics with which we are trying to stimulate responsible and good behavior, including those related to risk management and compliance. When you don't meet the criteria for these areas, you can lose a good proportion of your bonus. (HR director – ICE Bank 3)*

For all three Danish banks, rewards and compensation schemes were not affected to the same extent by external regulation or social scrutiny and did not require a major overhaul in the wake of the financial crisis. The bonus framework was left unchanged at a level of approximately 5% of the annual salary. Some developments and adjustments were made, considering the more customer-centered strategies adopted following the crisis. One of these adjustments was to remove the link between sales and bonuses in retail banking and introduce new customer-centric measures:

> *There is a much stronger focus on customer satisfaction and total returns or long-term returns rather than a strict focus on short-term returns. We have totally removed sales related bonus arrangements for those who have retail customers. (HR Director – DK Bank 1)*

5.7 Administrative controls

Compliance processes which occurred in Icelandic banks before the crisis were sometimes seen as "fluid":

> *Before the crisis, some managers operated by saying, "Let's do this and fit it into the regulatory framework afterward". This is no longer possible or considered acceptable management behavior. (HR director – ICE Bank 3)*

[8] See e.g. https://www.vb.is/frettir/starfsmenn-fa-allt-ad-milljon-i-kaupauka/146960/ (Accessed 27/6/2020)

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

After the crisis, regulatory pressures in Iceland were stronger than those observed in Denmark since the IMF provided several forms of emergency assistance that came with non-negotiable stipulations and conditions. One of these stated that compliance with globally accepted regulatory requirements was compulsory. According to the managers, this involved making changes to the organizing of internal control within Icelandic banks. For example, through "three lines of defense", responsibility for managing risk was assigned to functional units as first line of defense, support from risk management departments served as second line of defense, and internal audits served as third line of defense (BIS, 2003).

Although many requirements for changes in risk management, compliance procedures, and rules came from outside the banks, the design, implementation, and operation decisions were the responsibility of risk managers in designing and formalizing new governance processes:

> *Although the board approves the high levels policies, it is the management and the professionals that do a lot of the leg work. I think by 2009, we pretty much had everything in place. There were governance changes in the bank in the sense that the board established committees such as a risk management committee, a special credit committee and an audit committee. Clearly, the initiative comes from the board rather than the management, but a lot of the work came from us, the [risk] professionals. (Risk Manager – ICE Bank 3)*

According to the respondents, these tasks caused risk departments to increase in size and power. Before the crisis, Icelandic risk management departments employed in average five full-time employees. This number has grown to an average of 30 since the crisis, despite a reducing number of employees and business volume. Similar regulatory requirements govern Icelandic and Danish risk management departments, and they perform similar tasks. However, the number of risk management employees differs significantly between the Icelandic and Danish banks after the crisis. Post-crisis, Danish risk management departments employed in average five employees at each bank.

Following the financial crisis, the respondents reported general pressures from regulatory agencies to increase levels of formalization, since this was considered an important means of control. These rules and procedures make a new behavioral standard visible to employees and increase the transparency with which rules are and should be enacted. This visibility was absent before the crisis. Specific information systems that codify risk and render the process more transparent are now implemented. The internal audit function supports and amplifies this development because it works towards enhancing the formalization of policies and procedures:

> *I would say that it is primarily due to our work. It is the internal audit department that had driven this, whereas, before the crisis, you had*

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

one focus: sell, sell, and sell. All issues regarding control were boring. (Head of Internal Audit – ICE Bank 1).

The external accountability structures introduced after the crisis were based on external reporting and a compliance dialogue between the bank and the FSA:

We also have a good and constructive reporting dialogue with the regulatory authorities. We disagree with some of the points they make and let them know that but, in the end, we accept their outcome. (Risk Manager – ICE Bank 3)

The risk managers explained that the significantly extended reporting and compliance requirements led to the growth in risk departments. The extended reporting also emerged as a source of frustration:

For example, we report on liquidity, capital requirements, and buffers to the Central Bank. We ask them how they want this information, and they say, "well, you will have to be the judge of that." And then they come later and say what we did was not the right call, and sorry we will have to fine you. Why? Because they don't know how to interpret the rules, and they cannot tell us. (Risk Manager – ICE bank 2)

The situation in Denmark was different, primarily because the policies and procedures were more formalized before the crisis. The Danish banks reported having dozens of policies and hundreds of procedures that were documented and encoded. One bank had an IT system which managers could use to ensure that their activities followed procedures:

We have designed a tool which we have made available to the business to document if they fulfill the requirements and that they have done this or that. And we have a person responsible for the business procedures. So, there are business procedures in all material areas. (Head of Internal Audits – DK Bank 2)

The Danish respondents also described the Danish FSA process for checking whether procedures were in place and whether banks were following those procedures, something that had been going on for years based on a formalized framework and pre-dated the crisis.

As to administrative controls changes since the crisis, one respondent described controls becoming more streamlined and ubiquitous. Further, employees saw this as a positive development, although one head of internal audit speculated whether now might be the time to focus more extensively on the market rather than introducing more policies and procedures:

Let me put it this way: before, there were more informal ways of doing things. Now, all descriptions, both policies and procedures, have become more streamlined. This is a proactive process, and we

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

want these to be in proper condition. And this has been discussed at meetings with the employees – and everybody agrees that the more we have formalized – the easier it is for all parties. But I think that now we are moving on from here – now that we have established all these controls –to try to face the market. (Head of Internal Audit – DK Bank 3)

5.8 Summary of findings

The Icelandic and Danish banks mobilized different management controls, as shown in Table 3. Initially, the most important controls used in the Icelandic banks were cultural controls to develop new values and tackle social hostility and administrative controls to implement regulatory compliance and risk management changes. In the Danish banks, long-term planning was critical in realigning the organizations with a new post-crisis strategic emphasis, cascading into short-term action planning, which initiated an enhanced customer focus. These changes were planned and had the long-term view of "weathering the storm" and "going back to basics". Both the Icelandic and Danish banks then used new performance measures and to interpret and implement changed performance criteria. The Icelandic banks introduced new risk and compliance performance measures while the Danish banks introduced new customer-related measures.

- INSERT TABLE 3 ABOUT HERE -

6. Discussion

The crisis of 2008 resulted in different environmental characteristics in the Icelandic and Danish contexts. The Icelandic banks experienced severe uncertainty regarding changes in access to capital, asset values, interest rates, and inflation rates. Uncertainty also increased in the political and regulatory environment, with new compliance requirements being implemented and interpreted. The Icelandic organizations had to be restructured with new management taking over and with significant layoffs. Furthermore, environmental hostility increased in the form of lack of trust, deteriorating image, protests, criminal charges against former top management, and legitimacy loss. In contrast, Danish banks faced the financial crisis with some environmental uncertainty increase but did not experience a survival-threatening crisis. Regulation tightened, though without any indication of societal hostility or loss of organizational legitimacy, and the banks did not face significant changes in supervision (and its practice).

Earlier studies of management controls conclude that when environmental uncertainty increases, management controls become more organic within an organization (Abernethy and Brownell, 1999; Donaldson, 2006, 2006; Hoque, 2005; Khandwalla, 1973; Lawrence and Lorsch, 1967). This presumes that control in organizations can be characterized as either mechanistic or organic. We find that when organizations respond to a sudden and simultaneous increase in uncertainty and hostility, there is no single characteristic such as "mechanistic" or "organic" that can describe the entire organization's approach to control. The use of management controls in dealing with the aftermath of the

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

crisis is a mix of both organic and mechanistic forms of control in a complex structure designed by internal actors or required by external actors. This supports Bedford and Malmi (2015) findings that complex hybridizations of organic and mechanistic control structures are required to manage organizations under complex conditions such as a crisis.

The Icelandic banks used cultural controls to define new values in the Icelandic banks, was organic, involving all employees in a voluntary bottom-up interactive process initiated and led by the new top management. New values were then communicated to the public employing press releases, website homepages, and annual reports. Cultural controls were used to influence employee behavior and signal to outside actors that a "clean break" with the pre-crisis way of doing business was undertaken and to regain organizational legitimacy. Furthermore, it enabled employees to associate themselves with a new corporate identity (Borodzicz, 2005; Bundy *et al.*, 2017). In dealing with tightening regulatory oversight, more mechanistic compliance structures were introduced in the Icelandic banks. There was uncertainty about the interpretation and extent of these regulatory requirements. The risk management functions led the interaction with the regulatory authorities in the Icelandic banks, consequently increasing size, power, and authority. Management controls in the form of governance structures, organizational structures, and formalization of policies and procedures were mobilized to enable regulatory oversight by the FSA, and to ensure compliance with new standards for risk-taking, rewarding, and transparency. This supports Bedford and Malmi´s (2015) conclusion that organic controls are more likely to exhibit a complementary relationship with mechanistic controls, rather than to act as substitutes.

The use of cybernetic controls remained relatively unchanged after the crisis, although theory would predict more organic approaches in the wake of increased environmental uncertainty (Abernethy and Brownell, 1999; Chenhall, 2006; Ekholm and Wallin, 2011). All banks had a relatively bureaucratic and top-down focused financial budgeting and performance measurement system both before and after the crisis. The performance measures changed, however, as performance criteria were redefined. For the Icelandic banks, both risk and compliance measures emerged as critical performance criteria, while the Danish banks focused on customer measures. This conforms to the theory that in the face of uncertainty and hostility, organizations tend to rely more heavily on non-accounting measures of performance (Chenhall, 2003). However, the cybernetic controls in which these performance measures were embedded remained relatively stable and mechanistic. In the Icelandic banks there was an increased formalization of policies and procedures as well as reporting of performance internally and to outside actors.

After the crisis, the period in the Icelandic banks was characterized by "sequential firefighting", and management controls were designed and used by managers in that context. In contrast, Danish banks changed management control as a strategic reorientation towards retail banking. The difference is explained by the magnitude of the crisis in Iceland and the subsequent social hostility faced by Icelandic banks. The difference also lies in the regulatory control frameworks in which these banks operated and how they shaped the banks' management controls. In Denmark, the FSA approach was more structured and formalized, and the design of the control system was implemented in terms of risk and

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

compliance requirements and reporting structures. In Iceland this was not the case (SIC, 2010), and the accountability structures had to be designed and implemented through changes in administrative controls. Combined with the finding that management controls employed to deal with the crisis were both organic and mechanistic, how does this relate to the system-package spectrum of rational design vs. evolutionary change? We find limited evidence of a "grand design" of management controls in the Icelandic banks but rather a combination of rational design and evolution based on past contingencies and external influences. This supports the views presented in Demartini and Otley (2019) and Merchant and Otley (2020).

The findings indicate that management controls were used to influence the perceptions of external actors. The new values were portrayed as fundamentally different from that of the old entities, which were not trusted and perceived by society as the culprits of the crisis (Bryant *et al.*, 2014). Various "control artifacts" (Jollands *et al.*, 2018) were mobilized, such as annual reports, press releases, and corporate symbols, to promote these values and influence outside actors' perceptions. Furthermore, a new risk management approach based on internationally accepted best practices regulated and controlled by the FSA was introduced to Icelandic banks (Jackson, 2010). Today, these departments are disproportionally large and powerful compared to comparable Danish banks and signal a stronger emphasis on risk management. These administrative controls played an important role in ensuring accountability to the FSA.

Traditional definitions of management control state that this is a "process by which managers influence other members of the organization to implement the organization's strategies" (Anthony and Govindarajan, 2006, p. 6). Our findings indicate that when the environment changes abruptly, leading to increasing uncertainty and hostility, management control assumes additional roles and its use has both an internal and external focus. These are shown in in table 4.

- INSERT TABLE 4 ABOUT HERE -

The classic understanding of management controls is that they have an internal focus and the main role is to control behavior to attain organizational objectives. After the financial crisis, this was the case in the banks studied, where hybridization of mechanistic and organic controls were put in place (Bedford and Malmi, 2015). However, controls had an important role to play in controlling the perception of employees regarding, for example, what constituted good performance through use of objective measures and links to incentive systems (Ferrara and Otley, 2009). Furthermore, they assumed an important role in assuring internal compliance to the new accountability structures that were put in place after the crisis. This indicates that internally, controls play different roles at different times in influencing behavior towards changed organizational objectives.

Otley (1980) mentions that organizations can try to influence the contingencies they are faced with. As shown in Table 4, the use of management controls also have an external focus in responding to a crisis. They are used in the dialogue with external actors to influence e.g. interpretation of new regulations and choice of performance criteria. They have a role to play in

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

influencing the perception of outside actors in interpreting e.g. the values of the organization and risk related behavior. Finally, combinations of controls are used to ensure accountability and compliance with new regulatory requirements set by outside agencies. This supports the results by Tessier and Otley (2012) and by Brivot *et al*. (2017) that managers use different combinations of controls to influence external contingencies. Our findings show that during times of rising uncertainty and hostility, controls are used to influence the behavior and perceptions of outside actors, as well as to discharge accountability.

7. Conclusion

In the introduction we asked the question of what happens to management control design and use when an organization like a bank is subjected to a severe and abrupt increase in both uncertainty and hostility? Several conclusions can be drawn.

During a severe crisis of the type and magnitude experienced by the Icelandic banks, organic and mechanistic management controls are mobilized to influence behavior and ensure accountability. In managing the aftermath of the crisis, management controls affect employees' and external actors' perceptions. Therefore, rather than controls or configurations of controls being uniformly organic or mechanistic, the control structures are hybrids of organic and mechanistic controls mobilized to tackle environmental characteristics changes.

Cultural controls are used organically to address social hostility. Cybernetic and administrative controls are used mechanistic to cement new behavior, perceptions, and accountability requirements after a period of uncertainty. Collectively, this shows an "ambidextrous" use of both organic and mechanistic management controls. There might not be any uniform modes of controls in today's fast-changing environment, but only varying permutations of organic and mechanistic controls employed to respond to and influence environmental characteristics. This would require a re-examination of some of the fundamental in-house assumptions of management controls research, such as that mechanistic controls are most "appropriate to an enterprise operating under relatively stable conditions" (Burns and Stalker, 1961, p. 5).

Although much of the literature on management control stresses the internal focus of management controls, we conclude that they have important external roles to play, at least in dealing with a crisis. Managers use them to influence behavior and perceptions of external actors that align with organizational objectives. This requires the use of outside communication channels and what Jollands *et al.* (2018) call control artefacts.

Finally, individual managers designed management controls, and no centralized "grand design" determines how controls should be formed. However, in the banks' case, there is an "external grand design" of a regulatory control environment that shapes administrative controls, performance measures, and rewards and compensation. These designs were different in Iceland and Denmark before the crisis but have become more similar since.

Several issues merit further research. We have shown the roles that management controls play in dealing with severe and sudden change in both environmental uncertainty and hostility in the context of banks. Extending this research to other contexts and contingencies, could add a "dimensionality" to

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

management control dichtonomies, such as mechanistic/organic or enabling/coercive. Configurations of controls (Malmi and Brown, 2008; Bedford and Malmi, 2015) could play different roles and have varying degrees of internal and external foci depending on the contingencies faced by the organization.

Another potential research topic is the nature of environmental characteristics such as uncertainty, hostility, complexity and turbulence in relation to management control. It seems that current definitions, classifications and measurements of these characteristics can be traced to studies from the 1960s and the 1970s (Bedford and Malmi, 2015; Malmi and Brown, 2008; Otley, 2016). However, Granlund and Lukka (2017) point out that such characteristics depend on industry, tasks and management function. Indeed, our research shows that changes in uncertainty and hostility differ, despite the context being impacted by the same global financial crisis. Elaborating on the nature, classes, contextuality and measurement of environmental characteristics seems like a worthwhile future development of contingency theory.

Finally, the design and use of management controls could be explored in the current environment of social media, transparency, fake news, rapid change, and powerful pressure groups. The enactment of control seems no longer confined to internal uses and can also be used to influence external actors. Several studies have started exploring this aspect (Brivot *et al.*, 2017; Jollands *et al.*, 2015; Jollands and Quinn, 2017; Tessier and Otley, 2012) and have shown how control is enacted through physical artifacts, communication, reputation, and interpretation management. However, more work is needed in this area to broaden our understanding of management controls.

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

References

Abernethy, M.A. and Brownell, P. (1999), "The role of budgets in organizations facing strategic change: An exploratory study", *Accounting, Organizations and Society*, Vol. 24 No. 3, pp. 189–204.

Adler, P.S. and Borys, B. (1996), "Two types of bureaucracy: Enabling and coercive", *Administrative Science Quarterly*, Vol. 41 No. 1, pp. 61–89.

Alvesson, M. and Sandberg, J. (2011), "Generating Research Questions Through Problematization", *Academy of Management Review*, Vol. 36 No. 2, pp. 247–271.

Anthony, R.N. and Govindarajan, V. (2006), *Management Control Systems*, 12th ed., McGraw-Hill Europe, Boston.

Arendt, C., LaFleche, M. and Limperopulos, M.A. (2017), "A qualitative meta-analysis of apologia, image repair, and crisis communication: Implications for theory and practice", *Public Relations Review*, Vol. 43 No. 3, pp. 517–526.

Arnold, P.J. (2009), "Global financial crisis: The challenge to accounting research", *Accounting, Organizations and Society*, Vol. 34 No. 6–7, pp. 803–809.

Bastian, E. and Muchlish, M. (2012), "Perceived environment uncertainty, business strategy, performance measurement systems, and organizational performance", *Procedia - Social and Behavioral Sciences*, Vol. 65, pp. 787–792.

Becker, S.D., Mahlendorf, M.D., Schäffer, U. and Thaten, M. (2016), "Budgeting in times of economic crisis", *Contemporary Accounting Research*, Vol. 33 No. 3, pp. 1489–1517.

Bedford, D.S. and Malmi, T. (2015), "Configurations of control: An exploratory analysis", *Management Accounting Research*, Vol. 27, pp. 2–26.

Bedford, D.S., Malmi, T. and Sandelin, M. (2016), "Management control effectiveness and strategy: An empirical analysis of packages and systems", *Accounting, Organizations and Society*, Vol. 51, pp. 12–28.

Bingham, G., Sigurðsson, J. and Jännäri, K. (2012), *Framework for Financial Stability in Iceland*, The Minister of Industries and Innovation, Reykjavik. Iceland, p. 50

Borodzicz, E.P. (2005), *Risk, Crisis and Security Management*, J. Wiley & Sons, West Sussex, England ; Hoboken, NJ.

Brewer, W.F. (1994), "Autobiographical Memory and Survey Research", in Schwarz, N. and Sudman, S. (Eds.), *Autobiographical Memory and the Validity of Retrospective Reports*, Springer New York, New York, NY, pp. 11–20.

Brinkman, S. and Kvale, S. (2014), *InterViews: Learning the Craft of Qualitative Research Interviewing*, SAGE Publications, Inc, Thousand Oaks, CA.

Brivot, M., Gendron, Y. and Guénin, H. (2017), "Reinventing organizational control: Meaning contest surrounding reputational risk controllability in the social media arena", *Accounting, Auditing & Accountability Journal*, Vol. 30 No. 4, pp. 795–820.

Bryant, M., Sigurjonsson, T.O. and Mixa, M.W. (2014), "Restoring trust in public institutions and the financial system, the case of Iceland 2008 to 2012", presented at the International Conference of Critical Accounting, New York, US.

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Bundy, J., Pfarrer, M.D., Short, C.E. and Coombs, W.T. (2017), "Crises and Crisis Management: Integration, Interpretation, and Research Development", *Journal of Management*, Vol. 43 No. 6, pp. 1661–1692.

Burns, T.J. and Stalker, G.M. (1961), "The management innovation", Social Science Research Network, Rochester, NY.

Byggdastofnun. (2013), *Stoudugreining*, Status Assessment, Icelandic Regional Institute, Reykjavík, Iceland, available at: https://www.byggdastofnun.is/static/files/Skyrslur/Soknaraaetlun/Soknaraaetlun_Hofudborgarsvaedisins_2012.pdf (accessed 18 December 2020).

Chapman, C. (1997), "Reflections on a contingent view of accounting", *Accounting, Organizations and Society*, Vol. 22 No. 2, pp. 189–205.

Chenhall, R.H. (2003), "Management control systems design within its organizational context: findings from contingency-based research and directions for the future", *Accounting, Organizations and Society*, Vol. 28 No. 2–3, pp. 127–168.

Chenhall, R.H. (2006), "Theorizing contingencies in management control systems research", in Chapman, C., Hopwood, A.G. and Shields, M.D. (Eds.), *Handbooks of Management Accounting Research*, Vol. 1, Elsevier, pp. 163–205.

Chenhall, R.H. and Euske, K.J. (2007), "The role of management control systems in planned organizational change: An analysis of two organizations", *Accounting, Organizations and Society*, Vol. 32 No. 7–8, pp. 601–637.

Child, J. (1972), "Organization structure and strategies of control: A replication of the Aston study", *Administrative Science Quarterly*, Vol. 17 No. 2, pp. 163–177.

Corbin, J.M. and Strauss, A.L. (2015), *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, Fourth edition., SAGE Publications, Inc, Thousand Oaks, CA.

Czarniawska, B. (2012), "New plots are badly needed in finance: accounting for the financial crisis of 2007-2010", *Accounting, Auditing & Accountability Journal*, Vol. 25 No. 5, pp. 756–775.

Daft, R.L. and Macintosh, N.B. (1984), "The nature and use of formal control systems for management control and strategy implementation", *Journal of Management*, Vol. 10 No. 1, pp. 43–66.

Demartini, M. C. and Otley, D. (2019) "Beyond the system vs. package dualism in Performance Management Systems design: A loose coupling approach", *Accounting, Organizations and Society*, p. 101072. doi: 10.1016/j.aos.2019.101072.

Dess, G.G. and Beard, D.W. (1984), "Dimensions of Organizational Task Environments", *Administrative Science Quarterly*, Vol. 29 No. 1, p. 52.

Donaldson, L. (2001), *The Contingency Theory of Organizations*, 1st ed., SAGE Publications, Inc, Thousand Oaks, CA.

Donaldson, L. (2006), "The contingency theory of organizational design: challenges and opportunities", in Burton, R.M., Håkonsson, D.D., Eriksen, B. and Snow, C.C. (Eds.), *Organization Design: The Evolving State-of-the-Art*, Springer US, Boston, MA, pp. 19–40.

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Eisenhardt, K.M. (1989), “Building Theories from Case Study Research”, *Academy of Management Review*, Vol. 14 No. 4, pp. 532–550.

Ekholm, B.-G. and Wallin, J. (2011), “The impact of uncertainty and strategy on the perceived usefulness of fixed and flexible budgets”, *Journal of Business Finance & Accounting*, Vol. 38 No. 1–2, pp. 145–164.

Endenich, C. (2014), “Economic crisis as a driver of management accounting change: Comparative evidence from Germany and Spain”, *Journal of Applied Accounting Research; Leicester*, Vol. 15 No. 1, pp. 123–149.

Ferreira, A. and Otley, D. (2009), “The design and use of performance management systems: An extended framework for analysis”, *Management Accounting Research*, Vol. 20 No. 4, pp. 263–282.

Gerdin, J., Johansson, T., and Wennblom, G. (2019), "The contingent nature of complementarity between results and value-based controls for managing company-level profitability: A situational strength perspective", *Accounting, Organizations and Society* Vol. 79, p 101058.

Gerring, J. (2004), “What Is a Case Study and What Is It Good for?”, *The American Political Science Review*, Vol. 98 No. 2, pp. 341–354.

Gooneratne, T.N. and Hoque, Z. (2013), “Management control research in the banking sector: A critical review and directions for future research”, *Qualitative Research in Accounting & Management*, Vol. 10 No. 2, pp. 144–171.

Grabner, I. and Moers, F. (2013), “Management control as a system or a package? Conceptual and empirical issues”, *Accounting, Organizations and Society*, Vol. 38 No. 6–7, pp. 407–419.

Granlund, M. and Lukka, K. (2017), “Investigating highly established research paradigms: Reviving contextuality in contingency theory based management accounting research”, *Critical Perspectives on Accounting*, Vol. 45, pp. 63–80.

Gudlaugsson, T. and Eysteinsson, F. (2010), “How the Economic Crisis in Iceland Affects the Image of the Retail Banks”, *European Institute of Retailing and Services Studies Conference on Recent Advances in Retailing and Service Science*. https://notendur.hi.is/th/efni/Eirass10b.pdf (Accessed 15 January 2021).

CB (2015). “History and premises”. *Central Bank of Iceland*, available at: http://www.cb.is/about-the-bank/central-bank-of-iceland/history-and-premises.

Hoque, Z. (2005), “Linking environmental uncertainty to non-financial performance measures and performance: A research note”, *The British Accounting Review*, Vol. 37 No. 4, pp. 471–481.

Icelandic Chamber of Commerce. (2017), *The Icelandic Economy: Current State, Recent Developments and Future Outlook.*, No. 20, The Icelandic Chamber of Commerce, Reykjavík, p. 72.

IMF. (2014), *Iceland: Report on Observance of Standards and Codes (ROSC)*, No. 14/257, International Monetary Fund, Washington DC, p. 38.

Ioannou, S., Wójcik, D. and Dymski, G. (2019), “Too-big-to-fail: why megabanks have not become smaller since the global financial crisis?”, *Review of Political Economy*, Vol. 31 No. 3, pp. 356–381.

Jackson, J. (2010), *Iceland’s Financial Crisis*, No. RS22988, Washington DC.

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher’

Janke, R., Mahlendorf, M. and Weber, J. (2014), "An exploratory study of the reciprocal relationship between interactive use of management control systems and perception of negative external crisis effects", *Management Accounting Research*, December, Vol. 25 No. 4, pp. 251–270.

Jännäri, K. (2009), *Report on Banking Regulation and Supervision in Iceland: Past, Present and Future*, Forsaetisraduneytid (The Prime Minister's Office), Reykjavik. Iceland, p. 46.

Jollands, S., Akroyd, C. and Sawabe, N. (2015), "Core values as a management control in the construction of 'sustainable development'", *Qualitative Research in Accounting & Management*, Vol. 12 No. 2, pp. 127–152.

Jollands, S., Akroyd, C. and Sawabe, N. (2018), "Management controls and pressure groups: the mediation of overflows", *Accounting, Auditing & Accountability Journal*, Vol. 31 No. 6, pp. 1644–1667.

Jollands, S. and Quinn, M. (2017), "Politicising the sustaining of water supply in Ireland – the role of accounting concepts", *Accounting, Auditing & Accountability Journal*, Vol. 30 No. 1, pp. 164–190.

Kach, A., Busse, C., Azadegan, A. and Wagner, S.M. (2016), "Maneuvering through Hostile Environments: How Firms Leverage Product and Process Innovativeness: Maneuvering through Hostile Environments", *Decision Sciences*, Vol. 47 No. 5, pp. 907–956.

Khandwalla, P.N. (1973), "Viable and Effective Organizational Designs of Firms", *Academy of Management Journal*, Vol. 16 No. 3, pp. 481–495.

Lacerda, T.C. (2019), "Crisis leadership in economic recession: A three-barrier approach to offset external constraints", *Business Horizons*, Vol. 62 No. 2, pp. 185–197.

Laughlin, R. (1991), "Environmental Disturbances and Organizational Transitions and Transformations.", *Organizational Studies*, Vol. 12 No. 2, pp. 209–232.

Lawrence, P.R. and Lorsch, J.W. (1967), *Organization and Environment: Managing Differentiation and Integration*, Division of Research, Harvard Business School, Boston (MA).

Lin, Z. (John), Zhao, X., Ismail, K.M. and Carley, K.M. (2006), "Organizational design and restructuring in response to crises: Lessons from computational modeling and real-world cases", *Organization Science*, Vol. 17 No. 5, pp. 598–618.

Lindelof, P. and Lofsten, H. (2006), "Environmental Hostility and Firm Behavior-An Empirical Examination of New Technology-Based Firms on Science Parks", *Journal of Small Business Management*, Vol. 44 No. 3, pp. 386–406.

Llewellyn, S. (1994), "Managing the boundary", *Accounting, Auditing & Accountability Journal*, Vol. 7 No. 4, pp. 4–23.

Malmi, T. and Brown, D.A. (2008), "Management control systems as a package—Opportunities, challenges and research directions", *Management Accounting Research*, Vol. 19 No. 4, pp. 287–300.

Melendez, E.D. (2013), "Financial Crisis Cost Tops $22 Trillion, GAO Says | HuffPost", *Huffpost*, available at: https://www.huffpost.com/entry/financial-crisis-cost-gao_n_2687553 (accessed 18 December 2019).

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Merchant, K. A. and Otley, D. (2020) 'Beyond the systems versus package debate', *Accounting, Organizations and Society*, p. 101185. doi: 10.1016/j.aos.2020.101185.

Messner, M. (2016), "Does industry matter? How industry context shapes management accounting practice", *Management Accounting Research*, Vol. 31, pp. 103–111.

Mikes, A. (2011), "From counting risk to making risk count: Boundary-work in risk management", *Accounting, Organizations and Society*, Vol. 36 No. 4–5, pp. 226–245.

Miller, C.C., Cardinal, L.B. and Glick, W.H. (1997), "Retrospective Reports In Organizational Research: A Reexamination Of Recent Evidence", *Academy of Management Journal*, Vol. 40 No. 1, pp. 189–204.

Miller, D. and Friesen, P.H. (1983), "Strategy-making and environment: The third link", *Strategic Management Journal*, Vol. 4 No. 3, pp. 221–235.

Mixa, M.W. and Sigurjonsson, T.O. (2013), "Lessons not learned - Iceland's financial crisis compared to the Nordic countries", in Hawthorne, C.A. (Ed.), *Financial Crises: Identification, Forecasting and Effects on Transition Economies*, Nova science publishers, New York, pp. 129–146.

Mundy, J. (2010), "Creating dynamic tensions through a balanced use of management control systems", *Accounting, Organizations and Society*, Vol. 35 No. 5, pp. 499–523.

Otley, D. (1978), "Budget use and managerial performance", *Journal of Accounting Research*, Vol. 16 No. 1, pp. 122–149.

Otley, D. (1980), "The contingency theory of management accounting: Achievement and prognosis", in Emmanuel, C., Otley, D. and Merchant, K. (Eds.), *Readings in Accounting for Management Control*, Vols. 1-1, Springer, Boston, MA, pp. 83–106.

Otley, D. (1994), "Management control in contemporary organizations: Towards a wider framework", *Management Accounting Research*, Vol. 5 No. 3, pp. 289–299.

Otley, D. (2016), "The contingency theory of management accounting and control: 1980–2014", *Management Accounting Research*, available at: (accessed 14 March 2016).

Otley, D. and Soin, K. (2014), *Management Control and Uncertainty*, 1st ed., Palgrave Macmillan, Basingstoke.

Pavlatos, O. and Kostakis, H. (2015), "Management accounting practices before and during economic crisis: Evidence from Greece", *Advances in Accounting*, Vol. 31 No. 1, pp. 150–164.

Petersen, H.-G. and Wiegelmann, M.A. (2013), "Institutional Economics, Risk Management, and Breakdown of Corporate Social Responsibility: Towards a New Architecture of Financial Markets", *IBusiness*, Vol. 05 No. 03, pp. 190–199.

Rangvid, J., Oestrup, F. and Moegelvang-Hansen, P. (2013), *Den Finansielle Krise i Danmark: Årsager, Konsekvenser Og Læring (The Financial Crisis in Denmark. Causes, Consequences and Lessons)*, Ministry of Business and Growth, Copenhagen, DK.

Rikhardsson, P., Karlsson, T., Sigurjonsdottir, T.A. and Hilmarsson, S.T. (2012), "Rear-view mirror navigation: Pre-crisis management accounting and

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

control practices in Iceland", *International Journal of Managerial and Financial Accounting*, Vol. 4 No. 4, pp. 402–422.

Sandelin, M. (2008), "Operation of management control practices as a package—A case study on control system variety in a growth firm context", *Management Accounting Research*, Vol. 19 No. 4, pp. 324–343.

Scapens, R.W. (2004), "Doing Case Study Research", *The Real Life Guide to Accounting Research*, Elsevier, pp. 257–279.

SIC. (2010), *Report of the Special Investigation Commission (SIC)*, No. 1, Special Investigation Commission (SIC), Reykjavík, available at: https://www.rna.is/eldri-nefndir/addragandi-og-orsakir-falls-islensku-bankanna-2008/skyrsla-nefndarinnar/english/ (accessed 16 January 2020).

Simões, A.M.D. and Rodrigues, J.A. (2011), "The case study in management accounting and control research", presented at the XIII Accounting and Auditing Congress: A change in management ACIM, Porto, Portugal.

Simons, R. (1994), *Levers of Control: How Managers Use Innovative Control Systems to Drive Strategic Renewal*, Harvard Business Review Press, Boston (MA).

van der Stede, W. (2011), "Management accounting research in the wake of the crisis: Some reflections", *European Accounting Review*, Vol. 20 No. 4, pp. 605–623.

van der Steen, M. (2011), "The emergence and change of management accounting routines", *Accounting, Auditing & Accountability Journal*, Vol. 24 No. 4, pp. 502–547.

Sturluson, J.T. (2018), "Chapter 11: Post-Crisis Regulation and Supervision of Icelandic Banks", in Sigurjonsson, T.O., Schwarzkopf, D.L. and Bryant, M. (Eds.), *The Return of Trust? Institutions and the Public after the Icelandic Financial Crisis*, Emerald Publishing Limited, pp. 213–225.

Suarez, F.F. and Oliva, R. (2005), "Environmental change and organizational transformation", *Industrial & Corporate Change*, Vol. 14 No. 6, pp. 1017–1041.

Tessier, S. and Otley, D. (2012), "A conceptual development of Simons' levers of control framework", *Management Accounting Research*, Vol. 23 No. 3, pp. 171–185.

Thorgeirsson, T. and van den Noord, P. (2013), *The Icelandic Banking Collapse: Was the Optimal Policy Path Chosen?*, Central Bank of Iceland, Reykjavik. Iceland, p. 38.

World Bank. (2010), "Too Big to Fail or Too Big to Save?", *World Bank Research Digest*, Vol. 5 No. 1, pp. 3–4.

Ylinen, M. and Gullkvist, B. (2014), "The effects of organic and mechanistic control in exploratory and exploitative innovations", *Management Accounting Research*, Vol. 25 No. 1, pp. 93–112.

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Appendix A: Overview of the interviews and interview guides

Interview guides – primary agenda based on the typology of Malmi and Brown (2008):

#1 – Long-term planning
#2 – Short-term action planning and budgeting
#3 - Financial and non-financial performance measurement systems
#4 - Reward and compensation
#5 - Governance structure
#6 - Organizational structure
#7 - Policies and procedures
8 - Cultural controls

Context	Banks	Respondents (function)	Interview guide	Approximate duration in minutes
Iceland	ICE Bank 1	CFO	#1 + #2 + #3	60
		Head of internal audits	#5 + #6 + #7	45
		HR director	#4 + #8	45
		Risk manager	#5	60
	ICE Bank 2	CFO	#1 + #3	60
		Head of internal audits	#5 + #6 + #7	60
		HR director	#4 + #8	60
		Risk manager	#5	60
		Manager – CEO support	#1	60
		Director – planning and analysis	#2	45
	ICE Bank 3	CFO	#5	60
		Head of internal audits	#6 + #7	60
		HR manager	#4 + #8	60
		Manager – CEO support	#1 + #2 + #3	60
Denmark	DK Bank 1	CFO	#1 + #2 + #3	60
		Head of internal audits	#5 + #6 +#7	60
		HR director	#4 + #8	75
	DK Bank 2	CEO and CFO (interviewed together)	#1 + #2 + #3 + #6	75
		Head of internal audits	#5 + #6 + #7	60
		HR director	#4 + #8	60
		Audit managers 1 and 2	#5 + #6 + #7	60
	DK Bank 3	CEO	#1 + #5	60
		CFO	#2 + #3	60
		Head of internal audits	#6 + #7	60
		HR director	#4 + #8	60
	Icelandic FSA	Manager		45

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Tables

Table 1: Types of management controls (Malmi and Brown, 2008)

Types	Description and references
Cultural controls: Clans, values, and symbols	The values, beliefs, and social norms established to influence employees' behavior include hiring processes and ceremonies (clans); definitions of missions, visions, and values that are formally communicated (values); and the creation of visible expressions of a particular type of culture (symbols) (Alvesson and Kärreman, 2004; Malmi *et al.*, 2020; Ouchi, 1979).
Planning: Long-range and action planning	Processes and practices for setting objectives, targets, and action plans in functional areas, thereby directing effort and behavior, defining standards to be achieved, and considering long- and short-term planning (Langfield-Smith, 2008).
Cybernetic controls: Budgets as well as financial, non-financial and hybrid measurement systems	Processes through which a feedback loop is carried out by using performance standards, measuring system performance, comparing this performance to standards, and feeding back information on unwanted variances in systems. Includes budgets, financial and non-financial performance measurement, and a combination (hybrids) of financial and non-financial performance measurements (Chenhall, 2003; Ekholm and Wallin, 2011; Endrikat *et al.*, 2020; Ferreira and Otley, 2009).
Rewards and compensation	The processes and practices that focus on motivating and enhancing individuals' and groups' performance by achieving congruence between their goals and activities and those of the organization (Chenhall and Langfield-Smith, 2003; Schulz *et al*., 2010.
Administrative controls: Governance structures, organizational structures, policies, and procedures	Directions of employee behavior observed through the organization of individuals and groups (organizational structure), the monitoring of behavior (governance structure), and the process of specifying through policies and procedures how tasks or behavior are to be structured (policies and procedures) (Christensen *et al.*, 2018; Tessier and Otley, 2012).

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Table 2: Studied organizations (data from 2015 annual reports)

Key statistics	Iceland			Denmark		
	ICE Bank 1	ICE Bank 2	ICE Bank 3	DK Bank 1	DK Bank 2	DK Bank 3
Net interest income €m	243	210	203	250	170	140
Number of employees	1100	1000	1190	800	1100	600
Number of branches	38	18	19	53	70	40

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Table 3: Summary of findings and differences between the two study contexts

Management controls	**Icelandic banks in the study**	**Danish banks in the study**
Cultural controls: Clans, values, and symbols	In 2008-2010, banks redefined values to make a "clean break" with pre-crisis image, influence employee behavior, and reacquire society's legitimacy. New values infused through clan controls and new corporate symbols. *The structure of the new bank is very similar to that of the old bank, but the behaviors are not. There is a massive difference. We have completely changed. (CFO – ICE Bank 1)*	Existing values support strategic reorientation from product-oriented focus to customer-oriented focus. *Here we have our values: "Responsible, Present and Simple" and here we have described them precisely on the customer side. This is what we promise our customers when they visit us – and what is then required from us. (CEO and CFO – DK Bank 2)*
Planning: Long-range and action planning	Limited long-range planning in 2008-2010. After 2010, focus on defining business models for the future bank focusing on retail banking. *Since 2010, we have been able to spend more and more time trying to see what's ahead rather than only dealing with the past. (CFO – ICE Bank 2)*	Strategic planning cycles continue as before. Focus on defining more customer-oriented strategies to keep existing customers with the bank. *What we have learned after the financial crisis is the necessity of both being able to plan for the long term but also being able to move in such a way that we are able to adjust. (CEO – DK Bank 2)*
Cybernetic controls: Budgets as well as financial, non-financial and hybrid measurement systems	After 2008 KPI's shifts focus from financial to also to include non-financial measures. Link to reward schemes and "good performance". *We have a formal risk appetite score that has probably twenty to thirty items that covers large exposures, liquid ratios, ratings, equity exposure, foreign currency exposures, etc. Then we have risk measures as well. (CFO – ICE Bank 2)*	Capital budgeting acquires increased importance after 2008—performance focus shifts from financial growth to maintaining customers and improving service quality. *We have a measure regarding full customer engagements. Further, we have a process measure – an indicator measuring how many new customers left the bank again. (CEO and CFO – DK Bank 1)*

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Rewards and compensation	Limiting the size of bonuses. Risk and compliance added as criteria. *There are some areas in which we have seen definite changes in behavior, especially concerning compliance and risk management. These are today based on deadlines for improving compliance. Now, these amendments or targets are met 100% within time limits. This has really made life a lot easier for a lot of employees. (HR Director – ICE Bank 1)*	No changes in bonus schemes and structures but increased links with customer-centric criteria. *No changes. At the latest salary negotiation we established a working group which evaluated if changes were needed. The group reported that we don't want changes – and this was good news. (CEO – DK Bank 2)*
Administrative controls: Governance structures, organizational structures, policies and procedures	Regulatory requirements call for more formalized governance structures, compliance criteria, and internal controls. Rapid growth of the risk management departments. Increased documentation of rules and procedures to ensure compliant employee behavior. *We obviously have more rules, and we have more work processes. We have tried to nail everything down. You must tell the employees the rules and the boundaries and then check if they respect the boundaries but then act as if they do not. (Head of Internal Audit – ICE Bank 3)*	No significant increase in formalization or documentation. No change in staffing levels in risk management or compliance. *We have it because it works. It is not that we write a policy and lock it in a closet just to be able to present it to the FSA and then do something different daily. That's not how it works. We use policies and procedures as a management tool. Absolutely. (Head of Internal audit – DK Bank 1)*

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'

Table 4: The roles of management controls in a crisis in a bank

	Controlling behavior	Controlling perceptions	Controlling accountability
Internal focus	• Organic use of cultural controls with employees and management defining new values. • Mechanistic use of administrative controls to introduce new policies, procedures, and governance structures. • Mechanistic use of controls to change reward and compliance.	• Communicate new values to guide employees. • Communicate new values to new employees (clan controls). • Introduce and use KPI's that define new dimensions of performance.	• Formalize policies and procedures and governance structures to enable assessment of compliance.
External focus	• Dialogue with external regulatory authorities through discharging accountability in administrative controls to interpret compliance requirements. • Promoting values and changed behavior to external actors to influence behavior.	• Communicate new values to external actors. • Communicate new strategies, governance structures, and actions to external actors. • Change logos and symbols to influence perception of new legal entities.	• Develop structures (expand risk department) to discharge accountability and report compliance to regulatory authorities. • Use of cybernetic controls and new KPI's to report compliance, performance, and actions to regulatory authorities.

© *Emerald Publishing Limited. This* AAM is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher'