Determinants of firm financial performance in Indonesia and the Netherlands: A comparison

Viktoria Nikolaus
University of Twente
P.O. Box 217, 7500AE Enschede
The Netherlands

ABSTRACT

This study examines determinants of firm performance of Indonesian and Dutch firms over the period of 2009-2013. Firm performance is measured by Tobin's Q and its relationship with leverage, ownership concentration and inflation is tested. Additionally the effect of the control variables growth and size is analysed. The aim of this study is to provide an understanding of how a firm's financial performance is affected by these determinants in those two countries. The sample consisted of 276 Indonesian and 62 Dutch firms of non-financial sectors. Results show that leverage is a strong predictor of Tobin's Q in both countries. Ownership concentration lead to differing results; in Indonesia, a higher concentration seems to improve performance. The Dutch results however suggest a negative relationship between concentration and financial performance when compared to firms with a dispersed ownership. Inflation, which is high in Indonesia, has a negative influence. The more moderate inflation rate of the Netherlands leads to a positive, although not significant, effect. Growth has shown to be another important indicator with a positive effect on performance. For size, the effect on performance has shown a significant negative influence only in the Netherlands.

Supervisors
Henry van Beusichem, Xiaohong Huang, Rezaul Kabir, Samy A.G. Essa, Peter-Jan Engelen, George Iatridis

Keywords Financial Performance, Indonesia, the Netherlands, Leverage, Ownership Concentration, Inflation

5th IBA Bachelor Thesis Conference, July 2nd, 2015, Enschede, The Netherlands.

1. INTRODUCTION

A firm's financial performance and which factors have an effect on it is a recurring topic in academic literature. Many aspects of a firm have been linked to financial performance in order to determine the extent of influence these have on it. It is used to develop an understanding of what factors can determine the financial performance of a firm and to what extent. However, not one common collection of determinants has yet been established.

There are on the one hand articles that focus on the effect of corporate governance aspects on performance such as: Hu's and Izumida's (2008) causal analysis of ownership concentration and corporate performance.

Other articles focus on capital structure and, more precisely, on leverage and its relationship with performance. An example of such a study is one by Vithessonthi and Tongurai (2015), who compare the effect of leverage on performance in domestically-oriented and internationally-oriented firms.

A paper by Mirza and Javed (2013) provides an analysis of determinants of financial performance, taking firms listed at the Pakistani stock markets into account. They include economic indicators, corporate governance, ownership structure, capital structure and risk management. These aspects make their paper broader in terms of determinants than most others. Mirza and Javed (2013) also state that existing literature is mostly concentrating on developed countries.

In order to add to the few papers that combine determinants of different natures and also take less developed countries into account this study aims to provide evidence on possible differences between countries concerning the effects of determinants on a firm's financial performance. This will be done by comparing Indonesia and the Netherlands.

Therefore this paper seeks to answer the question: *"How do determinants of financial performance of firms in Indonesia and the Netherlands differ?"*

The relationship of leverage, ownership concentration and the country's inflation with performance in both countries will be determined. These determinants were chosen, because capital structure, which is linked to leverage and corporate governance, of which one part is ownership or ownership concentration, can frequently be found in literature. In addition, there are differences between Indonesia and the Netherlands that are especially significant. Inflation was added as an economic determinant since these two countries have relatively different economic conditions, which can potentially affect the performance of a firm.

The financial performance in Indonesia and the Netherlands will be measured by Tobin's Q. 276 Indonesian and 62 Dutch listed firms, excluding banks and insurance companies, will be analysed over a five year period, namely 2009 to 2013. Indonesia is an interesting country for a comparison since it became Southeast Asia's largest economy with a GDP of $881 billion at purchasing power parity ("East Asia & Pacific (developing only) | Data, "n.d.). In spite of Indonesia's growing importance, the focus of academic literature has not been on Indonesia. Furthermore, Indonesia and the Netherlands still have close relationships concerning the aspects of development, investments and bilateral trade ("Relations the Netherlands – Indonesia | International relations | Government.nl," n.d.). These were formed after the colonisation of Indonesia by the Dutch that lasted almost four centuries. Despite the relations, Indonesia can be seen as having "different economic, legal and cultural environments" (Darmadi, 2011, p.3) than more developed countries.

The comparison showed that the differences between both countries do have an effect on the determinants of performance. Especially those where greater differences between Indonesia and the Netherlands could be found such as: ownership concentration and inflation. Leverage lead to similar results for both countries. Growth, one of the control variables, showed significant negative relationships for both countries, as well. Size on the other hand had, which is the second control variable, did not lead to significant results.

The contribution of this study is to gain an understanding of how determinants differ when the country conditions are not the same. In addition the effect of determinants from different natures is presented. This study also shows if one variable has a higher impact on performance than others. Making it clearer which aspects play a more important role when the focus lies on a firm's financial performance.

The remainder of this paper is structured as follows: The next section provides explanations about the determinants of a firm's financial performance. In this case these are: leverage, ownership concentration and inflation. Next, hypotheses will be developed. Section 3 describes the methodology and data. In section 4 the results of the analysis will be described. Section 5 provides a discussion about the results to determine the similarities and differences between the countries and the implications these have for the hypotheses confirmation and rejection. The paper finishes with a conclusion in the last and 6th section.

2. LITERATURE REVIEW

Many articles concentrate on one aspect and its relationship with financial performance. Indonesia and the Netherlands differ, as already mentioned, in terms of economic, legal and cultural environments, which is also caused by different levels of development. This might lead to differences in the effect of determinants on firm performance and their relationships.

2.1 Leverage

The capital structure decision of a firm has been a topic of multiple theories and many articles. Leverage plays an important role in these discussions.

The existing literature on the effect of leverage on a firm's financial performance has come to mixed results and conclusions. In a study about the relationship between capital, structure, equity ownership and firm performance, Margaritis and Psillaki (2010) find that leverage is positively related to firm performance. Vithessonthi's and Tongurai's (2015) recent research leads to the conclusion that leverage has a negative relationship with firm performance, but they also found moderating effects on their result. However most of these studies only took a single country into account, which could be one of the reasons, why the results are not consistent. Another potential reason for the misalignment of results is the aspect that different performance measures were used (Weill, 2008) across the range of articles that address this topic. On a similar basis: the non-existent congruence of the effect of leverage on performance and the fact that many papers concentrate on one country, Weill (2008) conducted a research analysing the effect of the institutional environment of a country on the relationship between leverage and firm performance. He discovered that the efficiency of the country's legal system affects this relationship. Consequently his conclusion is that in countries with an efficient legal system, the negative effect of leverage on performance is lessened. The high level of corruption in Indonesia ("Transparency International - Country Profiles," n.d.) leads to the assumption that the legal system has a low efficiency. Corruption might lead to officials who are more willing to take bribes and thus treat some parties preferential to others. In the

Netherlands however, there are little problems with corruption and the overall efficiency of the legal system is high ("Transparency International - Country Profiles," n.d.). Measuring firm performance with Tobin's Q leads to a negative relationship with leverage in a study concerning Kenya's listed firms (Mule & Mukras, 2015). Tobin's Q will also be used as a performance measure in this paper. And as already mentioned since Weill (2008) suggested that different results could arise because of different measurements, the relationship is assumed to be negative. This is in alignment with the results of Mule and Mukras (2015). Based on this, a hypothesis about the relationship between leverage and performance in Indonesia and the Netherlands can be developed:

H1: The negative effect of leverage on performance is higher in Indonesia than in the Netherlands.

2.2 Ownership concentration

Corporate governance and the relationship between ownership and a firm's performance has already been a well-researched topic in academic literature. Similar to leverage, results concerning the relationship between ownership and performance have been mixed. That a concentrated ownership has a positive effect on firm performance has been proven by Jensen and Meckling (1976) since it diminishes the agency problem. This problem arises, when ownership and control are separated and their interests might be misaligned, therefore increasing the need of controlling measures. It is assumed that with less owners, and thus a higher concentration of owners, the incentive to monitor is higher, which leads to the decrease of agency problems (Hu and Izumida, 2008). There is second type of agency problem that arises between owners or majority shareholders and minority shareholders. If this is the case and not as previously assumed owners and managers, the problem increases if the ownership becomes more concentrated (Alimhemeti, Paletta, 2011). Simultaneously Demsetz and Lehn (1985) who are said to have started the discussion about the effect of ownership could not find a relationship between ownership concentration and the corporate performance.

Indonesia has a high ownership concentration and most firms are family owned, often by a single family. Ownership and management are rarely separated, if they are separated, ownership and control still tend not to be. This is achieved by a so called "Cronyman", which means that the controlling shareholder is also Chief Executive Officer and Board Chairman (Claessens, Diancov & Lang, 2000). This would on one hand suggest that there is a positive relationship, because of the decreased risk of interest misalignment between owners and managers. However, the agency problem between majority and minority shareholders is still existent. It is also the predominant agency problem in Indonesia according to Rusmin, Evans and Hossain (2012). Whilst studying the effect of ownership structure and political connections on performance of Indonesian firms, Rusmin et al. (2012) came to the conclusion that firms with large shareholders, also called blockholders, outperform those with smaller shareholders. In addition to that, many firms in East Asia are controlled by so called business groups that have close ties to the government. Through that firms are able to enjoy preferential treatment (Claessens et al., 2000). This leads to the assumption that, in the case of Indonesian firms, a high ownership concentration leads to a better performance than if firms have a more dispersed ownership.

According to Ees, Postma and Sterken (2003), the Dutch corporate governance system combines the Anglo-Saxon system which is market based and Continental-Europe bank based one. Furthermore the ownership concentration is to some extent higher than in the United States, which is considered to be low indicating that ownership is dispersed. But still the control of the management by large shareholder is not common (Ees, Postma & Sterken, 2003). Krivogorsky and Grudnitski (2010) found that blockownership, meaning a high concentration, has a positive relationship with performance in Continental Europe. The Netherlands were also a part of this study. These aspects lead to the conclusion that the concentration of ownership is higher in Indonesia, where also, as already mentioned, a separation between ownership and control is rare. This is not the case in the Netherlands. Expecting the direction of the relationship, negative or positive, seems to be difficult since previous research came to conflicting results. However looking at country specific literature it is possible to assume that the effect might be positive. Further due to concentration of ownership and the separation of ownership and control or management that tends to be similar in both countries a hypothesis can be formulated.

H 2: The relationship between ownership concentration and performance is positive in Indonesia and more significant than in the Netherlands.

2.3 Inflation

The economic conditions of a country most likely affects firms, and therefore performance will probably change depending on the country's condition, as well. One indicator for economic conditions is the inflation of a country. Mirza and Javed (2013) found that a higher inflation rate has a negative effect on firm performance. This is in congruence with findings of Forbes (2002), who measured how firm performance is affected by large depreciations. Since the inflation rate of Indonesia and the Netherlands differs greatly and it is much higher in Indonesia ("Inflation, GDP deflator (annual %) | Data | Table," n.d.) it can be hypothesised that the direction of the relationship, positive or negative, will differ in both countries. The effect of this determinant in Indonesia will be negative. At the same time the inflation rate for the Netherlands is much more moderate and rather low. Previous literature found that a high rate has a negative impact on performance. As a consequence it will be assumed that the Dutch rates will lead to a positive relationship.

H 3: Inflation has a negative relationship with firm performance in Indonesia and a positive one in the Netherlands.

3. METHODOLOGY AND DATA

In section 3.1 the model and method that will be used are described. Section 3.2 provides further information about the variables of interest. Afterwards, the chosen data sample will be described in section 3.3 and descriptive statistics explained in section 3.4.

3.1 Model and method

In order to determine the kind of relationship, positive or negative, and also the strength of this relationship a linear regression model will be used. Linear regression models measure the relationship between independent and dependent variables. The correlation can have a value between -1 and +1, where 0 would mean no relation at all. The equation will be applied to the data set of Indonesia and the Netherlands separately. This enables a subsequent comparison of the results and investigation of relationships. The financial performance of a firm will be defined by the following equation for the purpose of this paper:

$$\text{Financial Performance} = \alpha - \beta_1 \text{Leverage}_{t-1} + \beta_2 \text{Ownership}_t +/- \beta_3 \text{Inflation}_t + \beta_4 \text{Size}_{t-1} + \beta_6 \text{Growth}_{t-1} + \varepsilon$$

The variables leverage, size and growth were measured on a lagged basis with t-1 in order to address the issue of endogeneity.

In addition to that a second model without the control variables will be tested to be able to determine, if the inclusion of the variables size and growth has an effect on the results of

relationship between the three independent variables and the dependent variable. Again leverage will be measured in a lagged way. The model looks as follows:

Financial Performance = α - β_1 Leverage$_{t-1}$ + β_2 Ownership$_t$ +/- β_3 Inflation$_t$ + ε

The effect of inflation is as the literature suggests expected to be negative for the Indonesian sample but positive for the Dutch sample in both models.

3.2 Variables

These equations show that firm performance is the dependent variable. Leverage, ownership, and inflation are independent variables. Size as well as growth are used as control variables.

3.2.1 Dependent Variable

The dependent variable is the financial performance of the firm, which will be measured by Tobin's Q. Tobin's Q is measured by the market value of the firm divided by replacement value of its assets (Chung & Pruitt, 1994). In this paper Tobin's Q will be measured by dividing market capitalisation by the book value of total assets of the firm. It is a market based measure. A Q between 0 and 1 is considered as low and means that the value of the firm is lower that their assets and would implicate that the firm might be undervalued. A value above 1 indicates a higher firm value and consequently a better performance.

3.2.2 Independent Variables

Independent variables are as already mentioned: leverage, ownership concentration and inflation.

In order to assess *Leverage*, the ratio of total liabilities divided by total assets of the firm will be used (Vithessonthi & Tongurai, 2015). Generally speaking, a leverage ratio with a value of 2 would be considered as risky for investors meanwhile the optimal value is considered to be 1, however it depends on the type of industry a firm belongs to.

The aspect of *Ownership Concentration* will be measured with the help of the independence indicator provided by the database ORBIS. The indicator divides the firms into 5 groups, A, B, C, D and U. With an 'A' described firms are those who do not have one or more known shareholders holding more than 25%. Firms in category B do not have shareholders who own more than 50%, but one or more with more than 25%. If a shareholder has over 50% of total ownership, including direct and indirect ownership, of a firm, this firm is labelled C. Total ownership means that one party has a total stake at another firm, it is however not specified by what kind of relationship. It is also possible that firm A owns a percentage of company B who in turn owns a part of firm C. Thus A is an indirect owner of C. A firm in category D has one shareholder who has more than 50% of direct ownership, this means that for example firm A owns a percentage of firm B and thus is a direct owner. U stands for those firms where the independence or ownership of shareholders is unknown (Bureau van Dijk, 2015). The firms in this category were excluded from the sample because they cannot be placed in one of the other categories and the degree of independence is unknown. Ownership will be analysed with the help of dummy variables, for the four categories excluding U. The first dummy variable are the firms with shareholders who own less than 25% and will be used as a reference variable. Thus this variable will not be included in the analysis for the purpose of having a comparison to the other ownership variables. This one was chosen, because these firms are considered to be independent and as not having a high ownership concentration. As already mentioned firms with one or more owners with less than 25% of ownership are placed the first category, A. It does not exclude that for example three firms have 24.99% which would indicate a somewhat concentrated ownership. Nevertheless, in this paper these firms will be treated as independent in accordance with the independence categorisation of the Bureau van Dijk. The other variables will comprise firms which have an owner who possesses 25% to 50%, 50% of total ownership and 50% of direct ownership, coherent with the Bureau van Dijk categories B, C and D respectively. Due to the fact that this data is provided per company and not on a yearly basis the firms will have the same value for all five years.

According to the definition of the World Bank *Inflation* is measured by the annual growth rate of the ratio of GDP in current local currency and GDP to GDP in constant local currency and shows the rate of price change in the economy as a whole ("Inflation, GDP deflator (annual %) | Data | Table," n.d.). The calculated value is available and provided by the World Bank's online database. Since inflation is country and not firm specific and it will affect every firm in a similar way the rate does not differ between firms only between the years and both countries. The European Central Bank defines that an inflation rate should lie close to 2% but remain below it ("ECB: Definition of price stability," n.d.).

3.2.3 Control Variables

The control variables: growth and size were chosen, because they are often included in previous studies. Existing literature suggests that these play a role when the relationships of variables with a firm's financial performance are tested. Using the firm size and growth as independent variables in the setting of comparing two countries would not make much sense. One reason is that no differences due to the country environment and condition, for example legal or economic aspects can be found in firm growth and sizes. However, they might still affect the performance and hence will be used as control variables.

Growth or the growth rate of a firm is measured by subtracting sales of the previous year from sales of the current year and dividing this by the sales of the previous year.

The *size* of the company will be measured as the natural logarithm (ln) of assets, which is also how Vithessonthi and Tongurai (2015) measured this variable.

3.3 Data sample

The data for the individual calculation and analysis of the variables: Tobin's Q, leverage, ownership concentration, size and growth will be obtained via the ORBIS database, which is provided by the Bureau von Dijk. The data for inflation can be found in the online database of the World Bank. The two samples contain non-financial listed companies in the period of 2009-2013. The sample size for Indonesia is 276 and for the Netherlands 62 firms after excluding 234 Indonesian and 285 Dutch firms where not all relevant data was available. The observations of 62 Dutch firms over the 5 year period added up to 287 after checking for and excluding extreme outliers. The extreme outliers are classified as those that are more than three standard deviations from the mean. For Indonesia the number of observations after the same exclusion is 1284.

3.4 Descriptive statistics

In this section the descriptive statistics of Tobin's Q, as well as, leverage, inflation, the three ownership dummy variables and also the control variables growth and size will be presented. As already mentioned the ownership concentration is divided into three dummy variables. The first ownership variable comprises firms with owners who own between 25% and 50%. The second the ones with owners who possess more than 50% of the shares in total ownership. And the third firms with owners who have more than 50% of direct ownership. The descriptive statistics, to

be precise Mean, Median, Minimum, Maximum, Standard Deviation and number of observations (N), will be discussed for both samples separately.

The descriptive statistics for Indonesia are presented in table 1. The N is 1284 for all variables, since firms with missing data have been excluded from the sample, as well as extreme outliers. The mean for Tobin's Q is 1.13 and the data ranges from 0.02 to 20.20, a Q higher than 1 means that the market value and growth potential is high, which indicates a good performance. Additionally, the standard deviation of the Tobin's Q variable is 1.77. The median, 0.55, is not very close to the mean which indicates a skewness. However, Tobin's Q cannot be negative and thus it was to be expected that the variable is skewed.

Leverage has a mean of 0.51 and median of 0.52; those values are similar meaning that the variable is not skewed. The standard deviation has a value of 0.24, the range of this variable is between 0.01 and 1.80. The mean and median are definitely lower than the critical value of 2, but also not very close to the optimal value of 1. Since there was no distinction made concerning industries, the exact optimal value cannot be determined. However, the result leads to the assumption that most Indonesian firms of the sample do not present a risky scenario to investors.

The mean, median and standard deviation for Inflation are 6.7, 8.1 and 1.88 respectively. An inflation rate of 2% is said to be a good value, the Indonesian inflation for the years 2009-2013 is quite high, indicating that the Indonesian Rupiah might be depreciated and the income level probably low.

All ownership variables could only take on the value 0 or 1, thus this is also the range of values. The variable for firms with owners that have between 25% and 50% has a mean of 0.33 and a median of 0. The variable of total ownership has a mean and median of 0.02 and 0.00 respectively. The average value for firms with a direct ownership of more than 50% is 0.50, indicating that there are in general more firms with a high ownership concentration than dispersed ones. When taking all three ownership variables into account. The median takes on the value of 1.

The control variable growth ranges from -1 to 1.5, the mean of 0.13 is quite close to the median of 0.11. Both indicating that most firms have a growth not higher than 1, apart from the extreme outliers that were excluded from the sample. Size has a mean of 11.75 which is very close to the median of 11.80 these values are approximately in the middle of the range. This suggests a low skewness, which is also supported by the values of mean and median. The standard deviation lies by 1.76, showing one of the highest variations.

Table 2 presents the descriptive statistics of the Dutch sample. This dataset consists of 287 observations from 62 firms over a 5 year period.

The dependent variable Tobin's Q has a mean of 0.85, which is below 1 showing that on average the sample of Dutch firms does not perform very well. Because the firms are on average not as much worth as it costs to replace the assets. Similar to the Indonesian sample, a skewness can be derived from the mean and median values, 0.85 and 0.56. However, the difference is not as high as in the other sample.

Leverage has a mean and a median of 0.57 and a standard deviation of 0.17 while ranging between 0.11 and 0.96. The mean of 0.57 is a good sign, since a leverage ratio is lower than one means that the firms do not rely heavily on debt financing. However, similar to the Indonesian sample, the median is also not very close to the value of 1.

Table 1. Descriptive statistics: Indonesian sample

Variables	Mean	Median	Std. Dev	Min	Max	N
Tobin's Q	1.13	0.55	1.77	0.02	20.20	1284
Leverage	0.51	0.52	0.24	0.01	1.80	1284
Inflation (%)	6.71	8.10	1.88	4.40	8.30	1284
Between 25% and 50 %	0.33	0.00	0.47	0.00	1.00	1284
More than 50% total	0.02	0.00	0.15	0.00	1.00	1284
More than 50% direct	0.50	1.00	0.50	0.00	1.00	1284
Growth	0.13	0.11	0.33	-1.00	1.50	1284
Size	11.75	11.80	1.76	6.57	16.26	1284

Table 1 presents a summary of the descriptive statistics for the Indonesian sample over the period of 2009-2013, the sample consists of 276 firms and 1284 observations. The independent variable: Tobin's Q is market capitalisation divided by the book value of total assets of the firm. The dependent variable, leverage, is total liabilities divided by total assets. Inflation is the annual growth rate of the ratio of GDP in current local currency and GDP to GDP in constant local currency. The three ownership variables are dummies. The first consists of firms who have one or more shareholders owning between 25% and 50%. The second one are firms where one owner has more than 50% of total ownership. The third ownership variable consists of firms with owners who hold more than 50% of shares in direct ownership. The control variable growth is measured by subtracting sales of the previous year from sales of the current year and dividing this by the sales of the previous year. The second control variable size is the natural logarithm of assets**.** The variables: leverage, growth and size are lagged on a T-1 basis.

Inflation is quite low with an average of 0.85 a median of 1.10 and a range between 0.1 and 1.3, this indicates that compared to Indonesia the economic condition of the Netherlands appears to be better.

Concerning the ownership variables the mean of 0.22 for firms with owners that have between 25% and 50% is higher than for both other ownership variables, the median of 0.00 is the same for all three. The standard deviations do not differ greatly, however it is the highest for the first ownership variable.

Growth ranges between -0.48 and 0.65, showing that there are firms in the sample with negative as well as positive growth rates. Mean, 0.05 and median, 0.03 do not suggest a skewness and indicate that there are more firms in the sample with a positive growth. Size ranges between 9.27 and 18.62 and is on average 13.60 when the mean value is taken into account. Nonetheless the median value of 13.65 is very similar. Size also has the highest standard deviation, 2.18 of the sample, thus the variation of values is the highest for this variable in the Dutch sample.

Table 2. Descriptive statistics: Dutch sample

Variables	Mean	Median	Std. Dev	Min	Max	N
Tobin's Q	0.85	0.56	1.19	0.00	11.96	287
Leverage	0.57	0.57	0.17	0.11	0.96	287
Inflation (%)	0.85	1.10	0.46	0.10	1.30	287
Between 25% and 50 %	0.22	0.00	0.41	0	1	287
More than 50% total	0.07	0.00	0.26	0	1	287
More than 50% direct	0.16	0.00	0.37	0	1	287
Growth	0.05	0.03	0.21	-0.48	0.65	287
Size	13.60	13.65	2.18	9.27	18.62	287

Table 2 presents the Descriptive Statistics of the Dutch sample consisting of 287 observations of 62 firms over the period of 2009-2013**.** The variables are measured in the same way as described in Table 1.

4. RESULTS

In this section the results of the Indonesian sample for both models will be presented at first, including interpretations and explanations. Secondly, the results of the Dutch sample will be interpreted, again taking both models into account. Similarly, the implications for confirmation or rejection of the hypothesis will be presented.

4.1 Results Indonesian sample

The correlation matrix in table 3 of the Indonesian sample shows that leverage and inflation are both negatively correlated with Tobin's Q, as well as the variable for firms that have one or more owners with holdings of 25% to 50%. The other ownership variables and the control variables growth and size indicate a positive relationship.

Out of the five variables, leverage has the highest correlation. Followed by the first ownership variable and the third ownership variable. All these variables have a significant correlation. Surprising is the aspect that there is a change in the direction of the influence in the ownership variables. It might be a potential indicator for a better firm performance when ownership concentration is higher. There is some correlation between the independent variables, which is also significant. Since none of the relationships has a higher correlation than 0.9, the independence assumption is not violated.

Table 4 presents the regression results of the coefficient table for Indonesia. The Unstandardized Beta Coefficient shows how much one unit change in the independent variable predicts the dependent. All variables are significant apart from size. Leverage is as the correlation matrix already suggested the largest predictor of Tobin's Q.

A total ownership higher than 50% has the highest Beta Coefficient. Meaning that the Tobin's Q is 0.53 higher when all other variables are taken into account than in the reference category. This category consists of firms who do not have one owner who owns more than 25% of the shares. Furthermore the ownership variable: between 25% and 50% has the third highest coefficient. Similar to the correlation results a different sign of the coefficients among the ownership variables can be detected. In the case of the first ownership variable, the coefficient of -0.21 means that the Tobin's Q for this variable is 0.21 lower than compared to reference variable or category, when all other variables of the model are taken into account. This means that performance gets worse when ownership increases from under 25% to 25%-50%. Direct ownership with more than 50% is 0.34 points higher in Tobin's Q compared to the reference variable, again when all other independent and control variables are taken into account. This leads to the conclusion that once the concentration is higher than 50% the impact on a firm's financial performance changes to positive, this would be what the second hypothesis predicts. Yet a firm with owners who possess between 25% and 50% experiences a negative effect. Thus a regression line plotting firm performance against ownership is potentially curved.

The control variables size and growth both have a positive correlation, however size is not significant. The effect of a higher leverage ratio is negative, as the first hypothesis predicted.

Table 3. Correlation: Indonesian sample

	Tobin's Q	Leverage	Inflation	Between 25% and 50%	More than 50% total ownership	More than 50% direct ownership	Growth
Leverage	-0.22***						
Inflation	-0.06**	-0.05**					
Between 25% and 50%	-0.14***	0.04*	-0.01				
More than 50% total ownership	0.04*	-0.01	< -0.01	-0.11***			
More than 50% direct ownership	0.13***	0.02	0.01	-0.70***	-0.15***		
Growth	0.07***	0.05**	-0.02	< -0.01	0.01	-0.02	
Size	0.04*	0.11***	-0.11***	-0.18***	0.06**	0.13***	0.14***

Table 3 presents the correlation results of the Indonesian firms. The sample consists of 276 firms over the period of 2009-2013 leading to 1284 observations. The variables are measured as described in Table 1. `<´ indicates that the value is smaller than 0.01 or -0.01.

Significant at *10%, **5%, ***1%

Table 4. Regression results: Indonesian sample

		Tobin's Q			
	Expected Sign	Including Control Variables		Excluding Control Variables	
		Coefficient	Standard Error	Coefficient	Standard error
Intercept		1.80	0.42	2.15	0.23
Leverage	-	-1.62***	0.20	-1.58***	0.20
Inflation	-	-0.04*	0.03	-0.05*	0.03
Between 25% and 50%	+	-0.21*	0.15	-0.22*	0.15
More than 50% total ownership	+	0.53*	0.34	0.56*	0.34
More than 50% direct ownership	+	0.34**	0.14	0.35***	0.14
Growth		0.41***	0.14	-	-
Size		0.03	0.03	-	-
Adjusted R^2		0.08		0.07	
N		1284		1284	

Table 4 presents the Unstandardized Beta Coefficient, Standard error, Adjusted R^2 and N for the models including and excluding control variables for the Dutch sample. The sample consists of 276 firms over the period of 2009-2013, combined 1284 observations. The variables are measured as described in Table 1.

Significant at *10%, **5%, ***1%

Ownership concentration show that if shareholders own more than 50% the results are conform to the second hypothesis.

Hypothesis three predicts a negative effect of inflation on performance, this can be supported by the results of the regression analysis, although only a relationship with a 10% level of significance can be found. The Adjusted R^2 will be taken into account since there are multiple predictors. The value is 0.08 indicating that 8% of the variance in the dependent variable can be explained by the individual variables.

Furthermore, both models, with and without control variables, show very similar results. Thus growth and size seem not to have a big impact on the other determinants when measuring their effect on firm performance, even though growth is significant at a 1% level. The Adjusted R^2 for the model without control variables it 0.07, meaning that 1% less of variance are explained by this model compared to the model including control variables. This suggests that growth and size do play a role in determining firm performance and make the model including these variables more predicative.

4.2 Results Dutch sample

This section will provide information about the correlation and regression results for the Dutch sample.

In table 5 the correlation between the dependent, independent, as well as control variables for the Dutch sample is presented. Out of the independent variables, leverage and all three ownership variables have a negative correlation with Tobin's Q. However, only the values for leverage and the first ownership variable show a significant correlation. The result reveals that if leverage increases Tobin's Q and thus firm performance will decrease as

Table 5. Correlation: Dutch sample

	Tobin's Q	Leverage	Inflation	Between 25% and 50%	More than 50% total ownership	More than 50% direct	Growth
Leverage	-0.17**						
Inflation	0.01	< -0.01					
Between 25% and 50%	-0.11**	-0.03	0.01				
More than 50% total ownership	-0.04	-0.06*	-0.01	-0.15*			
More than 50% direct ownership	-0.04	-0.07*	0.02	-0.23***	-0.12**		
Growth	0.11**	0.05	-0.04	< 0.01	0.02	0.16***	
Size	-0.12**	0.35***	< 0.01	-0.19***	0.11**	0.01	0.04

Table 5 presents the correlation results of the Dutch firms. The sample consists of 62 firms over the period of 2009-2013 leading to 287 observations. The variables are measured as described in Table 1. `<´ indicates that the value is smaller than 0.01 or -0.01.

Significant at *10%, **5%, ***1%

Table 6. Regression results: Dutch sample

		Tobin's Q			
	Expected	Including Control Variables		Excluding Control Variables	
		Coefficient	Standard Error	Coefficient	Standard error
Intercept		2.29	0.48	1.73	0.29
Leverage	-	-1.12***	0.43	-1.28***	0.40
Inflation	+	0.05	0.15	0.03	0.15
Between 25% and 50%	+	-0.50***	0.18	-0.43**	0.18
More than 50% total ownership	+	-0.40*	0.28	-0.40*	0.28
More than 50% direct ownership	+	-0.42**	0.20	-0.33*	0.20
Growth		0.89***	0.35	-	-
Size		-0.50*	0.03	-	-
Adjusted R^2		0.06		0.04	
N		287		287	

Table 6 presents the Unstandardized Beta Coefficient, Standard error, Adjusted R^2 and N for the models including and excluding control variables for the Dutch sample. The sample consists of 62 firms over the period of 2009-2013, combined 287 observations. The variables are measured as described in Table 1.

Significant at *10%, **5%, ***1%

well as when the ownership becomes more concentrated. This aspect already supports a part of the first hypothesis, namely that there is a negative relationship between leverage and financial performance. Support for the second hypothesis, that a more concentrated ownership leads to a better firm performance cannot be found. Inflation has a positive relationship, notwithstanding it is not even significant at a 10% level. The control variables are both significant at a 5% confidence level. Growth has a positive indication while size has a negative one. That implies that firms with a higher growth rate, as well as those who are bigger, measured in terms of assets, perform worse. There is some correlation between independent and control variables, which is also significant, however just like in the case of the Indonesian sample, none of the values is 0.9 or higher. This does not lead to a violation of the independence assumption.

In table 6 the Dutch regression results are presented. Leverage has similar to the case of Indonesian firms a negative sign and is significant at a 1% confidence level. The inflation variable shows in contrast to the Indonesian results a positive relationship which is conform to what was predicted in the hypothesis. Yet this variable is also the only non-significant one out of the independent variables. All three ownership variables have a significant negative effect on Tobin's Q, meaning that a higher ownership concentration, at least one owner with more than 25%, has a negative effect on a firm's financial performance. This also is not the expected direction that was formulated in hypothesis 2. The control variables growth and size show that growth has indeed a significant effect on Tobin's Q which is positive. Size, the ln of assets, is negative and also not significant. It seems like those variables play a moderate role when determining performance. The Adjusted R^2 implies that only 6% of the variation of the dependent variable, financial firm performance, can be explained by the predictor variables, leverage, ownership and growth since these are the significant ones. This is not high, but as indicated in the beginning of this paper there are many aspects that can influence a firm's performance and no collective set of determinants has been established. While the coefficients show that leverage, ownership and growth predict the variance, leverage has the highest coefficient. This leads to the conclusion that this variable has the highest effect on Tobin's Q and thus firm performance. The values for ownership are surprising since a different direction was expected. The results for both models differ to some extent. Leverage has a higher coefficient and is significant at the same 1% confidence level, meaning that taking all other variables into account the performance worsens when leverage increases, this effect is decreased when the control variables too are taken into account. All the directions of the relationships remain the same. The ownership variables show a similar result when the variables are included and when not. Notwithstanding the coefficient of direct ownership is smaller than the one of total ownership in the model excluding control variables. But when the control variables are included the opposite is the case.

The Adjusted R^2 for the model including control variables is 6%, making it more reliable than the model without control variables which is only accountable for 4% of variance in the dependent variable Tobin's Q caused by the independent ones.

5. DISCUSSION

In this section the results of the Indonesian and the Dutch sample of the regression coefficients, as seen in table 4 and 6, will be compared and related to the three hypotheses. The control variables will be included as well in the comparison and discussion, as they seem to have an impact in both samples. A reason for the inclusion is that the Adjusted R^2 is higher for the model including control variables for both samples.

The Adjusted R^2 is not very high for either of the two samples, but since the value is similar for the Indonesian as well as Dutch firms the model seems fitting. The R^2 also shows that the model including the control variables explains more of the variance in the dependent variable of both cases.

5.1 Hypothesis 1

The first hypothesis predicts a negative relationship between leverage and performance for both countries, but a higher significance in Indonesia. According to the test results, both countries show a negative relationship significant at the 1% confidence level. For leverage, the coefficients of Indonesia (-1.62) and the Netherlands (-1.12) are relatively similar. The coefficient for the Indonesian sample however is higher, meaning that the effect of leverage on performance is greater for Indonesian firms than for the Dutch ones. This is also what was expected. The direction of the result, negative, is in coherence with the hypothesis and just like it was expected that, the effect would be larger in Indonesia. As leverage is the variable with the highest coefficient for both samples, it can be assumed that leverage plays quite an important role in determining a firm's financial performance. This is also supported by previous studies which presented leverage as firstly an important predictor and secondly was often reoccurring in studies about the topic of firm performance. After analysing the results the first hypothesis: `*The negative effect of leverage on performance is higher in Indonesia than in the Netherlands.´* can be confirmed.

5.2 Hypothesis 2

The second hypothesis expected a positive relationship between ownership concentration and firm performance, while being stronger in Indonesia than in the Netherlands. The coefficient for the first ownership variable, more than one owner who possesses between 25% and 50% of the company's shares, is significant and negative for both samples this shows that compared to the reference variable, Tobin's Q is lower and thus firm performance worse. This is quite unusual, since it was not expected by literature and therefore not by the hypothesis either. Both other ownership variables are positive for Indonesia, this confirms one part of the second hypothesis. Namely that a higher ownership concentration leads to an increased performance. Which is the case when the variable is positive meaning that the dependent variable scores higher in relationship with the performance variable, Tobin's Q, than the reference variable in relationship with the financial performance variable. And again all other variables of the model have to be taken into consideration. Yet for the Dutch sample, all three ownership variables are negative, meaning that the Tobin's Q is lower and firm performance worse than the reference variable. Thus in the case of the Netherlands, a higher concentration does not lead to a better financial firm performance. These different results can be explained by the differences in terms of ownership and, control between both countries. Indonesia has in general, a higher ownership concentration than the Netherlands, next to that business groups play an important role just like surveillance and interference by the government. In these aspects both countries differ quite gravely, hence they are most likely the reason for differing results.

The second hypothesis: `*The relationship between ownership concentration and performance is positive in Indonesia and more significant than in the Netherlands´* can only be partially confirmed. To be specific it can be confirmed for Indonesia when the percentage of the owner is higher than 50%, but has to be rejected for the Dutch sample.

5.3 Hypothesis 3

The third hypothesis states that a negative effect of inflation on firm performance can be found in Indonesia while the effect in the Netherlands is assumed to be positive. The results show a different direction of the relationship in both countries. In Indonesia the inflation rate seems to have a negative effect on firm performance. This was expected, because the Indonesian inflation rate is quite high which indicates a not optimal or good economic condition. The inflation rate was however positively related with a firm's financial performance for the Dutch sample, like it was expected. It can partially be explained by the fact that the inflation rate in the Netherlands is much lower and closer to the one that is seen as normal. Nevertheless the result was not statistically significant for the Netherlands. For Indonesia it is significant at a 10% level, which leads to the conclusion that hypothesis 3 can only be partly confirmed, as well. The results show that conform to the hypothesis the effect is negative in Indonesia. But since the Dutch results were not significant the third hypothesis: `*Inflation has a negative relationship with firm performance in Indonesia and a positive one in the Netherlands´* can partly be confirmed. The relationships were as expected but not significant for the Netherlands, leading to the conclusion that the effect is more severe when the country is in a state of a non-optimal economic condition.

5.4 Control variables

Growth and size were chosen as control variables, and the model including both has a higher Adjusted R^2 value, which is why their effect on firm performance should also be compared for both countries.

5.4.1 Growth

Growth is significant for both samples even at a 1% confidence level. The direction, namely positive, was the same for both countries, as well. The results imply that if a firm has a higher growth the performance tends to increase. This does not seem unusual, but in order to analyse the result further more research should be conducted and previous literature reviewed.

5.4.2 Size

The control variable size has a different direction for both countries and was only significant for the Dutch sample at a 10% significance level. Hence size does not seem to play an important role in determining firm performance in the samples of Indonesian and Dutch firms. This is also surprising since size has been a reoccurring determinant in literature. However, similar to growth, more research has to be conducted in order to give a thorough conclusion about the results.

6. CONCLUSION

The determinants of a firm's financial performance have often been a topic in academic literature. Many potential aspects have been tested and their effects on the relationship with performance analysed. This study aimed to contribute to the long list of articles that discuss this topic area, by measuring the relationship of capital structure effects, leverage, corporate governance, ownership concentration, and economic effects, inflation, with financial firm performance, Tobin's Q. Indonesia and the Netherlands were compared in order to determine what differences there are among these counties concerning the determinants. A comparison of those two countries is interesting because of differing levels of development, and dissimilar economic, legal and cultural environments. Still both countries have close ties as mentioned in the introduction which also might have an effect on the relationships between dependent and independent variables.

The results that aim to answer the research question: *"How do determinants of financial performance of firms in Indonesia and the Netherlands differ?"* show that all three independent variables influence the dependent one. Although inflation is only significant for the Indonesian sample.

Leverage is the strongest determinant in both countries, it is higher in Indonesia as already expected but the difference it not tremendous. It implies that leverage has a higher negative impact on firm performance when a countries legal system is not highly

effective as in the case of Indonesia. Nevertheless the difference was as already mentioned not very striking so the effect of the legal system is existent but does not seem to be very serious.

The results of the ownership concentration were surprising. In the Indonesian sample they were mostly as expected. Although the effect was negative for the first ownership variable meaning that the performance is worse than of more dispersed firms. However variable two and three showed a positive relationship. Yet for the Netherlands only negative relationships were found, suggesting that a dispersed ownership leads to a better performance in the Netherlands. These results can be lead back to the fact that the ownership is quite different in both countries. In general more concentrated in Indonesian and affected by business groups and government. These aspects of government and business group intervention can lead to the varying results of the three variables compared to the reference one.

Inflation was only significant in Indonesia and also negative. Since the inflation value is much higher in Indonesia and also critical, this is not very surprising. The negative direction was expected, because the high inflation rate is not considered to be good. The Dutch inflation rate is much lower and relatively moderate, this can be a reason why the result was firstly positive but also not significant. This leads to the conclusion that inflation does not affect firms as much when it has a relatively moderate rate. Again reasons for the differences are that both countries present different economic conditions.

The R^2 results suggest that the control variables growth and size also influence performance. Growth much more than size, since it was significant at a 1% level in both countries, size only for the Dutch sample. These variables probably play an important role when determining performance, but do not change very much when countries vary.

The contribution of this study is to gain an understanding of how determinants differ when the conditions of countries are not the same. The two countries that are in focus in this paper differ in the terms of development. And as said in the introduction and the beginning of the conclusion section there are legal, cultural and environmental differences among others. And because of these different conditions the determinants differ. As a result of the country differences, determinants from different natures were chosen. This study also shows if one determinant has a higher impact on performance than others. Making it clearer which aspects play a more important role when the focus lies on a firm's financial performance. The ones that are not as highly influenced by a country, leverage, growth do not show as much variation as inflation and ownership.

The practical relevance of this research is to show how the chosen determinants influence a financial performance. When it is measured with Tobin's Q. As well as which play a more important role when the focus lies on a firm's financial performance.

The limitations of this research are that there are no exact percentages for the ownership concentration. The effect of ownership concentration of firm performance could be more accurately measured when more detailed information is used. Next to that performance is only measured by one variable. Different variables could lead to other results. This would address the issue of dissimilar results because of altering performance measures. Similar to that multiple measures for the economic condition could be applied. In order to gain a thorough understanding of the effect on performance. Another limitation are the low Adjusted R^2 values, but there are many potential determinants. Thus a model including all the determinants would be very extensive.

Suggestions for further research are to add more determinants from the same but also different natures. Since there are many aspects that can influence the financial performance of a firm. Multiple performance measures would also give a greater insight into the effect of determinants.

The economic condition and also how ownership is structured, as well as who and how many persons or parties have an influence on the firm affect financial performance in a different way. This is shown in the varying results of both countries.

Additionally this research showed that determinants have differing influences depending on the circumstances and situation of the country. Thus, as previous studies already point out: there is no common collection of determinants which are said to influence the financial performance of a firm. Simply because many aspects have to be taken into account and legal, economic and cultural aspects differ from one country to another.

7. REFERENCES

Alimehmeti, G., & Paletta, A. (2012). Ownership Concentration and Effects over Firm Performance: Evidences from Italy. *European Scientific Journal*, *8*(22), 39-49.

Antoniou, A., Guney, Y., & Paudyal, K. (2008). The Determinants of Capital Structure: Capital Market-Oriented versus Bank-Oriented Institutions. *Journal of financial and quantitative analysis*, *43*(01), 59-92.

Bureau van Dijk (2015). Bureau van Dijk Ownership Database User Guide. Retrieved from https://webhelp.bvdep.com/Robo/BIN/Robo.dll?project=WHDOTNETOWNERSHIP_68_EN&newsess=1&refer=https%3A//orbis.bvdinfo.com/version-2015520/Home.serv%3Fproduct%3Dorbisneo%26loginfromcontext%3Dipaddress

Chung, K. H., & Pruitt, S. W. (1994). A Simple Approximation of Tobin's q. *Financial Management*, *23*(3), 70-74.

Claessens, S., Djankov, S., & Lang, L. H. (2000). The Separation of Ownership and Control in East Asian Corporations. *Journal of financial Economics*, 58(1), 81-112.

Darmadi, S. (2011). Board Diversity and Firm Performance: the Indonesian Evidence. *Corporate ownership and control Journal*, 8, 1-38.

Demsetz, H., & Lehn, K. (1985). The Structure of Corporate Ownership: Causes and Consequences. *Journal of Political Economy*, *93*(6), 1155-1177.

East Asia & Pacific (developing only) | Data. (n.d.). Retrieved May 20, 2015, from http://data.worldbank.org/region/EAP

ECB: Definition of price stability. (n.d.). Retrieved June 13, 2015, from https://www.ecb.europa.eu/mopo/strategy/pricestab/html/index.en.html

Ees, H. V., Postma, T. J., & Sterken, E. (2003). Board Characteristics and Corporate Performance in the Netherlands. *Eastern Economic Journal*, *29*(1), 41-58.

Forbes, K. J. (2002). *How Do Large Depreciations Affect Firm Performance?* (No. w9095). National Bureau of Economic Research.

Hu, Y., & Izumida, S. (2008). Ownership Concentration and Corporate Performance: A Causal Analysis with Japanese Panel Data. *Corporate Governance: An International Review*, 16(4), 342-358.

Inflation, GDP deflator (annual %) | Data | Table. (n.d.). Retrieved May 20, 2015, from http://data.worldbank.org/indicator/NY.GDP.DEFL.KD.ZG

Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior Agency Costs and Ownership Structure. *Journal of Financial Economics*, *3*(4), 305-360.

Margaritis, D., & Psillaki, M. (2010). Capital Structure, Equity Ownership and Firm Performance. *Journal of Banking & Finance*, 34(3), 621-632.

Mirza, S. A., & Javed A. (2013). Determinants of Financial Performance of a Firm: Case of Pakistani Stock Market. *Journal of Economics and International Finance*, *5*(2), 43-52.

Mule, R. K., & Mukras, M. S. (2015). Financial Leverage and Perfromance of Listed Firms in a Frontier Market: Panel Evidence from Kenya. *European Scientific Journal*, *11*(7), 534-550.

Relations the Netherlands - Indonesia | International relations | Government.nl. (n.d.). Retrieved May 20, 2015, from http://www.government.nl/issues/international-relations/indonesia

Rusmin, R., Evans, J., Hossain, M. (2012). Ownership Structure, Political Connection and Firm Performance: Evidence from Indonesia. *Corporate Ownership and Control*, 10(1), 434-443.

Transparency International - Country Profiles. (n.d.). Retrieved May 15, 2015, from http://www.transparency.org/country#NLD

Transparency International - Country Profiles. (n.d.). Retrieved May 15, 2015, from http://www.transparency.org/country#IDN

Vithessonthi, C., & Tongurai, J. (2015). The Effect of Leverage on Performance: Domestically-Oriented versus Internationally-Oriented Firms. *Research in International Business and Finance*, *34*, 265-280.

Weill, L. (2008). Leverage and Corporate Performance: Does Institutional Environment Matter? *Small Business Economics*, 30(3), 251-265.