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Employee share ownership and firm performance

The mediation effect of employee turnover

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Abstract

This study explored the influence of employee share ownership on firm performance, and particularly the mediating effect of employee turnover. Furthermore, this study seeks to provide new insight into the differences between national institutions and the moderation effect of national institutions on the relationship between employee turnover and firm performance. Kaarsemaker (2006) has reviewed 70 studies about the relationship between employee share ownership and firm performance and found mixed results. These mixed results suggest that there are still unknown (contingent) factors that influence the relationship between employee share ownership and firm performance. This study argues that the direct relationship between employee share ownership and firm performance does not exist, but the relationship between employee share ownership and firm performance is mediated by employee attitudes and behavior. In this study, employee attitudes and behavior are measured via the umbrella concept employee turnover.

The CRANET-2015 dataset is used to analyze the relationships. The dataset consist of 2163 organizations in 35 countries. When analyzing the differences in national institutions and the effects of these institutions on the relationship between employee turnover and firm performance, the dataset decreases to 499 organizations in 8 countries. The findings of this study indicate that employee turnover mediates the relationship between employee share ownership and firm performance. However, this study found that the differences between national institutions do not have an effect on the relationship between employee turnover and firm performance.

Key words

Employee share ownership – firm performance – Employee turnover – National institutions

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1. Introduction

For the past four decades, employee share ownership has been a topic of interest among academics. When an organization uses an employee share ownership structure, the employees own shares in it. Employee share ownership affords employees additional rights, including taking part in the management of the organization, participating in its profits, and being privy to information on firm finances and operations (Kaarsemaker, Pendleton, & Poutsma, 2009). Giving employees the opportunity to possess shares in a firm can change their attitudes and mindsets and create a sense of psychological ownership. In other words, employees can have the feeling of co-ownership, which can lead to greater long-term organizational commitment and organizational citizenship behavior as well as increased productivity (Braam & Poutsma, 2014).

1.1 Current literature and relevance of the research

Current literature has paid attention to the effects of employee share ownership on firm performance; however, the results remain mixed. Research by Kruse (1996), for example, shows that employee share ownership helps reduce principal-agent problems and increase firm performance. This conclusion is based on the argument that employees who have a stake in the firm work harder to increase the value of its share (Kruse, 1996). When the value of capital rises, this eventually causes an increase in employee payment. According to Katz (2014), employee share ownership plans (ESOPs) increase firm performance. ESOPs improve performance through an increase in profitability as well as better employee pay and productivity. Wagner and Rosen (1985) credit employee-owned firms with being more threat tolerant and more geared toward growth than firms mainly owned by non-employees. In contrast, Conte and Tannenbaum (1978) found no such relationship in their research on firm profitability, their research on firm profitability focused on several organizations, both employee-owned and non-employee-owned firms revealed minimal to no performance gain from increasing employee shares. From their point of view, allocating some parts of the firm to employees and expecting that such actions might contribute to higher performance is not worth the effort. In yet another research study that cements the ground of these findings, Chang (1990) established that ESOPs hardly impact firm performance. According to Chang, an ESOP is rarely universally applicable. He tested his hypothesis using the reaction of the stock market to the adoption of ESOP compensation packages and proved that performance was rarely based on the number of shareholdings held by firm employees. During the past 30 years, many empirical

studies have been executed to explore the effect of employee share ownership on various indicators of firm performance (Caramelli, 2011). According to Poutsma, Ligthart, & Dietz, (2013) firm performance is an umbrella concept that consists of seven performance indicators. Among these, the financial indicators include: gross revenue, stock market performance, and profitability; the nonfinancial indicators include: innovation rate, productivity, service quality, and market-time relative to other organizations in the organization's sector.

Kaarsemaker (2006) has reviewed empirical studies on the relationship between employee share ownership and firm performance published over the past 30 years. As argued by Kaarsemaker (2006), 69% of the 70 reviewed studies found positive effects between employee share ownership and firm performance, 8% found negative effects, and 23% found no significant effect. These mixed results suggest that there are still unknown (contingent) factors that influence the relationship between employee share ownership and firm performance. The black-box theories indicate that employee share ownership can affect employee attitudes and behavior, such as turnover intention, employee turnover, commitment, motivation, and satisfaction, and therefore influence firm performance (Kaarsemaker et al., 2009). Therefore, this study argues that the direct relationship between employee share ownership and firm performance does not exist, but the relationship between employee share ownership and firm performance is mediated by employee attitudes and behavior.

In this study, employee attitudes and behavior are measured via the umbrella concept employee turnover. Employee turnover is defined as "the rotation of workers around the labor market; between firms, jobs and occupations; and between the states of employment and unemployment" (Abbasi and Hollman, 2000). Previous research on employee turnover has identified two types: voluntary turnover, which happens when the employee decides to leave the organization, and involuntary turnover, which occurs when the employer chooses to end the contract (Mobley et al., 1979). This study examines total annual staff turnover; therefore, both types of employee turnover are taken into account.

Hancock et al. (2013) assert that the economy has shifted from a traditional economy based on inexperienced, difficult-to-train, and inexpensive workforce to a knowledge-based economy based on experienced and skilled employees who require advanced training and higher compensation. Due to this shift, it may be expensive to replace employees, which requires recruiting and training employees to achieve high levels of performance over time (Dysvik and Kuvaas, 2010). These extra costs could reduce firm performance over time. According to Whitfield et al. (2017), employee share ownership is an affective employee retention tool. Employee share ownership reduces employee turnover, because it makes it

advantageous for employees to stay in the organization and costly for them to depart the organization. For the organization, employee retention is advantageous as it leads to a development of human capital within the firm, and therefore to an increase in firm performance (Whitfield et al., 2017). Using Employee share ownership as a retention tool therefore leads to higher levels of employee and firm performance. This shows a mediating effect of employee turnover on the relationship between employee share ownership and firm performance.

The effect of employee turnover on firm performance may differ across different contexts. The Variety of Capitalism (VoC) framework distinguishes between liberal market economies and coordinated market economies (Farndale et al., 2014). The tendency towards a coordinated market economy (CME) or liberal market economy (LME) may affect its ability to move beyond the struggles typically related with high employee turnover (Hall & Soskice, 2001). Therefore, national institutions moderate the effect of employee turnover on firm performance. Chapter 2 presents various theoretical perspectives on the effect of employee share ownership on firm performance via employee turnover and the different national institutions that can influence the effectiveness of employee turnover on firm performance.

1.2 Objective and research question

The research question is: *"To what extent is the effect of employee share ownership on firm performance mediated by employee turnover, and to what extent does the effect of employee turnover on firm performance differ between liberal market economies and coordinated market economies?"*

The objective of this Master's thesis is to explore the influence of employee share ownership on firm performance, and particularly the mediating effect of employee turnover. Furthermore, this study seeks to provide new insight into the differences between national institutions and the effects of these national institutions on the relationship between employee turnover and firm performance. By investigating the underlying mechanism of the relationship between employee share ownership and firm performance, this research contributes to the literature on employee share ownership (see section 1.3).

1.3 Research relevance

Despite 30 years of research, there is still little to know about the mechanisms underlying the relationship between employee share ownership and firm performance "inside the black box" (Caramelli, 2011; Sengupta, Whitfield, & McNabb, 2007; Whitfield et al., 2017). Building on prior literature, this study seeks to address this lacuna, focusing on the mediating effect of employee turnover. To address a severe lack of knowledge in this area, this study links the theoretical evidence from Chapter 2 to concrete statistical evidence. The study also has practical relevance for organizations in helping them to see how employee share ownership contributes to firm performance in different contexts.

1.4 Outline

This Master's thesis is divided into seven chapters. Chapter 2 provides theoretical background and a literature review. The literature review explains the theories that are developed in this master thesis. Chapter 3 discusses the methodology and chapter 4 presents the results. Chapter 5 encompasses the conclusion and discussion. References and appendices follow in chapter 6 and 7.

2. Literature review

A theoretical analysis of employee ownership reveals the role of employee share ownership and how it affects firm performance. This section begins with an explanation of employee share ownership. It then discusses different forms of equity sharing participation for employees in firms, the effect of employee share ownership on firm performance and employee turnover, and the effect of employee turnover on firm performance. The thesis incorporates an analysis of national institutions, to moderate the relationship between employee turnover and firm performance. This section concludes by formulating the hypotheses and establishing the relationship between the variables through a conceptual framework.

2.1 Employee share ownership

Employee share ownership occurs when employees acquire shares of their employing firm and thereby become shareholders of that firm. In principle, shared ownership affords the employee exclusive rights to benefit from the profits made by the firm, access to firm valuation information, and participation in top management decisions. These additional rights can bring significant changes in the behavior and attitudes of employees, which in turn can influence business outcomes, such as productivity and financial performance (Kaarsemaker et al., 2010). There are many different types of employee share ownership. According to Kaarsemaker, Pendleton & Poutsma (2009), employee share ownership exists when employees hold the majority, substantial minority, or small minority of the organization's shares. When employees own a majority of the organization's shares, they might feel responsible for the organization, and therefore they are likely to be involved in the governance and management of the organization. On the other hand, employees owning a small minority of shares, also known as mainstream ownership. If an organization uses this type of ownership, employees are not likely to be involved in the governance and management of the organization. Mainstream ownership plans are typically one of several components comprising the organization's payment package (Poutsma, Ligthart & Veersma, 2017).

Kaarsemaker and Poutsma (2006) distinguish between broad-based employee share ownership and narrow-based employee share ownership. Broad-based employee share ownership indicates that all, or at least the majority of, the employees of a firm are entitled to share ownership. On the other hand, narrow-based employee ownership is only for executives or specific—usually higher level—groups of employees (Kaarsemaker & Poutsma, 2006). In the CRANET-2015 questionnaire (appendix 1, section IV), narrow-based employee ownership is equity held by management and broad-based employee share ownership is equity held by all employees (management, professionals and manual and/or operational staff) or equity held by professionals, manual and/or operational staff. The aim of this study is to focus on all employee motivations, and therefore provide insight into broad-based employee share ownership.

2.2 The effect of employee share ownership

The main motivator for employee share ownership is the belief that connecting employee compensation to firm performance incentivizes the employee to work harder and increase their productivity. Eventually, an increase in productivity leads to improved firm performance (Caramelli, 2011). Many studies support the idea that employee ownership has a significant positive effect on firm performance (Kaarsemaker, 2006; Kruse, 1996; Katz, 2014; Wagner and Rosen, 1995, p.77). However, not much is known about the mechanisms "inside the black box" underlying the positive relationship between employee share ownership and firm performance (Caramelli, 2011; Sengupta, Whitfield, & McNabb, 2007; Whitfield et al., 2017). How do the underlying mechanisms (black box) explain the positive relationship between employee share ownership and firm performance?

Kaarsemaker (2006) uses three theories to explain the black box. The starting point is the agency theory. The agency theory suggests that agents can be rationally bounded to improving firm performance because they want to fulfill their interests or break from investor expectations or preferences (Payne & Petrenko, 2019). By developing strategies for monitoring and aligning incentives, it aims to resolve the conflicts that arise between agents (employees) and principals (managers). It is essential that the goals are aligned because management and employees do not have the same information on employee productivity. Employees can use this information gap as an advantage to lessen their productivity, especially when it is hard for the firm to monitor performance due to complexity (Ortlieb et al., 2016). This information gap could cause the free-rider issue. The 'free-rider' issue is the tendency to avoid responsibilities when the consequences are collective rather than individual. One solution to this issue might be incentives based on the outcomes of individuals or better information systems. Employee

share ownership can make employees feel that they have a direct interest in the firm's performance (Landau et al., 2007). In addition, Poutsma (2001) states that firms implement employee share ownership to increase commitment (job satisfaction, investment orientation, and direct participation).

The second theory is the psychological ownership theory. The basis of this theory was developed by Pierce et al. (1991). Pierce et al. (1991) indicates that "under certain moderating conditions formal ownership leads to psychological ownership and an integration of the employee owner into the ownership experience, resulting in a number of social-psychological and behavioral outcomes." In the model developed by Pierce et al. (1991), formal employee ownership is operationalized in three basic rights:

1. "Equity dimension": the privilege to have shares of the owned object's physical being or financial value.
2. "Influence dimension": the privilege to practice influence over the owned object.
3. "Information dimension": the privilege to information about the status of what is owned.

For an organization to be effective, ownership must be purposeful, which can be accomplished through a process called "equity sensemaking." Therefore, formal employee ownership must gain meaning through the three dimensions mentioned previously. As a result, a feeling of psychological ownership may develop, which itself can lead to increased commitment and the alignment of common interests between management and employee (Pierce et al., 1991).

The third theory explained by Kaarsemaker (2006) is the reflection theory. This theory explains the psychological process of paying and its effect on performance (Hakonen, Maaniemi & Hakanen, 2011). The main assertion of the reflection theory is that "any pay system affects a person's behavior at work through the meanings which pay (through its level, structure, differentials, and procedures) reflects to that person" (Thierry, 2001). Addressing domains that are relevant to individuals, the reflection theory is based on the proposition that pay is meaningful to individuals. The meanings individuals give to pay affect their behavior at work. The reflection theory indicates that the pay system affects pay satisfaction and therefore the commitment of employees. The reflection theory suggests that the more importance given to pay, the greater its effect on firm performance (Hakonen et al., 2011).

In addition to the three theories described by Kaarsemaker (2006), there is also the gift exchange theory. The gift exchange theory suggests that the employer gives shares to employees who give (gift) extra effort in return. In addition to shares, examples for gifts include involvement in decision making and profit sharing. Gift exchange can become a part of the psychosocial contract between the employee and the organization (Poutsma et al., 2017).

The above-described black-box-theories analyze the relation between employee share ownership, employee attitudes and behavior, and firm performance. According to these theories, employee share ownership can affect employee attitudes and behavior, such as employee turnover, turnover intention, commitment, motivation, and satisfaction, and therefore influence firm performance (Kaarsemaker et al., 2009). This study argues that the direct relationship between employee share ownership and firm performance does not exist, but the relationship between employee share ownership and firm performance is mediated by employee attitudes and behavior. In this study, employee attitude and behavior are measured via the umbrella concept employee turnover. According to the black-box theories described above, employee share ownership enhances employee commitment, which in turn leads to a decrease in employee turnover. Therefore, based upon the black-box-theories, the following hypothesis is developed:

Hypothesis 1: employee share ownership has a negative effect on employee turnover.

A typical assumption about the relationship between employee turnover and firm performance is that increased employee turnover can be associated with decreased firm performance (Hancock et al., 2013). Hausknecht and Trever (2011) found evidence that supports this assumption. Previous research has generally depended on three different views to evaluate the effect of employee turnover on firm performance:

a) Cost-based perspective: this perspective indicates that employee turnover influences firm performance through direct and indirect costs associated with managing employee departures (Hancock et al., 2013).
b) Human capital perspective: this perspective indicates that employee turnover influences firm performance because it can cost the organization scarce knowledge and expertise that departing employees gained through training and experience (Hancock et al., 2013).
c) Social capital perspective: this perspective indicates that employee turnover influences firm performance because employees build a network of relationships that cannot be easily renewed when those employees leave (Hancock et al., 2013; Shaw et al., 2005).

Various studies have supported the negative influence of employee turnover on firm performance. Kacmar et al. (2006) found a negative relationship between employee turnover and sales performance. Alexander, Bloom, & Nuchols (1994) show a negative relationship between employee turnover and cost-effectiveness. Finally, Brown and Medoff (1978) identified a negative relationship between employee turnover and productivity.

Although many researchers confirm the negative influence of employee turnover on firm performance, positive influences may exist as well. For instance, employee turnover may lead to a decline in payment as new employees have less experience, less vacation and sick leave pay, and less insurance premiums (Hancock et al., 2013). According to Abelson and Baysinger (1984), a particular level of employee turnover can be effective in lowering stagnation and developing innovation. Likewise, Schneider, Goldstein, & Smith (1995) show that employee turnover may stop the development of employee homogeneity and "groupthink." Employee turnover can be functional by decreasing the organization of underperforming employees, employees who do not fit the culture of the organization, or replacing them with proportionally higher performing employees. Furthermore, new employees can add a new network of social relationships to the organization (Hancock et al., 2013).

However, given that most of the evidence to date supports the negative relationship between employee turnover and firm performance, this study suggests that increased employee turnover likely leads to a decrease in firm performance (Hancock et al., 2013). The negative effects of this relationship will prevail over the positive effects. Therefore, the following hypotheses are developed:

Hypothesis 2: Employee turnover has a negative effect on firm performance.
Hypothesis 3: The effect of employee share ownership on firm performance is mediated by employee turnover.

2.3 National institutions

As the context or environment in which employee turnover occurs differs, the effect of employee turnover on firm performance might also be different (Arthur, 1994; Batt & Colvin, 2011; Shaw et al., 2005). In this study, the Variety of Capitalism (VoC) framework is used in theorizing the moderate effect of national institutions on the relationship between employee turnover and firm performance. According to Farndale et al. (2014), coordinated market economies (CMEs) and liberal market economies (LMEs) are the two varieties in existence. CME organizations tend to take a long-term performance perspective. They view employees as a valuable and solid asset, and terms of employment include high levels of job security. Negotiation and participation arrangements are also included. Contrarily, short-term financial criteria and competition are emphasized most by LME organizations. In addition, employees are more likely to be considered for rewards based on individual performance (Cristiani, & Peiró, 2018).

The tendency toward a CME or LME may affect the potential to move beyond struggles typically related to turnover of employees (Hall & Soskice, 2001). For example, in an effort to limit uncertainty with regard to the behavior of others, organizations in CMEs such as Japan and Germany attempt to coordinate, cooperate, and interact with others, resulting in collaborative relationships. Organizations in CMEs emphasize a group-oriented culture, and a group-oriented organizational culture emphasizes mentoring (Quinn and Rohrbaugh, 1981). In other words, the employment of new employees is guided and supported by employees from the organization. Organizations are prompted to train a new employee out of a need for efficacy within the organization (Mohr, Young, & Burgess, 2012).

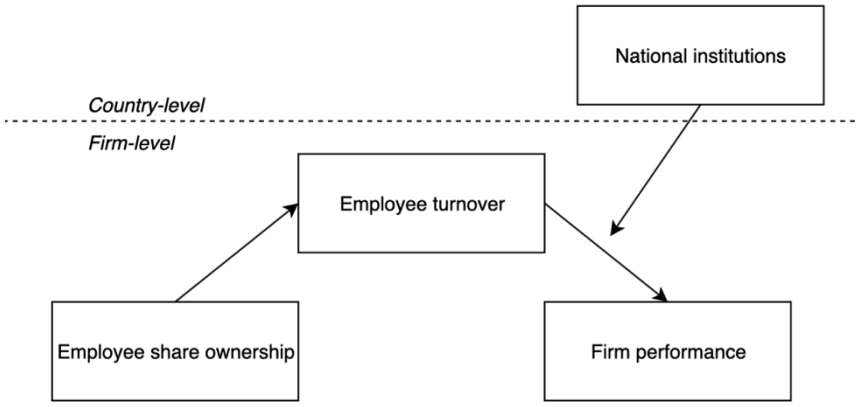
On the other hand, formal contracts, hierarchies and market activities are the dominant factors in organizations in LMEs such as United Kingdom and the United States (Hall & Soskice, 2001). These organizations located in LMEs emphasize a self-oriented culture. Their lack of emphasis on collaboration and cohesion will result in a relatively slow flow of knowledge to new employees. Job-relevant information is likely to be less shared within an organizational culture that emphasizes competitiveness among workers or strict consequences, such as ranking-based layoffs. Self-oriented culture among LMEs would encourage less learning among employees and would cause employees to "rediscover the wheel." Due to constant competition within organizations located in LMEs, job-relevant information is less shared (less knowledge transfer). Knowledge transfer ensures that there are more employees who can train a new employee and that the departure of an employee can be more easily accommodated. In a CME organization, the loss of an employee can be more quickly compensated for by other employees, protecting against a dip in performance (Mohr et al., 2012). As a result, it is possible that organizations in CMEs are better equipped to address substitution of knowledge and skills lost through turnover. A positive response by CMEs will in turn increase levels of cohesion and collaboration. Therefore, it is suspected that employee turnover in organizations within LMEs will experience greater negative impact on firm performance than those within CME. Thus, the hypothesis states that:

Hypothesis 4: The negative effect of employee turnover on firm performance is moderated by national institutions where employee turnover is less negative in CMEs than compared with the negative effect of employee turnover in LMEs.

2.4 Conceptual model

The relationship being discussed is the relation between employee share ownership and firm performance. As mentioned before, there is no direct relationship between employee share ownership and firm performance, however, the relationship is mediated by employee turnover. Furthermore, the relationship between employee turnover and firm performance is moderated by national institutions, where the negative effect is less negative in CMEs. These relations are presented in the conceptual model in Figure 1.

Figure 1: Conceptual model



3. Methodology

This chapter begins by explaining the research design and strategy, then discusses the data as well as the operationalization. Thereafter, the data analysis, and the reliability and validity are explained. This section closes with a description of the study's ethics.

3.1 Research approach, methods and design

The aim of this study is to gain insight into the relationship between employee share ownership and firm performance, and particularly the mediating effect of employee turnover. Furthermore, this study explores the differences between national institutions and the effects of these institutions on the relationship between employee turnover and firm performance. In fulfilling this goal, insights are developed from different theories. Therefore, this study adopts a hypothetic-deductive research approach (Mamia, 2006).

Scientists distinguish between qualitative research and quantitative research. Using quantitative research, a large sample can be examined, and it increases the possibility of generalizing findings to a broad population (McCusker and Gunaydin, 2015). Give that this study uses CRANET-2015 data to analyze the hypotheses and aims to generalize its findings to the wider population, a quantitative research approach is used.

In order to define the philosophy of this study, it is important to review the epistemology. Epistemology is defined as: "a philosophical inquiry into the nature, conditions, and extent of human knowledge" (Sosa et al., 2008). A positivist epistemology makes it possible to view reality as universal, objective, and quantifiable (Roots, 2007). This view is in line with the aim of this research study.

3.2 Data

Cranfield Network on European Human Resource CRANET-2015 was used for performing this empirical analysis. CRANET describes firm human resource practices and policies organizations in the private sector with 100 employees or more (Cranet, 2018). This survey covers 35 countries across the world every four years. The Cranfield School of Management at Cranfield University has been coordinating this survey (Steinmetz et al., 2011). CRANET used a mail survey directed to the head of personnel. To ensure that a representative sample, CRANET sends out reminders. Furthermore, the survey is translated (and back-translated as a check) into the language of each country. It makes only small changes to the wording of some questions to better capture nuances in meaning between languages (Cranet, 2018).

In this study, for the first, second and third hypotheses, all countries from the data set are used. Specifically, the study draws on data from 6,801 organizations in 35 countries. After compensating for missing values and removing public and not-for-profit organizations from the dataset, information from 2,163 organizations was retained. Data from individual countries ranges from 38 organizations in Iceland to 289 organizations in Brazil. In general, the larger the economy, the more organizations that responded. The full dataset of all countries can be found in Appendix 4. Looking at different industries, 40.7% of the organizations are active in the industry sector, 28.5% are active in business and personal services and only 3.2% are active in the agricultural sector. For the fourth hypothesis, the dataset is divided into CMEs and LMEs. Therefore, shrinking the number of involved countries to eight. The number of organizations per country range from 87 in the United Kingdom to 221 in Germany. The dataset of the eight countries can be found in Appendix 4. Most organizations in both CMEs (26.8%) and LMEs (15.0%), are active in the industry sector. Meanwhile, 13.6% of the organizations from CMEs and 14.7% of the organizations from LMEs are active in the business and personal services industry. Finally, only 0.6% of the organizations from CMEs and only 0.4% of the organizations from LMEs are active in the agricultural sector.

3.3 Operationalization

3.3.1 Dependent variable

Firm performance

This study followed the CRANET study by Poutsma, Ligthart, and Dietz (2013) in its operationalization of the concept firm performance. According to Poutsma, Ligthart, & Dietz, (2013) firm performance is an umbrella concept that consists of seven performance indicators. Among these, the financial indicators include: gross revenue, stock market performance, and profitability; the nonfinancial indicators include: innovation rate, productivity, service quality, and market-time relative to other organizations in the organization's sector. Prior research by Delaney & Huselid (1996) and a CRANET study by Stavrou (2005) used the same perceptual measure for firm performance. However, the CRANET-2015 data is limited by its use of firm perceptual financial indicators. CRANET-2015 asked respondents the following question: "Compared to other organizations in your sector, how would you rate the performance of your organization in relation to the following indicators?" The six ordinal indicators that measure firm performance are: service, productivity, profitability, innovation, stock market performance, and environmental matters (appendix 1, section VI). Given that the variables gross revenue and market time relative to other organizations in the organization's sector are

not available and that environmental matters are not part of the theoretical construct of firm performance, they are excluded from the construct.

3.3.2 Independent variable

Employee share ownership

As explained in section 2.1, employee share ownership occurs when employees acquire shares of the firm for which they work and become shareholders. Kaarsemaker and Poutsma (2006) divide employee share ownership into two categories: broad-based employee ownership and narrow-based employee ownership. Broad-based employee ownership refers to equity compensation to which a majority of or all firm employees are entitled. In contradiction, narrow-based employee ownership is only for executives or specific—usually high-level—groups of employees (Kaarsemaker & Poutsma, 2006). In the CRANET-2015 survey, employee share ownership is examined by measuring whether organizations apply employee share ownership to management, professionals or manual and/or operational staff. Narrow-based employee ownership is equity held by management and broad-based employee share ownership is equity held by all employees (management, professionals and manual and/or operational staff) or equity held by professionals, manual and/or operational staff (Cranet, 2018). Therefore, it is possible to determine whether employee share ownership is broad-based, narrow-based, or simply not in use. As discussed before, this study focuses on broad-based employee share ownership. However, in attempt to see the differences between the schemes, all three are taken into account. In order to use employee share ownership as an independent variable, three dummies were created. The reference category, which acts as a reference point in interpreting the dummy variables, is organizations without employee share ownership (Field, 2013).

3.3.3 Mediator

Employee turnover

As stated above, Abbasi and Hollman (2000) define employee turnover as "the rotation of workers around the labor market; between firms, jobs and occupations; and between the states of employment and unemployment." Previous work by Mobley et al. (1979) identified two types of employee turnover: voluntary and involuntary. Both types are taken into account here. In the CRANET-2015 questionnaire, employee turnover is measured as the percentage of the total workforce that has left the organization in the past year (appendix 1, section VI).

3.3.4 Moderator

National institutions

As mentioned before, the context or environment in which employee turnover occurs differs per organization, therefore the effect of employee turnover on firm performance might also be different (Arthur, 1994; Batt & Colvin, 2011; Shaw et al., 2005). Therefore, this study uses national institutions as a moderator between employee turnover and firm performance. Before including the main and interaction effect of the moderation, the two variables are centered. Multiple organizations from different countries have filled in the CRANET-2015 survey. For this study, several countries from both CMEs and LMEs are compared to see whether the effect of employee turnover on firm performance is moderated by national institutions. The countries are classified according to Schneider and Paunescu (2012). However, only four countries are classified as either a CME or an LME, which means that the dataset will shrink by 77%, a possible limitation that may influence the outcome. An overview of the countries can be found in appendix 4.

3.3.5 Control variables

The first control variable used in this study is the industry in which the organization is active. According to Poutsma, Ligthart, & Dietz (2013), Sengupta et al. (2007) and Whitfield et al. (2017), industry can influence both firm performance and employee turnover. In the CRANET-2015 dataset, sector is divided into twenty categories. Information from the Chamber of Commerce (Ondernemersplein, n.d.) is used to divide the industries into six categories: agricultural sector, industry sector, business and personal services, wholesale and transportation, financial services, and healthcare and social services. Because the new industry variable is a categorical variable, it was necessary to create dummies. This study uses the industry sector as a reference point in interpreting the dummies.

In line with Chen & Huang (2009), Poutsma et al. (2013), and Sengupta et al. (2007), the second control variable used in this study is firm size. Respondents were asked for the total number of employees in their organization. According to Chen & Huang (2009), organizational characteristics, such as firm size, can impact the way employee participation is organized in organizations and/or how the performance of the organization is viewed. These characteristics are often not the main interest of researchers, but they are related to the dependent variable (firm performance). Firm size is therefore widely used in research as a control variable (Chen & Huang, 2009).

The third control variable is workforce characteristics. According to Sengupta et al. (2007), workforce characteristics can influence the effect of employee share ownership on firm performance as well as the relationship of employee turnover on firm performance. In the CRANET-2015 dataset, CRANET asked respondents about the proportion of the workforce with a higher education/ university qualification (appendix 1, section VI). A question in line with study done by Van der Sluis, Van Praag and Vijverberg (2008). They concluded that education is positively related to performance.

The fourth control variable used in this research is multinational characteristic. Respondents were asked whether their organization is a multinational or national organization. This control variable could be of importance to the moderator national institutions, because subsidiaries from LME multinationals located in CMEs may influence the character of subsidiaries in CMEs as well as the work of the moderator. Therefore, it was decided to control for this variable.

The next control variable is training. Previous research statistics show that investment in training is bound to grow as more organizations become aware of its importance. The productivity of an employee increases once a training program is completed. Both the organization and employees benefit from training. As employees increase their output and productivity, organizational performance likewise increases. The higher wages and opportunities that result will, in turn, enhance commitment (Brum, 2007). In line with this study, Owens (2006) found a correlation between commitment and turnover. Training is measured with four variables in CRANET-2015. These variables include: (1) need for training, (2) percentage of the annual payroll costs spent on training, (3) approximate number of days managers receive training, (4) approximate number of days professionals receive training, and (5) approximate number of days manual and/or operational staff receive training (appendix 1, section III). The first variable looks at organizations that systematically estimate the need for training of personnel. However, as an analysis of the data demonstrates, the variable need for training shows a high multicollinearity with employee turnover. Moreover, because there are already several training variables in the data set, this variable was excluded from the analysis. The second variable measures the annual payroll costs spent on training. Given that this study focuses on broad-based employee share ownership, the variable approximate number of days managers receive training was not taken into account. The other two variables were combined into one variable: approximate number of days on which broad-based employees receive training.

The last control variable is degree of unionization. According to Origo (2009), unionized firms can attract highly competent employees through high wages. This study implies that unions have a positive effect on firm productivity, which leads to better performance. Perhaps for this reason, previous studies found a positive relation between unionization degree and firm performance. In order to control for this effect, degree of unionization was used as a control variable. Degree of unionization is measured with three variables in the CRANET-2015 dataset: (1) collective bargaining, (2) union influence, and (3) trade union members (appendix 1, section V). Collective bargaining is a nominal variable concerned with organizations' recognition of trade unions for the purpose of collective bargaining. Union influence is an ordinal variable that measures the influence of unions on the organization on a 4-point likert-scale. Finally, trade union members are concerned with the proportion of employees who are members of a trade union.

The CRANET-2015 data set includes firm-level data nested in countries that can also influence employee turnover and/or firm performance. In a regression analysis, the intercept and slopes are treated as fixed parameters. They are considered as average across the entire sample. In other words, it does not account for the fact that these could vary across countries (Field, 2013). To check directly for this, it was decided to perform a multilevel regression analysis for hypothesis one, two and three. In order to perform a multilevel regression analysis, it was necessary to include at least twenty countries (in this case) (Field, 2013). Due to the decline in countries from 35 to 8 for hypothesis four, it was simply not useful to perform a multilevel regression analysis. For this hypothesis a multiple linear regression analysis was performed instead.

3.4 Data analysis

Before testing the hypotheses, several preliminary analyses were performed in order to gain more insight into the data. First, the descriptives of all variables were examined to learn about the underlying relationships between the variables. Second, the metric variables were tested on their normality and on outliers. Third, dummies were created for the nominal variables. Fourth, given that the variable firm performance is a construct of multiple ordinal variables, a Categorical Principal Components Analysis (CATPCA) was used to discover the underlying structure of the variables and the reliability of the measurement scale was examined. CATPCA is suitable for data reduction when the variables are categorical (e.g., ordinal) and for identifying the underlying structure of a set of variables. CATPCA analysis was chosen instead

of a traditional PCA analysis because the former does not assume linear relationships among metric variables (Starkweather, 2018). Finally, to ensure the reliability of the measurement scales the Cronbach's alpha was used (Hair et al., 2014).

The first, second and third hypotheses were tested using a multilevel regression analysis. The general form for a multilevel regression analysis is:

$$Y_{ij} = \beta_{0j} + \beta_1 X_{1ij} + \varepsilon_{ij}$$

Y represents the dependent variable and β_{0j} represents the intercept. In the equation, j means the level of the variable at which the intercept varies, meaning the level 2 variable. i is the variable of level 1 (Field, 2013). The X in the equation represents the independent variable and b represents the coefficient of the slope. The last figure in the equation is "e," which represents the error term. The fourth hypothesis was tested using a regression analysis. The general form for a multiple linear regression analysis is:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \varepsilon_i$$

After including the variables of this study, the equation for the first hypothesis looks as follows:

$$\text{Employee turnover}_{ij} = \beta_{0j} + \beta_1 \text{ESO}_{ij} + \beta_2 \text{Industry}_{ij} + \beta_3 \text{Firm size}_{ij} + \beta_4 \text{Multinational}_{ij} + \beta_5 \text{Education}_{ij} + \beta_6 \text{Collective bargaining}_{ij} + \beta_7 \text{Union influence}_{ij} + \beta_8 \text{Trade union members}_{ij} + \beta_9 \text{Training broad-based}_{ij} + \beta_{10} \text{Training costs}_{ij} + \varepsilon_{ij}$$

The independent variable employee share ownership was added as a dummy. The following control variables were added as well: industry as a dummy, firm size, multinational as a dummy, education, collective bargaining as a dummy, union influence, trade union members as a dummy, training broad-based, annual training costs, and finally the error term. However, while only one dependent variable can be added to the equation, this study has two dependent variables: employee turnover for hypothesis one and firm performance for hypotheses two and three. In addition, the mediator employee turnover was added to equation two. Therefore, the equation for the second and third hypotheses appears as follows:

$$\text{Firm performance}_{ij} = \beta_{0j} + \beta_1 \text{ESO}_{ij} + \beta_2 \text{Employee turnover}_{ij} + \beta_3 \text{Industry}_{ij} + \beta_4 \text{Firm size}_{ij} + \beta_5 \text{Multinational}_{ij} + \beta_6 \text{Education}_{ij} + \beta_7 \text{Collective bargaining}_{ij} + \beta_8 \text{Union influence}_{ij} + \beta_9 \text{Trade union members}_{ij} + \beta_{10} \text{Training broad-based}_{ij} + \beta_{11} \text{Training costs}_{ij} + \varepsilon_{ij}$$

The fourth hypothesis was measured with a multiple linear regression analysis. Here, the moderator and the interaction effect are added to the equation. After including the variables, the equation for the fourth hypothesis looks as follows:

$$\text{Firm performance}_i = \beta_0 + \beta_1 \text{ESO}_i + \beta_2 \text{Employee turnover}_i + \beta_3 \text{Industry}_i + \beta_4 \text{Firm size}_i + \beta_5 \text{Multinational}_i + \beta_6 \text{Education}_i + \beta_7 \text{Collective bargaining}_i + \beta_8 \text{Union influence}_i + \beta_9 \text{Trade union members}_i + \beta_{10} \text{Training broad-based}_i + \beta_{11} \text{Training costs}_i + \beta_{12} \text{LME}_i + \beta_{13} (\text{LME*Employee turnover})_i + \varepsilon_i$$

But before a multilevel regression analysis and a multiple linear regression analysis are performed, it is important to explore various aspects of the dataset. According to Hair et al. (2014), one must look at: (1) the distribution of the variable, (2) outliers, (3) sample size, and (4) multicollinearity. Thereafter, the assumptions of a multilevel regression analysis must be met. Like with a multiple linear regression analysis, these include: (1) homoscedasticity, (2) linearity, (3) independent errors, and (4) normally distributed errors. Each of these assumptions will be explained in chapter 4.

After explaining the assumptions, the direct effect of employee share ownership (independent variable) on employee turnover (mediator) is tested (path a). It is expected that this relationship will be negative and significant. Thereafter, the direct effect of employee turnover (mediator) on firm performance (dependent variable) is tested (path b). It is expected that this relationship will likewise be negative and significant. Finally, the mediation effect of employee turnover is examined, this is, the direct effect of employee share ownership on firm performance (path c) and the effect of the mediator on this relationship (path c'). In order to determine a full mediation effect, the direct effect of employee share ownership on firm performance, which should be significant, becomes insignificant when the employee turnover (mediator) is added. However, if the effect of employee share ownership on firm performance remains significant when adding employee turnover (mediator), only a partially mediating effect exists (Hair et al., 2014).

In order to test the fourth hypothesis, national institutions (dummy LME) were added as a moderator on the relationship of employee turnover on firm performance. In comparing, the dataset will necessarily decrease by 77%, possibly leading to a decline in detection capability (smaller effects are no longer visible). Therefore, it was decided to conduct this analysis separately from the other hypotheses. It is expected that the negative effect will be more negative in LMEs.

3.5 Validity and Reliability

According to Huselid and Becker (2000), in order to guarantee the validity of single-source measures, various criteria must be examined. These include: firm size, the ability of the respondents to answer questions, and the clarity of the survey items. The CRANET-2015 questionnaire meets these requirements: the average firm size of this study was 2,333; the respondents were all members of the corporate HR team. In order to make the questionnaire accurate and understandable, great responsibility over the methods and procedures was taken by the international CRANET team. Therefore, they ensured to leave little room for ambiguity (Huselid and Becker, 2000).

In order to guarantee reliability, CRANET stimulates country partners to use methods that are most suitable for their country (further explained in section 3.6) (Parry, Farndale, Brewster & Morley, 2020).

3.6 Research ethics

Given that this study uses a secondary source to examine the research question, the research includes almost no contact with participants. Two important aspects of research ethics are discussed. The first aspect is the privacy and anonymity of respondents (Bell and Bryman, 2007). CRANET guaranteed to respondents' anonymity in order to increase the accuracy of the responses on the questionnaire (Podsakoff et al., 2003). The second aspect is the development of the survey (Bell and Bryman, 2007). The CRANET survey is translated (and back-translated as a check) into the language of each country. CRANET made only small changes to the wording of some questions to better capture nuances in meaning between languages (Cranet, 2018).

4. Results

This chapter presents the results of this study. It starts with a discussion of the preliminary analyses, then tests the hypotheses using statistical analysis, and finally explains additional analysis.

4.1 preliminary analyses

4.1.1 Descriptives

The descriptives of the nominal variables are presented in table 1. The nominal variables and metric variables are taken separately because the mean, standard deviation, and correlations are not applicable for nominal variables. It is noteworthy that most of the organizations do not use employee share ownership (N = 3339) and most are active in the industry sector (N = 1730) or business and personal services sector (N = 1213).

Table 1: Descriptives nominal variables

Variables	Categories	Frequency	Percent
Employee share ownership	1. Narrow-based	471	10.8%
	2. Broad-based	563	12.9%
	3. Not used *(reference)*	3339	76.4%
Industry	1 Agricultural sector	134	3.2%
	2 Industry sector *(reference)*	1730	40.7%
	3 Business and personal services	1213	28.5%
	4 Wholesale and transportation	617	14.5%
	5 Financial services	332	7.8%
	6 Healthcare and social services	225	5.3%
Collective bargaining	0 No	1439	34.3%
	1 Yes	2758	65.7%
Multinational	0 National *(reference)*	2584	60.7%
	1 Multinational	1670	39.3%

The metric variables are summarized in table 2. This table shows that the average turnover of employees is 2.10% (after logarithm transformation), the average number of days broad-based employees receive training is 1.72 (after logarithm transformation) and the percentage of annual training costs is 1.36% (after logarithm transformation). Pearson's correlations are also presented in table 2. These correlations explain the strength of the linear relationship between two variables (Field, 2013). As shown in table 2, employee share ownership is positive correlated with firm performance, however this effect is not significant (r = .029; p = .052; N

= 4373). Employee share ownership (broad based) is negatively correlated with employee turnover (r = -.045; p < 0.01; N = 3411). This already indicates a relationship between the two variables. Finally, firm performance is negatively correlated with employee turnover, but this effect is not significant either (r = -.011; p = .511; N = 3411).

Table 2: Descriptives metric variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1. ESO broad-based (dummy)	.13	.34	-								
2. Firm performance (after CATPCA)	.03	.91	.029	-							
3. Employee turnover (after log)	2.10%	.95	-.045**	-.011	-						
4. Training broad-based (after log)	1.72	.77	.002	.183**	.029	-					
5. Training annual costs (after log)	1.36%	.63	-.007	.198**	.087**	.352**	-				
6. Education	36.96	28.88	.088**	.161**	.029	.093**	.155**	-			
7. Collective bargaining (dummy)	.66	.48	-.037*	-.067**	-.162**	.009	-.008	-.210**	-		
8. Union influence	1.33	1.33	-.004	-.047**	-.149**	.079**	.018	-.161**	.515**	-	
9. Trade union members	22.12	29.64	-.025	-.068**	-.184**	-.016	-.058**	-.183**	.396**	.551**	-

*** p < .01, * p<.05*

4.1.2 CATPCA analysis

There are five ordinal variables measuring firm performance: service, productivity, profitability, innovation, and stock market performance. In order to form a construct of variable firm performance, a Principal Component Analysis for Categorical Data (CATPCA) was conducted. As shown in table 3, when five variables are included, there are 1,597 active cases and 58% of the variance is explained by the variables. Finally, the reliability of these scales was tested. A reliability analysis indicates whether the items correlate with each other and thus form a scale. The internal consistency of a construct is tested with Cronbach's alpha. A reliable scale has a minimum value of .60 (Cronbach's alpha) and the scale is considered very reliable when the value is higher than .80 (Field, 2013). In this case, the Cronbach's alpha is .815, meaning the scales can be interpreted as very reliable.

As stated before, stock market performance is a key variable when examining the effect of employee share ownership on firm performance. However, the variable stock market performance has a weaker loading than the other variables. Furthermore, once this variable is removed, the active cases (N) increase from 1,597 to 3,913, and Cronbach's alpha is .756. Though Cronbach's alpha decreases, it is still above the minimum value of .60. When including stock market performance in the construct, the data decreases by 59%, leading to a less precise outcome. Therefore, it was decided to form construct of firm performance without stock market performance for the purposes of this analysis. As a robustness test, an analysis of stock market performance was performed (See table 6 for the results).

Table 3: CATPCA analysis

	Firm performance (with stock market performance)	Firm performance (without stock market performance)
Valid active cases	1597	3913
Reliability (Cronbach's alpha)	.815	.756

4.1.3 Assumptions

Before testing the hypotheses, the data is analyzed. First, the distribution of the variables is evaluated by checking normality of the tests (Kolmogorov-Smirnov test) and the histogram of the variable. The Kolmogorov-Smirnov test checks whether the scores follow some distribution in a certain population (Van den berg, 2018). Whenever a variable shows a skewed distribution, the variable is logarithm transformed. After examining the distribution of the variables, the box plot is checked for outliers. According to Field (2013): "Outliers are an observation or observations very different from most others. Outliers bias statistics and their standard errors and confidence intervals." If outliers are visible in the box plot, winsorizing is used to minimize the outliers. Winsorizing involves replacing outliers with the next highest score that is not an outlier (Field, 2013). The histograms, box plots, and Q-Q plots of the variables are presented in appendix 5. Finally, multicollinearity among the variables is interpreted (appendix 6). A measure of multicollinearity is the variance inflation factor (VIF). Higher degrees of multicollinearity are reflected by higher VIF values. The common cutoff threshold is a VIF value of 10 (Hair et al., 2014). Given that all variables are below 2, this assumption is not violated.

The assumptions for a multilevel regression analysis are also analyzed. Given that the scatterplot shows no discrepancies and residuals do not follow a clear pattern, the assumption for homoscedasticity is met. The second assumption is linearity. The relationship between the dependent variables and each of the independent variables is linear. In order to test linearity, the scatterplot is examined. The scatterplot shows a linear relationship between the dependent variables and the independent variables. The third assumption is independent errors. However, this assumption does not have to be taken into account in cross-sectional datasets. It is only applicable to longitudinal datasets, which is not the case for this study (Field, 2013). The last assumption, normally distributed errors, was also checked using a histogram of the residuals. It showed a normal distribution, meaning this assumption is also met.

4.2 Multilevel regression analysis

In this section, the hypotheses are tested in a hierarchical way (Field, 2013). Both the results and acceptance or rejection of the hypotheses are discussed.

Table 4a: Results multilevel regression analysis

N = 2163	***Model 1***		***Model 2***	
	ß	SE	*ß*	SE
Intercept	1.600***	.115	1.602***	.115
Control variables				
Dummy Industry *(reference)*				
Dummy Agricultural sector	.253	.107	.257*	.107
Dummy Business and Personal services	.348***	.052	.352***	.052
Dummy Wholesale and Transportation	.362***	.060	.359***	.060
Dummy Financial services	.048	.078	.063	.079
Dummy Healthcare and Social services	.196*	.094	.185*	.094
Firm size	.070***	.016	.073***	.016
Education	-.001	.001	-.000	.001
Dummy Multinational	-.104*	.042	-.093*	.042
Collective bargaining	-.231***	.050	-.234***	.050
Union influence	-.031	.019	-.031	.019
Trade union members	-.003***	.001	-.003***	.001
Training broad-based	.019	.028	.020	.028
Training annual costs	.109**	.034	.105**	.034
Main effects				
ESO not used *(reference)*				
ESO narrow-based			-.049	.066
ESO broad-based			**-.133***	**.059**
Constant				
-2 log likelihood	5752.169		5746.982	
Wald Z	32.886***		32.886***	

a) *Dependent variable: Employee turnover*
b) $^{*}p<0.05, ^{**}p<0.01, ^{***}p<0.001$

The results of the first hypothesis — "employee share ownership has a negative effect on employee turnover" — are presented in table 4a. All control variables are combined in the first model. In the second model, both the control variables and the main effects of the independent variables are tested. Looking at the main effects in model 2, broad-based employee share ownership has a significant negative effect on employee turnover (β = -.133; p <.05). Therefore, hypothesis 1 was accepted (a-path).

Table 4b: Results multilevel regression analysis

N = 2163	***Model 1***		***Model 2***		***Model 3***	
	β	SE	*β*	SE	*β*	SE
Intercept	-.927***	.115	-.925***	.115	-.841***	.120
Control variables						
Dummy Industry *(reference)*						
Dummy Agricultural sector	-.204	.107	-.205	.107	-.191	.107
Dummy Business and Personal services	-.018	.051	-.017	.052	.001	.052
Dummy Wholesale and Transportation	-.011	.060	-.010	.060	.009	.060
Dummy Financial services	.001	.078	.001	.079	.005	.079
Dummy Healthcare and Social services	.024	.093	.028	.094	.037	.094
Firm size	.039*	.016	.038*	.016	.042**	.016
Education	.004***	.001	.004***	.001	.004***	.001
Dummy Multinational	.063	.042	.060	.042	.055	.042
Collective bargaining	-.136**	.050	-.135**	.050	-.147**	.051
Union influence	-.006	.019	-.007	.019	-.008	.019
Trade union members	-.000	.001	-.000	.001	-.000	.001
Training broad-based	.206***	.028	.205***	.028	.207***	.028
Training annual costs	.194***	.034	.194***	.034	.199***	.034
Main effects						
ESO narrow-based			.046	.066	.044	.066
ESO broad-based			**.016**	**.059**	**.009**	**.059**
ESO not-used *(reference)*						
Mediator						
Employee turnover					**-.053***	**.021**
Constant						
-2 log likelihood	5747.941		5747.422		5741.391	
Wald Z	32.886***		32.866***		32.886***	

a) Dependent variable: Firm performance (without stock market performance)

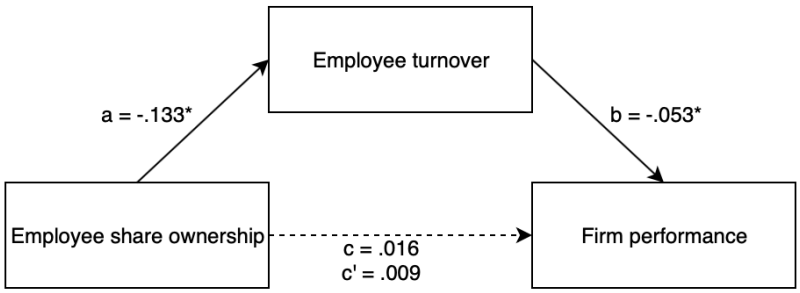
*b) * p<.05, ** p<.01, *** p<.001*

Table 4b shows the results for the second and third hypotheses. The results are also presented in a hierarchical manner. All control variables are combined in the first model. In the second model, both the control variables and the main effects of the independent variables are tested. Finally, the third model combines all control variables, the main effects of the independent variable and the mediator.

First, the second hypothesis – "employee turnover has a negative effect on firm performance" – was tested. Model 3 shows a significant negative effect of employee turnover on firm performance (β = -.053; p <.05). Therefore, hypothesis 2 was accepted (b-path).

Next, the third hypothesis – "the effect of employee share ownership on firm performance is mediated by employee turnover" – was analyzed. In order to confirm a mediation effect of employee turnover on relationship of employee share ownership on firm performance, the main effect of employee share ownership (broad-based) in model 2 must be significant (c-path). As shown in model 2, the main effect is not significant (β = .016; p = .790). Employee share ownership does not have an effect on firm performance. Next, the effect of employee share ownership on firm performance mediated by employee turnover had to be checked (c'-path). This effect is not significant either (β = .009; p = .882). However, Hayes (2009) and Shrout & Bolger (2002), suggest that when there is a reduction in β and the significance of the variable is weaker, it is legitimate to conclude that there is a mediation effect. Therefore, it can be concluded that employee turnover mediates the relationship between employee share ownership and firm performance. This means that the third hypothesis was accepted. A visual representation of the mediation effect is presented in figure 2.

Figure 2: Visual representation mediation



4.3 Multiple linear regression analysis

The results of the fourth hypothesis were also tested in a hierarchal way. Here, only results from four CME countries and four LME countries were included. In order to test this hypothesis, a multiple linear regression analysis was conducted. The results for the hypothesis – "the negative effect of employee turnover on firm performance is moderated by CME national institutions where the negative effect of employee turnover is less negative than compared with the negative effect of employee turnover in LMEs" – are presented in table 5.

Table 5: Multiple linear regression analysis liberal and coordinated market economies

N = 499	***Model 1***			***Model 2***			***Model 3***			***Model 4***		
	B	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
(Constant)	-.715**	.245		-.657**	.246		-.661**	.246		-.713**	.251	
Control variables												
Dummy Industry *(reference)*												
Dummy Agricultural sector	.387	.383	.045	.407	.384	.047	.400	.385	.046	.420	.385	.049
Dummy Business and Personal services	-.013	.100	-.007	-.012	.100	-0,006	.006	.103	.003	-.005	.104	-.002
Dummy Wholesale and Transportation	-.136	.119	-.056	-.126	.118	-0,052	-.104	.122	-.042	-.104	.122	-.042
Dummy Financial services	-.235	.138	-.080	-.240	.138	-0,082	-.237	.138	-.081	-.242	.139	-.083
Dummy Healthcare and Social services	.245	.179	.065	.280	.180	.075	.298	.182	.080	.282	.182	.075
Firm size	.053	.030	.085	.044	.030	.070	.045	.031	.072	.043	.031	.068
Education	.003	.002	.092	.003	.002	.082	.003	.002	.083	.003	.002	.087
Dummy Multinational	.077	.081	.045	.068	.081	.040	.066	.081	.038	.070	.082	.040
Collective bargaining	-.059	.103	-.029	-.047	.104	-0,023	-.062	.106	-.030	-.014	.116	-.007
Union influence	-.120**	.040	-.167	-.124**	.040	-0,173	-.126**	.040	-.175	-.122**	.040	-.170
Trade union members	.003	.002	.090	.003*	.002	.099	.003	.002	.098	.002	.002	.077
Training broad-based	.123	.063	.090	.114	.063	.083	.113	.063	.083	.112	.063	.082
Training annual costs	.157*	.075	.097	.146	.075	.090	.146	.075	.090	.144	.075	.089
Main effects												
ESO narrow-based				.038	.133	.013	.033	.133	.012	.031	.133	.011
ESO broad-based				**.239***	**.118**	**.093**	**.236***	**.118**	**.092**	**.233***	**.118**	**.091**
ESO not-used *(reference)*												
Mediator												
Employee turnover							**-.037**	**.053**	**-.034**	**-.040**	**.065**	**-.037**
Moderator												
Dummy LME										**.111**	**.094**	**.064**
Dummy CME *(reference)*												
Interaction effect (LME x turnover)										**-.055**	**.113**	**-.027**
Constant												
R2	.073			.081			.082			.085		
Adjusted R2	.048			.053			.052			.051		
F value	2.952***			2.842***			2.692**			2.475**		
FΔ	2.952***			2.044			.483			.762		

a) *Dependent variable: Firm performance*

b) **p<.05,**p<.01,***p<.001*

All control variables are combined in the first model. In the second model, both the control variables and the main effects of the independent variables are tested. The third model contains the control variables, main effects, and the mediator; and the fourth model contains the control variables, main effects, the mediator and the moderator. Hypothesis 4 is tested in model 4. The standardized coefficients are used to interpret the independent variable. Standardized coefficient are able compare the effects of the independent variables on the dependent variable (Field, 2013). The exploratory power of model 4 is .051 and insignificant (F change (2,480) = .762; p =.467). However, in order to use model 4, the F-value has to be significant. The F-value is significant and therefore model 4 can be interpreted (F value (18,480) = .762; p <.001). Model 4 shows an insignificant positive effect of LMEs on firm performance (β = .064; p = .241) and an insignificant negative moderation effect of LMEs on the relationship between employee turnover and firm performance (β = -.027; p = .627). Therefore, hypothesis 4 was rejected.

4.4 Additional analysis

4.4.1 Robustness Check

For a robustness check, an analysis with stock market performance in the construct firm performance is done in table 6. It was decided to perform another analysis of stock market performance because of the discussion about whether to add this financial indicator.

Table 6: Results multilevel regression analysis with stock market performance

N = 831	***Model 1***		***Model 2***		***Model 3***	
	ß	SE	*ß*	SE	*ß*	SE
Intercept	-1.707***	.192	-1.698***	.193	-1.606***	.207
Control variables						
Dummy Industry *(reference)*						
Dummy Agricultural sector	-.189	.171	-.190	.171	-.175	.172
Dummy Business and Personal services	-.024	.089	-.024	.089	-.004	.091
Dummy Wholesale and Transportation	-.117	.110	-.118	.110	-.094	.111
Dummy Financial services	-.154	.128	-.150	.128	-.145	.128
Dummy Healthcare and Social services	-.475*	.227	-.475*	.227	-.474*	.227
Firm size	.079**	.026	.081**	.026	.084**	.026
Education	.009***	.001	.009***	.001	.009***	.001
Dummy Multinational	-.008	.070	.001	.071	-.011	.071
Collective bargaining	-.096	.090	-.096	.089	-.104	.090
Union influence	.039	.032	.039	.032	.036	.032
Trade union members	-.000	.001	-.000	.001	-.000	.001
Training broad-based	.302***	.050	.303***	.050	.301***	.050
Training annual costs	.289***	.057	.287***	.057	.290***	.057
Main effects						
ESO narrow-based			-.080	.097	-.081	.097
ESO broad-based			**-.057**	**.087**	**-.062**	**.087**
ESO not-used *(reference)*						
Mediator						
Employee turnover					**-.048**	**.039**
Constant						
-2 log likelihood	2339.88		2338.99		2337.492	
Wald Z	20.384***		20.384***		20.384***	

a) Dependent variable: Firm performance (with stock market performance)

*b) * p<.05,** p<.01,*** p<.001*

Looking at the results, the relationship between employee turnover and firm performance (path b) is negative and insignificant (*ß* = -.048; *p* = .221). The relationship between employee share ownership and firm performance (path c) is negative and insignificant (*ß* = -.057; *p* = .514*)* and finally, the relationship between employee share ownership and firm performance mediated by employee turnover is negative and insignificant (*ß* = -.062; *p* = .474). In conclusion, when including stock market performance into the firm performance construct, the mediation effect disappears.

5. Conclusion and discussion

5.1 Conclusion

This study has assessed the relationship between employee share ownership and firm performance mediated by employee turnover. In addition, the effect of employee turnover and firm performance in different contextual settings was explored.

In order to answer the research question– *"To what extent is the effect of employee share ownership on firm performance mediated by employee turnover, and to what extent does the effect of employee turnover on firm performance differ between liberal market economies and coordinated market economies?"* –, four hypotheses were tested. This study used the dataset from CRANET-2015 to test the hypotheses. Table 7 shows an overview of the acceptance and rejection of the hypotheses.

Table 7: Overview hypotheses tested

H1: employee share ownership has a negative effect on employee turnover.	Accepted
H2: Employee turnover has a negative effect on firm performance.	Accepted
H3: The effect of employee share ownership on firm performance is mediated by employee turnover.	Accepted
H4: The negative effect of employee turnover on firm performance is moderated by national institutions where employee turnover is less negative in CMEs than compared with the negative effect of employee turnover in LMEs.	Rejected

After analyzing all countries from the CRANET-2015 dataset, it can be concluded that employee share ownership does not directly influence firm performance. In order to test the mediator effect, it is important to first analyze the effect of employee share ownership on employee turnover and thereafter the effect of employee turnover on firm performance. After examining the CRANET-2015 dataset, it is clear that broad-based employee share ownership does negatively influence employee turnover (H1). In other words, organizations using broad-based employee share ownership have a lower employee turnover than organizations that are not using broad-based employee share ownership. The results also indicate that employee turnover negatively affects firm performance (H2). It is, for example, expensive for organizations to replace and train employees to accomplish a high level of firm performance.

When including the mediator (employee turnover), the effect of employee share ownership on firm performance declines. Therefore, the indirect path is stronger than the direct path. In conclusion, there is a mediation effect, but that effect is small (H3).

In order to test the fourth hypothesis, national institutions were added as a moderator on the relationship of employee turnover on firm performance. Due to the decline of the dataset to eight countries (four LMEs and four CMEs), this part of the study is analyzed separately. After dividing these countries into LMEs and CMEs, the moderating effect of LMEs on the relationship between employee turnover and firm performance was tested. The results show a nonsignificant negative effect of the moderator on the relationship between employee turnover and firm performance. Therefore, the hypothesis was rejected (H4). The institutional differences do not have an effect on the relationship between employee turnover and firm performance.

5.2 Contributions

During the past 30 years, many empirical studies have been executed to explore the effect of employee share ownership on various indicators of firm performance (Caramelli, 2011). Kaarsemaker (2006) has reviewed some of these empirical studies on the relationship between employee share ownership and firm performance. As argued by Kaarsemaker (2006), 69% of the 70 reviewed studies found positive effects between employee share ownership and firm performance, 8% found negative effects, and 23% found no significant effect. These mixed results show that there are still unknown (contingent) factors that influence the relationship between employee share ownership and firm performance.

This study found an insignificant effect of employee share ownership on firm performance. The findings of this study challenges the views of other studies who support the idea that employee ownership has a significant positive effect on firm performance (Kruse, 1996; Katz, 2014; Wagner and Rosen, 1995, p.77). However, the findings of this study are consistent with the black-box-theories explained in section 2.2. According to the black-box-theories, employee share ownership may affect employee attitudes and behavior such as employee turnover, turnover intention, commitment, motivation, and satisfaction, and therefore influence firm performance (Kaarsemaker et al., 2009). Kaarsemaker et al. (2009) states that the relationship between employee share ownership is mediated by employee attitudes and behavior. This research took employee turnover as the umbrella concept for employee attitudes and behavior to test its mediator effect on the relationship between employee share ownership and firm performance.

The findings of this study indicate that an increase in employee turnover leads to a decrease in firm performance. These findings are supported by various studies (Alexander,

Bloom, & Nuchols, 1994; Brown and Medoff, 1978; Hausknecht and Trever, 2011; Kacmar et al., 2006). Higher levels of employee turnover negatively influence firm performance in various ways. First, the direct and indirect costs that comes with managing employee departures can cause a decrease in firm performance. Second, the cost that organization have due to scarce knowledge and expertise that departing employees gained through training and experience. Finally, The network of relationship that departing employees have built cannot be easily renewed when those employees leave (Hancock et al., 2013; Shaw et al., 2005). In order to maintain a high level of firm performance, organizations need to avoid these high costs associated with employee turnover. The findings of this study suggests that implementing employee share ownership (broad-based) lead to a decrease in employee turnover. In line with the study done by Poutsma (2001), employee share ownership enhance employee commitment (job satisfaction, investment orientation, and direct participation), which in turn leads to a decrease in employee turnover.

Past research indicates that when the context or environment in which employee turnover occurs differs, the effect of employee turnover on firm performance might also be different (Arthur, 1994; Batt & Colvin, 2011; Shaw et al., 2005). According to Hall & Soskice (2001), it is the tendency toward a CME or LME that may affect the potential to move beyond struggles typically related to turnover of employees. Organizations in CMEs attempt to coordinate, cooperate, and interact with others, resulting in collaborative relationships. On the other hand, organizations in LMEs lack this emphasis on collaboration and cohesion and have more competition among workers. Due to constant competition within organizations located in LMEs, job-relevant information is less shared (less knowledge transfer). Knowledge transfer ensures that there are more employees who can train a new employee and that the departure of an employee can be more easily accommodated. In a CME organization, the loss of an employee can be more quickly compensated for by other employees, protecting against a dip in performance (Mohr et al., 2012). Therefore, it was expected that the institutional differences do have an effect on the relationship between employee turnover and firm performance. However, the findings of this study did not find a moderation effect of national institutions on the relationship between employee turnover and firm performance. It can be concluded, that there is some inconsistency in the research results regarding the effects of CME and/or LME.

5.3 Practical implications

The outcomes of this study can be used for managers who are considering the implementation of employee share ownership schemes. The findings could provide organizations with a more realistic view of the advantages and disadvantages of using employee share ownership schemes. Therefore, the results could influence managerial decisions in whether to implement employee share ownership. It should be noted that when an organization starts using employee share ownership schemes, poor performance does not gets better all at once. However, employee share ownership schemes can serve as a helpful retention and recruitment tool (Sengupta et al., 2007). Furthermore, the findings of this study indicate that broad-based employee share ownership has a significant negative impact on employee turnover. Therefore, organizations should consider to implement employee share ownership schemes for all employees (broad-based) instead of only for the executives.

5.4 Limitations and future research

There are limitations that could have affected the outcome of the analyses and which offers opportunities for future research. First, as already mentioned before, employee share ownership can affect employee attitudes and behavior, such as employee turnover, turnover intention, commitment, motivation, and satisfaction, and therefore influence firm performance (Kaarsemaker et al., 2009). This study took one indicator (employee turnover) from all indicators of employee attitudes and behavior and used it as an umbrella concept. Future research should include all indicators of employee attitudes and behavior or focus on another indicator.

A second limitation is that this study only measured employee turnover as the annual staff turnover per year (%). Other important measurements of employee turnover, for example turnover costs and turnover intensity are not taken into account. Future research should use more detailed information for employee turnover in order to measure more accurately.

A third limitation is that there are not many listed organizations in the CRANET-2015 dataset, so when including stock market performance into the construct the dataset shrank by 59%. This reduction could have the effect that smaller effects are no longer visible. Therefore, it was decided to exclude this variable from the construct. However, by excluding stock market performance from the construct, firm performance becomes less precise (not using all the indicators). Follow up research should include more listed organizations in order to develop a more accurate measurement of firm performance.

Fourth, the manner in which the firm performance indicators are measured in CRANET-2015 is rather subjective as the following question was used: "Compared to other organizations in your sector, how would you rate the performance of your organization in relation to the following indicators?" This question is subjective as respondents are asked to compare their organization to their competitors. Therefore, this data is not based on actual facts. The subjectivity of the question reduces the reliability as different respondents of the same organization might give different answers. Future research should measure the indicators of firm performance in an objective manner to increase reliability.

Fifth, according to Poutsma, Ligthart, & Dietz, (2013) firm performance is an umbrella concept that consists of seven performance indicators. Among these, the financial indicators include: gross revenue, stock market performance, and profitability; the nonfinancial indicators include: innovation rate, productivity, service quality, and market-time relative to other organizations in the organization's sector. In this study, only profitability, innovation rate, productivity and service quality are measured. This means that some important indicators are left out of the study. Follow up studies should focus on all indicators of firm performance.

The last limitation is that this study only focused on the differences between LME countries and CME countries. Therefore, it was expected that all organizations in LMEs have a self-oriented culture and all organizations in CMEs have a group-oriented culture. However, organizations in LMEs can emphasize a group-oriented culture and organizations in CMEs can emphasize a self-oriented culture. The type of culture used in an organization could have more influence than the type of country. A possibility for future research is to examine the moderation effect of organizational culture (group-oriented versus self-oriented) on the relationship between employee turnover and firm performance.

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7. Appendices

Appendix 1: CRANET-2015 questionnaire

CRANET: Strategic Human Resource Management

HOW TO COMPLETE THIS QUESTIONNAIRE

This questionnaire is designed to make completion as easy and fast as possible. Most questions can be answered by simply ticking boxes. Very little information will need to be looked up.

This questionnaire asks you about the Personnel/Human Resource (HR) policies and practices in the organisation or part of the organisation (Division, Business Unit) for which you have Human Resource Management responsibility.

Please indicate below the organisational unit to which the answers on the questionnaire refer:

a. **Is your organisation part of a larger Group of companies/institution?** Yes ❑$_1$ No ❑$_0$

b. **<u>If yes</u>, are you answering for the whole Group in your country?** Yes ❑$_1$ No ❑$_0$

The questionnaire has been created for simultaneous use by private, public and not for profit sector employers in 40 countries; some questions may therefore be phrased in a slightly unfamiliar way.

THANK YOU FOR YOUR CO-OPERATION

SECTION I: HRM ACTIVITY IN THE ORGANISATION

1. **Approximately, how many people are employed (on the payroll) by your organisation?**

In total _____ Male _____ Female _____

2. **Please give proportions for the following:**

A. Managers	____% of workforce
B. Professionals (without managerial responsibility)	____% of workforce
C. Clericals and/or Manuals	____% of workforce
TOTAL	**100 %**

3a. **Do you have an HR department?**

Yes ❑$_1$ No ❑$_0$

3b. **If yes, approximately how many people are employed in the personnel/human resources (HR) department by your organisation?**

In total _____ Male _____ Female _____

4. **Does the person responsible for HR have a place on the Board or equivalent top executive team?**

Yes ❑$_1$ No ❑$_0$

5. **From where was the person responsible for HR recruited? (Please tick only one).**

A. From within the personnel/HR department	❑$_1$
B. From non-personnel/HR specialists in your organisation	❑$_2$
C. From personnel/HR specialists outside of the organisation	❑$_3$
D. From non-personnel/HR specialists outside of the organisation	❑$_4$

6. **Does your organisation have a written**

	Yes,	No
A. Mission statement	❑$_1$	❑$_0$
B. Business/service strategy	❑$_1$	❑$_0$
C. Personnel/HRM strategy	❑$_1$	❑$_0$
D. HR recruitment strategy	❑$_1$	❑$_0$
E. HR training & development strategy	❑$_1$	❑$_0$
F. Corporate Social Responsibility (CSR)* statement	❑$_1$	❑$_0$
G. Diversity statement	❑$_1$	❑$_0$

* CSR generally refers to the practice of operating a business in a manner that goes beyond what is normally required by law to meet broader ethical and public expectations.

7. **If your organisation has a business/service strategy, at what stage is the person responsible for personnel/HR involved in its development?**
(Please tick only one)

A. From the outset	❑3
B. Through subsequent consultation	❑2
C. On implementation	❑1
D. Not consulted	❑0
E. Not applicable (do not have a business strategy	❑-9

8. **Who has <u>primary responsibility</u> for major policy decisions on the following issues?**
(Please tick one per row)

	Line Management	Line Mgt. in consultation with HR dept.	HR dept. in consultation with line Mgt.	HR Department
A. Pay and benefits	❑1	❑2	❑3	❑4
B. Recruitment and selection	❑1	❑2	❑3	❑4
C. Training and development	❑1	❑2	❑3	❑4
D. Industrial relations	❑1	❑2	❑3	❑4
E. Workforce expansion/reduction	❑1	❑2	❑3	❑4

9. **To what extent do you outsource the following areas to external providers**

	Not outsourced				Completely outsourced
A. Payroll	❑0	❑1	❑2	❑3	❑4
B. Pensions	❑0	❑1	❑2	❑3	❑4
C. Benefits	❑0	❑1	❑2	❑3	❑4
D. Training and development	❑0	❑1	❑2	❑3	❑4
E. Workforce outplacement/reduction	❑0	❑1	❑2	❑3	❑4
F. HR Information systems	❑0	❑1	❑2	❑3	❑4
G. Recruitment	❑0	❑1	❑2	❑3	❑4
H. Selection	❑0	❑1	❑2	❑3	❑4
I. Processing routine queries from Managers/employees (e.g. HR call centre)	❑0	❑1	❑2	❑3	❑4

10. **Do you use the following to deliver HRM activities?**

	Yes,	No
A. Human resource information system (HRIS) or electronic HRM system	❑1	❑0
B. Manager self-service* *Functionality of an electronic HR system that allows managers to handle many HR-related tasks for their employees directly, rather than relying on the HR department to do these	❑1	❑0
C. Employee self-service* * Functionality of an electronic HR system that allows an employee to handle many HR-related tasks themselves e.g. changing personal details, booking holiday; claiming expenses	❑1	❑0

11. **To what extent is the performance of the personnel/human resources function/department evaluated?**
(Please tick one of the following)

Not at all				To a very great extent
❑0	❑1	❑2	❑3	❑4

SECTION II: RESOURCING PRACTICES

1. How has the total number of employees (full time equivalents) in your organisation changed since three years ago? (Please tick one box only)

Decreased to a great extent		Not changed		Increased to a great extent
❑1	❑2	❑3	❑4	❑5

2. Have you used any of the following methods to downsize the organisation (through reducing the number of people employed or other means to decrease cost)?

	Managers	Professionals	Clericals and/or Manuals	Generally not used
A. Recruitment freeze	❑1	❑1	❑1	❑0
B. Early retirement	❑1	❑1	❑1	❑0
C. Internal transfer (redeployment)	❑1	❑1	❑1	❑0
D. Voluntary redundancies/Attrition	❑1	❑1	❑1	❑0
E. No renewal of fixed term/ temporary contracts	❑1	❑1	❑1	❑0
F. Unpaid study leaves/vacations	❑1	❑1	❑1	❑0
G. Outsourcing	❑1	❑1	❑1	❑0
H. Management pay-cut	❑1	❑1	❑1	❑0
I. Ban on overtime	❑1	❑1	❑1	❑0
J. Wage freeze	❑1	❑1	❑1	❑0
K. Reduced job proportions	❑1	❑1	❑1	❑0
L. Job sharing	❑1	❑1	❑1	❑0
M. Reduced benefits	❑1	❑1	❑1	❑0
N. Employee pay-cut	❑1	❑1	❑1	❑0
O. Individual layoffs (1-4% of workforce laid off in 12 months period)	❑1	❑1	❑1	❑0
P. Concentrated layoffs (5-9% laid off in 12 months period)	❑1	❑1	❑1	❑0
Q. Mass layoffs/compulsory redundancies (10% or more of workforce in 1-3 months period)	❑1	❑1	❑1	❑0

3. Please indicate which of the following recruitment methods are used in your organisation?

	Managers	Professionals	Clericals and/or Manuals	Generally not used
A. Internally	❑1	❑1	❑1	❑0
B. Word of Mouth/employee referrals	❑1	❑1	❑1	❑0
C. Vacancies in news papers	❑1	❑1	❑1	❑0
D. Vacancy page on company website	❑1	❑1	❑1	❑0
E. Vacancies on commercial job websites	❑1	❑1	❑1	❑0
F. Social Media (e.g. Facebook)	❑1	❑1	❑1	❑0
G. Speculative applications/walk-ins (directly from educational institution)	❑1	❑1	❑1	❑0
H. Career Fairs	❑1	❑1	❑1	❑0
I. Recruitment agencies/ consultancies/ executive search	❑1	❑1	❑1	❑0
J. Job centres (public)	❑1	❑1	❑1	❑0
K. Trainee program	❑1	❑1	❑1	❑0

4. Please indicate which of the following selection methods are used in your organisation?

	Managers	Professionals	Clericals and/or Manuals	Generally not used
A. Interview panel	❑1	❑1	❑1	❑0
B. One-to-one interviews	❑1	❑1	❑1	❑0
C. Application forms	❑1	❑1	❑1	❑0
D. Psychometric test	❑1	❑1	❑1	❑0
E. Assessment centre	❑1	❑1	❑1	❑0
F. Social media profiles	❑1	❑1	❑1	❑0
G. References	❑1	❑1	❑1	❑0
H. Ability tests/ Work sample	❑1	❑1	❑1	❑0
I. Technical tests	❑1	❑1	❑1	❑0
J. Numeracy test	❑1	❑1	❑1	❑0
K. Online selection tests	❑1	❑1	❑1	❑1

5. Does your organisation have action programmes covering any of the following groups to improve their participation in the workforce:

For following groups of people:	Recruitment	Training	Career progression	Group not addressed
A. Minority ethnics	❑1	❑1	❑1	❑0
B. Older workers (aged 50 plus)	❑1	❑1	❑1	❑0
C. People with disabilities	❑1	❑1	❑1	❑0
D. Women	❑1	❑1	❑1	❑0
E. Women returners	❑1	❑1	❑1	❑0
F. Low skilled labour	❑1	❑1	❑1	❑0
G. Younger workers (aged under 25)	❑1	❑1	❑1	❑0

6. Please indicate the approximate proportion of those employed by your organisation who are on the following working arrangements:

	Not used	1-5%	6-10%	11-15%	16-20%	21-50%	>50%
A. Weekend work	❑0	❑1	❑2	❑3	❑4	❑5	❑6
B. Shift work	❑0	❑1	❑2	❑3	❑4	❑5	❑6
C. Overtime	❑0	❑1	❑2	❑3	❑4	❑5	❑6
D. Annual hours contract	❑0	❑1	❑2	❑3	❑4	❑5	❑6
E. Part-time work	❑0	❑1	❑2	❑3	❑4	❑5	❑6
F. Job sharing	❑0	❑1	❑2	❑3	❑4	❑5	❑6
G. Flexi-time	❑0	❑1	❑2	❑3	❑4	❑5	❑6
H. Temporary/casual	❑0	❑1	❑2	❑3	❑4	❑5	❑6
I. Fixed-term contracts	❑0	❑1	❑2	❑3	❑4	❑5	❑6
J. Home-based work (workers who do not have permanent electronic links to a fixed workplace)	❑0	❑1	❑2	❑3	❑4	❑5	❑6
K. Teleworking (workers who can link electronically to a fixed workplace)	❑0	❑1	❑2	❑3	❑4	❑5	❑6
L. Compressed working week	❑0	❑1	❑2	❑3	❑4	❑5	❑6

SECTION III: EMPLOYEE DEVELOPMENT

1. Do you have a formal appraisal system the following categories of the workforce?

	Yes	No
A. Management	❑1	❑0
B. Professionals without managerial responsibility	❑1	❑0
C. Clericals and/or Manuals	❑1	❑0

2. If you have an appraisal system, who formally is expected to make an input/provide data for the appraisal process?

	Managers	Professionals	Clericals and/or Manuals	Generally not used
A. Immediate supervisor	❑1	❑1	❑1	❑0
B. Supervisor's superior	❑1	❑1	❑1	❑0
C. The employee himself/herself	❑1	❑1	❑1	❑0
D. Subordinates	❑1	❑1	❑1	❑0
E. Peers	❑1	❑1	❑1	❑0

3. Is the appraisal data used to inform decisions in the following areas

	Yes	No
A. Pay	❑1	❑0
B. Training and development	❑1	❑0
C. Career moves	❑1	❑0
D. Workforce planning	❑1	❑0

4. Do you <u>systematically</u> estimate the need for training of personnel in your organisation?

Yes ❑1 No ❑0

5. Approximately, what proportion of the annual payroll costs is currently spent on training?
(Please round up to the nearest whole percentage)

0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	>10%	Don't know
❑0	❑1	❑2	❑3	❑4	❑5	❑6	❑7	❑8	❑9	❑10	❑11	❑-9

6. Approximately, how many days training per year do employees in each staff category below receive on average?

A. Managers	_____ days per year per employee
B. Professionals	_____ days per year per employee
C. Clericals and/or Manuals	_____ days per year per employee

7a. **Do you <u>systematically</u> evaluate the *effectiveness* of training of personnel in your organisation?**

Yes ❑$_1$ No ❑$_0$

7b. **<u>If yes</u>, which of the following techniques does your organisation use to evaluate training effectiveness?**

	Used	Not used
A. Total number of days training undertaken per employee per year	❑$_1$	❑$_0$
B. Meeting the objectives set out in the training and development plan	❑$_1$	❑$_0$
C. Reaction evaluation immediately after training	❑$_1$	❑$_0$
D. Measured job performance before and immediately after training	❑$_1$	❑$_0$
E. Measured job performance before and some months after training	❑$_1$	❑$_0$
F. Informal feedback from line managers	❑$_1$	❑$_0$
G. Informal feedback from employees	❑$_1$	❑$_0$
H. Return on investment	❑$_1$	❑$_0$

8. **To what extent do you use the following methods for career management:**

	Not at all				To a very great extent
A. Special tasks	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
B. Projects to stimulate learning	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
C. Training on-the-job	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
D. Participation in project team work	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
E. Formal networking schemes	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
F. Formal career plans	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
G. Development centres	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
H. Succession plans	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
I. Planned job rotation	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
J. “High flier” schemes/ High potentials	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
K. International work assignments (experience)	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
L. Coaching	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
M. Mentoring	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$
N. Computer bases packages/ e-learning	❑$_0$	❑$_1$	❑$_2$	❑$_3$	❑$_4$

SECTION IV: COMPENSATION AND BENEFITS

1. At what level(s) is basic pay determined for the following staff categories?

	Managers	Professionals	Clericals and/or Manuals	Generally not used
A. National/industry-wide (collective bargaining)	❑1	❑1	❑1	❑0
B. Regional collective bargaining	❑1	❑1	❑1	❑0
C. Company/division, etc.	❑1	❑1	❑1	❑0
D. Establishment/site	❑1	❑1	❑1	❑0
E. Individual	❑1	❑1	❑1	❑0

2. Do you offer any of the following:

	Managers	Professionals	Clericals and/or Manuals	Generally not used
A. Employee share schemes	❑1	❑1	❑1	❑0
B. Profit sharing	❑1	❑1	❑1	❑0
C. Stock options	❑1	❑1	❑1	❑0
D. Flexible benefits	❑1	❑1	❑1	❑0
E. Individual performance related pay	❑1	❑1	❑1	❑0
F. Bonus based on individual goals/ performance	❑1	❑1	❑1	❑0
G. Bonus based on team goals/ performance	❑1	❑1	❑1	❑0
H. Bonus based on organizational goals/ performance	❑1	❑1	❑1	❑0
I. Non-monetary incentives	❑1	❑1	❑1	❑0

3. Do you offer any of the following schemes in excess of statutory requirements?

	Yes	No
A. Workplace childcare (subsidized or not)	❑1	❑0
B. Childcare allowances	❑1	❑0
C. Career break schemes	❑1	❑0
D. Maternity leave	❑1	❑0
E. Paternity leave	❑1	❑0
F. Parental leave*	❑1	❑0
G. Pension schemes	❑1	❑0
H. Education/training break	❑1	❑0
I. Private health care schemes	❑1	❑0
J. Flexible/cafeteria benefits	❑1	❑0

* Parental leave refers to leave given to a parent to look after a child outside of maternity/paternity leave, for instance, to care for a sick child.

SECTION V: EMPLOYEE RELATIONS AND COMMUNICATION

1. What proportion of the total number of employees in your organisation are members of a trade union? (Please round up to the nearest full percentage)

0%	1%- 10%	11%-25%	26%-50%	51-75%	76-100%	Don't know
❑1	❑2	❑3	❑4	❑5	❑6	❑-9

2. To what extent do trade unions influence your organisation?

Not at all				To a very great extent
❑0	❑1	❑2	❑3	❑4

3. Do you recognise trade unions for the purpose of collective bargaining?

Yes ❑1 No ❑0

4. Do you have a joint consultative committee or works council?

Yes ❑1 No ❑0

5. To what extent do you use the following methods to communicate major issues to your employees?

	Not at all				To a very great extent
A. Direct to senior managers	❑0	❑1	❑2	❑3	❑4
B. Through immediate superior	❑0	❑1	❑2	❑3	❑4
C. Through trade union representatives	❑0	❑1	❑2	❑3	❑4
D. Through works council	❑0	❑1	❑2	❑3	❑4
E. Through regular workforce meetings	❑0	❑1	❑2	❑3	❑4
F. Team briefings	❑0	❑1	❑2	❑3	❑4
G. Electronic communication	❑0	❑1	❑2	❑3	❑4

6. Which employee categories are formally briefed about the following issues?

	Managers	Professionals	Clericals and/or Manuals	Generally not used
A. Business strategy	❑1	❑1	❑1	❑0
B. Financial performance	❑1	❑1	❑1	❑0
C. Organisation of work	❑1	❑1	❑1	❑0

7.	**To what extent are the following methods used for employees to communicate their views to management?**					
		Not at all				To a very great extent
	A. Direct to senior managers	❑0	❑1	❑2	❑3	❑4
	B. Through immediate superior	❑0	❑1	❑2	❑3	❑4
	C. Through trade union representatives	❑0	❑1	❑2	❑3	❑4
	D. Through works council	❑0	❑1	❑2	❑3	❑4
	E. Through regular workforce meetings	❑0	❑1	❑2	❑3	❑4
	F. Team briefings	❑0	❑1	❑2	❑3	❑4
	G. Suggestion schemes	❑0	❑1	❑2	❑3	❑4
	H. Employee/ Attitude surveys	❑0	❑1	❑2	❑3	❑4
	I. Electronic communication	❑0	❑1	❑2	❑3	❑4

SECTION VI: ORGANISATIONAL DETAILS

1.	**Please indicate the <u>main sector</u> of industry or services in which you operate** (please tick the one that most closely resembles your organisation's activity)	
	A. Agriculture, hunting, forestry, fishing, mining and quarrying	❑1
	B. Manufacture of food, beverages, textiles, wood and paper, coke and refined petroleum, and related products	❑2
	C. Manufacture of chemicals, pharmaceuticals, and medicinal chemical products	❑3
	D. Manufacture of basic metals and metal products, plastic and other non-metallic products	❑4
	E. Manufacture of computer, electronic products, electrical equipment	❑5
	F. Manufacture of machinery and equipment	❑6
	G. Manufacture of transport equipment	❑7
	H. Other manufacturing	❑8
	I. Electricity, gas, steam, and water supply, waste management	❑9
	J. Construction	❑10
	K. Wholesale and retail trade	❑11
	L. Transportation and storage	❑12
	M. Accommodation and food service activities, publishing, broadcasting activities	❑13
	N. Telecommunications, IT and other information services	❑14
	O. Financial and insurance activities	❑15
	P. Accounting, management, architecture, engineering, scientific research, and other administrative and support service activities	❑16
	Q. Public administration and compulsory social security	❑17
	R. Education	❑18
	S. Human health services, residential care and social work activities	❑19
	T. Other industry or services	❑20

2a. Is your organisation:

Private sector ❑1

If private sector, are you a Public Limited Company (on the stock market): Yes ❑1 No ❑0

Public sector ❑2

If public sector are you National ❑1 Regional ❑2 Local ❑3

Not for profit ❑3

Mixed ❑4
(public and private sector)

2b. Is the business owned and/or controlled by primarily one family?

Yes ❑1 No ❑0 Not applicable ❑-9

<u>If yes</u>, is the family also actively involved in its management? Yes ❑1 No ❑0

3. What percentage of the operating costs is accounted for by labour costs?

_____ % of operating costs Don't know ❑-9

4. <u>If you are a private sector organisation</u>, would you say the gross revenue over the past 3 years has been

A. Well in excess of costs ❑5
B. Sufficient to make a small profit ❑4
C. Enough to break even ❑3
D. Insufficient to cover costs ❑2
E. So low as to produce large losses ❑1

5. Compared to other organisations in your sector, how would you rate the performance of your organisation in relation to the following?

	Poor or at the low end of the industry	Below average	Average or equal to the competition	Better than average	Superior	Not applicable
A. Service quality	❑1	❑2	❑3	❑4	❑5	❑-9
B. Level of productivity	❑1	❑2	❑3	❑4	❑5	❑-9
C. Profitability	❑1	❑2	❑3	❑4	❑5	❑-9
D. Rate of innovation	❑1	❑2	❑3	❑4	❑5	❑-9
E. Stock market performance	❑1	❑2	❑3	❑4	❑5	❑-9
F. Environmental matters	❑1	❑2	❑3	❑4	❑5	❑-9

6. How would you describe the main market(s) for your organisation's products or services?
(Please tick only one)

A. Local ❑1
B. Regional ❑2
C. National ❑3
D. Continent-wide ❑4
E. World-wide ❑5

7. Is the market you currently serve:

Declining to a great extent		Not changing		Growing to a great extent
❑1	❑2	❑3	❑4	❑5

8. Has your organisation been involved in any of the following changes in the last 3 years? (Tick all that apply)

	Yes	No
A. Acquisition of another organisation	❑1	❑0
B. Takeover by another organisation	❑1	❑0
C. Merger	❑1	❑0
D. Relocation	❑1	❑0
E. Demerger	❑1	❑0

9. If your answer was yes to any of the above (in Q8), when was the personnel/HR department involved in the process? (Tick only one)

A. From the outset ❑3
B. Through subsequent consultation ❑2
C. On implementation ❑1
D. Not consulted ❑0

10. Approximately, please provide the following information about your workforce:

A. Annual staff turnover	____% turnover per year (Turnover is calculated as the % of the total workforce that have left the organization in the past year)	Don't know ❑-9
C. Absenteeism/ sick leave	____ average days per employee per year	Don't know ❑-9

11. What is the proportion of employees 25 years old and under?

0%	1%- 10%	11%-25%	26%-50%	51-75%	76-100%	Don't know
❑1	❑2	❑3	❑4	❑5	❑6	❑-9

12. What is the proportion of employees 50 years old and above?

0%	1%- 10%	11%-25%	26%-50%	51-75%	76-100%	Don't know
❑1	❑2	❑3	❑4	❑5	❑6	❑-9

13. What is the proportion of the workforce with a higher education/ university qualification? (First degree of higher degree, NVQ level 4)

0%	1%- 10%	11%-25%	26%-50%	51-75%	76-100%	Don't know
❑1	❑2	❑3	❑4	❑5	❑6	❑-9

14. **In which country is the corporate headquarters of your organisation based?**
(Please refer to ultimate parent company if your organisation is part of a larger group)

_____

15. **In what year was your organisation established (YYYY)?**

_____ Don't know ❑-9

16. **Is your organisation (or part that you are answering for):**
(Please tick only one)

A. Corporate HQ of an international organisation ❑1
B. Corporate HQ of a national organisation ❑2
C. Subsidiary of an international organisation ❑3
D. Subsidiary of a national organisation ❑4
E. Independent organisation with more than one site ❑5
F. Independent organisation with a single site ❑6

17. **If your organisation is part of a larger group of companies/divisions (including public sector), please indicate where policies on the following issues are mainly determined:**

	International HQ	National Headquarters	Subsidiary/ Dept./Division	Site/Establishment/ Local offices
A. Pay and benefits	❑1	❑2	❑3	❑4
B. Recruitment and selection	❑1	❑2	❑3	❑4
C. Training and development	❑1	❑2	❑3	❑4
D. Industrial relations	❑1	❑2	❑3	❑4
E. Workforce expansion/ reduction	❑1	❑2	❑3	❑4
F. Management development	❑1	❑2	❑3	❑4

PERSONAL DETAILS

1. **Do you work in the HR department of your organisation?**

Yes ❑1 No ❑0

2. **If you are working in the HR department, how long have you been working as a specialist personnel/HR?**

_____ years Not applicable ❑-9

3. **Are you the most senior personnel/HR manager in the organisation?**

Yes ❑1 No ❑0

4. **Are you:**

Male ❑1 Female ❑0

5. **How long have you been working in this organisation?**

_____ years Not applicable ❑-9

6a. **Do you have a university degree?**

Yes ❑1 No ❑0

6b. **If yes, in what main academic field did you study for your most advanced degree?**

A. Business studies	❑1	E. Law	❑5
B. Economics	❑2	F. Engineering	❑6
C. Social or behavioural sciences	❑3	G. Natural Sciences	❑7
D. Humanities/Art/Languages	❑4	H. Other	❑8

THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE

7. **Would you like to receive a summary of the report?**

Yes ❑1 No ❑0

8. **Would you like to receive a benchmark?**

Yes ❑1 No ❑0

The benchmark is a standard report based on some demographic data and focused on a selection of HRM policies and practices and outcome indicators.

9. **If summary or benchmark, please provide the following**

Name organisation:

Your name:

Addres:

Postcode:

City:

Email:

Appendix 2: Schedule

Date	**What to do**
Week 15	Process feedback of the proposal and start analyzing data from Cranet
Week 16 – week 18	Analyze data from Cranet with SPSS, and start with analyzing the differences in institutional context.
May 1, 2020	***Submit thesis chapter 1 - 4***
Week 19 – week 21	Process feedback chapter 4
Week 21 – week 22	Start with discussion and conclusion
May 29, 2020	***Submit thesis chapter 1 – 6***
Week 23 – week 24	Process feedback chapter 5 and 6
DEADLINE: June 15, 2020	***Thesis submission***

Appendix 3: Variables Cranet

General information	
Front: question a/b	
Independent variable: Employee share ownership	
Section IV: question 2	Do firm offer any employee share schemes (ESO)
Dependent variable: Firm performance	
Section V1: question 5	How would you rate the performance of your organization? All categories (A-F)
Mediator: Employee turnover	
Section VI: question 10	A) Annual staff turnover, __% per year C) Absenteeism / sick leave, __average days per EE
Moderator: National institutions	
	Country variable **LME Countries:** Denmark, UK, US, and Switzerland **CME countries:** Austria, Belgium, France, and Germany
Control variables	
Section I: Question 1	Firm size, % male/female
Section I: Question 2	Workforce characteristics: A) % managers, B) % professionals, C) Manual and/or Operational staff
Section III: question 4	Need for training of personnel in your organization?
Section III: Question 5	Proportion of the annual payroll costs is currently spent on training?
Section III: Question 6	How many days training per year do employees in each staff category below receive on average?
Section III: Question 7a	Effectiveness of training of personnel in your organization
Section IV: question 1	Basic pay
Section V: Question 1	Unionization degree %
Section V: Question 2	Trade union influence
Section V: Question 3	Collective bargaining trade union
Section VI: Question 1	Industry
Section VI: question 2a	Selection private organizations + stock listed
Section VI: question 3	Labor costs
Section VI: Question 13	Workforce characteristics: Education
Section VI: question 14	In which country is the corporate headquarter based
Section VI: question 16	Indicator multinational or local

Appendix 4: Country

All countries:

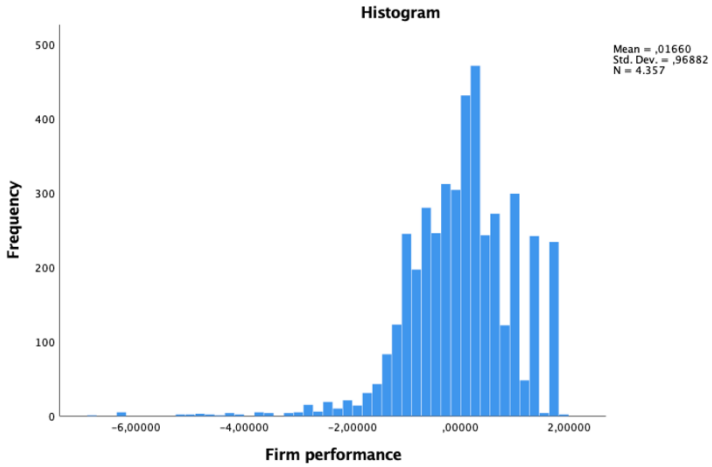
Country	Frequency	Percent	Cumulative percent
1. Austria	159	3.6	3.6
2. Belgium	122	2.8	6.4
4. Cyprus	66	1.5	7.9
6. Denmark	125	2.9	10.8
7. Estonia	64	1.5	12.3
8. Finland	90	2.1	14.3
9. France	134	3.1	17.4
10. Germany	221	5.1	22.4
11. Greece	157	3.6	26.0
12. Hungary	170	3.9	29.9
14. Italy	126	2.9	32.8
15. Latvia	49	1.1	33.9
16. Lithuania	90	2.1	36.0
19. Netherlands	125	2.9	38.8
22. Romania	155	3.5	42.4
23. Slovakia	239	5.5	47.8
24. Slovenia	94	2.1	50,0
25. Spain	78	1.8	51.8
26. Sweden	138	3.2	54.9
27. UK	87	2.0	56.9
34. Croatia	117	2.7	59.6
36. Iceland	38	.9	60.5
43. Norway	109	2.5	63.0
44. Russia	112	2.6	65.5
46. Serbia	105	2.4	67.9
47. Switzerland	142	3.2	71.2
48. Turkey	135	3.1	74.3
56. China	171	3.9	78.2
58. Indonesia	85	1.9	80.1
61. Israel	56	1.3	81.3
77. Philippines	112	2.6	83.9
98. USA	147	3.4	87.3
101. Brazil	289	6.6	93.9
111. Australia	224	5.1	99.0
115. South Africa	42	1.0	100.0
Total	4357	100.0	100.0

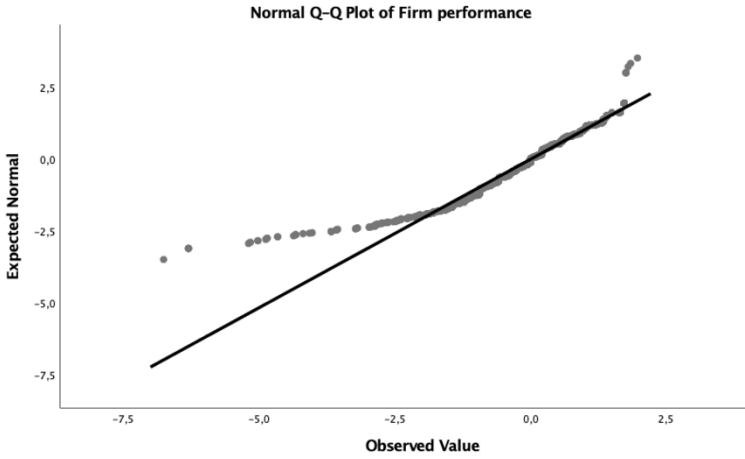
Only CMEs and LMEs:

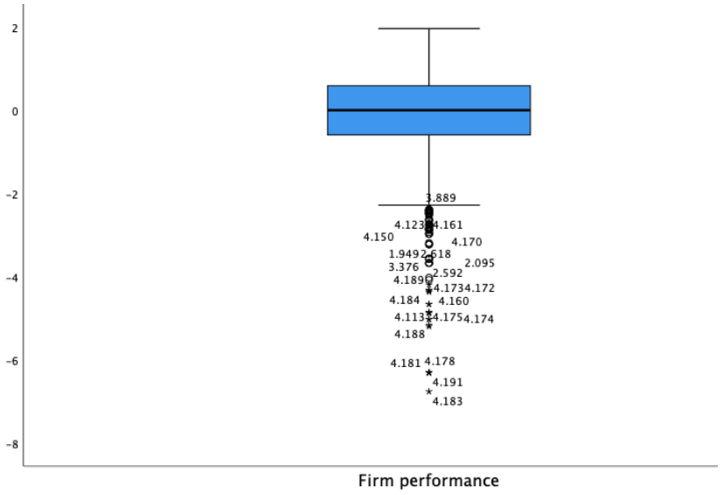
Country	Frequency	Percent	Cumulative percent	National institutions
1. Austria	159	14.0	14.0	CME
2. Belgium	122	10.7	24.7	CME
6. Denmark	125	11.0	35.7	LME
9. France	134	11.9	47.5	CME
10. Germany	221	19.4	66.9	CME
17. United Kingdom	87	7.7	74.6	LME
47. Switzerland	142	12.5	87.1	LME
98. USA	147	12.9	100.0	LME
Total	1137	100.0		

Appendix 5: Histograms, Box plots, and Q-Q plots

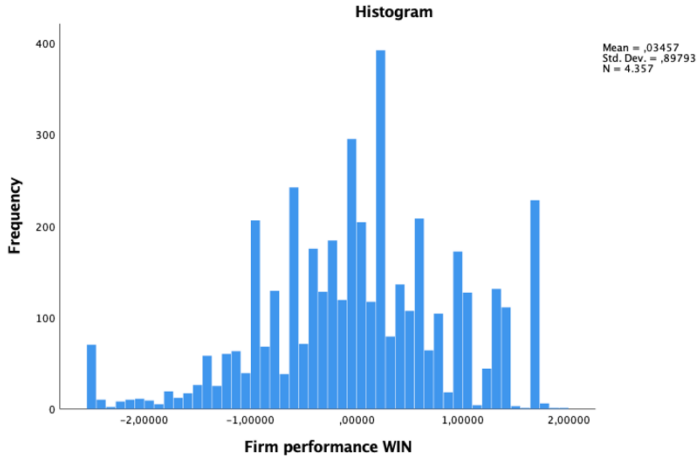
Firm performance

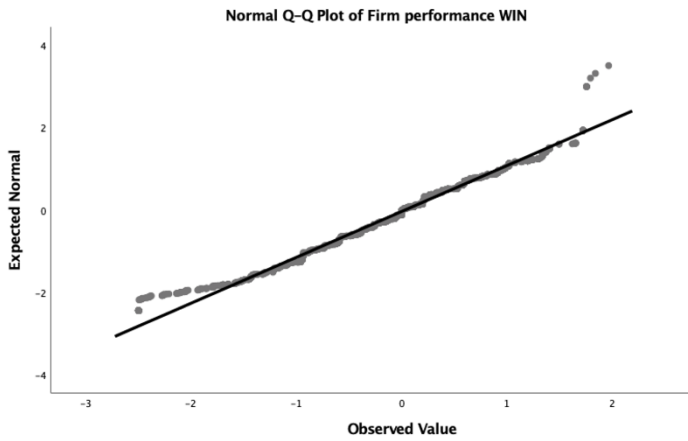


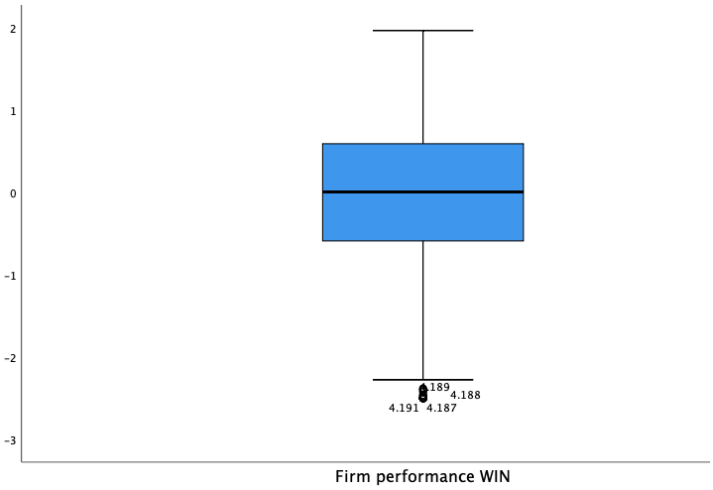




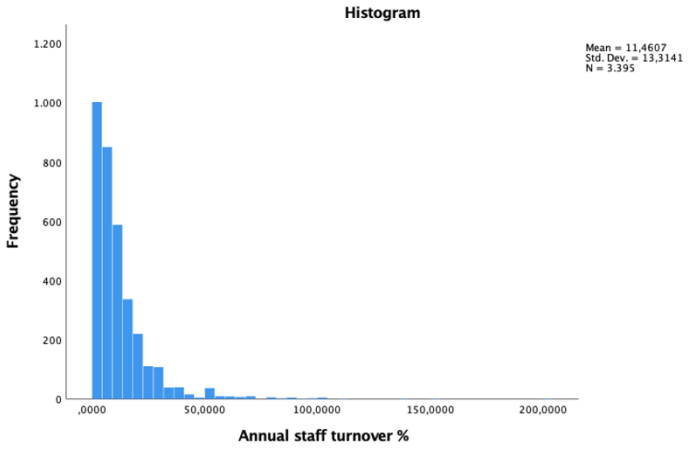
Firm performance after winsorizing

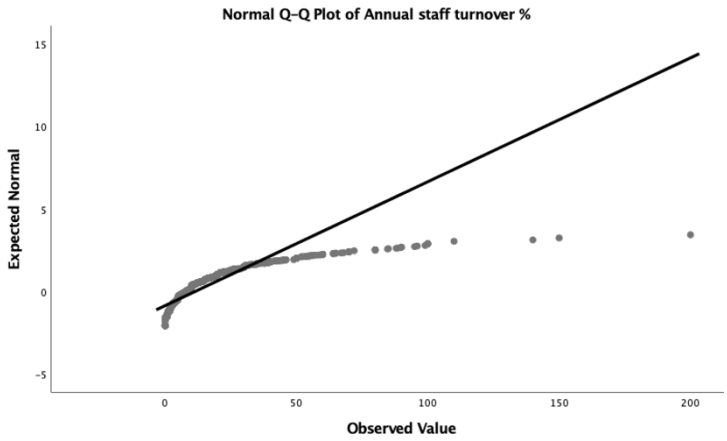


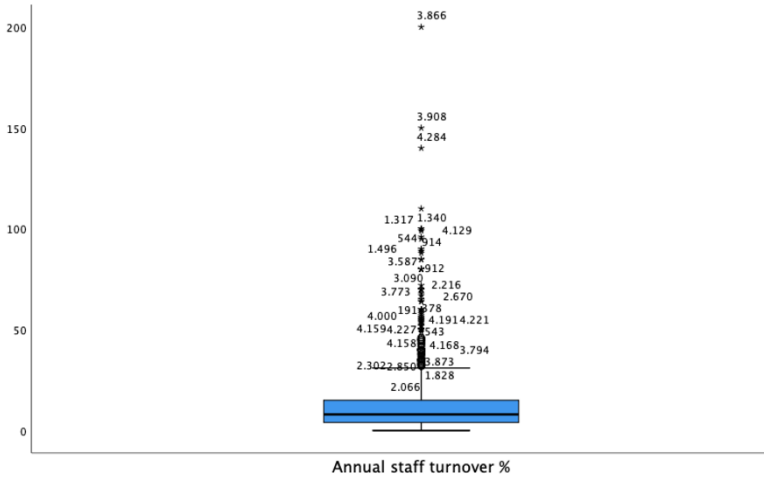




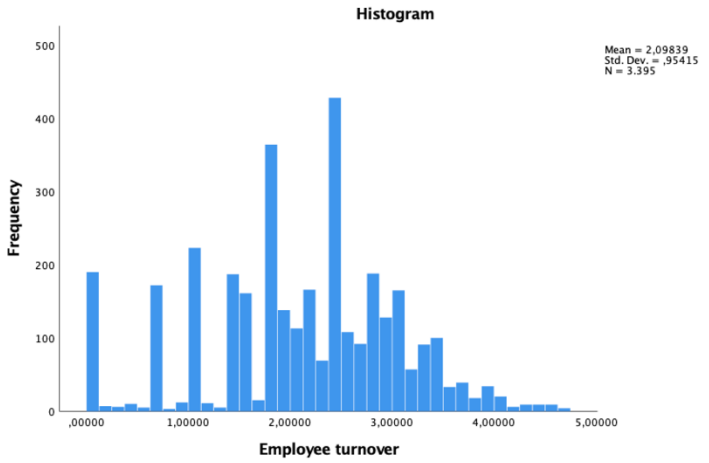
Employee turnover

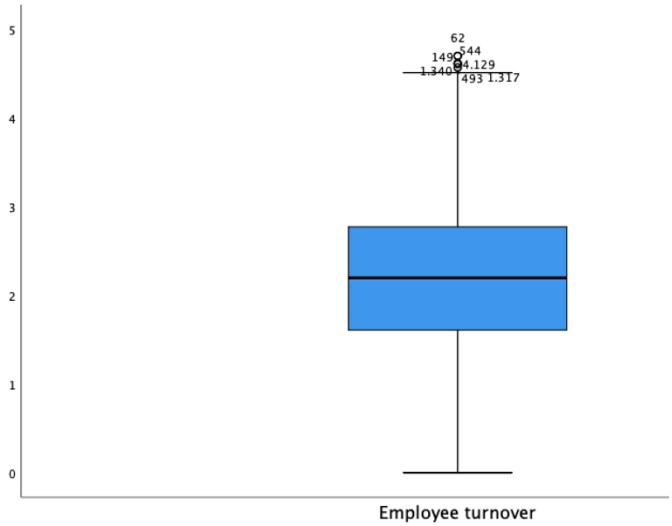




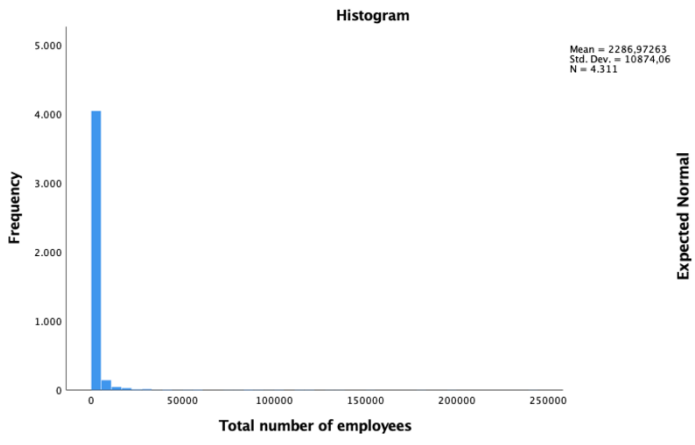


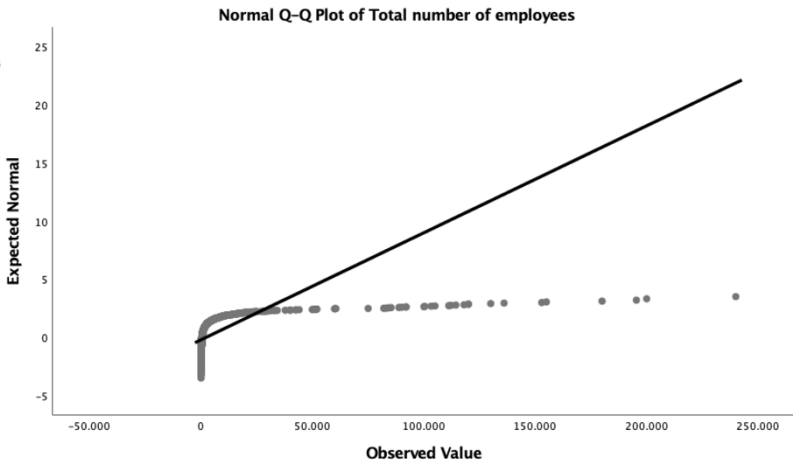
Employee turnover after logarithm transformation and winsorizing

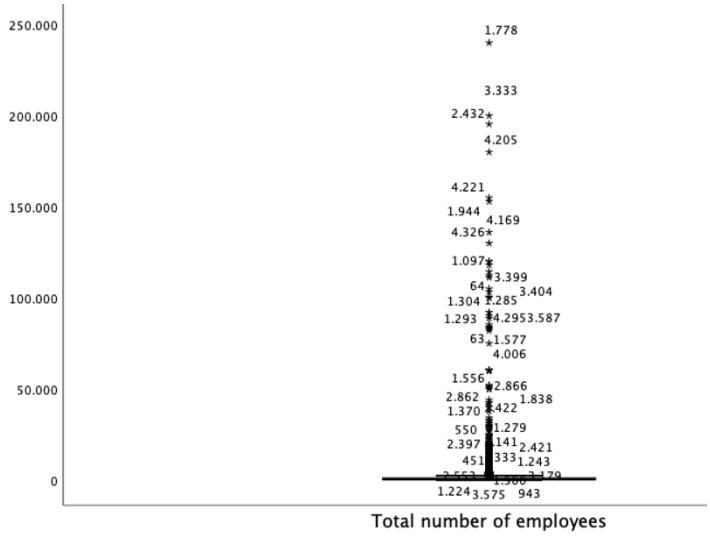




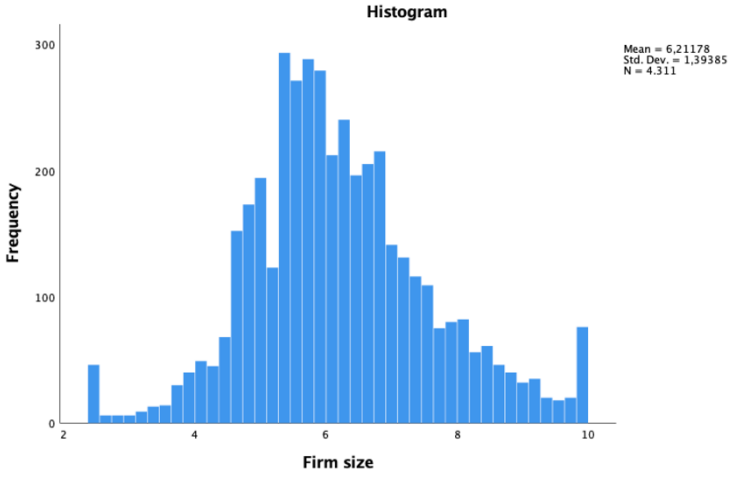
Firm size

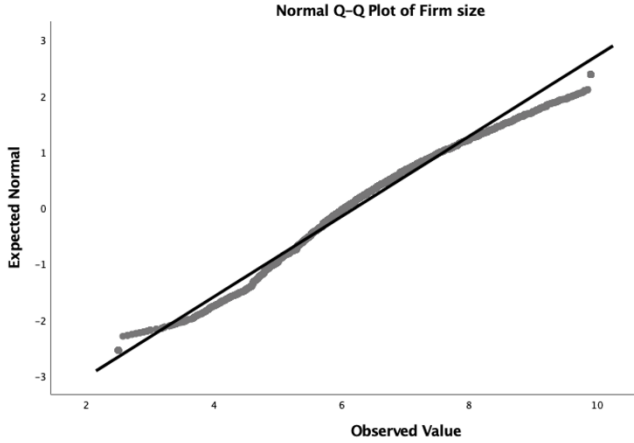


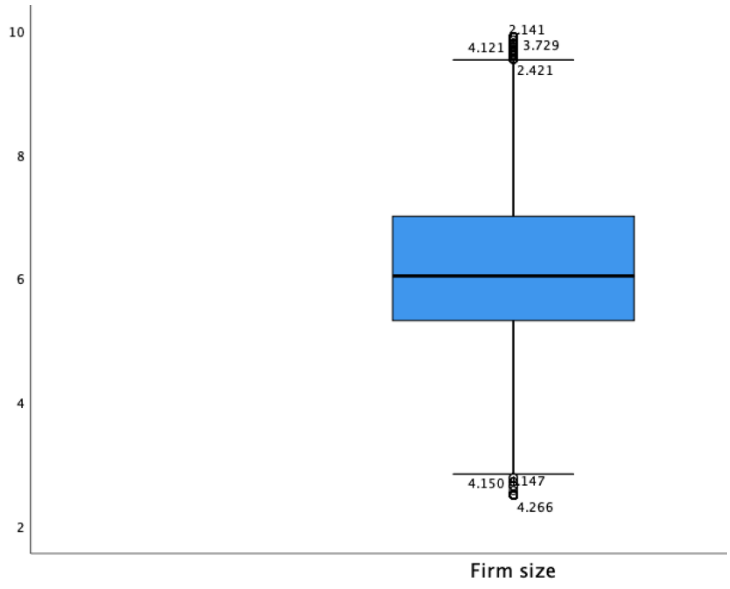




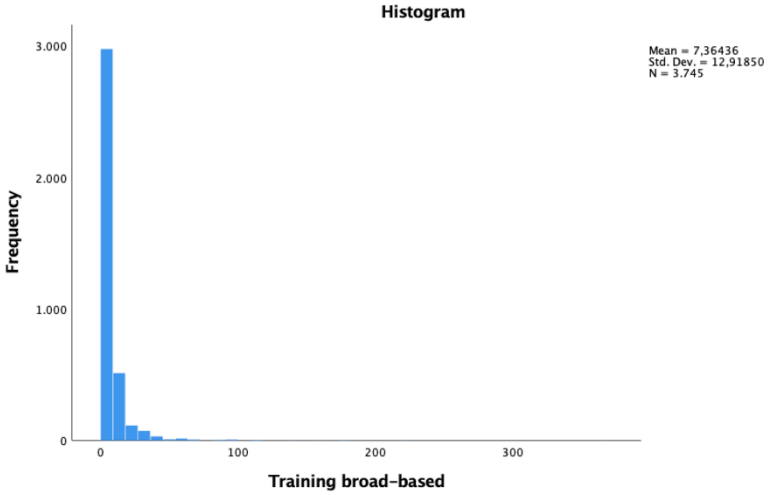
Firm size after logarithm transformation and winsorizing

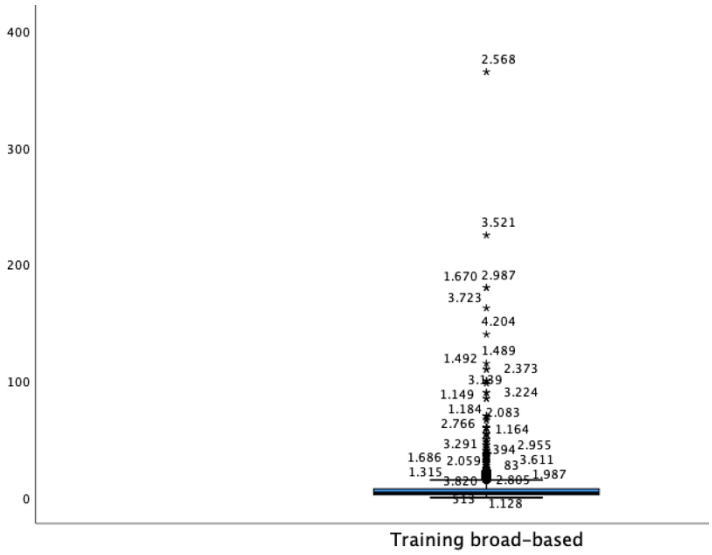




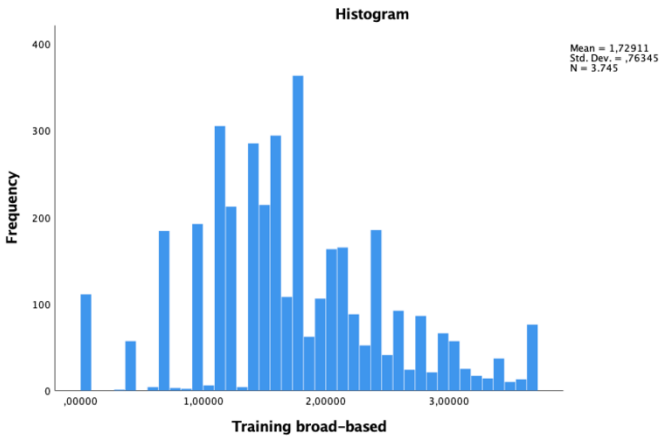


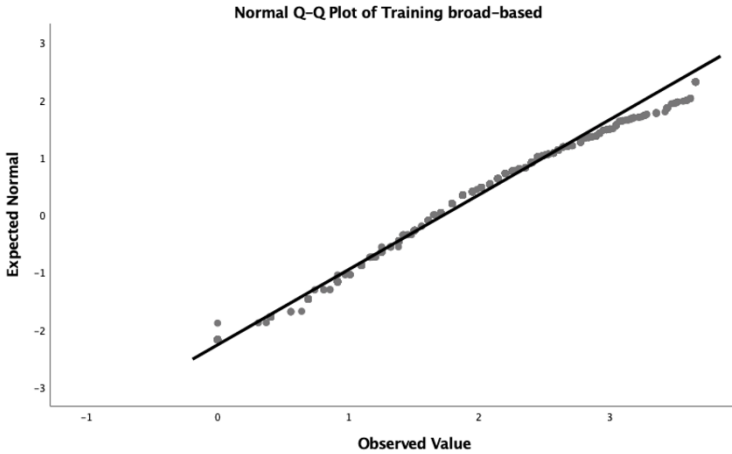
Training broad-based

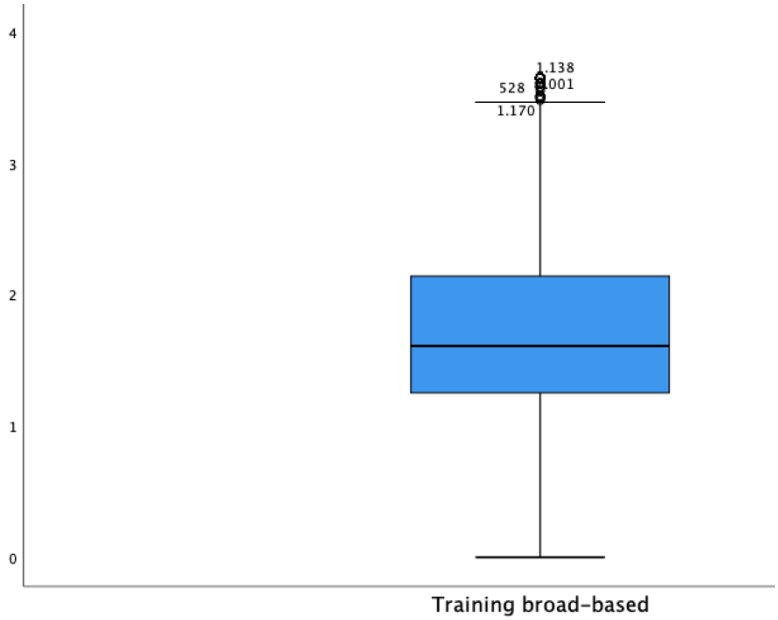




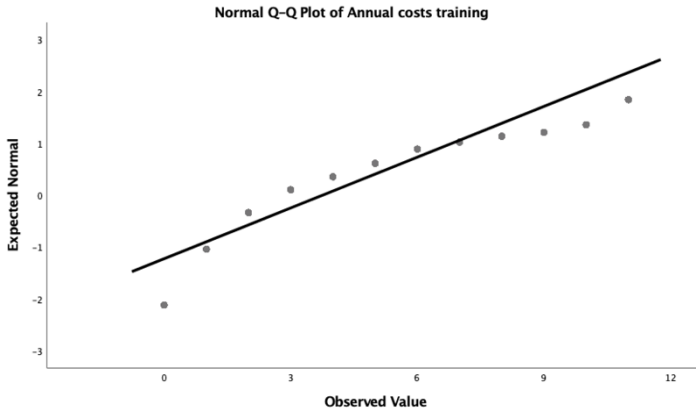
Training broad-based after logarithm transformation and winsorizing

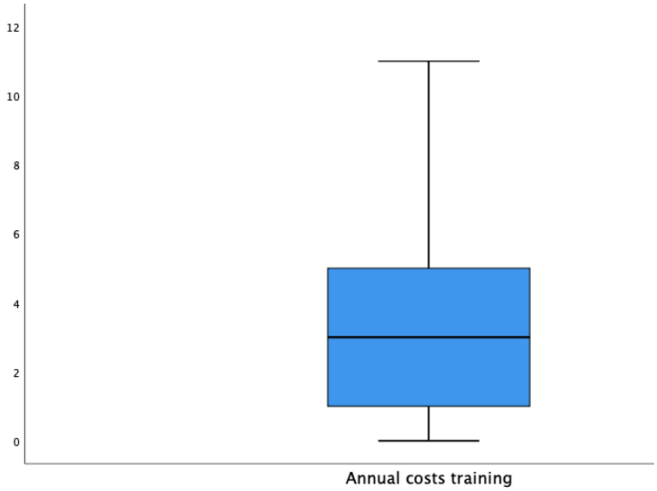




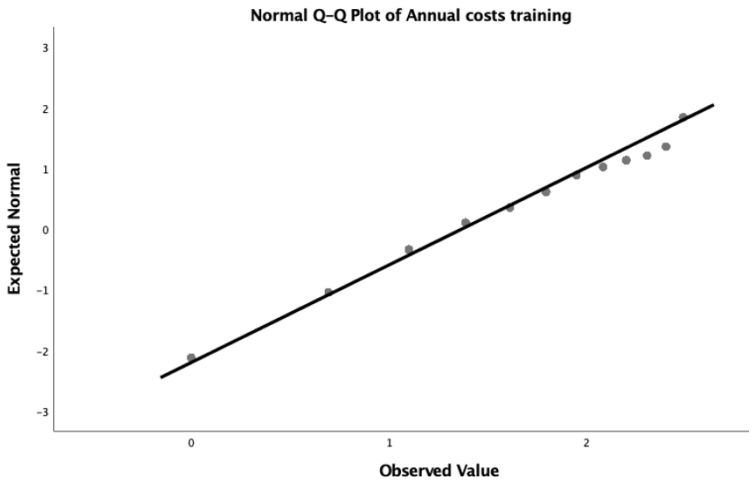


Training annual costs





Training annual costs after logarithm transformation



Appendix 6: Multicollinearity

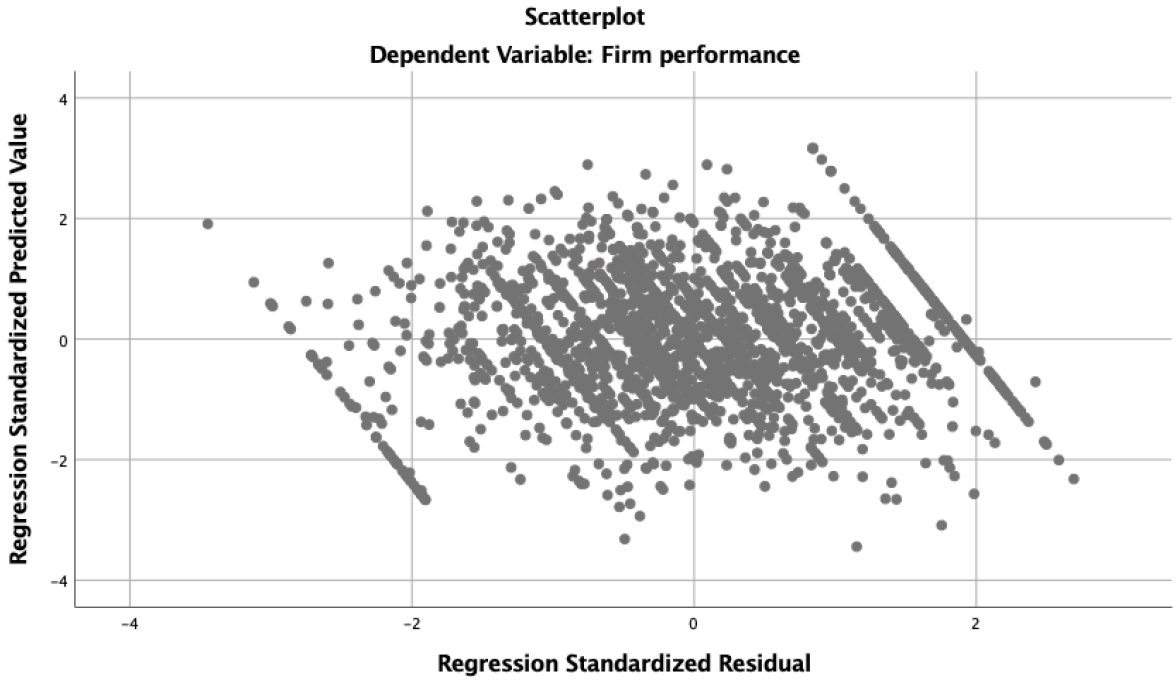
Variables	VIF
ESO narrow-based	1.043
ESO broad-based	1.064
Dummy Agricultural sector	1.065
Dummy Business and Personal services	1.357
Dummy Wholesale and Transportation	1.189
Dummy Financial services	1.165
Dummy Healthcare and Social services	1.153
Firm size	1.162
Education	1.228
Dummy Multinational	1.076
Collective bargaining	1.467
Union influence	1.684
Trade union members	1.149
Training broad-based	1.147
Training annual costs	1.155

a) *Dependent variable: Employee turnover*

Variables	VIF
ESO narrow-based	1.044
ESO broad-based	1.066
Employee turnover	1.105
Dummy Agricultural sector	1.068
Dummy Business and Personal services	1.386
Dummy Wholesale and Transportation	1.209
Dummy Financial services	1.165
Dummy Healthcare and Social services	1.155
Firm size	1.173
Education	1.228
Dummy Multinational	1.079
Collective bargaining	1.482
Union influence	1.685
Dummy Trade union members 1% till 10%	1.508
Training broad-based	1.148
Training annual costs	1.105

a) Dependent variable: Firm performance

Appendix 7: Homoscedasticity



Appendix 8: Reflection on process

I learned a lot from the process of writing my master thesis over the past six months. I have learned to deal with setbacks, especially during my research proposal. I found it very hard to draw up an interesting research proposal. I remained too much on the surface of the literature and this made my model too simple and the literature of my thesis unchallenging. After receiving feedback from my examiners, I found it difficult to start over again. I had to motivate myself again and I had to prepare a new research proposal in a short period of time. But, thanks to the feedback from Prof. dr. Ayse Saka-Helmhout, the many helpful discussions with dr. Erik Poutsma and the support from my parents, I was able to keep myself motivated and engaged. After I received a 'go' for my research proposal, I went further with my analysis. It was quite a challenge to analyze the data from SPSS, however after reading many articles about SPSS, I was able to analyze the data and report the results. In the end, I am very happy with the result and that I met the final deadline.