Tracing Experience: How Success and Failure Shape the Financial Effects of Employee Downsizing

'What is the impact of organizational experience on the financial performance among firms that undergo employee downsizing?'

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Abstract

This thesis investigates how organizational experience influences financial performance among firms that engage in employee downsizing. Unlike prior studies treating experience as an aggregated construct, this research distinguishes between successful and failure experiences. Drawing on organizational learning theory, this study hypothesized that prior downsizing experience moderates the relationship between employee downsizing and the financial performance. Using OLS regression, this study examined 244 downsizing events from 127 European firms listed in the STOXX Europe 600 (2009-2019). Experience was classified using cumulative abnormal returns (CAR) and return on assets (ROA) across a ten-year lookback period. The results indicate that employee downsizing does not significantly improve financial performance. Moreover, neither successful nor failure experience led to improved outcomes. These findings suggest firms may not benefit from prior downsizing and that disaggregating experience yields critical insights. This study contributes to the downsizing and organizational learning literature by encouraging more refined approaches to measuring and applying organizational experience.

Keywords: downsizing; organizational learning theory; organizational experience; successful and failure experience; financial performance; experiential learning

1 | Introduction

A basic premise in strategic management research is that downsizing is used to reduce employee costs, thereby achieving firm goals such as revenue targets, improved productivity, and increased competitiveness (Cascio et al., 1997; Datta et al., 2010; Guthrie & Datta, 2008). This *"planned elimination of jobs"* (Cascio, 1993) often results from a critical examination of cost structures, with the objective of improving organizational efficiency (Brauer & Laamanen, 2014; Datta et al., 2010; Love & Nohria, 2005). However, research has shown that downsizing can have ambiguous effects on financial performance (Cascio et al., 1997; Datta et al., 2010). While some firms show performance improvements due to downsizing (e.g. Brauer & Laamanen, 2014), the bulk of literature finds that most firms do not exhibit improvement in efficiency, productivity or profitability (e.g. Cascio, 1993; Cascio et al., 2021; Gandolfi, 2008; Guthrie & Datta, 2008). Despite the lack of consensus, employee downsizing continues to affect millions of people annually (Cameron, 1994; Gandolfi, 2008), particularly following its global adoption (Suarez-Gonzalez, 2001). This raises a critical question: is downsizing an effective managerial technique?

According to Cascio et al. (1997) and Datta et al. (2012), a valuable addition to the literature would be to distinguish successful downsizers from unsuccessful ones using moderators. Over the years, several moderator variables for the effectiveness of downsizing have been researched, such as industry conditions (Guthrie & Datta, 2008) and timing (Brauer & Laamanen, 2014). Remarkably, organizational experience in downsizing has only been examined to some extent, as only a small fraction of the research considered experience as a moderator (Maula et al., 2023). This is striking because prior studies have investigated the influence of experience in various workforce adjustment contexts, including both workforce expansions and reductions (Do & Mai, 2022; Humphery-Jenner et al., 2019; Laamanen & Keil, 2008).

Experience in this study is defined and measured by how often an organization performs or tries the same task (Argote & Miron-Spektor, 2011; Echajari & Thomas, 2015). In the context of mergers and acquisitions (M&A), experiential learning has provided a significant influence on a firm's stock market measures (e.g. cumulative abnormal returns) and accounting measures (e.g. return on sales) (King et al., 2021; Schweizer et al., 2022). Additionally, a moderating effect of acquisition experience has been established by Laamanen and Keil (2008), stating that more experience allows firms to digest more variability in their acquisition behaviour. To a lesser extent, there is also evidence that experiential learning affects divestitures. Humphrey-

Jenner et al. (2019) found that experienced divestors have a stronger operating performance post-divestiture. Notably, firm-level experience even dominates the experience of CEOs or boards. So, while the impact of experience in employee changes has gained attention in several studies (Do & Mai, 2022; Humphery-Jenner et al., 2019; King et al., 2021; Laamanen & Keil, 2008; Schweizer et al., 2022), the influence of experience in the employee downsizing literature has rarely been investigated. An exception is Carriger (2017), who examined the moderating effect of frequent downsizing within Fortune 500 companies. The study of Carriger (2017) however focused on aggregated experience, leaving an important distinction to be made; that of successful and failure experiences.

According to Madsen and Desai (2010), most prior research on organizational learning has come from either aggregated experience (Carriger, 2017; Hayward, 2002; Zollo & Singh, 2004) or failure experience (Baum & Ingram, 1998; Desai, 2008). This is surprising since organizations respond quite differently to failure than they do to success (Madsen & Desai, 2010). This could potentially explain why empirical research on experience often yielded mixed results (Kim et al., 2009; Maula et al., 2023). Despite strong theoretical arguments that organizations learn more from past failures than from past successes (Madsen & Desai, 2010), both can promote useful learning processes (Kim et al., 2009). Therefore, this research distinguishes from Carriger (2017) by taking into account the difference between successful and failure experience.

In organizational learning literature, success and failure are typically defined relative to a firm's aspiration level, where performance exceeding the aspiration is regarded as a success, and performance below is interpreted as a failure (Argote et al., 2021; Greve, 2003; Madsen & Desai, 2010). While this theoretical lens is foundational, aspirations are found to be too optimistic and are additionally being adjusted in case of discrepancies between goals and performance (Lant, 1992). To address this ambiguity, this study follows Richard et al. (2009) by using a combination of cumulative abnormal returns (CAR) and return on assets (ROA) to robustly determine the performance of each experience.

Taking this all together, this research aims to deepen the understanding of the relationship between employee downsizing and a firm's financial performance (Cascio et al., 1997; Datta et al., 2010). In particular, by investigating the influence of successful and failure organizational experience on the relationship between employee downsizing and financial performance. Therefore, the research question is: *'What is the impact of organizational experience on the financial performance among firms that undergo employee downsizing?*'. To answer this question, the research is divided into several sub-questions:

1. *What is the effect of employee downsizing on the financial performance?*
2. *How does successful organizational experience moderate the effect of employee downsizing on financial performance?*
3. *How does failure organizational experience moderate the effect of employee downsizing on financial performance?*

By studying this research question, I intend to make three theoretical contributions. First, this study builds on and extends the downsizing literature by advancing the moderator "experience" to provide deeper insight into the equivocal findings on the effect of downsizing on firm profitability, as pointed out by Datta et al. (2012). While prior research on employee downsizing has rarely incorporated experience as a moderator (Carriger, 2017), multiple papers on major management strategies highlighted the value of including experience, showing significant findings (e.g. Humphery-Jenner et al., 2019; King et al., 2021; Laamanen & Keil, 2008; Schweizer et al., 2022). Therefore, drawing on prior experience may offer a better understanding of the performance implications of downsizing firms (Datta et al., 2012). Second, this study disaggregates experience into success and failure, which is often overlooked in prior downsizing literature (e.g. Carriger, 2017), but acknowledged in organizational learning theory (Kim et al., 2009; Madsen & Desai, 2010). Third, I apply a more robust classification approach that uses both CAR and ROA to evaluate the performance of each experience (Richard et al., 2009). In doing so, this study offers a more objective method for classifying experience outcomes, rather than aspiration levels. By establishing the impact of different types of experience, managers can derive strategic actions to better navigate the challenge of downsizing and potentially leverage learning from past downsizing events to mitigate the overall negative effects of downsizing (Gandolfi, 2008).

The hypotheses were empirically tested using a dataset of a sample of STOXX Europe 600 (SXXP) companies between 2009 until 2019. I used a regression approach to statistically examine the significance of each independent/moderator variable (Hair et al., 2019).

In the next section I outlined the theoretical background related to this research. Based on this, I formulated hypotheses and present the conceptual model. Furthermore, the methodology including the sample, the data sources and the analytical methods are described. Finally, the empirical results are presented, and I concluded with a discussion of my findings for this study.

2 | Theoretical Background

2.1 | Organizational Learning Theory

This research uses organizational learning theory as a theoretical lens to analyse the effect of employee downsizing on the financial performance of a firm. Organizational learning is an iterative dynamic process in which firms engage in activities to gain experiences (Hayward, 2002). These experiences are then transferred into knowledge, which shapes actions that in turn affect the future performance of a firm (Argote et al., 2021). This learning process consists of elements such as searching, creating, retaining and transferring knowledge. The creation of knowledge is at the core of organizational learning, where repetitive iterations of an activity allow organizations to learn and improve (Desai & Madsen, 2022).

Organizational learning is a process that occurs over time through trial-and-error experimentation (Levitt & March, 1988). According to Argote and Miron-Spektor (2011), basic elements of the organization (members, tools and tasks) use this time to try various combinations in hopes of creating, gaining and transferring new knowledge. These elements function within what they describe as the active context, which allows the organization to generate experience. Additionally, the environmental context (like competitors and clients) can vary among dimensions like volatility and uncertainty. This variation influences the kind of experience a firm can acquire (Argote & Miron-Spektor, 2011). The 'organizational context' thus explains why there is learning rates between firms differentiate (Argote et al., 2021). In this study, employee downsizing is interpreted as the strategic learning context, while financial performance reflects the outcomes of organizational learning. The moderating roles of success and failure experiences reflect how firms incorporate feedback from past actions into future decisions and capabilities.

Another fundamental dimension of experience is whether the firm acquires its experience directly or indirectly (Argote et al., 2021; Argote & Miron-Spektor, 2011). Direct experiences involve learning by doing (Nonaka, 1994), where a learning curve is created through the accumulation of knowledge via its own experiences (Argote et al., 2021). Vicarious learning, in contrast, occurs when firms learn from the experiences generated by others (Ingram & Baum, 1997). While both forms of learning contribute to organizational knowledge, prior research has shown that learning from direct experiences has a positive impact on the results of activities (Balasubramanian & Lieberman, 2010; Castellaneta & Zollo, 2015; Hayward, 2002; Schweizer et al., 2022). Studies on vicarious learning suggest that firms tend to learn primarily from companies that are closely related to them (Ingram & Baum, 1997). Moreover, Kim and

Miner (2007) argue that although firms may observe the demise of others, they often lack complete information about the context of the experiences. As a result, organizations are likely not capable of constructing causal theories about how to implement the experiences of others. Given these challenges, this study focuses on direct experience, as it enables the development of internal knowledge through shared practice, something that is difficult to achieve without direct experiential engagement within the firm (Nonaka, 1994).

In the context of employee downsizing, Carriger (2017) established significant effects on two financial performance indicators of firms when taking into account the frequency of employee downsizing. Return on assets (ROA) and return on investment (ROI) both worsened the profitability ratio of Fortune 500 companies when they engaged in more downsizing events. Carriger (2017) recognizes the value of recent experiences over those acquired further in the past, aligning with the insights of Argote et al. (1990). Hence, Carriger (2017) limited his analysis of downsizing activities to a six-year period. However, like most prior research (Madsen & Desai, 2010), Carriger (2017) focused on aggregated experience. This aggregated view limits the ability to capture different organizational reactions to success and failure, as emphasized by Cyert and March (1992). Additionally, Kim et al. (2009) argue that both success and failure experiences can promote useful learning processes. Therefore, the distinction between success and failure creates an opportunity for direct comparison in terms of their learning outcomes (Madsen & Desai, 2010).

Furthermore, Carriger (2017) proposed the signalling theory and resilience/vulnerability theory to explain the negative impact of multiple downsizings. Subsequently, he added the Band-Aid theory, which he borrowed from the medical literature. These theoretical lenses used by Carriger (2017) primarily focus on shareholder reactions or the psychological effects of downsizing on employees. In contrast, the present study contributes to the literature by adopting a broader approach to experience, based on the organizational learning theory. Finally, as Carriger (2017) addressed, the Fortune 500 only represent large American companies, leaving other types of companies to be unexplored. By distinguishing between types of downsizing experience, this study extends existing theory and deepens our understanding of how experience shapes strategic outcomes.

2.2 | Employee Downsizing and Financial Performance

Employee Downsizing

Employee downsizing is a strategic workforce reduction initiative taken by organizations to anticipate economic benefits (Cascio, 1993; Datta et al., 2010). It involves the deliberate implementation of policies and practices that are aimed at reducing the number of employees in an organization. The economic rationale for downsizing comes from the premise that profits are achieved when revenues exceed costs (Cascio et al., 2021). As future revenues are often unpredictable, managers try to increase profits by focusing on diminishing costs like labour. Over the years, downsizing has evolved from a response to poor economic times to a widely adopted managerial strategy to compete with global competitive pressures (Datta et al., 2010, 2012; Guthrie & Datta, 2008; Suarez-Gonzalez, 2001). However, the effectiveness of this strategy in achieving the intended goals remains debated (Cascio et al., 1997).

Financial Performance

Measuring the downsizing effect as financial performance is typically undertaken using accounting metrics like return on assets (ROA), return on equity (ROE) and return on sales (ROS) (Cascio et al., 1997; Datta et al., 2012; De Meuse et al., 1994; Hansen & Wernerfelt, 1989). These measures provide insights into a firm's position relative to its competitors, therefore serving as a crucial determinant in the success of a company. Additionally, the validity of their use is found in the extensive evidence showing that accounting measures and economic returns are related (Richard et al., 2009).

The relationship between employee downsizing and financial performance

The impact of employee downsizing on financial performance is yet to find a consensus in the literature. Some studies show improvements in ROA and the ratio of operating margins to sales (Datta et al., 2012). Yu and Park (2006) found a positive relationship between downsizing and ROA in Korean firms. Similarly, Brauer and Laamanen (2014) reported a U-shaped relationship in European firms, where 15% downsizing negatively influenced the ROA, but more severe workforce reductions (above 37%) were associated with performance improvements. Finally, Kang and Shivdasani (1997) found that the performance effects of downsizing may be delayed, with improvements emerging only in the third year post-downsizing.

However, empirical findings on this relationship remain inconclusive. Datta et al. (2012) found that the majority of the 22 studies involving downsizing-related performance effects (based on accounting measures) did not report improved profitability following employee downsizing. Studies of U.S. firms showed that downsizers, on average, were less profitable than upsizers or stable competitors (in terms of ROA changes) (Cascio et al., 1997). De Meuse et al. (1994) also found results in U.S. industrial corporations that do not support the contention that downsizing improves financial performance. Guthrie and Datta (2008), in their study of U.S. manufacturing firms, found a negative relationship between workforce downsizing and post-downsizing firm performance when accounting for industry conditions, showing consistency among the findings of other studies. Overall, evidence from U.S. firms indicates that layoff firms show a weaker financial performance when compared to non-downsizing firms. Similar to U.S.-based results, a European study conducted on Spain's largest firms found that downsizing did not lead to improved performance when compared to firms that maintained or increased their workforce (Suarez-Gonzalez, 2001).

Whilst the practice of employee downsizing is commonly perceived as a tool to enhance financial performance (Cascio, 1993; Datta et al., 2010), the majority of the literature found either a negative or non-significant effect of employee downsizing (Datta et al., 2012). Combining these theoretical insights, it can be assumed that firms that downsize employees will show a negative effect on their financial performance in the years following the downsizing event.

Hypothesis 1: Employee downsizing has a negative impact on subsequent financial performance.

2.3 | Downsizing Experience as a Moderator

Many scholars have provided evidence that experience positively influences financial performance (as shown in a review of Do & Mai, 2022). Traditionally, the majority of studies did not distinguish between success and failure (KC et al., 2013), as the bulk of prior organizational learning research has mostly examined aggregated experience (e.g. Carriger, 2017; Hayward, 2002; Zollo & Singh, 2004) or failure experience on their own (e.g. Baum & Ingram, 1998; Desai, 2008). While experience is a critical driver in shaping strategic decisions and influencing a firm's competitive position (Argote et al., 2021), managers often divide prior outcomes into dichotomous judgments of success and failure (Kim et al., 2009). As a result, they modify their behavior based on the categorization, deciding on contrasting strategies when

involved in different types of experience (Desai & Madsen, 2022). Therefore, it would be informative to examine how varying forms of experience affect the relationship between employee downsizing and financial performance (Argote et al., 2003). Hence, this research addresses this opportunity by distinguishing downsizing experience into successful and failure experience.

Successful Experience

Successful experience is defined as a past positive performance outcome (Audia et al., 2000). Typically, success goes to those who develop, refine and enhance key competencies that lead to sustainable competitive advantage (March, 1991). In particular, success can serve as an indicator that strategies are effective in the current environment, facilitating organizations in retaining strategies and routines that contributed to their success (Audia et al., 2000; Kraatz, 1998; Schwab, 2007). This can in turn reduce wasteful organizational search efforts for new strategies and improve efficiency and performance (Greve, 2003; Levinthal & March, 1993). Furthermore, because success experience is highly salient, it increases the perceived relevance of its performance and inspires confidence in ongoing learning activities (Kim et al., 2009; Schwab & Miner, 2008). Setting the firm's attention towards success provides decision makers with interest and identities to motivate their actions and to structure their decision premises (Ocasio, 1997). This stimulates slack-driven research, which are opportunities to experiment with new ideas, that can lead to novel and useful knowledge and capabilities, allowing to generate higher profits (Baum et al., 2005; Cyert & March, 1992). This suggests that successful experience positively moderates the relationship when determining the financial performance of a downsizing firm. Following this logic, the following hypothesis is derived:

> *Hypothesis 2: Successful experience positively moderates the relationship between employee downsizing and financial performance.*

Failure Experience

Failure experience, known as poor performance in results (Desai, 2008), indicates to organizational members that their existing strategies are inadequate (Cyert & March, 1963). Prior failure increases causal ambiguity, illustrating deficiencies in the organization's knowledge base (Cyert & March, 1963; Desai & Madsen, 2022). This produces an intense motivation to search and develop new knowledge to break existing routines (Argote et al., 2021; Levinthal & March, 1993). Additionally, negative experiences can help decision makers reflect on why and how things went wrong (Zollo & Singh, 2004) by gathering information from the

external environment through benchmarking or hiring external experts (Desai & Madsen, 2022). Essentially, decision makers reexamine the failure and look for a deeper understanding of action-outcome linkages (Madsen & Desai, 2010). As the post-failure search activities are intense, knowledge is more likely to be explicitly formalized and preserved to resist decay (Desai & Madsen, 2022; Madsen & Desai, 2010). Based on these insights and aligning with previous findings (e.g. Baum & Dahlin, 2007; Desai & Madsen, 2022; Madsen, 2009; Madsen & Desai, 2010), failure experience is expected to have a positive moderating effect, which leads to the following hypothesis:

> *Hypothesis 3: Failure experience positively moderates the relationship between employee downsizing and financial performance.*

Differential Moderating Effect

Organizations respond quite differently to failure than they do to success (Madsen & Desai, 2010). A distinct problematic of encountering success is that organizational decision makers tend to view successes as evidence that the organization's preexisting knowledge base, routines, and approaches are accurate and justified, whereas failures suggest that they are not (Cyert & March, 1963; Nonaka, 1994). Hence, organizational success leads to stability in organizational knowledge, while failure challenges it (Madsen & Desai, 2010). Therefore, repeated successes have even been argued to limit organizations in search of new knowledge (Song et al., 2003). However, when the environment changes, the strategic-persistence relationship (sticking with the same strategies that have worked in the past) may prove counterproductive (Audia et al., 2000). The overconfidence based on prior success may lead to decision makers incurring in superstitious learning, defined as a misspecified causal connection between action and outcome (Levitt & March, 1988; Zollo, 2009). This results in an incomplete causal understanding of the drivers behind the success (Kim et al., 2009; Madsen & Desai, 2010). In contrast, failure not only indicates the existence of a gap, but also shows where that gap may be, providing a roadmap of the most productive search activities (Levinthal & March, 1981). Overall, firms experiencing success instead of failure face much greater uncertainty (Madsen & Desai, 2010). Given these contrasting learning mechanisms, it is assumed that the failure experience will have a stronger moderating effect than successful experience.

> *Hypothesis 4: Prior organizational failure experience will show a stronger moderation effect on employee downsizing and financial performance than prior organizational successful experience.*

2.4 | Conceptual Model

Figure 1 displays a conceptual model based on the literature and the formulated hypotheses. The figure shows the relationship between the independent variable *employee downsizing* and the dependent variable *financial performance*. To answer the research question, *experience in downsizing* is split up into *successful experience* and *failure experience*. Both moderate the relationship between *employee downsizing* and *financial performance*. The expected effects and directions are shown between brackets.

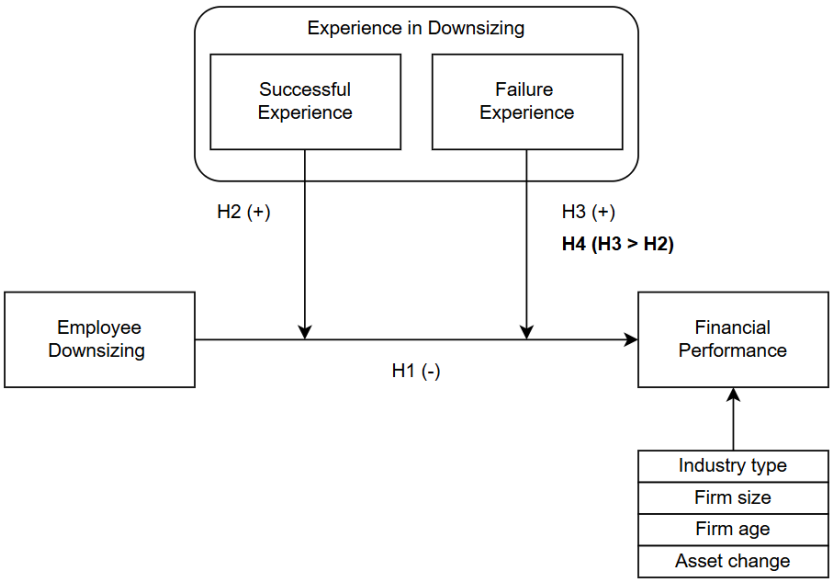

Figure 1 Conceptual model

3 | Methodology

3.1 | Data Sample

A well-known data sample in downsizing literature is U.S. firms, especially the Fortune 100 or 500 (e.g. Carriger, 2017; Datta et al., 2010; De Meuse et al., 1994; Guthrie & Datta, 2008). To distinguish from the bulk of existing literature, which predominantly focuses on U.S. firms, the hypotheses have been tested using a sample from the STOXX Europe 600 (SXXP). This index represents a broad measure of the European equity market, with a fixed number of 600 components across 11 industries in Europe's developed economies (Stoxx, n.d.). Additionally, these firms belong to the same stock market index and thus all receive comparable financial analyst coverage and scrutiny (Brauer & Laamanen, 2014).

The sample covered firms from 2009 until 2019, as the financial crisis from 2008 increased the likelihood of finding downsizing activities from 2009 onwards (Carriger, 2017). Additionally, the next major crisis of COVID-19 started in 2020. To leave out the influence of the pandemic, the financial performance after 2019 was not considered.

3.2 | Data Sources

The employee downsizing, types of experience and financial performance data have been collected from the LSEG Workspace (formerly known as Refinitiv Workspace and Eikon) and the sub-database Datastream. These databases provide (historical) company financials, financial ratios, and stock or index data, which have been used to calculate the variables in paragraph 3.3.

3.3 | Variables

This research consists of one dependent variable, one independent variable, two moderating variables and four control variables. A summarized overview of all variables, including the label, operationalization and possible transformations, can be found in Table 1. This structured summary ensures clarity in measurement and aligns with prior research to enhance the validity and reliability of the analysis.

Table 1 Variables summary

Variable type	Measure	Label	Operationalization	References	Categories	Transformations
Dependent variable	Financial performance	roa_mean_event	$ROA = \frac{operating\ income}{total\ assets}$ $ROA_{i,t}^{post} = \overline{ROA}_{i,t+1\ to\ t+3}$	(Cascio et al., 1997; Guthrie & Datta, 2008; Kang & Shivdasani, 1997; Yu & Park, 2006)	Continuous variable	
Independent variable	Employee downsizing	employee_downsizing_percentage	$Downsizing_{i,t} = if\ \left(\frac{Employees_{i,t+1} - Employees_{i,t}}{Employees_{i,t}}\right) \times 100 \geq -5\%$	(Brauer & Laamanen, 2014; Carriger, 2017; Cascio et al., 1997; Guthrie & Datta, 2008)	Continuous variable	
Moderator variables	Successful experience	car_roa_experience	$Success_{i,t}^{CAR} = if\ CAR_{i,t}^{(-1,+1)} > \overline{CAR}_{i,[t-10\ to\ t-1]}^{(-1,+1)}$ $Success_{i,t}^{ROA} = if\ \overline{ROA}_{i,t+1\ to\ t+3} > ROA_{i,t}^{experience\ year}$ $\sum_{t-10}^{t-1}\left(\frac{Success_{i,t}}{Age\ of\ experience}\right)$ $Overall\ Experience = \sum_{t-10}^{t-1} Successes - \sum_{t-10}^{t-1} Failures$	(Baum & Ingram, 1998; Brauer & Zimmermann, 2019; Carriger, 2017; Gong et al., 2019; Guthrie & Datta, 2008)	CAR & ROA 1 = success 0 = otherwise Overall 1 = success 0 = failure	Dummy variable
	Failure experience	car_roa_experience	$Failure_{i,t}^{CAR} = if\ CAR_{i,t}^{(-1,+1)} \leq \overline{CAR}_{i,[t-10\ to\ t-1]}^{(-1,+1)}$ $Failure_{i,t}^{ROA} = if\ \overline{ROA}_{i,t+1\ to\ t+3} \leq ROA_{i,t}^{experience\ year}$ $\sum_{t-10}^{t-1}\left(\frac{Failure_{i,t}}{Age\ of\ experience}\right)$ $Overall\ Experience = \sum_{t-10}^{t-1} Successes - \sum_{t-10}^{t-1} Failures$	(Baum & Ingram, 1998; Brauer & Zimmermann, 2019; Carriger, 2017; Gong et al., 2019; Guthrie & Datta, 2008)	CAR & ROA -1 = failure 0 = otherwise Overall 1 = success 0 = failure	Dummy variable

Control variables	Industry type	industry	$Industry\ Classification\ Benchmark\ (IBC)$	(Brauer & Laamanen, 2014; Kuusela et al., 2017)	1 = type of given industry 0 = otherwise	Dummy variable
	Firm size	ln_firm_size	$Firm\ Size = \ln\ (Total\ Sales)$	(Brauer & Laamanen, 2014; Guthrie, 2001; Jensen, 1993)	Continuous variable	Log transformation
	Firm age	firm_age	$Firm\ Age_{i,t} = t - Founding\ Year_i$	(Klarner & Raisch, 2013)	Continuous variable	
	Asset change	asset_change	$\%\Delta\ Asset_{i,t} = \left(\frac{Assets_{i,t} - Assets_{i,t-1}}{Assets_{i,t-1}}\right) \times 100$	(Brauer & Laamanen, 2014; Cascio et al., 1997; Guthrie & Datta, 2008)	Continuous variable	

3.4 | Dependent Variable

Financial performance was operationalized with the accounting measure Return on Assets (ROA), measured as operating income (before depreciation, interest, and taxes) divided by the total assets (Cascio et al., 1997; Guthrie & Datta, 2008; Yu & Park, 2006). ROA is the most widely used firm performance variable in management research, including research that examined the financial consequences of downsizing (Carriger, 2017; Cascio et al., 1997; Datta et al., 2012; De Meuse et al., 1994; Guthrie & Datta, 2008; Kang & Shivdasani, 1997). Using multiple years of performance following employee reductions allows for a more robust test and is consistent with previous work (Cascio et al., 1997). Additionally, Kang and Shivdasani (1997) found that it may be plausible that the effect of employee downsizing will not show in the first or second year. Therefore, following Guthrie and Datta (2008), the mean ROA for three years ($t + 1$ *to* $t + 3$) following the base year t (the year in which downsizing took place) of firm i was examined to measure post-downsizing performance.

3.5 | Independent Variable

Consistent with previous work (e.g. Brauer & Laamanen, 2014; Carriger, 2017; Cascio et al., 1997; Guthrie & Datta, 2008), this research applied a 5% workforce reduction as the numerical cut-off point to determine *employee downsizing*. According to Cascio et al. (1997), a 5% reduction in employees represents a significant event and likely indicates an intentional layoff, a hallmark of downsizing (Freeman & Cameron, 1993). Therefore, only firms that had reduced their workforce by 5% or more were included in the empirical analysis. Downsizing was calculated as the percentage reduction in workforce size between January 1st of year t and January 1st of year $t + 1$ for firm i.

Rather than treating downsizing as a dummy variable, this study operationalized it as a continuous variable to capture variation in the severity of workforce reductions. As emphasized by Brauer and Laamanen (2014), different magnitudes of downsizing may disrupt organizational routines in distinct ways, where intermediate downsizers exhibited the least positive performance compared to smaller or larger scaled reductions. Nixon et al. (2004) similarly argue that higher levels of downsizing show worse market reactions, capturing the market's sensitivity to magnitude. Finally, De Meuse et al. (1994) found that larger layoffs showed bigger declines in profit margins, suggesting that the extent itself is a meaningful dimension.

3.6 | Moderator Variables

Experience in downsizing was operationalized as the cumulative number of prior downsizings (5% headcount decrease or more) firm i had undertaken within a period of ten years $[t-10 \; to \; t-1]$ prior to the event year t (Carriger, 2017; Gong et al., 2019; Guthrie & Datta, 2008). To distinguish between *successful experience* and *failure experience*, several financial measures were analysed. First, following the acquisition literature of Gong et al. (2019), the cumulative abnormal return (CAR) of firm i in year t was assessed as an indicator. The CAR is an objective measure of feedback that reflects the success of an experience and relates to the expected versus actual performance (Papadakis & Thanos, 2010). Most studies rely on the announcement date of an event to calculate the CARs, assuming that this moment reflects when new information becomes available to the market, which in turn triggers the stock price (McWilliams & Siegel, 1997). The announcement dates mostly come from journals, like the *Wall Street Journal* (e.g. Brauer & Zimmermann, 2019; Nixon et al., 2004; Worrell et al., 1991). The CARs subsequently represent the difference between the actual and expected return of a company in an event window surrounding the day of the workforce downsizing announcement (McWilliams & Siegel, 1997). However, the assumption that layoffs are consistently announced and identifiable in a timely manner presents several challenges. First of all, Worrell et al. (1991) highlight that information about layoff stories from journals is often ambiguous and incomplete, and leakage may occur prior to the formal announcement. Thompson II et al. (1987) reinforce this by noting that not all news-related items receive equal attention in the journals, casting doubt that a market response on a pinpointed date of announcement is reliable. Additionally, according to Goins and Gruca (2008), companies may leak their intention to downsize months before a formal announcement. Moreover, Velasquez et al. (2018) find that "final decisions seem to convey no useful information for investors, suggesting that a final decision is predictable and already priced before its announcement," which supports the notion that investor reactions may precede or even bypass formal announcements entirely. To address the limitations on announcement dates, this study employed January 1st as a standardized event date. This date aligns with boundaries of the fiscal year, thus facilitating a uniform CAR estimation across the sample, mitigating biases caused by missing or inconsistent event timing.

To operationalize this approach, the CAR for each downsizing experience was calculated on January 1st of the year $t+1$, as this is the earliest point at which the employee reduction that occurred during year t could be identified using annual headcount. The CAR was calculated over a short-term event window of (-1, +1) days (Brauer & Zimmermann, 2019;

Nixon et al., 2004). Whilst other event windows are also common, such as the (-3, +3) day range (e.g. Gong et al., 2019), the (-1, +1) event window was selected in this study, because according to Brauer and Zimmermann (2019), this event window allows for comparability with preceding downsizing studies (e.g. Hillier et al., 2007; Nixon et al., 2004). Additionally, following prior restructuring studies (Blackwell et al., 1990; Brickley & Van Drunen, 1990; Chan et al., 1995), the market model to determine expected stock returns was estimated using a 150-day window spanning 170 to 21 trading days prior to the downsizing experience.

Each experience was subsequently benchmarked against the average CAR (-1, +1) of the same firm over the ten years $[t-10\ to\ t-1]$ preceding the focal downsizing event in year t, using January 1st as the standardized event date. This ensured that all comparisons were made at the same point in time each year (January 1st) and that each firm was benchmarked against its own historical CAR performance on that date. Specifically, if a downsizing event occurred in year t, then each prior year within the window $[t-10\ to\ t-1]$ that was marked as an experience was evaluated by comparing its CAR to the average CAR of all January 1st values for that firm during the $[t-10\ to\ t-1]$ period. An experience was categorized as a success if its CAR exceeded the firm's average January 1st CAR over the ten-year window from $[t-10\ to\ t-1]$, otherwise the experience was classified as a failure.

While CARs predict future cashflows, markets are not omniscient (Haleblian et al., 2009). Investors may interpret downsizing as a sign of financial distress, which can trigger a negative stock price reaction (Carriger, 2017; Worrell et al., 1991). Accordingly, CARs capture investors' expectations in response to an event, thereby primarily assessing the potential value of a downsizing decision, rather than the actual value created or destroyed through its implementation (Haleblian et al., 2009). Importantly, while CARs reflect the perspective of shareholders, management research emphasizes that managers also represent a high-legitimacy stakeholder group of a company, whose evaluation is essential when assessing firm performance (Mitchell et al., 1997; Richard et al., 2009).

To account for outcomes tied to managerial execution, this study also assessed ROA. Following Guthrie & Datta (2008), the ROA of each downsizing experience was evaluated by comparing the firm's ROA in downsizing year t to the mean ROA over the three years following that year $(t+1\ to\ t+3)$. Experiences with a $\overline{ROA}_{i,t+1\ to\ t+3}$ larger than the $ROA_{i,t}^{experience\ year}$ were seen as a success, otherwise the experience was considered a failure. ROA allows for a broader assessment of firm-level performance over time, and according to De Meuse et al. (1994), tests whether the layoffs achieved the basic purpose of the firm.

However, accounting measures are not always consistent with theoretical logic, as managerial discretion in choices as booking expenses and depreciation schedules, can distort the comparability of performance effects (Richard et al., 2009). Additionally, accounting measures like ROA allow for a general assessment of firm performance, but are not always capable of capturing the direct impact of an event (Haleblian et al., 2009). Therefore, a combination of financial market and accounting measures is preferred, due to their importance to investors and managers (Richard et al., 2009). Each downsizing experience was classified as either $succes_{i,t} = 1$ or $failure_{i,t} = -1$, only if both the CAR and ROA met their respective criteria in the same direction. An experience was labelled as a success if both the CAR exceeded the firm's average historical CAR $[t-10\ to\ t-1]$, and the ROA of $t+1\ to\ t+3$ exceeded the ROA in the experience year. Conversely, an experience was labelled as failure if both the CAR and ROA fell below their respective benchmarks. If the two measures provided conflicting results (e.g. CAR exceeded the benchmark, but ROA did not, or visa versa), the experience was excluded by setting both indicators to 0. This form of triangulation strengthens construct validity and reduces measurement errors by using multiple measures to determine the performance of an experience (Richard et al., 2009).

Finally, the accumulated experiences were not assessed equally. Recent experiences are assumed to contribute the most to knowledge accumulation, while older experiences are considered less influential due to knowledge depreciation over time (Argote et al., 1990; Madsen & Desai, 2010). Therefore, following other scholars (e.g. Baum & Ingram, 1998; Kim & Miner, 2007), the most commonly functional form of experience decay was used, namely *age*. For each firm i in year t, valid *successful* and *failure experiences* were operationalized as the sum of prior experiences, discounted by their *age*, defined as the number of years between the experience year and the base year in which financial performance was assessed. Consistent with the ten-year $(t-10\ to\ t-1)$ lookback window used in this study (Gong et al., 2019), the maximum age for each experience was ten years.

Once the weighted sums of *successful* and *failure experiences* were derived for firm i in year t, they were combined in a final determination of *overall experience*. This was done by subtracting the *failure experiences* from the *successful experiences*. A positive value indicated that the firm's accumulated experience was dominated by *successful experience*, while a negative value indicated a predominant *failure experience*. This way, the entire window from $t-10\ to\ t-1$ reflected an overall success or failure pattern from which a success dummy was created: $succes_{i,t-10\ to\ t-1} = 1$ and $failure_{i,t-10\ to\ t-1} = 0$.

3.7 | Control Variables

Multiple control variables were included to control for potential characteristics that affect a firm's financial performance. First, *industry type* was controlled for using the Industry Classification Benchmark (ICB), which provides a four-tier structure to offer a robust system for comparing and analysing like organisations (FTSE Russell, n.d.). Industries can show different results, as high-tech industry firms, for example, are likely to engage in strategic reorientations since the sector is dynamic in terms of technological changes (Kuusela et al., 2017). Additionally, the downsizing impact may vary for industries with a strong reliance on human capital (Brauer & Laamanen, 2014). The full details on the Industry Classification Benchmark can be found in appendix I.

Second, this research controlled for *firm size*, as research has shown that firms with overextension beyond an optimal firm size show more positive results from workforce downsizing (Jensen, 1993). Firm size may also influence HR policies as well as firm performance (Guthrie, 2001). Following Brauer & Laamanen (2014), firm size is measured as the natural logarithm of the total sales.

Third, *firm age* was controlled for as age can influence organizational performance (Klarner & Raisch, 2013). Older firms tend to have established routines that give rise to inertia, which may impact their ability to implement strategic changes. Firm age is measured in years by subtracting the founding year of firm i from the focal year t.

Finally, *asset change* was also controlled for, measured as the percentage change in total assets of firm i from year $t-1$ *to* t (Brauer & Laamanen, 2014). Controlling for asset change allows for isolation of the employee downsizing effect over and above the changes in the firm's operations (Cascio et al., 1997; Guthrie & Datta, 2008).

3.8 | Method

To examine the hypotheses provided in chapter 2, an Ordinary Least Squares (OLS) regression analysis was conducted. OLS regression facilitates the analysis between a single dependent variable and multiple independent and moderator variables (Hair et al., 2019). By examining the regression coefficients for each independent variable, a statistically significant change in the dependent variable can be established. This enabled the determination of the direction and statistical significance of the relationships between *employee downsizing*, *successful experience, failure experience* and *financial performance*. Moreover, an OLS regression allows for the inclusion of control variables, which are discussed in paragraph 3.7.

The statistical model that was estimated followed the general form of multiple regression (Hair et al., 2019). To assess the moderators, the independent variable (*employee downsizing*) was interacted with the dummy variable representing *successful experience*. Including this interaction term enabled the estimation of both moderation effects. Adding the moderators and the interaction term gives us the full regression variate of this research, which allows us to test the hypotheses according to Table 2.

$$FP = \beta_0 + \beta_1 ED + \beta_2 SD + \beta_3 (ED \times SD) + controls + \in$$

Where:

FP = Financial Performance (Dependent Variable)

ED = Employee Downsizing (Independent Variable)

SD = Success Dummy (1 = successful experience, 0 = failure experience)

β_0 = The Y-intercept / Constant

$\beta_1 ED$ = Main effect of Employee Downsizing (Independent Variable)

$\beta_2 SD$ = Main effect of Success Dummy (Moderator)

$\beta_3 (ED \times SD)$ = Interaction term for Employee Downsizing and Success Experience (Moderating Effect)

controls = Control Variables (industry type, firm size, firm age and asset change)

$\in$ = Error term

Table 2 Hypotheses tests

Hypothesis	**Relationship**	**Supported if**
H1	β_1 $(ED \rightarrow FP)$ from model 1	$\beta_1 < 0$ and $p < .05$ (downsizing negatively impacts financial performance)
H2	β_3 $(ED \times SE \rightarrow FP)$	$\beta_3 > 0$ and $p < .05$ (successful experience positively moderates the effect of employee downsizing compared to failure experience)
H3	β_1 in model with interaction	$\beta_1 > 0$ and $p < .05$ (downsizing has a more positive effect for the failure group)
H4	Compare effects of success and failure experience	Wald test: $\beta_1 > (\beta_2 + \beta_3)$ (failure experience shows a stronger moderating effect than successful experience)

3.9 | Data Preparation

Before conducting a statistical analysis, a comprehensive data procedure was performed, involving multiple stages of refinement. First, a total of 1,355 downsizings were identified across the STOXX Europe 600 between 1999 and 2016. Subsequently, every company was filtered to have at least one event with one experience, resulting in 1,164 downsizing observations across 218 companies. Of these, 437 were classified as potential downsizing events, with the remaining observations serving as a potential experience. Importantly, some of the cases served a dual role, where an event could also function as an experience for later events within the same firm.

A subset of 21 companies was then excluded because their experience fell outside the ten-year lookback window. Additionally, a company was excluded due to a data inconsistency between ROA and ROE, which was originally collected for robustness testing. For each downsizing event of the 196 firms left, all experiences in the preceding 10 years were evaluated.

Each experience was classified as a success or failure based on the CAR and ROA criteria as described in paragraph 3.6. Experiences were excluded if data were incomplete (e.g. missing ROA values) or if the CAR and ROA produced conflicting results. Each valid experience was then discounted by age, giving more recent experiences a greater weight. These age-weighted experiences were finally aggregated for each event to determine whether each event had a history of predominantly successful or failure experiences.

After all exclusions, the dataset consisted of 300 classified downsizing events across 151 unique firms, including 162 preceding successful experiences and 138 preceding failure experiences. This refined dataset formed the foundation of the statistical analysis.

3.10 | Research Ethics

This research was conducted with due regard for the ethical principles as described by the American Psychological Association (APA) (Smith, 2003). Since this thesis was of quantitative nature, issues revolving around confidentiality and privacy were not of concern. To circumvent any form of deception derived from the handling of data, it was only transformed with caution and reference when necessary. No data were altered to adhere to expectations or any theoretical outcome or deleted without demonstrably sound grounds. Additionally, no results were intentionally interpreted incorrectly. Furthermore, I ensured acknowledgement of the intellectual property rights of each author’s contribution to the literature. Finally, an integrity form was signed to ensure ethical conduct.

4 | Results

4.1 | Data Analysis

Missing Value Analysis

Before executing the regression analysis, the data examination procedure of Hair et al. (2019) was followed. Prior to the missing value analysis for all the variables in the main model, invalid negative values for *firm age* were found. The negative values, extracted by the date of incorporation, likely resulted from data merging or calculation errors (e.g. incorrect founding year due to the firm being acquired). As only eight firms had a negative firm age, all values were treated as invalid and recoded to system missing. Additionally, the natural logarithm of the total sales was calculated, following Brauer & Laamanen (2014).

The missing value analysis revealed that the variables *financial performance* (6.0%), *firm size* (0.3%) and *firm age* (12.7%) contained missing values respectively, while the other variables were complete. In line with Hair et al. (2019), all cases missing on the dependent variable *financial performance* were removed prior to further analysis. Deleting missing data for dependent variables avoids any artificial increase in relationships with independent variables. After filtering out these cases, a second missing value analysis was conducted to reassess the missing of other variables. This two-step approach ensures that the correct imputation decision is made, solely based on the relevant sample.

The second missing value analysis contained two remaining variable, namely *firm age* (missing 12.4%) and *firm size* (missing 0.4%). Separate variance t-tests revealed no statistically significant differences between missing and non-missing cases across the other variables (all $p > .05$), suggesting that the missingness was not systematically related to the observed values. In contrast, Little's MCAR was statistically significant ($p < .001$), indicating that the data were not missing completely at random (MCAR), but rather more likely missing at random (MAR). To further explore these results, a review of the data revealed that one case had simultaneous missing values on both *firm age* and *firm size*. According to Hair et al. (2019) an exclusion of a small subset of cases may substantially reduce the extent of missing data. After removing the case, a new missing value analysis was performed. The results showed that *firm age* remained the only variable with missing values (now 12.1%), while all other variables were complete. The separate variance t-tests remained non-significant, while notably, Little's MCAR test became non-significant ($p = .661$). This change in outcome demonstrates that the previous MAR classification was largely driven by a single case. Following its removal, the dataset could be considered missing completely at random (MCAR).

While regression imputation is considered acceptable for MCAR data when missingness falls between 10% and 20% (Hair et al., 2019), firm age is a historical and firm-specific measure. Therefore, the artificial calculation of this variable risks being invalid, resulting in the decision to listwise delete all the final missings in the dataset. The dataset of now 247 cases has no artificial variable calculations, and still exceeds the threshold of 100 required cases for a multiple regression, maintaining sufficient statistical power (Hair et al., 2019).

Outliers and Influential Observations

Consistent with Hair et al. (2019), univariate outliers were identified using standardized z-scores ($z > |3|$). Of the 247 cases, six were flagged as potential outliers. Multivariate outliers were identified using Mahalanobis distance (D^2), with four degrees of freedom. Following Hair et al (2019), the D^2 values were then divided by the degrees of freedom (D^2/df), which resulted in five flagged outliers surpassing the threshold of $> |3|$.

Influential observations were assessed using Cook's distance, studentized deleted residuals, and leverage values. First, a threshold of $4 / (n - k - 1)$, with $n = 247$ and $k = 4$, resulted in a Cook' distance cutoff point of 0.0165, flagging five potentially influential observations (Hair et al., 2019). Additionally, a threshold of Cook's distance $> |1|$ was applied to identify extreme influence, resulting in one case with a Cook's distance of 1.26. Second, a threshold of $> |\pm 1.96|$ for studentized deleted residuals resulted in four potential influential observations. Finally, the leverage resulted in seven potential influential observations.

According to Hair et al. (2019), the deletion of outliers or influential cases must be approached carefully. After reviewing the flagged cases, three extreme cases were removed. First, one case reported an *employee downsizing* of -99,99%, which does not reflect a *"planned elimination of jobs"* (Cascio, 1993), for efficiency purposes (Brauer & Laamanen, 2014; Datta et al., 2010; Love & Nohria, 2005). Second, one case reported an average return on assets of 172,99% from $t + 1 \; to \; t + 3$, which far exceeded the sample mean of 6.00% and was likely to distort the analysis. Finally, a case with an *asset change* of 456.62% was deleted, which was considered implausible, and removed due to potential influence on the regression model, following Hair et al. (2019).

A final cross-tabulation after the removal of extreme cases revealed that seven cases were classified as either outliers or influential, with three of these flagged as both. According to Hair (2019), such overlapping cases are particularly concerning due to their potential to introduce bias into the regression estimates. To address this, a combined outliers and influential

flag was created to compare regression models with and without the flagged cases to assess robustness if any issues may arise.

Final Sample

After the data cleaning process, including the removal of missing values, outliers and influential observations, the final sample consisted of 244 events across 127 firms from the STOXX Europe 600 index. The classification on prior downsizing experience resulted in 127 firms having *successful experience* and 117 having *failure experience*, meeting the common guidelines for regression analysis (Hair et al., 2019).

Descriptive Statistics

Before testing the assumptions of the OLS regression, descriptive statistics were computed for all continuous variables included in the analysis (see Table 3). In total, 244 valid cases remained after data cleaning. The dependent variable (*financial performance*), shows a mean of 5.31 (SD = 6.29), indicating moderate variation in post-downsizing outcomes. The independent variable (*employee downsizing*) has a mean of -13.82%, confirming that on average firms reduced their workforce by approximately 14%.

The interaction term of *successful experience* has a negative mean, averaging a downsizing of -7.53%. The average firm in the sample is well-established according to the control variables. *Firm size*, measured as the natural logarithm of sales, confirms that the dataset consists of large firm. Additionally, firms in the sample have an average age of 45 years old. In contrast, the *asset change* is widespread with a mean close to zero, but with the minimum and maximum ranging from -42.28% to 64.38%. Overall, assumption testing will proceed using untransformed variables. Transformations will be considered if assumptions violations are detected.

Table 3 Descriptive statistics

Variable	Mean	SD	Min	Max	N
Financial performance	5,313033	6,285367	-24,3333	41,5	244
Employee downsizing	-13,8161%	12,26337%	-89,8133%	-5,00148%	244
Downsizing*Succes dummy	-7,5249	11,14889	-63,01	0	244
Firm size	15,4115	1,6649	11,08	19,38	244
Firm age	45,15	36,101	1	140	244
Asset change	-0,08952%	13,2863%	-42,2805%	64,38243%	244

4.2 | Assumptions

To assess the normality of the standardized residuals, both a histogram and normal P-P plot were examined, following Hair et al. (2019). The histogram displayed a small peaked distribution with a slight skewness to the right. The P-P plot showed that the standardized residuals closely follow the diagonal reference line. The overall pattern indicates that the residuals are reasonably normally distributed, meeting the assumption. Given that the sample size exceeds 200 cases, minor impacts on the result are suspected, leaving the impact of a possible violation of normality to be negligible (Hair et al., 2019).

In a an OLS regression, linearity between the dependent and independent variables is assessed using a residual plot (Hair et al., 2019). The distribution of residuals appeared to be randomly scattered around the zero line, without any curvilinear or systematic pattern. To further evaluate linearity, partial regression plots were examined for all continuous variables. Most predictors showed a roughly linear relationship with the dependent variable, with no strong evidence of curvilinear relationships. These findings suggest that the assumption of linearity is adequately met (Hair et al., 2019).

Constant variance of the error term was assessed using a residual plot and Levene's test. The residual plot displayed a random and even dispersion, indicating that the variance of the error terms is constant across the predicted values. Additionally, Levene's test indicated that residual variance did not significantly differ between firm with successful and failure experience ($p = .630$). Since this comparison aligns with the theoretical groups central in this research, the assumption of homoscedasticity is considered met.

The independence of error terms assumptions requires that the predicted values for each observation is uncorrelated to those of other observations (Hair et al., 2019). To assess the independence of residuals, the Durbin-Watson statistic was examined. With a value of 2.274, the test indicated no evidence of autocorrelation, confirming that the assumption of independent error terms is met.

To assess the assumption of multicollinearity, the relationships among the independent variables were examined using a correlation matrix to identify bivariate correlations (Hair et al., 2019). No correlations exceeded the threshold of 0.70, which could indicate collinearity risk. Next, Variance Inflation Factor (VIF) and tolerance values were reviewed as the primary diagnostics. All VIF values were well below commonly used cutoff point of 5 or 10. Additionally, all tolerance values exceeded the threshold of 0.10, which according to Hair et al. (2019), indicates that multicollinearity is not present in the model and the assumption is met.

4.3 | Regression Analysis

Table 4 displays the regression results used to test the hypotheses formulated in chapter 2. Four regression models were estimated using firms that had previously experienced either successful or failed downsizing.

Table 4 Regression analysis

Dependent variable: ROA	**Model 1** β / (se)	**Model 2** β / (se)	**Model 3** β / (se)	**Model 4** β / (se)
Employee downsizing	-0.061* (0.033)	-0.036 (0.029)	-0.125*** (0.045)	-0.077* (0.040)
Success dummy			0.865 (1.202)	0.565 (1.051)
Downsizing*Succes dummy			0.130** (0.065)	0.082 (0.056)
Firm age		0.021** (0.010)		0.020** (0.010)
Asset change		0.063** (0.026)		0.061** (0.026)
Firm size		-1.364*** (0.274)		-1.306*** (0.276)
Industry tech		-1.333 (2.307)		-1.389 (2.307)
Industry telecom		1.688 (1.590)		1.582 (1.597)
Industry health		-9.815*** (2.210)		-9.450*** (2.218)
Industry financials		-3.109*** (1.131)		-3.236*** (1.135)
Industry realestate		-1.710 (1.442)		-1.613 (1.453)
Industry discretionary		5.638*** (1.295)		5.493*** (1.296)
Industry staples		2.688* (1.368)		2.753** (1.369)
Industry materials		1.754 (1.342)		1.608 (1.346)
Industry energy		0.219 (1.561)		-1.531 (1.573)
Industry utilities		1.964 (1.463)		0.074 (1.467)
Constant	4.474*** (0.604)	24.846*** (4.349)	4.112*** (0.825)	23.809*** (4.400)
N	244	244	244	244
F-test	3.45*	8.50***	2.94**	7.64***
R-square	0.0140	0.3421	0.0354	0.3500
Adjusted R-square	0.0100	0.3019	0.0234	0.3042

*Legend: * p < .1; ** p < 0.05; *** p < 0.01*

The Effect of Downsizing

To evaluate hypothesis 1, models 1 and 2 were estimated using *employee downsizing* as the sole predictor. Model 1 estimates the effect of employee downsizing across all firms in the dataset, each of which had either prior *successful* or *failure experience*. The result showed a negative coefficient for downsizing (β = -0.061), which was marginally significant (p = 0.065). In model 2, where the control variables were added, the effect remained negative (β = -0.036) but was no longer statistically significant (p = 0.206). This indicates that the control variables explain a substantial proportion of the variance in financial performance. Notably, the adjusted R^2 increases from 0.010 in model 1 to 0.302 in model 2, indicating a significant improvement in model fit. Given the strong influence of the control variables, these results provide no empirical support for hypothesis 1.

Tracing Experience

Hypothesis 2 was tested using a dummy variable of *successful experience* (1 = success, 0 = failure), alongside an interaction term between downsizing and the success dummy. The interaction term (*Downsizing*Succes dummy*) captures whether the effect of downsizing on financial performance for firms with prior *successful experience* differs from that of firms with *failure experience*, which served as the reference category. The interaction effect was significant in model 3 (β = 0.130, p = 0.047), indicating that successful experience may moderate the negative effect of downsizing. However, in the fully specified model (model 4), which includes firm and industry control variables, the interaction effect became non-significant (β = 0.082, p = 0.148). To assess the effect of successful experience, a linear combination test of the main downsizing effect and the interaction term was computed based on model 4. The results (β = 0.004, p = 0.914) showed that downsizing had no significant impact on financial performance for firms with prior *successful experience*. Overall, while successful experience may reduce the negative impact of downsizing in a simpler model (model 3), the effect does not hold once control variables are included. Therefore, hypothesis 2 is not supported.

Hypothesis 3 proposed that *failure experience* would positively moderate the downsizing-performance relationship. In the regression models, failure experience was coded as the reference category (0), meaning that the failure experience now serves as the baseline for interpretation (Hair et al., 2019). As a result, the main effect of downsizing in the model reflects its impact specifically for firms with *failure experience*, against which the interaction with *successful experience* is compared. In model 3, this coefficient was negative and highly significant (β = -0.125, p < 0.01), indicating that downsizing led to a worse financial

performance for firms with a historical *failure experience*. In model 4, which includes the controls, the effect remained negative and marginally significant (β = -0.077, p = 0.052). Across both models, *failure experience* is associated with a negative effect of downsizing on financial performance. These results contradict the expectation of a positive moderation effect, as firms with prior *failure experience* did not exhibit improved performance following downsizing. Therefore, hypothesis 3 is not supported.

To further illustrate the moderating effect of experience, an interaction plot was created using the predicted values from the regression model. To make the patterns easier to interpret, the continuous variable *employee downsizing* was binned into five percentage categories, including -40% until -5%. These categories were then plotted against the dummy-coded experience (1 = success, 0 = failure) to calculate the predicted ROA for each experience type across the downsizing levels. Figure 2 reveals that among failure experience, the predicted ROA steadily declines across the blue line (β = -0.077). In contrast, firms with successful experience show a relatively flat pattern (β = 0.004), indicating more resilience to downsizing severity. However, while this pattern supports the expected direction of the moderation according to the regression output, the interaction term itself was not statistically significant in the full model (model 4). Therefore, the visual difference between the two experience groups should be interpreted with caution.

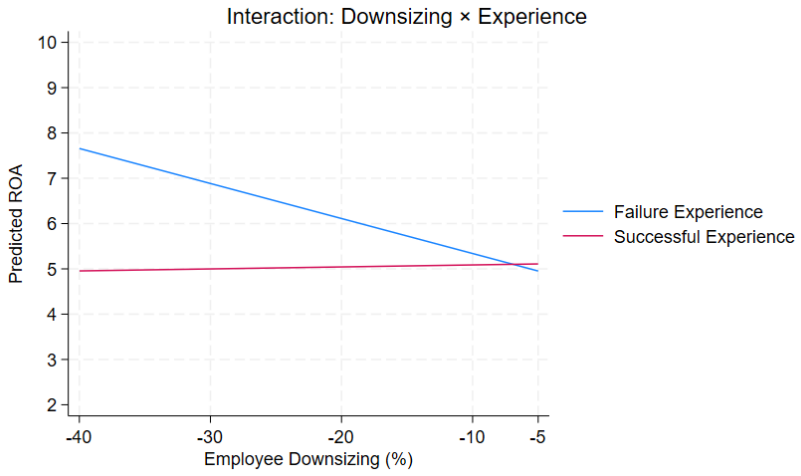

Figure 2 Interaction plot

To evaluate hypothesis 4, a Wald test was conducted using the coefficients from model 4, the fully specified model including all controls. The test assessed whether the effect of employee downsizing differs between *successful* and *failure experience* by comparing the coefficient of employee downsizing for failure firms (β1) to the combined effect for success

firms (β2 + β3). The Wald test result (F = 0.42, p = 0.517) indicated no statistically significant difference between the two groups. This result suggests that firms with *failure experience* do not exhibit a significantly stronger moderation effect than firms with *successful experience*, providing no support for hypothesis 4. A summary of all hypotheses can be found in Table 5.

Table 5 Summary of hypotheses

Hypothesis	**Expected significance**	**Empirical conclusion**
Hypothesis 1: *Employee downsizing has a negative impact on subsequent financial performance*	-	Not supported
Hypothesis 2: *Successful experience positively moderates the relationship between employee downsizing and financial performance*	+	Not supported
Hypothesis 3: *Failure experience positively moderates the relationship between employee downsizing and financial performance*	+	Not supported
Hypothesis 4: *Prior organizational failure experience will show a stronger moderation effect on employee downsizing and financial performance than prior organizational successful experience*	β1 > (β2 + β3)	Not supported

4.4 | Robustness Check

To test the robustness of the results, return on equity (ROE) was used as an alternative measure of financial performance. According to De Meuse et al. (1994) and (Richard et al., 2009), ROE is a widely used accounting measure, similar to ROA, but focuses on the actual return to the owners of the firm based on their investment. Additionally, ROA and ROE share net operating profit as the same numerator (Chhinzer & Currie, 2014; Richard et al., 2009), both providing a popular measure of performance. To asses the financial performance, ROE was measured as the one-year change following the downsizing event year (De Meuse et al., 1994).

Based on the missing value analysis, five events across two companies were excluded from the robustness analysis due to incomplete ROE data (Hair et al., 2019). A re-estimation of the results (appendix II) showed that using ROE instead of ROA produced different results in terms of statistical significance and model explanatory power.

The main effect of employee downsizing remained negative, however it was no longer statistically significant (β = -0.007, p = 0.801) in model 1. Moreover, including control variables in model 2 did not improve the model fit, with an adjusted R^2 of -0.014, in contrast to the ROA-based analysis. The previously significant interaction between downsizing and successful experience (p = 0.047 in the ROA model) was also no longer significant (p = 0.637) in the ROE-based model 3. The adjusted R^2 of the full model (model 4) decreased substantially from 0.304 in the ROA-based analysis to -0.019 in the ROE-based analysis, indicating that the variables do not contribute significantly to the predictive accuracy of the ROE (Hair et al., 2019).

The divergence in findings likely stems from the conceptual differences between ROA and ROE. ROA captures profitability relative to the firm's total assets, including both debt and equity, while ROE measures profitability only relative to shareholder equity (Richard et al., 2009). As Brauer and Laamanen (2014) pointed out, this makes ROE more sensitive to a company's capital structure (e.g. the mix of debt and equity). Following the 2008 financial crisis, many European firms struggled to obtain corporate loans (Becker & Ivashina, 2018). As a result, ROE may serve as a less stable predictor of performance in the post-crisis period. Overall, these findings suggest that the original results are not robust to the use of an alternative accounting measure and should therefore be interpreted with caution.

5 | Discussion

5.1 | Theoretical Contributions

In this study, three theoretical contributions have been made. First, it extends prior research on employee downsizing by introducing organizational learning theory as a conceptual lens to better understand the ambiguous performance effects associated with downsizing. According to the organizational learning theory, firms engage in activities to gain experiences that generate knowledge and shape future actions (Argote et al., 2021; Desai & Madsen, 2022; Hayward, 2002). While most prior studies have examined experience in aggregated form (e.g. Carriger, 2017; Hayward, 2002; Zollo & Singh, 2004), looking at the repetition of similar actions (Argote & Miron-Spektor, 2011; Echajari & Thomas, 2015), this study made a critical distinction between successful and failure experience. According to Madsen and Desai (2010), organizations respond differently to success and failure: success provides ongoing learning activities (Kim et al., 2009; Schwab & Miner, 2008), while failure triggers re-examination to try and break ineffective routines (Argote et al., 2021; Levinthal & March, 1981; Madsen & Desai, 2010). Therefore, both provide useful learning processes (Kim et al., 2009), which this study explicitly incorporated. Though I was unable to predict the influence correctly, the successful and failure experiences still provided usefulness in the organizational learning theory. Specifically, these results indicate that firms with prior failure experience exhibit significantly worse post-downsizing financial performance, whereas prior success experience showed little to no impact on the downsizing outcomes. Overall, it can be concluded that not all experiences contribute equally to performance, providing more insights into the difference between successful and unsuccessful downsizers (Cascio et al., 1997; Datta et al., 2012).

Second, this study contributes to the literature by introducing a triangulated method for classifying organizational experience. Whereas previous research has often relied on either market-based measures such as cumulative abnormal returns (CAR) or accounting-based indicators like return on assets (ROA) to define success or failure (e.g. Brauer & Zimmermann, 2019; Gong et al., 2019; Guthrie & Datta, 2008), this study combined both metrics to determine the outcome of each downsizing experience. This way, all focal stakeholders of the company were taken into account when deciding on the performance outcome, given that CAR captures investor expectations, while ROA reflects organizational performance (Haleblian et al., 2009; Richard et al., 2009). By requiring that both the CAR and ROA provide the same direction results, this study enhances the reliability and validity of the outcome measures, offering a more objective basis to evaluate organizational learning. Furthermore, this dual classification helps

mitigate the risk of misclassification, whereby organizational members can ignore or misinterpret experiences that do not align with pre-existing organizational knowledge (Nonaka et al., 2006; Wiersma, 2007). As such, this method offers a replicable and theory-consistent approach to classifying experiences, advancing the methodology in organizational learning research.

Finally, this study contributes to the downsizing literature using a European multi-industry context. While firms around the world have been forced to cut cost, restructure and reduce their workforce (Appelbaum et al., 1999), much of the empirical work on employee downsizing and organizational learning has focused on American firms (e.g. Carriger, 2017; Datta et al., 2010; De Meuse et al., 1994; Guthrie & Datta, 2008). However, the global adaptation is said to influence millions of people annually (Cameron, 1994; Gandolfi, 2008; Suarez-Gonzalez, 2001), highlighting the importance of studying the downsizing practice in diverse cultural contexts. By applying the organizational learning theory in a European context (using the STOXX Europe 600), this research unfolds how a different environment based on costs, constraints, and interpretations of downsizing can differ across the globe. Moreover, the findings offer a more context-sensitive perspective on how organizations learn and respond to downsizing, with results that may diverge from those observed in the U.S.-based studies.

5.2 | Practical Implications

In addition to the theoretical implications, this study also offers two key managerial implications. First, the findings suggest that not all types of experience are equally relevant when evaluating the performance effects of downsizing. While experience in most studies significantly impacted the financial performance (e.g. Carriger, 2017; Hayward, 2002), this study shows that successful downsizing experience does not necessarily lead to improved outcomes, and failure experience may even be associated with worse financial performance under certain conditions. Managers should therefore critically assess the type of experience, rather than rely on experience in an aggregated form. In particular, organizations should implement more structured learning processes where a distinction is made between the type of experience, before retaining and transferring the knowledge internally and guiding future actions (Argote et al., 2021).

Second, the results highlight that the outcomes of downsizing might be context-dependent. Much of the downsizing-performance literature has focused on the Fortune 100 or 500 (e.g. Brauer & Zimmermann, 2019; Gong et al., 2019; Guthrie & Datta, 2008), with most

studies finding that downsizing leads to worse financial performance. In contrast, more positive relationships between downsizing and firm performance have been reported in other parts of the world, including Asia (Kang & Shivdasani, 1997; Yu & Park, 2006) and Europe (Brauer & Laamanen, 2014). Similarly, the findings of this study (focused on European firms) also challenge the general notion in America that employee downsizing will consistently result in financial decline. Cultural norms and institutional frameworks might shape how downsizing is perceived and whether it achieves its intended effects. As such, managers should be cautious in implementing downsizing strategies developed in other cultural contexts without adapting them to their local conditions.

5.3 | Limitations and Future Research Opportunities

Despite the insights into how prior downsizing experience moderates the relationship between employee downsizing and financial performance, this study has several limitations that must be acknowledged. First, one significant methodological limitation concerns the use of January 1st as a fixed event date for calculating cumulative abnormal returns (CAR) to classify experiences as success or failure. While this choice was made to ensure consistency and avoid missing potential event-specific data, it arguably fails to capture the true market reactions to actual downsizing announcements on or around the announcement date. As emphasized by Carriger (2017) and Worrell et al (1991), the market's reaction to layoff announcements often depends on the specific timing and frequency of events. Therefore, firms with repeated downsizing activity might see exponentially worse reactions, potentially distorting the CAR signal. Deviating from the standard event study methodology (e.g. Brauer & Zimmermann, 2019; Nixon et al., 2004; Worrell et al., 1991) may therefore limit the accuracy and external validity of the experience classification used in this study. Future research could improve precision by conducting an additional analysis of how firms communicate downsizing events in their annual reports. As Brauer and Zimmermann (2019) noted, firms may "whitewash" their downsizing decisions to try and neutralize negative investor response by announcing more positive information. A supplementary textual analysis, in combination with a new CAR estimation, could examine whether the publication of annual reports influences stock prices following a downsizing event. Even if the initial announcement has already been priced, the publication of the annual report may show whether investors are sensitive to framing. If significant market reactions occur at the report release, this would suggest that using January 1st as a standardized event date may overlook the true reaction of investors.

Another limitation from this study is the absence of a ‘no experience’ group in the sample. According to the methodological approach, all firms without downsizing experience in the ten-year lookback window or no prior experience were excluded. However, the downsizing events of such firms between 2009 and 2016 might provide valuable insight into the generalizability of the results. By omitting these firms, the analysis focused only on companies with some form of experience (either successful or failure), lacking a baseline comparison group. Therefore, this sample restriction limits the interpretability of the moderation effects, as it prevents assessing whether any experience significantly changes the downsizing-performance relationship. As a result, this study may not capture the full impact of organizational learning on performance outcomes compared to firms engaging in downsizing for the first time. Future studies should incorporate firms with no downsizing history to allow for a three-way comparison: no experience, successful experience, and failure experience. This would provide a more rigorous test of whether organizational learning adds value relative to first-time downsizers.

Finally, the analysis does not incorporate firm-specific contextual or cultural variables. As noted by Brauer and Laamanen (2014), workforce downsizing can be seen as one of the most commonly occurring shocks in organizational routines and their outcomes. Understanding how these disruptions are processed may require attention to factors such as leadership turnover, strategic orientation, or managerial discretion, elements that can influence how routines are reconfigured after the downsizing event. As Argote and Miron-Spektor (2011) explain, organizational learning is shaped by the interaction between experience and context which they divide into ‘latent’ and ‘active’ components. The latent context refers to the elements like culture and identity, which in turn influence the active context: the members and tools directly involved in task execution. Neglecting these contextual variables may limit the ability to assess how prior downsizing experience is translated into post-downsizing performance outcomes. Future research could integrate contextual moderators as managerial turnover or cultural strength to better explain how experience is internalized and applied.

6 | Conclusion

This study set out to answer the research question: *'What is the impact of organizational experience on the financial performance among firms that undergo employee downsizing?*'. Drawing on the organizational learning theory, this research examined whether the nature of prior experience (successful or failure) moderates the financial effects of employee downsizing.

The findings suggest that employee downsizing does not significantly enhance financial performance. Moreover, neither does successful or failure experience lead to improved outcomes. While success experience shows a marginal positive effect, it lost significance when control variables were included. Unexpectedly, failure experience was associated with a worse post-downsizing performance.

These results indicate that not all experience contributes equally to learning. Disaggregating the experience into success and failure provides a more nuanced understanding of how firms process and apply downsizing actions. However, the absence of strong moderation effects suggests that learning from prior downsizing may be limited or context-dependent.

Overall, this study contributes to the downsizing literature by highlighting the relevance of disaggregating organizational experience. It urges managers to look beyond frequency of past downsizing events and to consider the type of experience when evaluating future workforce reduction strategies.

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Appendix

I | Industry Classification Benchmark

Table 6 Industry Classification Benchmark (FTSE Russell, n.d.)

Industry code and name	Name in dataset and analysis
10 – Technology (1)	industry_tech
15 – Telecommunications (2)	industry_telecom
20 – Health Care (3)	industry_health
30 – Financials (4)	industry_financials
35 – Real Estate (5)	industry_realestate
40 – Consumer Discretionary (6)	industry_discretionary
45 – Consumer Staples (7)	industry_staples
50 – Industrials (8)	industry_industrials
55 – Basic Materials (9)	industry_materials
60 – Energy (10)	industry_energy
65 – Utilities (11)	industry_utilities

II | Results Robustness Check

Table 7 Regression analysis - Robustness check

Dependent variable: ROE	**Model 1** β / (se)	**Model 2** β / (se)	**Model 3** β / (se)	**Model 4** β / (se)
Employee downsizing	-0.007 (0.029)	0.001 (0.030)	0.005 (0.040)	0.015 (0.041)
Success dummy			-0.904 (1.066)	-0.989 (1.111)
Downsizing*Succes dummy			-0.027 (0.058)	-0.032 (0.060)
Firm age		-0.005 (0.010)		-0.007 (0.011)
Asset change		-0.025 (0.028)		-0.024 (0.028)
Firm size		-0.459 (0.286)		-0.452 (0.289)
Industry tech		-1.899 (2.400)		-2.019 (2.410)
Industry telecom		-1.443 (1.655)		1.592 (1.669)
Industry health		-3.138 (2.302)		-3.228 (2.323)
Industry financials		-1.571 (1.183)		-1.483 (1.191)
Industry realestate		-2.397 (1.513)		-2.232 (1.531)
Industry discretionary		-1.962 (1.399)		-1.915 (1.405)
Industry staples		-1.215 (1.432)		-1.136 (1.440)
Industry materials		0.514 (1.398)		0.429 (1.408)
Industry energy		-1.517 (1.626)		-1.593 (1.644)
Industry utilities		-1.881 (1.525)		-1.972 (1.534)
Constant	0.573 (0.530)	9.160** (4.544)	1.005 (0.730)	9.582** (4.624)
N	239	239	239	239
F-test	0.06	0.77	0.28	0.72
R-square	0.0003	0.046	0.0036	0.0497
Adjusted R-square	-0.0040	-0.014	-0.0091	-0.0188

*Legend: * p < .1; ** p < 0.05; *** p < 0.01*