Employee Ownership and Board Representation in France and their impact on Firm Performance

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ABSTRACT

This paper analyzes the effect of employee ownership and board employee representation on firm performance. A sample of 34 listed French firms over the period from 2014 to 2016 is analyzed. This paper concludes that, in this study employee ownership in France does not have a statistically significant impact on firm performance. The results regarding board employee representation and the effect on firm performance also do not show statistically significance.

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Keywords

Employee ownership; corporate governance; board employee representation; France; firm performance

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1. INTRODUCTION

Employee ownership is developing and growing in all European countries. Whether employees should have control rights through owning shares in the companies for which they work and the influence this has on firm performance has been of academic interest for the past four decades.

Employee ownership is sometimes presented as a way to increase a shared capitalism (Kruse et al., 2010). In case a firm makes profits, generally these profits are first shared between the firm itself (self-financing), then shared with shareholders and for a minor part, shared with employees. With so called ESOPs (Employee Share Ownership Plans) employees have a right to receive a certain part of profits. According to Aubert et al. (2014), there are two main motivations underlying manager's decision to promote employee stock ownership (ESO): first, by using ESO, employees should be incentivized, this should enhance corporate performance. The second main motivation is to keep the manager's position because according to Aubert et al. (2014) there is a tendency for employee owners to vote in favor of the management in the case of a takeover threat. However, empirical results on the effect of employee ownership on firm performance remain mixed. For example, Kim and Patel (2015) analyzed European firms from 2006 to 2014 and found a small but significant effect of employee ownership on firm performance. Kruse and Blasi (1995) concluded that studies on employee ownership and firm productivity or profitability 'indicate better or unchanged performance'. However, according to Lee et al. (2008) employees suffer financially from over-investing in their employers' stocks. France is the only country worldwide where profit sharing is mandatory for companies having more than 50 employees. According to the 2016 European Federation of Employee Share Ownership report (Mathieu, 2016), France has the highest number of employee owners (almost 3 million) compared to the UK (about 2 million) and Germany (about 30.000). The 2016 EFES report (European Federation of Employee Share Ownership) furthermore points out that France currently has the highest proportion of stake held by all employee shareholders. The proportion is 4.01% in France, compared to 1.46% in the UK and 0.42% in Germany. This equals to a capital held by all employee shareholders of 63.1€ billion, whereas the UK and Germany have a capital held by all employee shareholders of 37.3€ billion and 0.2€ billion respectively. According to Ginglinger et al. (2011), in France there are five main forms of employee stock ownership: Firstly, so called direct employee ownership which is characterized by employees buying shares of the company they are working for, at any given time at the given market place. Secondly, there is a form known as indirect stock ownership, known as "Fonds commun de placement d'entreprise" (FCPE) in French, which represents collective ownership of the company's shares by employees. Since this form of employee ownership is a tool to motivate employees to participate in ESOPs (Employee Stock Ownership Plans), it is usually held for a specific period of time and only concerns shares which are reserved for employees. Thirdly, companies can also offer ownership to employees by offering free stocks. Fourthly, companies can give out shares at prices under their market value. Regarding this form, the most popular method is to link the price to the length of time the shares will be held. For instance if shares are held for five years, the discount is up to 20% of the market value. In case they are held for ten years, the discount is up to 30%. Fifthly, the last main form of employee ownership, can be described as a combination of the first four forms described before, called ESO (Employee Share Ownership).

In France, the most common way of implementing employee ownership is through indirect stock ownership, called FCPE (*Fonds commun de placement d'entreprise*). Through employee stock ownership, employees are given additional voice by receiving the opportunity to be part of the board of directors. Thus, this study will analyze the effect of employee ownership and board employee representation on firm performance. Therefore the research question will be:

What is the effect of employee ownership and board employee representation on firm performance?

This research is structured as the following: The next section discusses the relevant literature and empirical evidence related to employee ownership and board employee representation, following the hypothesis that are tested throughout this research. Section three, the methodology section, describes the variables included in this study as well as the research model and statistical tests that are used. Section four explains how the relevant data is gathered. Section five describes the results of this research. Section six discussess limitations of the study and section seven concludes on the aforementioned research question, as well as providing reasons why the hypotheses are accepted or rejected. Furthermore, suggestions for future research are given.

2. LITERATURE REVIEW

2.1 Arguments for and against employee ownership

Academic research on the effect of employee ownership on firm performance has been two-sided. There is evidence for both, "bright" and "dark" sides of employee ownership: a bright side supporting the enhanced corporate performance and a dark side leading to management entrenchment and decreased shareholder value.

2.1.1 Arguments in favor of employee ownership

On the bright side, the literature suggests that employee ownership has a positive effect on employee motivation, because employee owners would have much higher stake in the firm's economic performance than it would be in the case of no employee ownership (Pierce et al., 1991). Frohlich et al (1998) and Buchko (1993) empirically show that employee ownership enhances employee involvement in their job activity because of the incentive of financial stake in the company they work for. Hence, employee owners demonstrated more positive attitudes. Rose et al. (2005) suggest that an employee ownership culture not only improves involvement but also information sharing and training. Kim and Patel (2016) have researched employee ownership and the effect on firm performance through an analysis of European firms and have find a small but significant effect. In their study France has the highest number of observations with employee ownership. Buchko (1993) and Wilson and Peel (1991) find that firms with employee ownership have a lower turnover rate than firms without employee ownership. Furthermore, Wilson and Peel (1991) and Brown and Fakhfakh (1999) show that firms with employee ownership also have a significantly lower rate of absenteeism than firms without employee ownership. The study by Park and Song (1995) testifies to these results. Indeed, these authors observe an improvement in the performance of firms with employee share ownership plans (ESOP) since employee ownership motivates employees and increases commitment. This part of the literature focused on the bright side of employee ownership, viewed as a "stabilizing force" that helps improve performance (Blair et al., 2000).

2.1.2 Arguments against employee ownership

Another body of literature however, suggests that employee ownership may negatively affect firm performance. Research showed that there are two main reasons why employee ownership may negatively affect firms performance. First, according to Jensen and Meckling (1979) through employee ownership, employees are given residual claims (dividends, stock price growth) and fixed claims (wages and salaries). Thereby the employees' goal is to maximize the total value of two claims mentioned before - the fixed, salary based claim and the residual equity based claim. Jensen and Meckling (1979) further describe that as employees' equity claims are usually small compared to their fixed claims, employee owners are likely to use their voice in corporate governance for a selfbenefitting purpose, pushing managers to take decisions which maximize fixed claims (salary) first and after that residual claims. These actions may show a deviation from shareholder value maximization (Faleye et al., 2006). Faleye et al. (2006) found that firms exhibiting high levels of employee ownership deviate more from shareholder maximization. Employees may discourage management to invest in projects with a high level of risk in order to reduce the likelihood of the firm becoming insolvent, which would mean that employees would lose their fixed claims, hence their employment. These arguments found empirical support by Faleye et al. (2006). In conclusion, firms with a high level of employee ownership take fewer risks, invest less in long-term assets, grow more slowly, exhibit lower labor and finally create fewer new jobs. The second argument against employee ownership is that it is regarded as a powerful entrenchment tool because it lowers the probability of a takeover (Shivdasani, 1993; Beatty, 1995). For example, employees may find it difficult to vote against management proposals or to be confident enough and willing to replace top management (Chaplinsky and Niehaus, 1994; Gamble 2000). According to Chaplinksy and Niehaus (1994) employee ownership could be more powerful than poison pills as takeover defense. This argument is in line with Park and Song (1995). They showed that poison pills and golden parachutes are used less when employee stock ownership plans are implemented. Rauh (2006) further confirmed that employee ownership limits takeover probabilities, since employees associate takeovers with layoffs. However, employee ownership provides employees a right to voice, to prevent such layoffs.

2.2 Hypothesis Development

Ginglinger et al. (2011) show that employee ownership is significantly positively associated with firm performance for small values, with employee ownership lower than 3% and negatively related to firm performance for large values higher than 10%. Kim and Ouimet (2014) found similar results. According to them, employee ownership of less than 5% increases firm performance. According to Ginglinger et al. (2011) with higher levels of employee ownership, employees have more power and may seek private beneftis, such as higher wages. These findings suggests that small employee ownership increases firm performance but rising employee stock ownership reduces firm performance. According to Aubert et al. (2014) as soon as employees participate in strategic decision making, firm performance decreases. Taken together, increased employee involvement through employee ownership combined with a lower turnover rate of absenteeism are likley to have a positive effect on firm's productivity, thus on firm performance. Jones and Kato (1993) testify to this argument. In their study they show that productivity increases in firms having introduced employee ownership. Based on the literature and recent findings in France this study formulates the following hypothesis:

H1: Employee ownership positively affects firm performance

Another consequence of employee stock ownership is that through such a scheme, employees are given additional voice by receiving the opportunity to be part of the board of directors. According to the French Law of January 17, 2002, if employee ownership exceeds 3%, an employee director has to be nominated (Ginglinger et al., 2011). From the perspective of the employee benefiting from employee ownership by becoming part of the board of directors, employees can use this position to lobby in favor of policy decisions maximizing their own interest. The combination of employee stock ownership and board employee representation is likely to increase voting power and maneuvering margin of executive directors, which in turn can lead to opportunistic behavior (Gordon and Pound, 1990; Pugh, Jahera and Oswald, 1999). In this case, stakeholders' interests are not aligned and shareholder wealth is likely to suffer (Chang and Mayers 1992). Furthermore, according to Chaplinky and Niehaus (1994) granting employees board representation will most certainly lead to managerial entrenchment by increasing the "friendly" part of internal ownership and as a result, decreasing the efficiency of board of directors as an internal mechanism of control. Thus, building upon managerial entrenchment theory (Morck, 1998; Schleifer and Vishny, 1988) it can be suggested that when employees are represented on the board of directors by a nonexecutive employee, the negative force described before is further enhanced. Based on these arguments, the following hypothesis is formulated:

H2: Employee board representation negativley effects firm performance

3. METHODOLOGY

3.1 Model

Based on existing literature about employee ownership and firm performance (Kim & Patel, 2016; Ginglinger et al., 2011) this panel study expects a linear relationship between both variables. Kim and Patel (2016) have used a variance decomposition in order to analyse the effect of employee ownership on firm performance in several European countries. However, research by Ginglinger et al. (2011) and Guedri and Hollandts (2008) focusing only on one country, France, used regression analysis in order to analyse the effect of employee ownership on firm performance. The general form for such a regression used by Guedri and Hollandts (2008) is presented below:

 $\begin{array}{l} Firm \ performance_{it+1} = \ intercept \ + \ c \ BER_{it} \ + \ d \ ESO_{it}^2 \ + \ e \\ ESO_{it}^2 \ + \ f \ BER_{it} \ \times \ ESO_{it} \ + \ g \ BER_{it} \ \times \ ESO_{it}^2 \ + \ b \\ (control \ variables_i) \ + \ \varepsilon_{it} \end{array}$

In this model one of the independent variable is used in a quadratic form, since in this specific model a curvilinear relationship is analyzed. Guedri and Hollandts (2008) argue that employee ownership only positivley effects firm performance to a certain point. According to them if employee ownership exceeds 1.67%, firm performance decreases. However, this

study will research the linear relationship between employee ownership and firm performance. Following the regression model by Guedri and Hollandts (2008) except for altering the model by not taking a quadratic form of the independet variable, such a linear model can be described including control variables, by the following regression model (model 1):

 $Y_{it} = \alpha + \beta_1 E O_{it} + \beta B E R_{it} + \beta_3 Size_{it} + \beta_4 O C_{it} + \beta_5 Industry_{it} + \varepsilon_{it}$

in which Y is firm performance of company i at time t. In this case Y either represents Tobin's Q or ROA. α is the constant and $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are the parameters for the explanatory variables. EO stands for Employee Ownership; BER stands for Board Employee representation; OC represents ownership concentration; ε_{it} is the error term.

(model 2): only includes Board Employee Representation in the regression as the independent variable:

 $Y_{it} = \alpha + \beta_1 BER_{it} + \beta_2 Size_{it} + \beta_3 OC_{it} + \beta_4 Industry_{it} + \varepsilon_{it}$

model (3): only includes Employee Ownership as the independent variable in the regression:

 $Y_{it} = \alpha + \beta_1 E O_{it} + \beta_2 Size_{it} + \beta_3 O C_{it} + \beta_4 \ Industry_{it} + \varepsilon_{it}$

The effect of employee ownership and board employee representation on firm performance as a linear relationship is then tested. Pearson's correlation coefficients are computed in order to detect correlations between the different variables, afterwards multivariate OLS regressions are conducted. This statistical testing shows whether the coefficients have a statistically significant relationship with firm performance.

Robustness checks relating to multicollinearity, normality and heteroscedasticity have been conducted (Krivogorsky, 2006). Multicollinearity is measured by the "variance inflation factor". As long as the variables inflation factor does not exceed a value of 10, the variables to be investigated can be used in the same model as multicollinearity will not be a problem. (Krivogorsky, 2006). Normality is checked via a graphical representation of histograms. Heteroscedasticity is measured by the histograms of the standardized residuals, as well as through the scatterplot of these residuals. Furthermore, variables have to follow a linear relationship with each other, which is also checked through the assumptions mentioned before and the use of scatterplots.

3.2 Definition of variables

3.2.1 Dependent variable: firm performance

Regarding firm performance, measures widely used in literature (Sun & Tong, 2003; Wei et al., 2005; Cornett et al., 2007; Ferreira & Matos, 2008; Yuan et al., 2008; Elayiasiani & Jia, 2010) are Tobin's Q and return on assets (ROA). Thus this study uses these ratios in order to measure firm performance. Tobin's Q represents market performance and reflects future expectations, whereas ROA represents accounting performance and focuses on current profitability. ROA is measured as operating income over total assets (Ginglinger et al., 2011). Following Ferreira and Matos (2008) and Wei et al. (2005), Tobin's Q is calculated as follows:

 $Q = \frac{book \ value \ of \ total \ assets + market \ value \ of \ equity - book \ value \ of \ equity \\ book \ value \ of \ total \ assets$

3.2.2 Independent variables

3.2.2.1 Employee ownership

Employee ownership is defined as the percentage of company stocks owned by nonexecutive employees, relative to the total amount of company shares. This operationalization of employee ownership is the most widely used in corporate governance literature (Blasi et al., 1996; Gamble, 2000; Ginglinger et al., 2011).

3.2.2.2 Board employee representation

Board employee representation is operationalized using a ratio defined as the number of directors representing employee owners divided by the total number of directors being on a firm's board (Guedri and Hollandts, 2008).

3.2.3 Control variables

In order to examine the link between employee ownership and firm performance, this study adds a set of control variables which were used in previous research regarding this topic such as firm size, ownership concentration and industry (Guedri and Hollandts, 2008).

Firm Size

This study controls for firm size as a determinant of performance, through economies of scale and market power (Beard and Dess, 1981). Firm size as the logarithm of total assets will be inlcuded in the regression analysis. The logarithm is chosen to normalize the distribution of the variable and thus reduce heteroscedasticity.

Ownership concentration

According to Sánchez-Ballesta and García-Meca (2007) large blockholders are likely to be active monitors and thus their monitoring may increase the profitability of the firm. Therefore this study will control for ownership concentration. The measure of ownership concentration captures the percentage of stock held by the largest shareholder (McConnell and Servaes, 1990).

Industry

Extensive research also stressed the need to control for industry effects, since industry types might have different effects (Mauri and Michaels, 1998; Short et al., 2007).

4. DATA

4.1 Sample Selection

This study collected data from French firms that were listed during the period from 2014 until 2016. The choice of the years investigated was based on the intention to obtain recent data and by that making the research more relevant. Based on the ORBIS database and after application of the filters for country and financial data and Paris Stock Exchange, Euronext Paris, this results in a population of 781 firms. The sample is further reduced by excluding firms that do not publish relevant data on employee ownership. This results in a sample of 41 cases. After an exclusion of extreme outliers, the final sample consists of 34 companies.

4.2 Data collection

Data needed for measurement of the variables is extracted from different sources. First, data on employee ownership is obtained

from the la Fédération Française des Associations des Actionnaires Salariés et Anciens Salariés (FAS). This website publishes data on employee ownership on listed French firms in France. Relevant academic articles, focusing especially on employee ownership in the French context have obtained data from la Fédération Française des Associations des Actionnaires Salariés et Anciens Salariés (Aubert et al., 2017; Ginglinger et al., 2011; Guedri & Hollandts, 2008). Secondly, information on firm performance and firm size is extracted from the ORBIS database by Bureau van Dijk. Additionally, company websites and annual reports are used for further information on board employee representation and ownership concentration. Indurstries included in this sample are firms operating in

Table 1

Descriptive Statistics

manufacturing, wholesale trade, construction, information & communication, professional activities and real estate activities.

5.) RESULTS

In order to analyze the effect of employee ownership and board employee representation on firm performance, statistical testing will be carried out. Following a univariate analysis, for each hypothesis a bivariate analysis between the independent variables employee ownership and board employee representation and the dependent variables Tobin's Q and return on assets is executed to outline correlation between both.

Variables	Ν	Mean	Median	Standard Deviation	Minimum	Maximum
ROA	115	0.030	0.028	0.037	-0.172	0.220
Tobin's Q	103	0.692	0.664	0.197	0.323	2.088
Employee Ownership (%)	120	4.180	1.720	5.661	0.380	28.100
Board employee representation (%)	120	15.858	14	5.656	6	33
Firm Size (€,mln)	115	16.879	16.960	5.661	13.885	20.609
Ownership concentration (%)	120	33	0.42	25.30	4.48	6.10

5.1 Descriptive Statistics

An overview of the descriptive statistics is presented in Table 1. This table shows that on average there is an employee ownership of 4.2% in firms in France. This is in line with Ginglinger et al. (2011) who found an average of about 5% of employee ownership in French firms in France. The min and max values indicate that employee ownership varies. Employee ownership can be less than 1% (0.38), however in this sample employee ownership goes up to 28%. Board employee representation lies on average at 15%. Thus on average in this sample 15% of the board seats is taken up by employees. For instance if the board consists of 20 board members, on average 3 members are represented by employees. In this study the first performance measure, Tobin's Q has a mean of 0.69. This means that the cost to replace a firm's assets is greater than the value of its stock. Since the value is less than 1, this implies that the stock is undervalued. The second performance measure (ROA) has a mean of 0.03. Generally, the higher the ROA, the better, since this means that the company is earning more money on less investment. Tobin's Q has positive values, a min of 0.32 and a max of 2.08. However, the other firm performance measure, ROA has a negative value as their minimum (-0.17) and a maximum value of 0.22. This shows that when measuring firm performance by return on assets (ROA) in this study firms perform lower regarding firm performance. On average, in this sample the largest shareholder owns about 27% of shares of the firm, which can be seen in the ownership concentration, which represents the percentage of the largest shareholder. This result

slightly differs from the findings of Guedri & Hollandts (2008) who find a mean of 39.77% regarding largest shareholding in their sample. The average firm size in this sample has a mean of \notin 16 million. The minimum firm size is about \notin 13 million, the maximum is about \notin 20 million.

5.2 Bivariate tests

Table 2 presents Pearson correlations among the variables included in this study. There is a positive relationship between the independent variable employee ownership and firm performance when measuring firm performance by Tobin's Q. This correlation is significant. In general a positive correlation means that a positive change in the independent variable causes a positive change in the dependent variable. In this case, this means that a higher percentage of employee ownership leads to a higher Tobin's Q as the measurement of firm performance. However, there is no statistically significant relationship between employee ownership and firm performance, if firm performance is measured by ROA. Furthermore, there is no statistically significant relationship between board employee representation and firm performance, regarding both firm performance measures (Tobin's Q and ROA). Ownership concentration, one of the control variables also shows no statistical signifance. The control variable firm size which was measured by the logarithm of total assets (to correct for heteroscedasticity) also is not statistically significant in this research.

Table 2	
Correlation	Matrix

	TobinsQ	ROA	Firm Size	Employee Ownership	Board Employee Represenatation	Ownership concentration
TobinsQ	1.000					
ROA	208*	1.000				
Firm Size	.053	.025	1.000			
Employee Ownership	.244*	113	.184	1.000		
Board Employee Representation	.059	002	206	003	1.000	
Ownership Concentration	075	.019	386	068	.052	1.000

This table presents correlations between all relevant variables used in this study. Statistical significance is indicated in the following way: * p < .05, ** p < .01

5.3 Multivariate tests

The results of the regression analysis can be found in Table 3. The table shows six regressions. The dependent variable, firm performance is measured by Tobin's Q and return on assets. The first regression includes employee ownership as the independent variable and Tobin's Q as the dependent variable and control variables. The second regression, again uses employee ownership as the independent variable, but in this regression the dependent variable (firm performance) is measured by ROA. The third and fourth regression both include board employee representation as the independent variable. In these regressions again, Tobin's Q and ROA are used

respectively. In the last two regressions, both independent variables are used simultaneously. However, again, first Tobin's Q is used as the dependent variable. In the final regression ROA is the dependent variable. All regressions result in six models which will be explained in detail in the following paragraph.

In model 1, employee ownership is used as the independent variable in the regression, including the control variables firm size, ownership concentration and industry. In this regression, Tobin's Q is used as the firm performance measure. The estimated coefficient implies that as employee ownership increases by 1, Tobin's Q increases by 0.009. However, the coefficient is not statistically significant. In Model 2, firm performance is measured by ROA. However, also in this regression, when using ROA as a firm performance there is no statistically significant relationship. Hence, H1 needs to be rejected.

Table 3 Regression Results

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6				
	Tobin's Q	ROA	Tobin's Q	ROA	Tobin's Q	ROA				
Employee Ownership	0.009	-0.001			0.008	-0.001				
	(1.35)	(-1.94)			(1.32)	(-1.85)				
Board Employee			0.003	-0.000	0.002	0.000				
Representation			(0.73)	(-0.18)	(0.57)	(0.29)				
Firm size	-0.019	0.000	-0.019	-0.000	-0.018	0.000				
	(-0.62)	(0.06)	(-0.63)	(-0.08)	(-0.58)	(0.07)				
Ownership	0.001	0.000	-0.001	0.000	-0.016	0.000				
concentration	(-0.80)	(0.25)	(-0.94)	(0.41)	(-0.83)	(0.19)				
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes				
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes				
Adj R2	0.142	0.116	0.127	0.094	0.146	0.117				
Ν	103	115	103	115	103	115				
<i>t</i> statistics in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$										

In Model 3, the second hypothesis is tested. Board employee representation is used as the independent variable in the regression. In this regression firm performance is measured by Tobin's Q. Again, there is no statistically significant relation between board employee representation and firm performance.

In Model 4, return on assets is used as a firm performance measure. In this regression board employee representation is used as the independent variable and is negatively related to ROA. This suggestes that when firm performance is measured by return on assets, board employee representation has a negative effect on firm performance. This is in line with the hypothesis, nevertheless also here, the results are not significant, which leads to rejection of the second hypothesis as well.

In Model 5, both independent variables employee ownership and board employee representation are used in the regression simultaneously with Tobin's Q as the firm performance measure. In this regression, both, employee ownership and firm performance are not statistically significant. There is no relation between employee ownership and firm performance. Also no significant relation is found for board employee representation and firm performance.

In Model 6 the regression again includes both independent variables, however in this regression firm performance is measured by return on assets (ROA). These results show that The economic impact is zero and not statistically significant.

To conclude both hypotheses, H1 and H2 cannot be supported because no significant relationship is found.

5.4 Robustness Check of Results

5.4.1 Check for Potential Multicollinearity Issues

The variance inflation factors (VIF) were tested in order to check for potential multicollinearity issues. However, the values representing the variance inflation factor vary between 1 and 2 for all variables throughout the study period 2014 to 2016. (see Appendix). Since the observed values of all variables are below the threshold of 5 they can be used in the model.

5.4.2 The Impact of Industry Dummies

Industry is introduced as an additional control variable to examine the sensitivity of data analysis. The industry wholesale trade has a significant negative (-0.037) coefficient. Given the hypothetical scenario that all other variables would be 0, the return on investment would be negative.

5.4.3 Impact of each year

Regression table 3.1 (see Appendix) presents the impact of the different firm performance meaures (Tobin's Q and ROA) for each year respectively (2014-2016). The table shows that even for each year, there is no significant relation between employee ownership and firm performance. Also regarding board employee representation and the effect on firm performance, no significant relationship is found.

6. DISCUSSION & LIMITATIONS

This study suffers from a very small number of valid cases. Such a low number of valid cases makes it impossible to draw meaningful conclusions. Furthermore due to the fact, that the sample only has 34 valid cases (see Appendix III), only certain industries are included in the analysis. With a sample of 34 valid cases the highest proportion of this sample was the manufacturing industry. This leads to a further limitation, of mostly analyzing firms in the manufacturing industry. Hence, this sample is not representative for generalization.

Furthermore, this paper suffers from sample bias. Firms selfselect into having employee ownership, these charactaristics might also influence financial performance, thus the influence of employee ownership might be overestimated or underestimated, depending on the influence on those characteristics. Also, this sample is restricted to only one country, hence results cannot be generalized.

Empirical results presented in this paper show low adjusted R square values. However, considering other studies on employee ownership and firm performance, several studies have observed similar low values between 0.22 and 0.24 (Ginglinger et al., 2011).

Another critical comment is that this study is limited regarding subjectivity in definitions of variables. Eventhough this paper follows relevant literature in this subject, the operationalization of firm performance can be discussed, since firm performance is measured differently by each literature. This paper used Tobin's Q and return on assets (ROA) as primary firm performance measures. Furthermore, in this paper employee ownership has been measured as the percentage of company stocks owned by nonexecutive employees. This measure does not include the level of diffusion of employee ownership among workers. Hence, ideally, future research should take into account not only the percentage of stocks owned by employees but also the number of employees owning stocks.

Furthermore, additional control variables should be included like in the study by Guedri and Hollandts. For instance, a further control variable should be family control. Since especially in France, family owned and controlled firms are common. An empirical study by Sraer and Thesmar (2007) has found that family-controlled firms exhibit superior performance than non-family controlled firms.

7. CONCLUSION

This paper examined the effect of employee ownership and board employee representation on firm performance over the period from 2014 to 2016. More specifically, this paper analyzed a random sample of 41 (34 valid, see Appendix III) French firms.

The main purpose of this paper was to verify the argumentation of Ginglinger et al. (2011) and Guedri & Hollandts (2008) who both studied the relationship between employee ownership, board employee representation and its effect on firm performance. The results of this paper show that the relationship between employee ownership and firm performance is not statistically significant, there is no relationship, which leads to rejection of the first hypothesis stating that employee ownership positively affects firm performance. The second hypothesis stated that board employee representation has a negative effect on firm performance. According to the results in this study the relationship is not significant.

As for future research it is suggested to replicate this study in other countries. Furthermore, an adequate amount of firms should be used, so that there is no limitation of having one industry which represents most of the sample. Hence, a larger sample size may also produce significant results.

Future research should also analyze for a curvilinear relationship between employee ownership and firm performance like in the paper of Guedri and Hollandts (2008), who calculate the optimal level (inflection point) of employee ownership, in order to have a clear percentage to which extent employee ownership has a positive effect on firm performance. Since according to Guedri and Hollandts, if employee ownership gets higher than 1.67%, firm performance decreases.

Another aspect to consider for future research is to include other samples including private companies. Also analyzing if employee ownership is stronger in public than in private firms can be of interest. Although in this case it has to be considered that information on employee ownership on private firms may not be available for the public.

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10. APPENDIX

Appendix I: Variance Inflation Factor

		VIF	
	2014	2015	2016
(Constant)			
Employee Ownership	2.24	2.0	0.44
Board Employee Representation	1.35	1.4	0.70
Firm Size	1.98	1.8	1.78
Ownership Concentration	1.47	1.3	1.55

Tobin's Q	Cobin's Q			2014				2015 20				2016	
		В	SE_B	t	р	В	SE_B	t	р	В	SE_B	t	р
	(Constant)	0.52	0.62	0.85	.40	0.99	0.57	1.72	.10	0.85	0.69	1.23	.23
	Employee Ownership	-0.01	0.04	-0.33	.75	0.02	0.03	0.59	.56	0.03	0.04	0.77	.45
	Board Employee Representation	0.70	0.71	0.98	.34	0.32	0.68	0.47	.64	0.59	0.78	0.75	.46
	Ownership Concentration	0.00	0.00	0.08	.94	0.00	0.00	0.34	.73	0.00	0.00	-0.34	.74
	Firm size	0.00	0.03	0.05	.96	0.02	0.03	-0.76	.45	0.02	0.04	-0.51	.61
	Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		R ²	adj R²	F	dfs	R ²	adj R²	F	dfs	R ²	adj R ²	F	dfs
		0.16	-0.15	0.52	9 / 24	0.21	-0.1	0.67	9 / 23	0.25	-0.05	0.83	9 / 22
ROA		2014				2015				2016			
		В	SE_B	t	р	В	SE_B	t	р	В	SE_B	t	р
	(Constant)	0.06	0.14	0.44	0.66	-0.10	0.24	-0.40	0.69	-0.02	0.08	-0.21	0.84
	Employee Ownership	-0.01	0.01	-1.52	0.14	-0.01	0.01	-1.03	0.32	0.00	0.00	-0.33	0.75
	Board Employee Representation	-0.01	0.16	-0.05	0.96	-0.10	0.29	-0.33	0.74	0.03	0.10	0.36	0.72
	Ownership concentration	0.00	0.00	-0.35	0.73	0.00	0.00	0.21	0.84	0.00	0.00	1.08	0.29
	Firm size	0.00	0.01	-0.04	0.97	0.01	0.01	0.77	0.45	0.00	0.00	0.69	0.50
	Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		R ²	adj R²	F	dfs	R ²	adj R²	F	dfs	R ²	adj R ²	F	dfs
		0.47	0.22	0.76	9 / 24	0.48	0.23	0.75	9 / 23	0.53	0.28	0.97	9 / 22

Appendix II: Regression results for each year

	Year	Ν	Minimum	Maximum	Mean	SD
Tobin's Q	2014	34	0.40	0.95	0.68	0.14
	2015	33	0.32	0.90	0.68	0.13
	2016	32	0.34	1.11	0.68	0.16
ROA	2014	34	-0.03	0.15	0.03	0.03
	2015	33	-0.17	0.22	0.03	0.06
	2016	32	0.01	0.09	0.04	0.02
Employee Ownership	2014	34	0.38	28.10	4.49	6.34
	2015	33	0.42	25.30	4.48	6.10
	2016	32	0.40	27.30	4.62	6.06
Board Employee Representation	2014	34	0.06	0.24	0.15	0.04
T in in i	2015	33	0.06	0.24	0.15	0.04
	2016	32	0.06	0.24	0.15	0.04
Firm size (€,mln)	2014	34	1752374.00	189274266.18	30211006.01	35804670.24
	2015	33	2020829.00	206194533.33	31240792.62	39205398.96
	2016	32	2293717.00	219123514.34	34552599.35	41968142.74
Ownership Concentration	2014	34	0.23	60.57	26.14	14.43
	2015	33	0.26	60.60	26.01	15.06
	2016	32	0.26	60.68	25.65	15.47

Appendix III: Descriptive statistics for each year; valid cases