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An Empirical Study on the Determinants of Dividend Policy in the UK

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Abstract

This research aims to examine the factors which affect dividend policy for non-financial UK companies in the year 2007. In particular, the research examines the extent to which corporate governance factors affect corporate dividend policy. The factors are classified into two parts which are corporate governance factors and firm characteristics. Corporate governance factors include board size, board independence and audit type. On the other hand, firm characteristics are firm size, profitability, debt level, growth, risk, industry type and tangibility. The sources used to collect the data for this study are the Forecasting Analysis and Modelling Environment (FAME) database and annual reports. Multiple regression model is used to analyze the data. Based on the sample of 90 non-financial UK companies, it is found that corporate governance factors do affect the dividend policy. It seems that board independence is one of the important factors which drive firms to pay dividends. Furthermore, some of the firm characteristics have also influenced the dividend policy decision among the non-financial UK firms.

Keywords: Dividend Policy, Dividend Decision, Payout Policy, Payout Decision, Determinants of Dividend, Dividend Factors
JEL Classification code: G35

Introduction

There is a continuous debate about what drives companies to pay dividends. The first theory for dividends was initiated by Miller and Modigliani (1961) who emphasized that dividend policy was irrelevant. Since then, controversial judgment has been raised to determine the factors which affect dividend policy in companies (Al-Malkawi, 2007). He added that the economists have presented great efforts for more than fifty years to test the determinants of dividend policy. Most studies in this area have reported certain factors which have an impact on dividend policy decisions. It is known that the agency problem is considered to be one of the main problems between management and shareholders (Douglas, 2009). Dividend is used by managers as a tool to reduce this problem (Jirapon, 2004). It has been noticed that dividend payout is highly associated with the type of the governance in the company

(Mehar, 2005). It is cited by Jiraporn et al. (2008) that one of the essential theories explaining the dividend policy is the agency cost theory. Agency cost emphasizes reducing the agency cost between two parties, namely the investors (owners) and the managers (the control) (Jiraporn, 2004). It has been argued that the company might use dividends to alleviate the agency problem between managers and shareholders (Jensen, 1986). Researchers have examined many factors which have an impact on reducing agency cost problems. These factors include outside directorship, insider ownership and asymmetric information (see Al-Najjar & Hussainey, 2009a; Mitton, 2004). Further, there are many studies of firm characteristics which have an impact on the dividend policy. These include profitability, liquidity, firm size, debt level, risk, industry type, tangibility (see Danis et al., 2008; Al-Najjar & Hussainey, 2009a). This study is designed to examine corporate governance's influence on dividend policy.

Objectives of the Study

The aim of this research is to find out the effect of corporate governance and firm characteristics factors on dividend policy in the UK firms. The research is aimed to know whether corporate governance and firm characteristics factors are taken into consideration when dividend decisions are made by the UK firms. The UK was chosen for the study as the researchers felt that it would give accurate results since most of the UK firms pay dividends to their shareholders (Hussainey & Walker, 2009). Generally board independence alone has been taken as the independent variable for measuring corporate governance and dividend policy (for example Al-Najjar and Hussainey, 2009a). But this paper explores corporate governance by three factors, i.e., board size, board independence and audit type.

Dividend Theories and Literature Review

Large numbers of studies have discussed various theories which are relevant to dividend policy. Dividend theories, prior research related to the association between dividend policy and corporate governance mechanisms and the association between dividend policy and firm characteristics variables are reviewed in this study.

Dividend Theories

Agency Theory

This is one of the most important theories in dividend policy. Jensen and Meckling (1976) define the agency relationship as: 'a contract under which one or more persons (the principal[s]) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent'. Jiraporn et al. (2008) argued that the main purpose of corporate governance is to achieve a balance between the investors and the management. They emphasized that the company which has a qualified and quality corporate governance team will result in controlling the agency costs and reducing them. In addition, they added that if the company has a quality corporate governance team, it will pay more and higher dividends. This is consistent with Jenson (1986) where he argued that the company which owns a weak governance team is less likely to distribute dividend to outside shareholders. This is because managers would like to have cash and spend it in projects which will return benefits for their own purposes. Furthermore, Michaely and Roberts (2006) noted that shareholders will expect more dividends if the company has strong governance. One of the main agency conflicts between managers and shareholders is the debt level (Al-Najjar and Hussainey, 2009a). They argued that investors want to maintain the debt level at the lowest level. As a result, more dividends are expected by shareholders if the firm has a low debt ratio. Furthermore, Jiraporn (2004) tested the agency cost as an explanation factor for the dividend policy. He found that the firm which

gives its shareholders limited rights is more likely to face the agency problem. That is because the managers exploit the weakness of shareholders and make decisions which serve their own ends. On the other hand, as cited by La Porta et al. (2000), firms which are located in countries which protect shareholders' rights are forced to pay higher dividends to their minority shareholders. He also pointed out that a country which has a common law system has more protection for the investor from those which have a civil system. This is consistent with Kowalewski *et al.* (2007) who tested the strength of corporate governance as a determinant of dividend payout. He found a positive relationship between corporate governance practices and dividend payouts. Furthermore, he noted that companies pay more dividends if the shareholders' rights are well protected by commercial law in a country. Most importantly Al-Najjar and Hussainey (2009a) argued that the agency cost can be eliminated by paying dividends to the shareholders. They noted that if the company paid dividends, the free cash flow would be less in the hand of the insiders (the managers). Therefore, managers do not have more cash to spend on projects which benefit their own interests. They added that paying dividends makes the firm subject to capital market inspection as the possibility of issuing new shares increases.

This study is designed to explore how the agency cost between managers and shareholders can be resolved. This can be achieved by exploring the association between dividends and three corporate governance variables which are: board size, board independence and audit type.

Signaling Theory

The next essential theory is 'Dividend Signaling' which was developed to deal with asymmetric information between managers and investors, (Miller & Rock 1985). It is stated by Al-Najjar and Hussainey (2009b) that managers have more information about the company than investors and so they can make changes to the capital structure based on this information. Consequently, investors consider any change in dividend policy as a reflection of the company's future performance. They added that, based on this assumptions, managers are not supposed to send wrong signals to the market. Koch and Shenoy (1999) argued that firms which anticipate more future earning want to spread information to the outsiders about this earning, whereas the firms expecting a reduced cash flow would not be able to signal this situation to the shareholders. As a result, investors rely on these signals to decide on their investment among firms. It is noted that a positive relationship was found between the announcement of a dividend payout change and the price of the stock (Aharony and Swary, 1980). In addition, they examined how the governance quality affects the decision of whether to pay a dividend or repurchase the stock. Moreover, they pointed out that the company which is managed by weak corporate governance will prefer to pay dividends rather than repurchase the stocks as it will give a signal to the capital market that the management is working for the shareholders' interests and so the company performs well. Moreover, Benartzi et al. (1997) applied the signaling theory by testing whether dividend changes gave signals about changes in past and future earning. They found that dividend change reflected past growth of the company's earning whereas it did not give signals about the changes in future profitability. This is consistent with the study conducted by Watts (1973). In this research, the signaling theory is examined by two variables which are: firm profitability and firm growth.

Pecking Order Theory

The next area of discussion is the 'Pecking Order Theory' which was first initiated by Mayers (1984), and Myers and Majluf (1984). This theory is one of the corporate leverage theories (Murry and Goyal, 2003). It contains two assumptions which are as follows. First, there is asymmetric information between managers and outside shareholders. The second assumption is that the firm will follow a pecking order to finance its activities (Al-Najjar & Hussainey, 2009b). They indicated that the firm will depend first on the retained earnings in financing and distributing the dividends. They added that if the retained earnings are not enough, the firm will use debt to borrow, rather than issuing new shares.

This is consistent with Mayer (1984) in that the company prefers internal funding, rather than external sources for dividend distribution. This is also consistent with Necur et al. (2006) who argued that internal sources of finance are given priority to be spent as dividends, but if these are insufficient, the firm can depend on the debt and finally on equity issuance. This theory is examined by the debt level.

Transaction Cost Theory

'Transaction Cost' is an important theory which was initiated by Rozeff (1982) who assumed that the more dividends which were paid, the lower would be the agency cost incurred. However, he added that if the company paid high dividends, this would lead to an increase in the transaction cost. Al-Najjar & Hussainey (2009b) argued that smaller companies will have more transaction costs than larger ones, because the small companies would mostly rely on debts to finance their activities and payment of dividends. They concluded that firm size can be a determinant of dividend policy of the company. This theory is tested by the firm size variable.

Bankruptcy Theory

The final theory in this section is known as the 'Bankruptcy Theory'. This theory was not considered by Miller and Modigliani (1961). They thought that bankruptcy costs had no influence on the dividend policy in the company. A general bankruptcy cost occurs when the firm faces great difficulty in meeting its long-term obligations (Al-Najjar & Hussainey, 2009b). As a result, firm ownership has to be transferred and the capital structure is likely to have a new form. Some researchers found that the business risk toward bankruptcy costs is associated with the dividend policy in a particular firm (Ho, 2003; Aivazian et al. 2003). This theory can be examined by the firm risk which is measured by firm beta.

Literature Review on Study Variables and Formation of Hypotheses

Board Independence

This represents the total number of non-executive directors in the board. As indicated by Belden et al. (2005), it is believed that the outside directors on the company board tend to reduce the agency cost in the firm. They also noted that the outside directors represent the shareholders effectively and ensure their rights in the company. As a result, they concluded that the more outside members there were on the board, the more dividends the company was willing to pay. This is consistent with Kowalewski et al. (2007) who mentioned that shareholders preferred to receive dividends if the insider directors were occupying the board, as they worried about how the management would decide on their earnings. Furthermore, it was cited by Bathala and Rao (1995) that the firm with a high debt ratio indicated high risk and this led to an agency problem. To avoid this problem, non-executive directors should be included on the board to protect shareholders' rights. A large number of studies argued that board independence is related positively with the dividend payout ratio (Jiraporn et al., 2008; Borokhovich et al., 2005; Bathala & Rao, 1995). However, Al-Najjar and Hussainey (2009a) examined the relationship between dividend policy and outsider directorship for 400 non-financial UK firms. They reported a negative association between the number of outside directors and the amount of dividend paid. Furthermore, Cotter and Silvester (2003) argued that managers should share the interest with shareholders to solve the interest conflict between them and their shareholders. They suggested that managers should increase their ownership of the equity and that firms should increase the payout ratio and increase the leverage ratio. However, they tested the relationship between the dividend policy and the number of non-executive directors and they found no association. Therefore, the hypothesis related to the board's independence can be written as follows:

H1. There is a relationship between board independence and dividend policy.

Board Size

This represents the total number of the members (executive and non-executive) in the company board (Borokhovich et al., 2005). It is cited by Belden et al (2005) that the greater the size of board membership, the higher are the dividends paid to shareholders. He argued that this was because more people monitoring the decisions made by the chief executive officer. The hypothesis related to board size can be written as follows:

H2. There is a positive relationship between board size and dividend policy.

Audit Type

This classifies the type of auditing companies according to whether it is one of the Big Four audit companies or any other audit company. Lang and Lundholm (1996) examined the quality of disclosure by measuring the association between information asymmetry and the number of analyst following (disclosure quality). They found that the greater the number of analysts following, the amount of asymmetric information given to the shareholders by the managers was reduced. This was because the investors got enough information from the annual reports analyzed by the analyst following. In this study, the quality of the disclosure is measured by the audit type. Glosten and Milgrom (1985) argued that the asymmetry information is an important factor which leads shareholders to request the quality of the disclosure. Furthermore, Minton (2002) measured the quality of the disclosure by indicating whether the firm is audited by one of the big five international audit companies. He found that a company which is audited by one of the big five audit companies pays more dividends. It is cited by Lee et al (2007) that the shareholders expect higher earnings if the company is audited by big five audit companies. Hussainey and Al-Najjar (2009) found negative relationship between information asymmetry and dividend policy. In other words, the less information asymmetry, the more dividends paid to the investors. Hussainey (2008) argued that the company should consider which firm will audit its financial statement because the type of audit concerns the shareholders and the analysts in terms of their investment decisions. In this study, big four audit firms are Deloitte Touche Tohmatsu, Ernst & Young; KPMG and PricewaterhouseCoopers, following Hussainey (2008). The audit type is represented by a dummy variable where 1 is when one of the Big Four audit companies carries out the auditing function for the firm and 0 represents any other non-big four audit firms. The hypothesis for audit type is written as follows:

H3. There is a positive relationship between audit type and dividend policy.

Firm Size

Firm size is expected to be an acceptable determinant of the company decision to pay dividends to its shareholders (Al-Najjar and Hussainey, 2009a). Consequently, Ho (2003) argued that big companies are more able to pay dividends, rather than smaller companies. This is consistent with Aivazian et al. (2003) who mentioned that the larger firms have easy access to the market and are expected to pay more dividends. Hence, the hypothesis for firm size variable is framed as follows:

H4. There is a positive relationship between firm size and dividend per share.

Profitability

This can be defined as the ability of the firm to generate profit. The dividend payout ratio depends on the current earnings of the firm (Baker and Powell, 2000). They argued the higher the earnings, the more dividends will be paid to the investors. It has been mentioned by Al-Najjar and Hussainey (2009a) that the profitability of the firm plays an important role in increasing the dividend paid to the shareholders. They added that profitability is supported by signaling theory as the firm wants to enhance the reputation of its performance. However, Bradley et al. (1998) noted that when a company expects less cash flow in the future, managers decide to pay fewer dividends now to cope with the changes in the future. Furthermore, Kowalewski (2007) noted that firms with more profits and less

investment opportunities paid higher dividends. The profitability related hypotheses can be written as follows:

H5. There is positive relationship between profitability and dividend policy.

Debt Ratio

This shows total debt as a percentage of the shareholders' fund. In addition, it measures the extent to which a firm is financed by external funds (Al-Najjar & Hussainey 2009a). It is argued that firm debt ratio is one of the main reasons which determines whether a firm will pay dividends or not (Jensen et al., 1992; Aivazian et al., 2003). They emphasized that a firm with a low debt ratio is likely to pay dividends. This fact justifies the agency cost theory as the firm needs to distribute dividends as low debt is reported in its financial statements (Al-Najjar & Hussainey 2009a). On the other hand, Chang and Rhee (1990) proved the opposite result when they mentioned that the firm used the debt for dividend distribution. As a result, the greater the debt ratio, the higher is the dividend received by the shareholders. This result is supported by signaling theory as the company would like to tell the investor that the company is in good condition. The debt ratio related hypothesis can be written as follows:

H6. There is a relationship between debt ratio and the dividend policy.

Growth

Growth is the ability of the firm to remain at the same level of development at a certain rate which is likely to be higher than the growth rate compared with other firms (Al-Najjar & Hussainey 2009a). It was argued by Ho (2003) that firms which have high opportunity for growth are expected to spend more on new projects for expansion purposes. As a result, dividend paid to the shareholders would be less. The same finding was reported in Chang and Rhee (1990). They stated that higher growth opportunity required more cash for expansion. This leads to retaining earnings, rather than distributing dividends. However, Myers and Bacon (2004) argued that firms wanted an excess of equity capital to fund the growth of the company and it would use the debt to distribute the dividends in order to give a good signal which reflects the excellent performance of the firm. They concluded that more opportunities for growth resulted in the payment of higher dividends. The measures used to quantify the opportunity for growth is price to book value. Hence, the hypothesis is:

H7. There is a relationship between firm growth opportunities and dividend policy.

Firm Risk

This can be defined as the risk related to situations in which the company is involved in the risk environment. The relation between firm risk and dividend policy was measured by Holder et al. (1998). They found that firm risk is negatively associated with dividend policy. This is consistent with Chang and Rhee (1990) and Ho (2003). They noticed that firm risk is an essential indicator for the business to announce dividends to the shareholders. Furthermore, it was cited by Kowalewski et al. (2007) that the firm which was risky and had more debt chose to pay fewer dividends. The measure used in this study to measure the firm risk is Beta and the hypothesis is:

H8. There is a negative relationship between firm risk and dividend policy.

Industry Type

This identifies the type of sectors among which the firm operates. Baker (1998) argued that the dividend policy is associated with the type of the industry. This fact is supported by Soter et al. (1996), who pointed out that the regulation of the country might force certain industries into competition and become involved in a risk environment. They added this competition can force the firms within one industry to pay dividends. This is consistent with Baker and Powell (2000) as they found that industry type is an important factor for a dividends payment decision. Hence, the hypothesis for industry type is framed as follows:

H9. There is a relationship between industry type and dividend policy.

Asset Structure

Asset structure is calculated as the tangible assets divided by total assets (Al-Najjar and Hussainey 2009a). In other words, it can be calculated by total fixed assets (total assets minus current assets) over total assets. Aivazian et al. (2003) emphasised the negative relationship between firm tangibility and amount of dividend distributed to the shareholders. Their justification was that more tangibility in the assets led to less short-term assets which resulted in the banks not providing firm loans. As a result, this has an effect on the amount of dividends paid. This is consistent with Al-Najjar and Hussainey (2009a), who stated that the dividend and tangibility are negatively related. They argued that more tangibility means a lower short-fixed asset. Therefore, the company will rely on long-term debt and this case forces the company to pay dividend from the earning amount. As a result, the dividend paid will be less as the firm wants to invest in other projects. However, Koch and Shenoy (1999) argued that the firm which has more fixed assets and a lower reported debt level has tax benefits and is more likely to use dividends policy to support the asymmetric information. As a result, there is a positive relationship between firm tangibility and dividend policy. Therefore, the hypothesis for the study of tangibility is as follows:

H10: There is a relationship between dividend and tangibility.

From the above discussion, this study has developed 10 hypotheses related to the determinants of dividend policy. The study will test these hypotheses among the sample UK firms.

Methodology of the Study

The aim of this empirical research is to find out the relationship between corporate governance factors and dividend policy for a sample of non-financial UK firms for 2007. This research is purely based on secondary sources of data. The required data are divided into two parts. The first part related to corporate governance factors whereas the second part related to the firm characteristics. Forecasting Analysis and Modelling Environment (FAME) database was used to obtain the firm characteristics variables while the Northcote website was used to obtain annual reports which were utilized to get variables representing corporate governance measurements.

The research considers only non-financial UK companies as the sampling unit. The primary requirement for including the company into the sample size is that the company has to have all the required data (as per the above proposed hypotheses) for the year 2007. FAME database produced a list of 103 non-financial UK firms which had all the required data for this study. Out of these 103 firms, only 90 firms' annual reports related to the study period could be obtained from the Northcote website. As a result, this research has a sample size of 90 non-financial UK firms.

This research is designed to examine the relationship between dividend policy and corporate governance factors and firm characteristics. To explore this relationship, a multiple regressions model is used for this purpose. Following Naceur et al. (2006), the dependent variable is dividend per share. The independent variables are corporate governance factors (board size, board independence and audit type) and the control variables include firm size, profitability, debt ratio, growth, firm risk, industry type and assets tangibility. The following equation is applied in this research:

Dividend per share = a + b1 + b2 + b3 + b4 + b5 + b6 + b7 + b8 + b9 + b10 + e

Where,

"a" denotes intercept

"b1" represents Board Size (log total directors in the board)

"b2" represents Board Independence (total non-executive directors over total number of directors)

"b3" represents Audit Type (whether the company is audited by one of the Big Four audit firms or not)
"b4" represents Firm Size (log total number of employees)
"b5" represents Firm Profitability (earning per share)
"b6" represents Debt Level (shareholder liquidity ratio)
"b7" represents Firm Risk (beta for the firm)
"b8" represents Firm Growth (price to book value)
"b9" represents Industry Type (whether the company is a manufacturing company or not)
"b10" represents Asset Structure (total fixed asset over total asset) and
"e" denotes the error

Definitions of Study Variables

This section deals with the definitions of all the variables and the proxies used to represent the variables in this research. The proxies have been identified not only from the pervious research but also by applying the multicolinearity analysis between the variables.

I. Corporate Governance Factors

Board size: the number of directors on boards (this includes executive and non-executive directors). Following Schellenger et al (1989). This research uses log total number of directors in the board.

Board independence: the number of the outside directors on the board, following Cotter and Silvester (2003). This research uses the percentage of independence on the board (total non-executive over total number of directors).

Audit type: this is the classification of the sample firm as to whether it was audited by one of the four big audit firms or not. Following Hussainey (2008), the Big Four audit firms are: Ernest & Young, Pricewaterhouse Coopers, Deloitte Touche Tohmatsu and KPMG. Dummy variable was used where 1 represented that the sample firm was audited by one of the Big Four audit firms and 0 otherwise.

II. Firm Characteristics

Firm size: It indicates how big the firm was. Several measures can be used to test firm size such as: turnover, market capitalization, number of employees and total asset. Following Core et al., (2001), this research uses log number of employees as a proxy for the firm size.

Profitability: It measures the earning ability of the company. There are four measures obtained from the FAME database to represent this variable. These are: return on capital employed, return on shareholders' fund, return on total asset, and earning per share. Following Rao (2005), this research adopts earning per share as a proxy for measuring profitability.

Debt ratio: It measures the percentage of the debt over equity. Debt ratio can be tested by using gearing ratio or shareholder liquidity ratio. Following Doumpos et al. (2005), shareholder liquidity ratio is used in this study as a proxy for the debt level.

Growth: This variable is used to measure the growth of the company. Following Al- Najjar and Hussainey (2009a), price to book value is used in this research as a proxy for the growth.

Firm risk: This variable measured how risky the company was. Following Ho (2003), beta of the company was used as a proxy to measure firm risk.

Industry type: FAME database classifies the non-financial firms into two types: manufacturing or non-manufacturing firms. Similar variable was used by Cooke (1992). A dummy variable was used in this research, where 1 represented a manufacturing company and 0 otherwise.

Tangibility: This shows the proportion of fixed asset in the total asset structure of the company. It can be measured by total fixed assets over total assets following Ho (2003).

Descriptive Analysis

Table-1 shows the descriptive analysis for the variables used in this study. It can be clearly seen that the maximum for board size is eighteen and the minimum is two which indicates that the sample used in this research contained small as well as large companies. This is proved by the firm size data where the minimum number of employees is eleven whereas the maximum is 116000. Furthermore the table shows that there are more companies which have no independent director on board than the companies which have some independent board members. This can be seen from the mean as it is close to the minimum number (0). The audit type shows that 75 sample companies were audited by big four audit firms and just 15 companies were audited by non-big four audit firms hence the mean is close to 1.

Table 2: Descriptive Analysis

	N	Minimum	Maximum	Mean	SD
Dividend per share	90	.0077	.9728	.16896	.19905
Board size	90	2	18	8.53	2.911
Board independence	90	0	13	4.64	2.528
Audit type	90	0	1	.83	.375
Firm size	90	11	116000	14011	23126
Profitability	90	-0.92	19.48	0.73	2.28
Debt level	90	0.0581	149.5454	4.1562	15.8809
Firm growth	90	0.24	43.08	3.34	5.04
Firm risk	90	-0.103	2.198	0.5458	0.4699
Industry type	90	0	1	.59	.495
Tangibility	90	.8171	.9970	.9628	.0304

Empirical Results

The empirical result of this study is discussed in this part of the study. Firstly, it shows the correlation analysis between the dependent variable (dividend per share) and the other variables (firm characteristics and corporate governance factors). Secondly, it shows the multicolinearity problem between the independent variables. Finally, the regression analysis is discussed.

Correlation Analysis

To examine the relationship between the dependent variable and the independent variables, SPSS software was used to determine the degree of significance and correlation level between dividend per share and each variable. A larger significance level reflects a strong relationship between any two variables. Table-2 shows the correlation for every independent variable and the degree of significance in relation to dividend per share.

Table 2: Correlation between dependent and independent variables

Variables	Correlation	P-value
Corporate Governance Factors		
Board Size	**.400**	**.000**
Board Independence	**.279**	**.008**
Audit Type	**.164**	**.122**
Firm Characteristics		
Size measures		
Turnover	**.454**	**.000**
Market Capitalization	**.525**	**.000**
Number of Employees	**.508**	**.000**
Total Asset	**.513**	**.000**
Profitability measures		
Return On Capital Employed	**.359**	**.001**
Return On Shareholders' Fund	**.192**	**.070**
Return on Total Assets	**.320**	**.002**
Earning per Share	**.445**	**.000**
Debt Ratio		
Shareholder Liquidity Ratio	**-.088**	**.412**
Gearing Ratio	**-.014**	**.895**
Other Measures		
Growth (price to book value)	**.090**	**.401**
Risk (Beta)	**.403**	**.000**
Industry Type	**.062**	**.560**
Tangibility	**.010**	**.924**

The result indicates a highly positive and significant correlation between firm size measures and dividend per share. On the other hand, profitability measures have a weak positive correlation and are highly significant with the dividend per share. Further, debt level measures have a weak insignificant negative correlation with the dividend per share. The firm risk has a positive high correlation and high significance with the dependent variable whereas all other firm characteristic variables viz., firm growth, assets tangibility and industry type have weak positive and insignificant correlation with the dividend per share. Among the corporate governance factors, board size and board independence have a relatively weak positive correlation whereas they have a highly significant relationship with the dividend per share. Audit type has a weak positive and insignificant correlation with the dependent variable.

Multicolinearity Analysis

A multicolinearity problem occurs when two of the independent variables are highly correlated and the coefficient can be affected by a small change in the data of multiple regressions. This problem was taken into consideration between the measures of the variables. The SPSS was utilized to identify this problem between the measures. The multicolinearity problem is counted as if the correlation between any two independent variables exceeds 70 per cent (Drury, 2008). Table-3 shows the result of this problem. The first column shows the measures and the second gives an indication of whether the variable has multicolinearity or not. The third column indicates the other measure which participates in the multicolinearity problem with the indicated measure. As a result of this problem, some of the measures should be eliminated.

I. Corporate Governance Factors

All the corporate governance measures do not have a multicolinearity problem.

II. Firm Characteristics

Firm Size

All measures have multicolinearity problems with other variables except number of employees. As a result, these three measures are excluded in this study.

Firm Profitability

Only return on shareholder fund is a problematic; the other measures do not have the multicolinearity problem.

Debt Level

Gearing ratio has a multicolinearity problem while the shareholders' liquidity ratio does not.

Firm Growth

Price to book value is free from the multicolinearity as the gearing ratio and return on shareholders' fund measures are ignored for the study.

Firm Risk

Beta is free from the multicolinearity.

Industry Type

It does not have multicolinearity problem.

Tangibility

It is free from the multicolinearity problem.

Table 3: The multicolinearity findings

Variable	Multicolinearity Occurrence	Multicolinearity with
Corporate Governance Factors		
Board Size	**No**	
Board Independence	**No**	
Audit firm type	**No**	
Firm Size measures		
Turnover	**Yes**	Board Size
Market Capitalization	**Yes**	Beta
Number of Employees	**No**	
Total Asset	**Yes**	**Board Size & Beta**
Profitability measures		
Return On Capital Employed	**No**	
Return On Shareholders' Fund	**Yes**	Gearing Ratio & Price to Book Value
Return on Total Asset	**No**	
Earning Per Share	**No**	
Debt Level		
Shareholder Liquidity Ratio	**No**	
Gearing Ratio	**Yes**	Price to Book Value
Other Measures		
Growth (Price to book Value)	**Yes**	Gearing Ratio
Risk(Beta)	**No**	
Industry Type	**No**	
Tangibility	**No**	

Regression Analysis

Table-4 shows the output of the multiple regression which was run on the SPSS. It is worth noting that the regression is tested at 10 per cent significance level for two tails. The multiple regression output is used to test the research hypotheses as under.

Corporate Governance Factors

Board size: the result shows that the number of board directors has no significant relationship with the dividend policy in the UK. Therefore, we reject H1 as the p-value is .685 as shown in table-4.

Board independence: The regression shows that the greater the number of independent directors, the higher is the dividends paid. The table shows that the coefficient is positive and significant ($t = 1.72$; $p < 0.10$). Therefore H2 is accepted. This is argued because the independent directors are monitoring investor interest by participating in the board's decisions. As a result, this leads to the reduction of agency cost. The same result was found by Belden (2005), Jiraporn et al. (2008), Borokhovich et al. (2005), and Bathala and Rao (1995).

Audit type: this is not one of the factors which affect dividend as there is no significant relationship reported. As a result, H3 is rejected.

As a result of the above analyses, corporate governance does matter in the UK business environment. The independence of the board leads to a reduction in the agency cost as it contributes to protecting the shareholders' rights and making decisions for the investors' interests and hence leads to increase dividends.

Firm Characteristics

Firm size: the regression shows that firm size is positively associated with dividends payments ($t = 2.85$; $p < .10$). Therefore, H4 is accepted. This is because the larger firm has more and diversified resources to pay dividends. This is consistent with previous studies, see Al-Najjar and Hussainey (2009a), Ho (2003) and Aivazian et al. (2003).

Firm profitability: The result shows that firm profitability affect firm's decision to pay dividends. The regression output shows a highly significant and positive coefficient on firm profitability ($t = 4.127$; $p = .000$).This leads to the acceptance of H5. The firm with high profits has the potential to pay dividends more than less-profitable firms. Previous studies found the same relationship, see Baker and Powell (2000), Al-Najjar and Hussainey (2009a), and Kowalewski (2007).

Debt level: the regression indicates no relationship between debt level and the dividend policy. Therefore, H6 is rejected.

Firm growth: the result indicates that firm growth does not affect the dividend policy. As a result, we reject H7.

Firm risk: regression shows that the risk of the firm is one of the determinants of dividend policy. A positive and significant relationship has been reported ($t = 1.73$; $p < 0.10$). Therefore, H8 is rejected as the previous studies mentioned a negative association. This positive association can be justified by signaling model, as the company wanted to signal the stability of the firm's performance.

Industry Type: the result shows that the industry type does not matter in deciding whether or not to pay a dividend. As a result, H9 is rejected.

Asset structure: the result shows that tangibility has no influence on the dividend payment. Therefore, H10 is rejected.

The above analysis shows that the firm characteristics do matter in dividend decisions. Firm size, firm profitability and firm risk are the significant variables which affects dividend decision in the UK among non-financial firms.

It is worth noting, as shown in the table-4, that the R-square is relatively high (.398). This means that all of the ten measures used in this study influence the dividend per share by about 40 per cent. Furthermore, firm profitability, firm size, firm risk and board independence are the main variables which affect dividends in the UK.

Table 4: Multiple regression output

Independent variable	Coefficient	t-statics	Significance (p-value)
Intercept	**-0.299**	**-2.444**	**(.017)**
Board size	**0.062**	**0.407**	**0.685**
Board Independence	**0.175**	**1.728**	**(0.088)***
Audit type	**-0.036**	**-0.693**	**0.490**
Firm Size	**0.085**	**2.859**	**(0.005)*****
Firm profitability	**0.032**	**4.127**	**(0.000)*****
Debt Level	**0.000**	**-0.201**	**0.841**
Firm Growth	**-5.632**	**-0.016**	**0.987**
Firm Risk	**0.076**	**1.739**	**(0.086)***
Industry type	**0.025**	**0.708**	**0.481**
Tangibility	**-0.050**	**-0.468**	**0.641**
Observations		**90**	
R-Square		**.398**	
F-test		**6.872**	

The significance levels (two-tail test) are: *10 per cent, **5 per cent and ***1 per cent.

Conclusions

This study explored the determinants of the dividend policy for a sample of non-financial UK firms in 2007. A multiple regressions analysis was used to find out the associations between corporate governance mechanisms and the dividend policy. The empirical study shows that board independence, profitability, firm size and firm risk have an impact on the dividend policy decisions in the UK. The study supports the theory that corporate governance features affect dividend policy in UK firms. Board independence is the most essential factor in corporate governance which forces the UK companies to pay dividends. In other words, the greater the number of independent directors on the board, the higher is the dividends paid to the shareholders. This finding supports the agency cost theory (Jenson, 1986; Jiraporn et al., 2008). Further, the firm characteristics variables viz., profitability, risk and firm size also act as a determinant factors for dividend policy among the non-financial UK firms. This research suggest that further research needs to be conducted to find out the alternative ways for reducing agency cost problem as the economy in the UK is expanding day by day.

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