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Downsizing Harshness Framework: Wage Cuts or Layoffs in a Collaborative Context?[1]

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ABSTRACT

The Nordic labor markets are characterized by high levels of trust, social, and employment security where tripartite collaboration is a cornerstone. When organizations are hit by a crisis, management needs to seriously consider what alternatives exist to downsize the labor force. In this study, we develop a framework of downsizing harshness, by classifying downsizing alternatives as soft, moderate, or hard. We then explore the application of downsizing alternatives during an economy-wide recession in a flexible and collaborative Nordic labor market, focusing on the hard alternatives, layoffs, and wage cuts. Data was collected from HR managers in Iceland at two points in time after the economy was hit by a deep recession in 2008, and probit regressions are used for analysis. Findings show that organizations were more likely to implement nominal wage cuts than layoffs and mass layoffs were rarely used in isolation. Furthermore, decision-making gravitated toward harsher alternatives as the recession continued.

KEYWORDS

downsizing / flexible labor market / layoffs / recession / wage cuts / wage rigidity

1. Introduction

The tripartite collaboration between employers, labor unions, and the state serve as a key foundation for the Nordic labor and welfare model and quality of working life in the Nordic countries (Dølvik et al. 2015). This has been viewed as a key cornerstone for the high level of collaboration both in the labor market and within organizations (Gooderham et al. 2025; Larsen & Navrbjerg 2015), building up trust labeled 'The Nordic gold' (Andreasson 2017). Furthermore, collaborative human resource management practices contribute toward organizational performance, especially in the Nordic context (Einarsdottir et al. 2025; Rizov & Croucher 2009). In a recession, the discussion about methods used for organizational downsizing gains importance, and in other more recent crisis situations, such as the Covid pandemic, this topic has once again been brought to the forefront of discussion. When hit by a crisis, especially in the form of a negative economic shock, organizations may be forced to rapidly downsize their operations, also in the collaborative Nordic context. Iceland provides for an interesting case as a unique natural experiment. Before the Great Recession, Iceland had enjoyed economic growth which was halted almost overnight and led to a 10% contraction in GDP from

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2008 to 2010. As a result, organizations needed to make big and difficult decisions that turned out be unique through the extensive use of nominal wage cuts.

While the terms downsizing and layoffs are often used as synonyms, downsizing is here expanded to include other alternatives than layoffs, including management and employee pay-cuts. Faced with a sudden shock or a prolonged recession, organizations in a flexible labor market may look for alternatives to layoffs, as they might prefer to engage in some form of labor hoarding. The alternatives available vary in severity for the workforce; the hardest ones considered are employment terminations, or layoffs (Dahl & Nesheim 1998; Greenhalgh et al. 1988; Iverson & Zatzick 2007) and a nominal wage reduction (Bewley 1998; Hirsch & Zwick 2015). Layoffs seem to receive the greatest attention in the downsizing literature, probably due to the harsh nature and consequences of unemployment (Appelbaum et al. 1998; Cascio 2009). Less attention seems to be given to the other alternatives, such as management and employee wage cuts, which may have serious consequences for employees.

Furthermore, the harsh alternative of nominal wage reductions appears to be somewhat ignored in the research literature. This is probably due to the idea of downward rigidity of wages (Hirsch & Zwick 2015), collective agreements, and indications of strong resistance by employees to take wage cuts in the Nordic context (Van den Berg et al. 1998) as well as a general management's reluctance to cut wages (Bewley 1998; Zoëga & Karlsson 2006). Keynes' (1936) classic explanation of employees primarily caring about relative wages and opposing wage cuts unless they are cut in a coordinated manner throughout the economy, to maintain relative wages in the economy, may provide an additional explanation for downward wage rigidity, except in extreme circumstances.

This study builds on a broad conceptualization of downsizing, including a wide range of organizational activities, in line with Cameron's definition (1994, p. 192) and includes nominal management and employee wage cuts as downsizing methods. It also builds on prior conceptualizations and frameworks of downsizing harshness (Greenhalgh et al. 1988; Iverson & Zatzick 2007) but with a focus on individual alternatives or tactics rather than broad strategies, adding nominal management and employee wage cuts as alternatives. The use of various downsizing alternatives at the organizational level are explored, particularly during the Great Recession following the financial crisis in 2008, when the downsizing need was across-the-board and generally known, fulfilling Keynes' criteria for employee wage cuts. Nine downsizing methods are categorized according to severity, ranging from soft, to moderate to hard, and the framework tested. This harshness framework is used to analyze the likelihood of the application of individual downsizing methods. The focus is on the hard alternatives, mass layoffs, and employee wage cuts, and how they are applied, in combination with the soft and moderate alternatives.

Several prior studies have focused on labor/workforce adjustment and job retention schemes used both in the Great Recession and during the Covid pandemic, in Europe and in the Nordic countries (i.e., Ebbinghaus & Lehner 2022; Müller et al. 2022; Svalund 2013, 2015). Prior studies demonstrate various differences in adjustment patterns during crisis, even between the Nordic countries, but these studies tend to exclude Iceland (i.e., Svalund 2015; Svalund et al. 2013), and in some cases, the focus is on particular industries. Overall, prior studies do not seem to focus on nominal wage cuts, nor do they focus on management downsizing choices using data collected from HR practitioners in all sectors of the economy. As management downsizing choices directly

affect employee working life, the aim of this study is to first conceptualize and classify downsizing alternatives used in organizations, ranging from soft to hard and then to analyze how different downsizing alternatives may be used by organizational decision-makers using data collected among HR practitioners from all sectors of the economy.

The focus is on management choices of soft, moderate, and hard downsizing alternatives, including layoffs and nominal employee wage cuts, and development through time, in the context of a negative economic shock in a collaborative and flexible Nordic labor market. The first research question addresses whether organizations are more likely to use nominal wage cuts than layoffs when downsizing in an economy-wide recession, while the second one asks whether layoffs and nominal wage cuts are used in isolation or conjunction with other softer alternatives. The third question addresses whether organizations gravitate toward using harsher downsizing alternatives as the recession wears on. The results can be used to anticipate organizational level downsizing responses to other imminent as well as future crisis situations and recessions.

2. Previous research and theoretical framework

2.1 Downsizing, nominal wage cuts, and flexible labor market context

A single cross-disciplinary definition of downsizing does not exist. When adjusting to a negative macroeconomic shock, the discussion often focuses on decreasing the number of workers through layoffs or adjusting work hours. This may be explained by the fact that they are considered the typical and most effective response to a labor surplus and a decline in demand, or by their harsh nature, carrying various tangible and intangible negative consequences for stakeholders or by their societal impact, as they directly impact unemployment (Appelbaum et al. 1998; Cascio 2009). However, it does not fully explain why the term downsizing is used interchangeably with layoffs. Downsizing has not only been defined narrowly as a purposeful or intentional reduction of an organization's workforce (McKinley et al. 2000) but also as a broader concept, including all intentional activities that have the objective of realigning and improving organizational efficiency and performance, affecting the size of the workforce, the cost and organizational work processes (Akdogan & Cingoz 2009; Cameron 1994; DeWitt 1993). We use here Cameron's (1994, p. 192) definition for downsizing, rather than workforce reduction, where downsizing is defined as a set of activities, rather than one activity such as layoffs, designed to improve organizational efficiency, productivity, and/or competitiveness. Hence, downsizing is used in a broad sense and includes a range of alternatives that affect employees and costs in organizations, including management and employee wage cuts.

Two noteworthy studies have attempted to categorize and present models of downsizing alternatives (e.g., workforce reduction strategies) to use in management decision-making, focusing on organizational level downsizing behavior. Greenhalgh et al. (1988) proposed a five-step hierarchical model of workforce reduction strategies, focusing on variables influencing the strategic choice of downsizing alternatives and noted that different methods of workforce reduction generate different costs for employees and organizations. Thus, different alternatives can cause low to severe hardship on employees, depending on their sense of control, and could also be slow to rapid cost-saving

strategies for the organizations. Their model ranged from natural attrition (e.g., hiring freeze) to induced redeployment (e.g., early retirement incentives, compensation freeze, and optional part-time schedules) to involuntary redeployment (such as demotion/downgrading) to layoffs. Iverson and Zatzick (2007) proposed a different five-step relative downsizing harshness scale, ranging from no downsizing in the first step to compulsory layoffs in step 5. Their results indicated that firms using high commitment work practices (HCWP) applied less harsh strategies, such as voluntary layoffs and early retirement, rather than the harsher ones of compulsory layoffs. Neither of these studies (Greenhalgh et al. 1988; Iverson & Zatzick 2007) included nominal wage reductions in the conceptualization and analysis.

Nominal wage cuts have generally not been considered a viable option for organizations when downsizing. The primary reasons cited are implicit contract theory, efficiency wage theory, and the concept of downward wage rigidity (Hirsch & Zwick 2015), as well as indications of strong resistance by employees to accept wage cuts in the Nordic context (Van den Berg et al. 1998) and a general management's reluctance to cut wages (Bewley 1998; Zoëga & Karlsson 2006). This has been explained with management attempting to prevent turnover among white-collar workers, while for other employees, it is explained with the implicit understanding that wages will be kept stable as their risk aversion is greater than among white-collar workers (Campbell & Kamlani 1997). Nominal wage reductions, in which wages fall below what employees could earn elsewhere, are likely to decrease commitment and increase turnover. Wage cuts may therefore have adverse effects on firms, as the most valuable employees are most likely to leave. Furthermore, as the management team is likely to have better information than employees on the actual state of the organization, a credibility problem can arise when employees are asked to accept wage cuts (Ehrenberg et al. 2021).

Previous research indicates that nominal wage cuts are generally not used in the Nordic countries, even in a recession. Following Sweden's recession in the 1990s, only 1.1% of the Swedish workforce experienced a cut in wages (Agell & Bennmarker 2007), while in Finland, a cut in real wages was evidenced primarily through a wage freeze rather than a direct wage cut (Böckerman et al. 2007). A case study of 15 manufacturing firms in Denmark, Finland, Norway, and Sweden in the Great Recession showed that various methods were used to reduce working hours, while wage levels were generally not cut (Svalund et al. 2013). A Danish study from the steel industry indicated that shop stewards resisted calls for a cut in nominal wages, while in some plants, work hours were cut due to low demand (Ibsen 2011). Another case study comparing manufacturing, construction, and newspapers in Norway showed that none of the 12 firms studied used wage cuts (Svalund 2015). Overall, case studies show that Nordic firms adjusted labor primarily through layoffs and various other types of work hour adjustments, or job retention schemes, rather than through wage moderation or nominal wage cuts. A Danish study among shop stewards also showed that management and shop stewards were able to strike a balance between collaboration and confrontation in decision-making at the firm level when responding to the Great Recession (Larsen & Navrbjerg 2013). This provides for a good example of the collaborative Nordic spirit at work at the organizational level, which may even be further supported by the prevalent collaborative Nordic Human Resource Management (HRM) model (Gooderham et al. 2025).

However, in the Great Recession, there are indications in some countries of a much greater use of wage cuts than had been previously experienced. While earlier US studies

found nominal wage cuts to be rare and to be primarily associated with changes in full-time status or in compensation schemes (Altonji & Deveraux 2000), wage rigidity was found to be less binding in the US and the UK than previously considered (Elsby et al. 2016). A significant degree of downward wage flexibility was found in Ireland prior to the Great Recession and after the recession hit the proportion of workers receiving wage cuts more than doubled (Doris et al. 2015). In Iceland, a large majority of wage earners experienced a nominal wage cut, or an estimated 80% (Olafsdottir 2020). Nominal wages were cut by 9.3% on average from 2008 to 2010, while inflation measured 18%. Hence, nominal wage cuts were general and widespread during the Great Recession in Iceland.

In a flexible labor market, adjustment to a recession is expected to result in increased unemployment coupled with fewer work hours, and wages are more likely to fall than in more rigid labor markets. The a priori expectation would be to observe shorter work hours in a flexible context in a recession, through internal adjustment as demonstrated during the Great Recession in Germany (Boysen-Hogrefe & Groll 2010). A relatively small increase in unemployment in Germany during the Great Recession may be explained by pronounced wage moderation prior to the recession and increased flexibility in adjusting working hours (Boysen-Hogrefe & Groll 2010), facilitated through joint activities with the social partners (Zagelmeyer 2011), making internal adjustments and labor hoarding possible rather than layoffs. Several studies (Flanagan 1999; Nickell 2003; OECD 1997, 2004; Solow 1998) have examined the relationship between output and labor market flexibility, or the strictness of employment protection, the labor market institutional environment, and the general state of the economy, as measures of flexibility.

Based on these measures, Iceland is considered a flexible labor market (Einarsdottir 2010; Olafsdottir 2010). In a fully flexible labor market, unemployment stays at a minimum, as flexibility ensures that labor moves to where is it needed. Iceland's, Denmark's, and Sweden's strictness of employment protection in 2008 was below the OECD average, while Finland and Norway were at or above the average (Venn 2009). Employee rights in Iceland are more likely to be stipulated in collective agreements than in laws and relatively few rules exist about recruitment and dismissals. Employers in the private sector are not required to provide a reason for termination (Blöndal 2019). Union membership in Iceland is among the highest in the world, standing at 85% in 2009 and 2010 (Statistics Iceland, n.d.a) and the structure of the collective bargaining system ranks also high regarding centralization and coordination, which becomes more evident in recessions than during economic growth (Olafsdottir 2010). Exceptionally high union density also may make nationwide collective bargaining that benefits the whole economy possible during recessions. This was evident in 2008 when the social partners signed a Stability Pact which addresses, among other things, the extension of collective agreements with modest nominal wage increases. Iceland has historically experienced low unemployment rates, which measured 3% during the first half of 2008 (Statistics Iceland n.d.b), indicating ease of moving in and out of jobs (Olafsdottir 2010). The legal framework, or lack thereof, along with low unemployment rates, and the possibility of nationwide collective agreements, along with strong norms of Nordic collaborativeness thus builds a base for labor market flexibility in an Icelandic context.

It may still be noted that a pre-recession study among top executives in Iceland (Zoëga & Karlsson 2006) indicated a preference for layoffs (91%) as opposed to wage cuts, in a recession. Only 9% would consider using wage cuts, which aligns with overall

strong managerial reluctance to use wage cuts (Bewley 1998). The main reason stated was the fear of losing the most experienced and able workers. A study still indicates that both the number of workers and the number of hours were adjusted in Iceland in the Great Recession (Sigurdsson 2011) and a spike in negative wage changes of approximately 10% was observed in 2008 (Olafsdottir 2020; Sigurdsson & Sigurdardottir 2016).

The interchangeable use of the term 'layoffs' with 'downsizing' indicates strong commitment to layoffs and lack of consideration of other downsizing alternatives (Greenhalgh & McKersie 1980). Even though layoffs are assumed to be the most frequently used method (see, i.e., in Greenhalgh et al. 1988, p. 241), few studies address whether they are the most widely used or preferred downsizing alternative. A study focusing on the interaction between workforce and wage adjustments, executed among employees in Germany and Netherlands following the Great Recession (Tijdens et al. 2014), showed that among crisis-hit organizations, 66% of employees in Germany reported two or more adjustments, either adjustments in workforce or in wage adjustments through reduction in basic pay or benefits, and 51% of employees in the Netherlands. Between 18% and 44% of employees in both countries reported both workforce and wage adjustments. However, only a few wage adjustments concerned basic wages and they were more likely among the less educated and lower-level employees.

As indications exist in Iceland, Ireland, Germany, and the Netherlands that wage cuts were used during the Great Recession (Doris et al. 2015; Olafsdottir 2020; Sigurdsson & Sigurdardottir 2016), the question that arises is whether organizations in Iceland still relied more on layoffs than nominal wage-cuts. Or in other words, whether more organizations still used layoffs than other downsizing alternatives, such as nominal wage cuts. The following research question is therefore proposed for this study: ***Are organizations more likely to use nominal wage cuts than layoffs when downsizing in an economy-wide recession?***

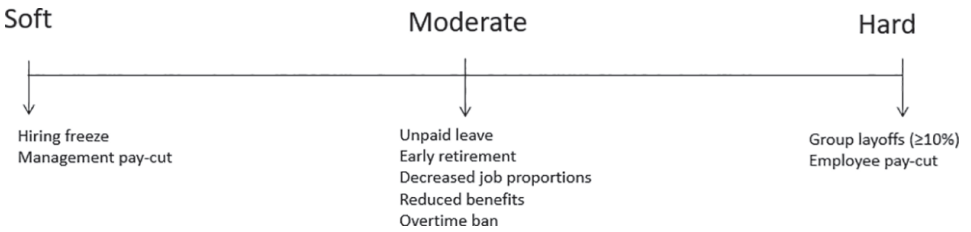
2.2 The downsizing harshness framework: alternatives ranging from soft to hard

A notion of 'soft' and 'hard' approaches to human resource management (Guest 1987) is known in the HRM literature. The Harvard HRM model (Beer et al. 1984) is considered a soft approach to HRM, as employees are viewed as a key source of competitive advantage, and employee commitment to the targeted long-term outcome, while the Michigan model (Fombrun et al. 1984) is considered a harder and less humanistic approach, targeted more toward short-term business and shareholder outcomes.

Building on this notion of soft and hard, downsizing alternatives are classified here using a harshness framework ranging from soft to hard according to how severely they are expected to impact employees and how fast they impact organizational costs. The classification builds on a rough framework by Noe, Hollenbeck, Gerhart, and Wright (2012, p. 199) where the downsizing options are defined in terms of speed, human suffering involved, and revocability to prevent labor shortages. The framework also takes into consideration the classification of broader downsizing strategies by Iverson and Zatzick (2007) and Greenhalgh, Lawrence, and Sutton (1988) and the legal and cultural context of Iceland, where the study is executed (see discussion about the context in Chapter 2.1).

Downsizing alternatives are conceptualized and classified into three types of alternatives, beginning with soft alternatives that impact organizational costs slowly, are likely to result in less cost savings, and are expected to have a low negative impact on those employees that are affected and/or to negatively impact only a few employees (see Figure 1).

Figure 1. The downsizing harshness framework



The soft level includes two methods: a hiring freeze and nominal management wage cuts (see Figure 1). The rationale is that a hiring freeze should not affect current employees directly, except where it might affect the workload of some employees, due to voluntary turnover without replacements or a decrease in activity. Nominal management wage cuts are classified, as a soft alternative because management is not likely to be affected as severely as when nominal employee wages are cut, and they affect a small proportion of the workforce and are thus unlikely to significantly impact costs. Managers are likely to have a say in the decision-making process and their income is also generally higher. It may be viewed as a positive gesture and a necessary precondition for employee acceptance for the use of other downsizing alternatives, such as nominal employee wage cuts. Management wage cuts may thus signal management's willingness to share the burden of adverse conditions with employees. It may also be considered a procedural and communicative practice, reflecting what McLachlan (2022) defines as responsible downsizing practices, intended to mitigate the negative effects of layoffs on employees.

Five methods are included at the moderate level; decreased job proportions, overtime ban, unpaid leave, early retirement, and reduced benefits (see Figure 1). These can be expected to affect employees' monthly income in one way or another, though less than the hard alternatives of layoffs and wage cuts. Decreased job proportions and a ban on overtime are both measures intended to shorten the workday, while keeping relative wages intact. These are designed to reduce employment costs while keeping employees at work, either by ensuring that the workweek does not surpass 40 hours through an overtime ban, or by shortening the workweek to below the typical 40 hours through decreased job proportions. Decreased job proportions also allowed employees to make use of short-time work measures, where employees were able to claim unemployment benefits while working part-time. This measure was already available in late 2008 (Lög um breytingu á lögum nr. 54/2006, 2008). Unpaid leave would though typically be offered on a voluntary basis, giving employees the opportunity to seek or explore other temporary opportunities while keeping the employment relationship intact. Early retirement agreements are also typically in an Icelandic context negotiated on a voluntary basis and can be expected to affect relatively few employees. Reducing benefits is also

classified as a moderate alternative, as benefits can be defined as optional remuneration and need to be viewed in a cultural and legal context.

In the context of this study, which took place in Iceland, benefits do not include welfare benefits, such as pension funds and educational funds, as they are either statutory or stipulated by collective bargaining agreements (Blöndal 2019; Olafsdottir 2010). While employee benefits may be used to attract and retain employees, Icelandic organizations mainly use allowances such as for cell phones, internet, and use of car. While these moderate alternatives may reduce the need for massive layoffs, they are all likely to affect employees' incomes in one way or another, and some may also affect employment status. They can also be expected to significantly reduce employer outlays.

The hard alternatives are nominal employee wage cuts and mass layoffs (see Figure 1), which affect organizational costs more rapidly and are likely to either have more of an impact on employees' employment status, or severely and directly affect their earnings and morale. Here, mass layoffs are defined as layoffs of 10% or more of the workforce within a 30-day period. This is in line with Icelandic law that requires management to report such layoffs to the Directorate of Labor and to the respective unions (Blöndal 2019; Lög um hópuppsagnir 2000). Layoffs not only affect those employees that are laid off, they may also cause survivor syndrome among remaining employees, which is reflected in increased absenteeism, voluntary turnover, and decreased commitment (e.g., in Spreitzer and Mishra, 2002). Nominal employee wage cuts are defined as a hard alternative in line with the notion of nominal wages being rigid downwards (Hirsch & Zwick 2015), which is reflected in management's reluctance to cut nominal wages (Zoëga & Karlsson 2006). Cutting nominal wages has also been considered a violation of agreements between employers and employees, whether explicit or implicit (Ehrenberg et al. 2021) and is expected to have a negative impact on employee morale (Bewley 1998).

This three-level harshness framework is intended to provide a starting point for the conceptualization of downsizing alternatives. It is based on the context of the flexible and collaborative Icelandic labor market in which the study takes place and is tested for use there but can be adopted and applied in other cultural and legal contexts to discuss and study various downsizing alternatives. As stated before, prior studies do not tend to include nominal wage cuts as a downsizing alternative and Iceland tends to be excluded in prior Nordic and European studies about labor market adjustments and downsizing alternatives used during crisis. Hence, one contribution of this study is to extend the downsizing discussion to include various alternatives to layoffs, including nominal wage cuts. Before the Great Recession, Iceland enjoyed a long period of economic growth, while suddenly being hit by a deep economy-wide recession. With the extensive use of nominal wage cuts, this is a unique opportunity to study the complex decision-making made by management in organizations during an economy-wide recession in a flexible and collaborative Nordic labor market. We therefore also investigate the following question: ***Do organizations use layoffs and nominal wage cuts in isolation or are they used in conjunction with other softer downsizing alternatives?***

2.3 Choice of downsizing alternatives and development through time

Both organizational and other external environmental variables, along with national context, may influence decision-makers' strategic choices of downsizing alternatives

(Bergström 2007; Dahl & Nesheim 1998; Greenhalgh et al. 1988). Greenhalgh et al. (1988) proposed that decision-makers would choose softer strategies when oversupply is forecast to last only a short time and more severe ones when oversupply is unpredictable in magnitude or duration. The authors argue that in the wake of an economic shock, organizational decision-makers are faced with uncertainty regarding the current situation and how to predict the depth and length of a recession. Organizational decision-makers may therefore find it difficult to decide how to react to the expected workforce oversupply and declining revenues. This may be equally true in other more recent crisis situations as in prior economic recessions.

At the onset of a recession, employers may thus prefer to use softer and revocable downsizing alternatives. However, as the recession wears on, or lasts longer than a year, and the severity of the internal and external situation becomes clearer, decision-makers may be increasingly pressured to use harsher alternatives. Furthermore, there may be a difference in the reaction time between the private and the public sectors. The private sector may feel the effects early due to decreasing revenues and is able to react immediately. It takes longer for the public sector to react, and in the Icelandic case, a decision was made to delay the reaction in the public sector until 2010 (Andersen 2008). In this context, we propose a third research question: ***Do organizations gravitate towards using harsher downsizing alternatives as a recession wears on?***

3. Method

3.1 Sample and procedures

The sample of organizations from all sectors of the economy, employing 70 or more employees, was obtained from the Directorate of Internal Revenue and the Ministry of Finance in Iceland and includes both public and private organizations. This survey was a part of a larger questionnaire, the International Cranet Survey, which is an international comparative survey of organizational HRM policies and practices (see cranet.org). The Cranet sample includes organizations with more than 70 employees in Iceland, as organizations with at least 70 employees are more likely to have formal HRM practices and to employ an HR executive with an overview of HRM practices in the organization. The Cranet study, which is a network of HRM researchers in about 50 countries, has been described by various Cranet researchers (i.e., Brewster et al. 1996; Parry et al. 2020). Few questions were added in the Icelandic version about downsizing methods used in a given period.

The data were collected from the highest-ranking HR professional in the organization in Iceland at two points in time, first in the spring of 2009, eight months after Iceland was hit by the Great Recession, and again in the spring of 2010. HR directors in all organizations with 70 employees or more received an electronic survey through email. The sample thus includes all sectors of the economy, including the public sector and the entire population of organizations with 70 or more employees. Due to a relatively high response rate, 41% in the first data collection and 56% in the latter one, significance testing is less relevant than when a representative sample is taken from a population. The total number of employees represented by the participating organizations was 42.058 in 2009 and 43.274 in 2010. The participating firms in the study

represent about 25% of the active labor market in 2009 and 26% in 2010 according to labor market information (Statistics Iceland n.d.c).

The first period of data collection lasted from March until June 2009 and included questions on the downsizing measures applied in the first eight months after the recession began in October 2008. The population consisted of 337 organizations, both private and public. A total of 138 organizations responded, corresponding to a 41% response rate. A second period of data collection took place among the same population as in the first period, a year later, in March and April of 2010. It included questions on downsizing methods applied 9-20 months after the onset of the recession. The population consisted of 328 organizations and 183 responses accounted for a 56% response rate. The final number of 321 responses in both data collections accounts for 48% response rate. Using two data points gives us a richer dataset and an estimate of how downsizing alternatives evolved over time.

3.2 Measures

The HR managers who participated were asked whether the organization had used each of the nine downsizing alternatives: hiring freeze, management wage cuts, unpaid leave, early retirement, decreased job proportions, reduced benefits, overtime ban, mass layoffs, and employee wage cuts (see Figure 1). All were measured and coded as dichotomous variables: yes = 1 and no = 0. The downsizing methods are classified into three groups (soft, moderate, and hard alternatives) based on the conceptualization of the harshness framework described above (see Figure 1).

To test the classification and conceptualization of harshness of different downsizing methods, 84 master's-level business students at Reykjavík University were asked to evaluate the harshness of the methods in an electronic survey. As master's students in Iceland tend to have extensive work experience, they were considered able to evaluate the harshness of downsizing methods in an organizational setting. The classification of individual methods as soft to harsh was verified, except for the classification of management wage cuts which participants evaluated as a moderate measure. However, management wage cuts can be seen as a signal of a willingness on behalf of management to share the burden of downsizing with employees, or as a necessary precondition before other downsizing methods are applied. In addition, they neither affect many in the organization nor significantly affect costs. The alternative is therefore classified here as a soft measure.

3.3 Organizational characteristics affecting choice of alternatives

To account for and analyze whether institutional factors affect the use of downsizing alternatives, we include information on the sector in which the institution operates. We define three sectors: the primary sector, which includes manufacturing firms; the service sector, which includes privately owned service organizations; and the public sector, that is, public institutions and entities. Dummy variables of the service sector and the public sector are included in the regressions, with the primary sector the omitted variable. One study found that private organizations are more likely to adopt severe workforce reduction strategies than firms in the public sector (Greenhalgh et al. 1988), while another

study did not find that the sector had a significant effect on the choice of downsizing methods, except that private organizations were more likely than public organizations to employ compulsory layoffs (Iverson & Zatzick 2007).

The choice of downsizing alternatives could depend on the size of the organization, hence the size measured as the number of employees is included in the regressions. Iverson and Zatzick (2007) found that larger workplaces were more likely to use harsher downsizing methods than smaller ones.

Furthermore, the share of female employees in the organization is included as an explanatory variable to account for the possibility that it might affect the choice of downsizing alternatives. Elvira and Zatzick (2002) focused on the impact of downsizing on minority groups during a recession with results showing that women were less likely to be laid off than men. In the 1990-1993 recession in the UK, mainly male-dominated professions were affected, and in the Argentinian crisis from 1999 to 2002, male-headed households were more severely affected than female-headed households (ITUC 2009).

Union density in the organization could explain the choice of downsizing alternatives, but as union density is generally high in Iceland, 85% in 2009 and 2010 (Statistics Iceland n.d.a.), there is insufficient heterogeneity between organizations to meaningfully include it as an explanatory variable in the analysis.

3.4 Analysis

In the analysis, we look at the interaction between all the downsizing methods and their frequency of use, by looking at descriptive statistics and correlations. Then, we analyze further the two hard downsizing methods and how they interact with the moderate and soft downsizing methods, while controlling for various background variables. We use probit regressions to estimate the likelihood of organizations applying each of the hard downsizing alternatives, mass layoffs, and wage cuts, and how they interact with the application of soft and mild alternatives (Tables 3 and 4). Probit fits a model for a binary dependent variable, assuming that the probability of a positive outcome is determined by the standard normal cumulative distribution function. Here, the dependent variable is the application of a hard downsizing alternative, either layoffs or employee wage cuts. Using probit also allows us to answer the question whether hard measures are increasingly used as the recession continues. The analysis is similar to that of Iverson and Zatzick (2007), while they use generalized ordered logit with the dependent variable, downsizing harshness, rated on a scale from 1 to 5. The data used here does not allow for using a paired regression of organizations between the first and second period.

4. Results

Table 1 presents the frequency of use of each of the downsizing alternatives. Data collection for Period 1 was in the Spring of 2009, eight months after the start of the recession, while data collection for Period 2 was in the Spring of 2010. The frequency is shown for both periods as well as Period 1 and Period 2 separately.

Table 1. Implementation of downsizing alternatives – frequency

		Both periods	Periods	
			1	2
		%	%	%
Soft	Hiring freeze	44	43	45
	Management wage cuts	42	35	48
	At least one soft	61	57	64
Moderate	Unpaid leave	13	14	12
	Early retirement	7	14	1
	Decr. job proportions	30	35	27
	Reduced benefits	28	22	33
	Overtime ban	42	43	42
	At least one moderate	60	60	61
Hard	Mass layoffs (≥10%)	11	14	9
	Employee wage cuts	26	21	30
	At least one hard	31	25	36
	n	**321**	**138**	**183**

Table 1 shows that mass layoffs are far from being the first choice when employers decide to downsize operations. Organizations were significantly ($p<0.05$) more likely to use six alternatives other than mass layoffs. Furthermore, a greater number of organizations applied employee wage cuts (26%) than mass layoffs (11%). In the first period, they were significantly ($p<0.05$) more likely to use the soft alternatives of hiring freezes (43%) and management wage cuts (35%), and the moderate alternatives of decreased job proportions (35%), reduced benefits (22%), and overtime ban (43%), than the hard alternative of mass layoffs (14%). The other hard downsizing alternative of employee wage cuts (21%) was also applied more often than mass layoffs. The same applies to the second period, when the harder alternative of employee wage cuts was used even more extensively (30%) than before.

Table 2 shows the correlation between each of the downsizing alternatives. Significant positive correlations between various alternatives suggest that they were used as complements rather than substitutes. The strongest correlation was between management wage cuts and employee wage cuts (0.57). Among moderate alternatives, the strongest correlation is between overtime ban and reduced benefits (0.40). Early retirement is the least likely alternative to be used, alone or in combination with other alternatives.

The majority (78%) of organizations used at least one downsizing alternative: 76% in the first period and 80% in the second period. The organizations that used at least one downsizing alternative used on average 3.12 alternatives (SD = 1.9) concurrently, or 3.16 (SD = 2.08) alternatives in 2009 and 3.09 (SD = 1.71) in 2010. Approximately 74% of the organizations using at least one method used more than one method concurrently, up to eight of the nine alternatives. A total of 31% of organizations used at least one hard alternative in their choice of downsizing methods, while 60% used moderate methods and 61% used soft methods. The harder alternatives were increasingly used in the second period, with at least one hard alternative used by 25% of organizations in

Table 2. Correlations between downsizing alternatives

		1	2	3	4	5	6	7	8
Soft	1. Hiring freeze								
	2. Management wage cuts	0.28***							
	3. Unpaid leave	0.19***	0.03						
Moderate	4. Early retirement	0.11*	0.07	0.04					
	5. Decr. job proportions	0.17***	0.18***	0.30***	0.14***				
	6. Reduced benefits	0.24***	0.36***	0.18***	0.05	0.22***			
	7. Overtime ban	0.32***	0.24***	0.28***	0.09	0.40***	0.33***		
Hard	8. Mass layoffs	0.17***	0.13**	0.16***	0.18***	0.21***	0.14**	0.19***	
	9. Employee wage cuts	0.20***	0.57***	0.10*	0.06	0.32***	0.33***	0.22***	0.22***

Statistical significance: ***p<0.01, **p<0.05, *p<0.1

the first period and 36% in the latter period, due to the increased use of wage cuts. This indicates that the choice of downsizing alternatives moved toward employee wage cuts as a hard option as the recession wore on.

To further explore the behavior of organizations engaging in downsizing during a prolonged recession, probit regressions were performed, using the two hard measures, employee wage cuts and mass layoffs as independent variables, respectively (Tables 3 and 4). The other hard measure, the number of moderate and soft measures were used as explanatory variables in the regression along with various background variables.

The results show that mass layoffs were rarely used in isolation, but in combination with other methods, as shown in Tables 1 and 2. Table 3 shows the results of the probit regression using mass layoffs as the dependent variable.

Table 3. The likelihood of using mass layoffs

Mass layoffs	Both periods Coef.	First period Coef.	Second period Coef.
Wage cuts	0.492 *	0.922 **	−0.280
	(0.289)	(0.394)	(0.484)
No. of soft alternatives	0.262	0.112	0.326
	(0.259)	(0.273)	(0.305)
No. of moderate alternatives	0.292 **	0.266 *	0.319 **
	(0.136)	(0.139)	(0.156)
No. of soft alt.*Period	−0.377		
	(0.326)		
No. of moderate alt.*Period	−0.046		
	(0.192)		
Period	0.145		
	(0.438)		
Log(No. of employees)	0.104	0.203	−0.340
	(0.129)	(0.165)	(0.256)

(*Continued*)

Table 3. *(Continued)*

Mass layoffs	Both periods Coef.	First period Coef.	Second period Coef.
Services[a]	−0.097	0.155	0.068
	(0.289)	(0.465)	(0.427)
Public services[a, b]	−0.606 **	−0.066	
	(0.492)	(0.698)	
Share of women	−1.923 ***	−1.351	−3.467 **
	(0.680)	(0.939)	(1.376)
Constant	−1.593 **	−2.542 ***	0.848
	(0.671)	(0.835)	(1.165)
Observations (N)	291	128	103
Percentage correctly predicted	88.66	87.50	87.38
Log-likelihood value	−73.19	−35.94	−29.65
Pseudo R-squared	0.289	0.309	0.307

Standard errors in parentheses
[a]Dummy variable; primary sector is the omitted category.
[b]There were no mass layoffs in public services in the second period.
Statistical significance: ***p<0.01, **p<0.05, *p<0.1

There is a significant positive relationship between mass layoffs and employee wage cuts. The average marginal effect shows a 6.7 percentage point increased likelihood that an organization engaging in employee wage cuts is also using mass layoffs. Furthermore, the likelihood of mass layoffs increases with the number of soft and/or moderate alternatives used simultaneously. The different downsizing alternatives are thus used as complements rather than substitutes when downsizing decisions are made. When looking at the two periods separately, a significant positive relationship exists between mass layoffs and wage cuts in the first period, while it is negative and non-significant in the second period. While the complementarity between mass layoffs and employee wage cuts is strong in the first period, employee wage cuts become a substitute for mass layoffs in the second period. The model as a whole is a good predictor of mass layoffs, as it correctly predicts the outcome in 87-89% of the observations, depending on the time period, that is, in 87-89% of the observations, the model correctly predicted whether mass layoffs took place or not, using the independent variables of the model.

Table 4 shows the results of the probit regression using employee wage cuts as the dependent variable.

Table 4. The likelihood of using employee wage cuts

Employee wage cuts	Both periods Coef.	First period Coef.	Second period Coef.
Mass layoffs	0.436	0.897 **	−0.195
	(0.296)	(0.407)	(0.445)
No. of soft alternatives	0.773 ***	0.768 ***	0.880 ***
	(0.223)	(0.240)	(0.181)

Employee wage cuts	Both periods Coef.	First period Coef.	Second period Coef.
No. of moderate alternatives	0.149	0.055	0.344 ***
	(0.123)	(0.130)	(0.112)
No. of soft alt.*Period	0.105		
	(0.283)		
No. of moderate alt.*Period	0.119		
	(0.159)		
Period	0.097		
	(0.393)		
Log(No. of employees)	−0.043	0.130	−0.182
	(0.097)	(0.152)	(0.133)
Services[a]	0.571 **	0.401	0.500
	(0.274)	(0.430)	(0.361)
Public services[a]	0.781 **	−0.170	1.063 ***
	(0.326)	(0.589)	(0.414)
Share of women	−1.205 ***	−0.983	−1.499 **
	(0.465)	(0.809)	(0.592)
Constant	−1.653 ***	−2.265 ***	−0.852
	(0.557)	(0.781)	(0.682)
Observations (N)	291	127	163
Percentage correctly predicted	78.69	85.16	74.23
Log-likelihood value	−121.17	−42.60	−71.95
Pseudo R-squared	0.288	0.354	0.295

Standard errors in parentheses
[a]Dummy variable; primary sector is the omitted category.
Statistical significance: ***p<0.01, **p<0.05, *p<0.1

When using employee wage cuts as the dependent variable, unsurprisingly, the relationship to mass layoffs is unchanged. However, a somewhat different picture emerges when looking at other control variables (Table 4). The likelihood of using wage cuts increases significantly with the number of soft alternatives. This relationship holds over both time periods. The likelihood of using wage cuts also applies to moderate alternatives, while the relationship is only statistically significant in the second period. The model was as a whole a good predictor of employee wage cuts, as it correctly predicted the outcome in 74-85% of the observations, depending on the time period.

5. Discussion

This study's main aim was to conceptualize downsizing alternatives ranging from soft to hard and analyze how different alternatives are used by decision-makers in organizations. The three research questions relate to management of downsizing choices, including wage cuts and development through time, in the context of an economic shock.

Most organizations used more than one and up to eight downsizing alternatives and thus did not solely rely on layoffs to downsize their organization, which is in line with earlier research. Organizations were more likely to use soft and moderate downsizing alternatives than hard ones. They were also more likely to use nominal employee wage cuts than mass layoffs and used the harder alternatives of layoffs and wage cuts in conjunction with other softer alternatives. Decision-making gravitated toward harsher downsizing alternatives as the recession continued, but organizations were still more likely to use wage cuts than layoffs, indicating tendency toward labor hoarding. There is a distinction between the public and private sectors, as the results show that the public sector was less likely to use mass layoffs than the private sector, most likely because they are hindered by stronger job protection than the private sector (Blöndal 2019; Olafsdottir 2010). However, when it came to employee wage cuts, they were less likely to cut wages in the first period due to a government decision to delay actions in the public sector (Andersen 2008). However, they were more likely to cut nominal wages in the second period than the private sector, indicating a difference in timing of actions between the two sectors.

Overall, organizational decision-makers seem to eschew the hard alternatives of mass layoffs and employee wage cuts unless other alternatives, soft or moderate, were applied simultaneously. The different downsizing methods therefore seem to be used as complements rather than substitutes. This is in line with results from Svalund et al. (2013) and Svalund (2015), which showed that firms in the Nordic countries, other than Iceland, used various downsizing methods in reaction to the Great Recession. Nominal wage reductions were not used in the case studies discussed in these studies, while they were included as a downsizing alternative in Tijdens et al. (2014) study where they find that organizations in Germany and the Netherlands also tend to use more than one alternative, and that nominal wage adjustments frequently coincide with workforce adjustments. Hence, we did not find evidence to support the first research question on whether organizations rely more often on layoffs than wage cuts, as wage cuts were more commonly used than layoffs in Iceland during the Great Recession. The answer to the second research question of whether layoffs and nominal wage cuts are used in isolation or in conjunction with other downsizing alternatives, is that the various downsizing alternatives were used as complements when downsizing, with a range of one to eight of the nine alternatives used, with an average of three. Organizations thus do not use layoffs and wage cuts in isolation but in conjunction with other softer alternatives. The third research question, about whether organizations used harsher downsizing methods as the recession wore on, was supported.

For the 31% of organizations that applied hard downsizing alternatives, they were more likely to adjust wages through nominal wage cuts, rather than adjusting the workforce through mass layoffs. The extensive use of employee wage cuts indicates that downward wage rigidity may not be a strong inhibiting factor for organizations in a flexible labor market during a severe economy-wide downturn. The results are contrary to the fact that wages have been shown to be rigid downwards even in recessions such as in Finland (Böckerman et al. 2007) and Sweden (Agell & Bennmarker 2007) in the 1990s as well as during the aftermath of the 2008 crisis in the Nordic countries (Svalund et al. 2013). The results are also surprising in light of pre-crisis studies that indicate reluctance of managers in Iceland to reduce salaries as a downsizing alternative (Zoëga & Karlsson 2006) and indications that employees are not willing to accept wage cuts in

other Nordic countries, such as in Sweden (Van den Berg et al. 1998). However, it is in line with results from Ireland showing a considerable decrease in nominal wage rigidity during the Great Recession (Doris et al. 2015) and a downward spike that was detected in nominal wages in Iceland (Sigurdsson & Sigurdardottir 2016) and a widespread cut in nominal wages (Olafsdottir 2020).

The results also suggest that organizations were using a wide range of alternatives to address the situation and the general awareness of the severity of the situation in Iceland, along with the Stability pact which may have given a green light to somewhat unconventional use of nominal wage cuts. This suggests also that the collaborative Nordic approach at all levels, from tripartite collaborative labor market to collaborative HRM practices (Einarsdottir et al. 2025; Gooderham et al. 2025; Rizov & Croucher 2009), reaching to collaboration between shop stewards and management, as was the case in Denmark (Larsen & Navrbjerg 2013), may have further facilitated nominal wage cuts as a downsizing alternative in a normative collaborative institutional and HRM context during the financial crisis in Iceland.

The results indicate that organizational downsizing was reached both through nominal wage adjustments (employee and management wage cuts) and through adjustments to work hours, such as through banning overtime and reducing job proportions. Reducing overtime is not counter to Icelandic collective agreements while reduced job proportions allowed employees to receive unemployment benefits while also working. Thus, the results seem to confirm that when wage determination is coordinated, as is the case in Iceland (Olafsdottir 2010), average wages respond to the state of the labor market (Layard et al. 2005) both through management adjustments in work hours and through wage adjustments.

The extensive use of nominal wage cuts may also reflect the severity of the recession following the financial crisis in 2008 and the intention of management to use all necessary means to prevent mass layoffs by taking advantage of existent internal organizational flexibility. It might also be the depth of the recession by making it socially acceptable to break the implicit contract between employers and employees relating to expectations about wage increases. In general, managers seem to have sought any way possible to distribute the burden of the recession more evenly among employees and management through first implementing management wage cuts, and thereby possibly minimizing the need to implement larger-scale mass layoffs. This is supported, as organizations do not rely solely on the more drastic or hard measures but use soft, moderate, and hard measures in combination, using an average of approximately three methods when downsizing. Notably, nominal management wage cuts and employee wage cuts are the alternatives most likely to be used in conjunction, indicating that management wage cuts may be a necessary precondition for employee wage cuts. In other words, it may be considered responsible downsizing on behalf of management in this severe crisis and flexible labor market context, specifically in terms of procedures and communication to employees to mitigate the negative effects of layoffs as proposed by McLachlan (2022).

The results indicate great flexibility and that employers are more likely to cut employee wages than to engage in mass layoffs and thereby engage in labor hoarding. This suggests that there is less downward nominal wage rigidity in a deep recession in a flexible labor market than previously believed, at least in the Icelandic context during the Great Recession. The explanation for wage rigidity to reduce voluntary turnover

among white-collar workers (Campbell & Kamlani 1997) does therefore not hold in economy-wide recessions, as employees are not likely to leave for another job in such situations.

The main limitation of this study may lie in the data collection, as HR managers in organizations most seriously affected by a crisis may have been less likely to respond. Also, the results primarily reflect actions taken in larger organizations, as organizations employing less than 70 employees are not included. While this study is executed in the context of a small Nordic economy and in extreme circumstances, it can be viewed as a case study on how an economy reacts at the margin, within which most economies are likely to find themselves at one time or another. The results indicate that the primary focus of the downsizing literature on layoffs, without including other viable and possibly more commonly used alternatives, such as nominal wage cuts, may give neither the correct nor the whole picture of organizational downsizing activities in an economic crisis. Each economy-wide crisis may also have its peculiarities, depending on causes and context. These results indicate that organizations in flexible labor markets generally use more than one alternative, ranging from soft to hard, or in combination. Future studies on organizational downsizing reactions, for example, in larger economies and during the Covid crisis, should also be of interest to compare and contrast to the results of this study.

6. Conclusion

Despite the strong focus on layoffs in the downsizing literature, the results of this study showed that organizations were more likely to implement other downsizing alternatives than mass layoffs in the 20-month period after the Great Recession began. When downsizing, organizations used concurrently various methods, ranging from soft to hard, thus using the various methods as complements rather than substitutes. Thus, while the downsizing literature is focused on layoffs and more recently during the Covid crisis also on various other types of job retentions schemes or adjustments, a large part of the picture may be missing, as organizations use a variety of alternatives in downsizing. Organizations were more likely to use other softer downsizing alternatives than layoffs and were also more likely to use the hard method of wage cuts as the recession continued.

The results contribute toward insight into organizational behavior relating to downsizing alternatives used by organizational decision-makers in an economic downturn, both a few months after a crisis hit and as a recession continued. The implication for researchers, management, and even policy makers is that they should consider that organizations may use various methods, not only layoffs, in response to a severe economic downturn. Furthermore, the results presented in this study demonstrate the need to expand the discussion on downsizing to include all possible alternatives by including direct nominal wage cuts. To this end, a contribution of this study is the conceptual framework of downsizing alternatives developed and tested here. The framework can be easily adopted for use in various organizational and cultural contexts to analyze internal organizational flexibility and downsizing behavior at the organizational level.

It has been pointed out before that ignorance of the available choices may limit consideration of choices by decision-makers (Greenhalgh et al. 1988). Hence, the results also

provide a practical contribution through a framework for management to apply when discussing and deciding on downsizing alternatives in severe situations. Furthermore, the results can be used to anticipate organizational level downsizing responses to other future crises and recessions.

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