The Determinants of Dividend Policy: Evidence from Malaysian Firms

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Abstract
The aim of this study is to investigate the relationship between dividend payout ratio in Malaysian firms with profitability, size, growth opportunities, free cash flow, business risk and market to book value. The paper used a sample of 284 firms listed on the Kuala Lumpur Stock Exchange (KLSE) from seven sectors viz., Consumer Products, Industrial Products, Construction, Finance, Technology, Properties, and Telecommunication. In order to decipher the relationships as stated above, multivariate regression analysis is used to test the hypotheses. The study found that at the pooled data level for All sectors, free cash flow, return on assets, return on equity, earning per share, market to book value and market capitalization have significant positive correlation with dividend payout ratio. The variable Beta, however, has a strong negative correlation with dividend payout ratio. The findings however differ from sector to sector; results reflect that Market capitalization; Beta, ROA and ROE are the common variables which have influence on DPR across various sectors except in technology sector where as the variable Market capitalization is not significantly associated with DPR. Similarly, ROA, which is significant determinant variable of DPR in four sectors like Construction, Consumer Products, Properties and Telecommunication Sector, it has no influence on the dividend payout ratio of the companies in the Industrial, Technology and Finance sectors.
Keywords: dividend payout ratio, profitability, size, growth opportunities, free cash flow, business risk, market to book value, market capitalization, Beta.

1. Introduction

Since early days of the development of the theory of corporate finance, dividend payout decision of the corporate sector has been a subject of debate in the literature. Role of agency cost, taxation, and transaction cost etc. on dividend decisions continue to draw the attention of researchers. Many models were developed by researchers across the globe to identify factors that drives dividend decisions by companies; findings of these studies varied widely from country to country. Identification of driver variables of dividend payout ratio in an emerging market like Malaysia is more challenging. Ling, et al (2008) defines dividend payout as distributions of retained earnings to the investors "Shareholders" based on their proportionate ownership. Dividends are usually paid in cash, but sometimes paid in stock or other means. Firms always look for an optimal dividend policy, among others to reach equilibrium among current dividend, future growth, and maximize firm's stock price. Miller and Modigliani, in their seminal paper in 1961, developed the dividend irrelevance hypotheses and argued that given perfect capital markets, the dividend decision does not affect the firm value. In real life, it has been realized that dividend policy does appear to matter in valuation of firms. Several theories have been advanced by economists to elucidate why Dividend decision does matter in practice. The Clientele effect theory asserts that the investors or the "clienteles" prefer a specific dividend yield; investors who are in high income tax brackets could find it more beneficial to hold low dividend yield stocks, whilst those have lower income tax brackets inclined to have high dividend yield stocks (Kalay A.1982), (Allen et al. 2003).

Signaling Hypothesis argue that as the management of the company have more precise information about the company than the outsiders, they can bridge this information gap by using dividend payout as a tool to convey internal information to the investors (Bhattacharya, 1979), (Miller and Rock, 1985).

The Agency theory argues that agency cost arises due to conflicts of interest between shareholders and management: Payment of dividend, therefore, can decrease the costs of investors and managers conflict (Jensen, *et al.* 1976, Easterbrook, 1984). Agency cost may also arise due to the conflict of interest between the stockholders and bondholders; typically, bondholders would like to leave as much free cash as possible in the firm by putting in place debt covenant so that this cash would be available to pay bondholders during the time of financial distress where as shareholders would like to have this cash for themselves. Easterbrook (1984) identified two agency costs viz., the cost of monitoring managers and the cost of risk aversion of the managers. In their recent studies Al-Najjar and Hussainey (2009) found that the conflict of interest between managers and investors may be reduced by paying dividends to shareholders. Also, Jiraporn *et al.* (2008) cited that one of the core theories clearing up the Dividend policy is the agency problem theory. Jirapron (2004) explored agency costs as a determinant of dividend policy especially in the context of shareholders' rights. Their evidence revealed that there is an inverse association between dividend payouts and shareholder rights and they argued that firms where shareholders' rights are more suppressed pay dividends more generously than do firms with

strong shareholder rights.

Bird-in-hand theory posits that due to uncertainty, the investors prefer the cash on hand rather than capital gains in the future. It is argued that the uncertainty of dividends payout increases with the time in the future (Gordon, 1963). This proposition has however been criticized and there is no strong evidence to support the contention.

As mentioned earlier, the pattern of dividend policy is varies from country to country, particularly between developed and emerging markets. Glen et al. (1995) study revealed that emerging markets have different dividends policies from the developed markets in countries. Their results show that the dividends payout ratio in the emerging markets is approximate two thirds that of developed markets. In recent studies, Aivazian et al. (2003) compared between the firms in developing countries and US firms they found that firms in emerging markets pay more dividends than the similar firms in US.

2. Previous Research
2.1   Dividend Policy Theories
2.1.1   Modigliani & Miller Theory
In 1961, Merton Miller and Franco Modigiliani (M&M) won the Noble Prize for their Dividend Irrelevance Hypothesis which proposed that under certain specific assumptions, a firms' dividend policy has no influence on its value. The basic assumptions behind the irrelevance proposition were that investors are rational, the market is efficient, there are no taxes, no cost of bankruptcy, no agency cost and availability of symmetric information. One of the major implications of the proposition is that a firm's investment policy is independent of the dividend policy.

According to Harry DeAngelo & Linda DeAngelo (2006), who revisited the MM theory, argued that as "MM's assumptions restrict payouts to an optimum, their irrelevance theorem does not provide the appropriate prescription for managerial behavior ". According to them, "in an idealized world, managers need to do two things to make their stockholders as well off as possible:(1) Select an investment program with maximum attainable NPV, and (2) Distribute to investors the full PV of the FCF generated by investment policy over the life of the enterprise".

2.1.2   Clientele Effect
According to Kalay (1982), investors ("clienteles") prefer a specific dividend yield; investors who are in the high income tax brackets would find it more beneficial to hold low dividend yield stocks, whilst those are in the lower income tax brackets inclined to have high dividend yield stocks.

Allen and Michaely (2003) pointed out that individual investors are in general higher marginal tax bracket while the corporate investors are in the lower tax bracket; they then have illustrated that individual investors hold low-dividend paying, whilst the corporate investors have high dividend paying stocks. Jun *et al.* (2006) examined a sample of Australian institutional equity funds and concluded that Australian firms are not inclined to pay high dividend.

2.1.3   Signaling Theory
Unlike the assumption of symmetric information in the M&M proposition, it is argued that management of the firm has more precise information about the future investment decisions, future earnings and profitability of the firm than outside investors. Therefore managers can decide the level of dividend payout to convey this internal information to the inventors. Managers can therefore decide the level of dividend payout to convey this internal information to the inventors. (Bhattacharya,1979), (Ji-ming et al. 2009).

The asymmetric information model suggests that announcement of dividend payout, which is different from the expectations of the investors, contain information on future earnings. Furthermore, stock prices will adjust to reflect the unexpected changes of dividend. (Bhattacharya, 1979) (Allen *et al.* 2000). Benartzi (1997) argued that "many dividend theories imply that changes in dividends have information content about the future earnings of the firm". He investigated this implication and found only limited support for it. They also found that the size of the dividend increase does not predict future earnings. However, consistent with Lintner's model on dividend policy, the author found that "firms that increase dividends are less likely than non changing firms to experience a drop in future earnings. Thus, their increase in concurrent earnings can be said to be somewhat permanent In spite of the lack of future earnings growth, firms that increase dividends have significant (though modest) positive excess returns for the following three years.

2.1.4   Bird in the Hand Theory
The theory was developed by Gordon (1963) and it is argued that due to uncertainty, investors prefer the certainty of cash on hand rather than capital gains in the future. Under the bird-in-hand theory, stocks with high dividend payouts are sought after by the investors and consequently command a higher market price; this is due to the fact that dividend has certainty or less risk, the investors will therefore discount dividend of the firm at a lower rate of return and hence higher will be the valuation of the firm. Miller and Modigliani (1961) argued that high dividend payout do not necessarily increase the firm's value and reduce the riskiness of the firm. M&M and

Bhattacharya (1979) called this argument the bird-in-the-hand fallacy. Furthermore, Bhattacharya (1979) argued that the riskiness of firm affects the level of dividend payout. Moreover, the riskiness of a firm's cash flow effects on its dividend payments, but increases in dividend will not decline the risk of the firm.

2.1.5   Agency Cost Theory

Agency theory is one the most vital 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." The core of the agency cost theory is the conflict of interest of the managers and shareholders. The concern of the investors is to ensure that their funds are not expropriated or wasted by the managers on unsuccessful projects. (Andrei Shleifer & Robert W. Vishny, 1997) Easterbrook (1984) suggested that the agency cost problem more dividend payout reduces the agency cost by decreasing the risk perception of the investors about the tendency of the managers to act in their own interest. Al-Najjar and Hussainey (2009) found that the conflict of interest between managers and investors may be reduced by paying dividends to shareholders.

2.2   Related Empirical Studies

2.2.1   Profitability

Profitability has long been considered as the most determinants of a firm's ability to pay dividends. Linter, (1956) and H. Kent Baker & Gary E. Powell, (2000) pointed out that the dividend payment pattern of a firm is affected by the current earnings and past dividends.

Ling *et al.* (2008) studied the prfitablity as a funiction of dividend payout ratio in Malaysia and used sample consist of 100 firms are listed in Bursa Malaysia, he used return on assets and return on equity as parameters. He pointed that ROE and ROA have strong relationship with dividend payout ratio. Jensen *et al.* (1992), Kowalewski *et al.* (2007) and Guizani & Mondher (2012) found that there is a positive association between return on assets (ROA) and dividend payouts, moreover firms that generate more earnings on their assets with having important cash flow, consequently pay higher dividend. AL-Kuwari (2010) stated government ownership and profitability of firms raise the possibility of paying dividends. Li Ji-ming *et al.* (2009) found that there is strong relationship between Dividend payout and return on equity and earning per share, additionally more paying dividends boost the firm's performance and thus increase of profit.

DeAngelo *et al.* (2004) indicates that the increasing dividend concentration may lead to increasing earnings concentration. Moreover, they found that in 2000 approximately half of the industrial firms recorded losses and just a few of them paid dividends. Earnings in both 1978 and 2000 of the sample firms are concentrated among a comparatively few firms at the top end of the distribution, and that such concentration is markedly bigger in 2000 than it was in 1978. There was also significant relationship between losses and the breakdown to pay dividends.

Mohamed *et al.* (2012) used a sample of 200 companies that are listed on Malaysian stock market from 2003-2005. They found that earning per share and return on equity are significant indictors for profitability whether they are used jointly or independently. Aivazian *et al.* (2003) concluded that in U.S. firms and promising market firms, profitability affects dividend payout, high debt ratios lead to reduced dividend payments, and market-to-book ratio has a positive relationship with dividend payments.

Annuar *et al.* (1993) studied dividend and earnings behavior for 60 firms listed in KLCE. The study covers the period from 1975 to 1989. They found that the dividend payout of the firms rely on their current earnings and previous dividends, furthermore, increasing earnings leads to raise dividend payment and vice versa. Al-Malkawi (2007) studied the determinants of dividend payout in Jordan for all public firms for period 1989-2000 and he found that the profitability in Jordan considers as one of factors that determine the dividend decision. Chigozie (2010) concluded that earning per share and current ratio are the most factors that effect on the dividend policy in Nigerian firms. Adil *et al.* (2011) found that the profitability which is measured by return on equity and earning per share has strong relationship with dividend yield. Naceur *et al.* (2006) studied the dividend policy of 48 firms listed on the Tunisian Stock Exchange during 1996-2002. The findings indicate that high profitability firms with more stable earnings could gain larger free cash flows and thus pay out larger dividends, and fast-growing firms payout larger dividends so as to appeal to investors.

2.2.2   Firm Size

Juhmani (2009) studied sample consist of 35 Bahraini companies listed in Bahrain Stock Exchange from 2006-2007, he used descriptive and statistical analysis. He revealed that dividend payout has significant relationship with size of Bahraini companies, profitability and change in previous year dividends listed in Bahrain Stock Exchange. Eriotis (2005) investigated the effects of distributed earnings and size of the firms to its dividend decision of Greek firms. The author elucidated the Greek firms set their dividends policies not only by net distributed earnings, but also by change in dividends, the change ast year earnings and size of the firm.

The findings suggest that distributed earnings and size of firms included as a signal about the firm's dividend. The Greek firms also having the long term dividend payout ratio. He used the two variables for

determines the corporate dividend payout decisions, distributed earnings and size of the firm. The panel regression (Cross Section weights) were done and the results of the model give the significant estimations with the explanatory power (R2) 95.4%. The evidence of the model suggest that dividend at time (t) can be expressed as the long run target Dividend payout represented by the both changes in dividend and in distributed earnings and its speed of adjustment towards distributed earnings and the last year dividend of the firm at (t).

The study concluded that Greek firms distribute divided each year according to their target payout ratio, which is dependent on firm size. Holder *et al.* (1998) found that dividend payout is positively associated with firm size. And larger firms have better access to capital markets and find it easier to raise funds at lower costs, allowing them to have higher dividend payout. Ho (2003) argued that big companies are more able to pay dividends, rather than smaller companies. Baskin (1989) revealed that operating earnings, firm's size; leverage, dividend payout ratio and growth have affect on stock prices. The vital factors that influence on dividend decision are the level of current and expected future earnings, size of the firm, stability of earnings, and the pattern of past dividends. Imran (2011) studied 36 firms are listed under Pakistan's engineering sector between 1996-2008, he found that previous dividend payout yield, earning per share, profitability, sales growth and the size of the firm are the most crucial determinants of dividend payout.

Al Shabibi *et al.* (2011) studied sample of non-financial firms in UK, they found that board independence, profitability, firm size and firm risk have significant relationship with the dividend policy decisions in the UK. Moreover, the firm characteristics variables namely, profitability, risk and firm size consider as determinant factors for dividend policy among the non-financial UK firms. Osman *et al.* (2010) found the most factors have influence on dividend decision in Saudi Arabia they are namely, profitability, size, and business risk. Government ownership, leverage, and age have significant impact on the dividend policy of non-financial firms.

2.2.3 Growth Opportunities

Al-Najjar & Hussainey (2009) define The 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. Higgins (1972) illustrated that dividend policy is associated negatively with firms need top fund finance growth opportunities. Rozeff (1982), Lloyd *et al.* (1985), Collins *et al.* (1996), and Amidu and Abor (2006) found that historical sales growth and dividend payout are related significantly and negatively. Ho (2003) that the firms have high chance for growth are probable spend more on new projects for expansion purposes. As a result, dividend paid to the shareholders would be less. La Porta *et al.* (2000) explored countries with high legal protection and found that fast-growth firms paid lower payout, as the shareholders were legally protected, allowing them to wait to receive their dividends when the investment opportunities were good. On the other hand, in countries with low legal protection for shareholders, firms kept the dividend payout high, to develop and maintain a strong reputation, even when they had better investment opportunities. Gill *et al.* (2010) investigated 500 financial annual reports announced by public firms in 2007 in USA. They found that a growth related to payouts negatively in the entire sample.

While, Imran (2011) found that dividend per share is associated positively with sales growth. Also D`Souza (1999) concluded that a positive relationship but insignificant in the case of growth and negative but insignificant relationship in case of market to book value.

2.2.4 The Free Cash Flow

Jensen (1986) defined free cash flow as the excess cash flow that's required to fund all projects with a positive net present value (NPV). He illustrated that increasing of free cash flow; it leads to raise agency conflict between the interests of insiders and outsiders, then it declines the performance of the company. While shareholders desire maximum value of shares, the insiders are inclined to their interests. Jensen (1986), Holder *et al.*(1998) and La Porta *et al.* (2000) suggested that firms have a greater "free cash flow" could pay more dividends in term of reducing the agency costs of free cash flow. Guizani *et al.* (2012) examined sample of 44 firms in Tunisia from 1998-2007, they concluded that free cash flow and profitability impact on Tunisian firm's dividend decisions, they pay higher payouts when they have significant free cash flow and have high profitability. As supported by Kowalewski *et al.* (2007) and Adjaoud *et al.* (2010).

2.2.5 Beta "Business Risk"

It defined as the risk associated to situations in which the company is involved in the risk environment. The relationship of firm's risk and dividend decision was investigated by Holder *et al.* (1998), Amidu *et al.* (2006), Ling *et al.* (2008) and Mehta (2012) They concluded that beta has a negative association with dividend payout. Jensen *et al.* (1992) found that greater systematic risk increased the uncertainty of expected future earnings. Therefore, firms force to pay fewer dividends due to increase of uncertainty earnings. Moh'd *et al.* (1995) also indicated an inverse relationship between the Dividend payout and firm's risk. They revealed that firms with volatility earnings paid lower dividends, in an attempt to keep the dividend payout stable and to avoid the high cost of external financing. On the contrary, Mollah (2002) resulted that firms listed on the Dhaka Stock Exchange paid a large dividend, although the beta for their stock was high. He argued that in an emerging stock

exchange, the dividend might not be the most appropriate tool to convey correct information about transaction costs to the market. Also Al Shabibi *et al.* (2011) who studied a sample consists of 90 nonfinancial firms in UK. They found that firm risk has a positive significant impact on the dividend payout.

2.2.6 Market to Book Value

Omran *et al.* (2004) who studied sample of 49 Egyptian firms for period 1999-2000, they indicated that market-to-book ratio is a significant factor that influence dividend payout ratio in Egyptian firms. Besides that, more investment opportunities there are fewer dividend payouts due to finance the new investment. Also Amidu *et al.* (2006) found a negative relationship between market-to-book ratio and dividend payout ratios. In contrast, Gill *et al.* (2010), Aivazian (2003) found that there is highly significant positive association between market to book value and dividend payout.

3 Hypotheses

This section provides the hypothesized relationship between dividend payout ratio (DPR) as dependent variable with the chosen factors namely, profitability, size, growth opportunities, free cash flow, business risk and market to book value.

H1: The dividend payout ratio is positively associated with return on assets.
H2: The dividend payout ratio is positively associated with return on equity.
H3: The dividend payout ratio is positively associated with earning per share.
H4: The dividend payout ratio is positively associated with firm size.
H5: The dividend payout ratio is positively/negatively associated with growth opportunities.
H6: The dividend payout ratio is positively associated with free cash flow.
H7: The dividend payout ratio is negatively associated with Beta.
H8: The dividend payout ratio is negatively/positively associated with market to book value.

4 Research Method

The multiple regression method is used to examine the relationship between the Dividend payout ratio and profitability, size, growth opportunities, free cash flow (FCF), business risk "beta", earning per share (EPS), market to book value (MBV) of the companies in the *Kuala Lumpur Stock Exchange*. Data is analyzed with the use of SPSS version11.5 software.

The result of the regression analysis is an equation that represents the best prediction of a dependent variable from several independent variables.

The regression equation that is estimated is as follows:

$$DPR = \alpha_0 + \beta_1\ FCF + \beta_2\ ROE + \beta_3\ ROA + \beta_4\ EPS + \beta_5\ MBV + \beta_6\ GrowthAssets + \beta_7\ MarketCap + \beta_8\ Beta + \varepsilon$$

Where,

DPR: represents Dividend payout ratio which defines as Dividend/ (retained earnings+ net income).

FCF: Free cash flow is a measure of how much cash a company has for ongoing activities and growth after paying its bills. (Al-Kuwar, 2009). It's derived from DataStream.

ROE: is Return on equity that is measured by net income divided by Shareholder's equity does not include preferred shares. It's derived from DataStream and it's a proxy for profitability.

ROA: is Return on assets that is measured by net income divided by total assets of the company. It's derived from DataStream and it's a proxy for profitability.

EPS: Earning per share, it's the portion of a company's profit allocated to each outstanding share of common stock. It's derived from DataStream and it's a proxy for profitability.

MBV: Market-to-book ratio reflects the market view of the value of equity in comparison to what shareholders have contributed to the firm since the day it was established. (Gill *et al.* 2010). It's derived from DataStream.

GrowthAssets: is Growth Assets is proxy for growth opportunities, it's measured by (Total assets t- Total assets t-1)/ Total assets t-1.

MarketCap: is Market capitalization which is proxy for firm size, it's calculated by multiplying a company's shares outstanding by the current market price of one share.

Beta: is the Business risk

ε: Error term

5 Scope of the research

The study covers data on financial performances of 284 listed firms in Kuala Lumpur Stock Exchange of Bursa Malaysia in seven sectors viz., Consumer Product, Industrial Products, Construction, Finance, Technology, Properties and Communication sector for which comprehensive data was available for the period 2002 to 2011.

The firms which do not have complete data for the period under reference were excluded from the study; size of the sample and the period of the study were therefore conditioned by the availability of data and hence it is a purposive sample. The study is focused on profitability, size, growth opportunities, free cash flow, market to book value and business risk in Malaysian firms and to assess how they related to dividend payout ratio on a temporal basis.

6   Sample

The study covers data on financial performances of 284 listed firms in Kuala Lumpur Stock Exchange of Bursa Malaysia in seven sectors viz., Consumer Product, Industrial Products, Construction, Finance, Technology, Properties and Communication sector for which comprehensive data was available for the period 2002 to 2011. The firms which do not have complete data for the period under reference were excluded from the study; size of the sample and the period of the study were therefore conditioned by the availability of data and hence it is a purposive sample.

7   Source of Data

The data used in this study is drawn from Thomson DataStream, which is provided from the library of University Utara Malaysia; the data on financial performances of 284 companies listed in the Main Board of the *Kuala Lumpur Stock Exchange* (KLSE) were drawn form DataStream. This data includes companies from seven sectors namely Consumer Products, Industrial Products, Construction, Finance, Technology, Properties and Telecommunication. All data used in the study is therefore secondary data but provided all the needed information required by the researcher in addressing the research problem under reference (Sekaran, 2003).

The table 1 profiles the secondary data used for the purpose of analysis of the study.

Table 1: The observations of the study.

Sector name	Total number of Listed firms	Total number of firms for which required data were available	% of available firms
Consumer Products	86	62	72%
Industrial Products	122	62	50.8%
Construction	107	54	50.4%
Finance	18	10	55.5%
Technology	87	31	35.6%
Properties	94	62	65.9%
Telecommunication	11	3	27.2%

8   The Results of Hypotheses Testing

8.1   Correlations Analysis

Table 2 shows the correlation analysis at the aggregate level of All sectors. It is found that FCF is significantly and positively correlate (corr =.110 at .01 level) with DPR. Similarly, ROE, ROA EPS and Market to Book Value has significant positive correlation with DPR (corr =.279, corr =.141, corr =.271 and corr =.162 respectively all at .01 level). Similarly Market capitalization shows significant and positive correlation with DPR (corr =.163 at .01 level). While Beta is negatively correlated (corr = -.094 at .o1 level) and the correlations between growth assets and DPR is positive .008 but it not at a significant level.

Table 3 shows the findings of the analysis for Construction sector. It can be seen that unlike the profile at the aggregate level, FCF, Beta and ROE are not correlated to DPR in the Construction sector but ROA, EPS, Market to Book Value and Market Capitalization of this sector are significantly correlated to DPR., the correlation is highest with EPS (corr=.442 at .01 level) and Market Capitalization (corr=.318 at .01level). The correlation between growth assets and DPR is positive and significant but less stronger than all sectors analysis. Table 4 reflects the result of the analysis for Industrial Product sector. It is found that only three variables viz., ROE, Market to Book Value and Beta have significant correlation with DPR of this sector; the correlation of ROE is significantly positive value of .382 and for Market to book value of 0.96. While the correlation of Beta is significantly negative value of -.108 and EPS is weak negative relationship. And The others variables have weak positive correlation with DPR.

Table 5 shows the findings for the Consumer Products sector. FCF has strong correlation with DPR (corr = .147 at .01level). Furthermore, the correlation between ROA, EPS and Market to Book value are also positive and significant (corr = .258, .114 and .321 and respectively at .01 level. On the other hand the correlation between beta and DPR is negative and significant while growth assets is negative and weak -.007, likewise ROE is correlated weakly and not significant.

Table 6 indicates the findings of Properties sector. FCF, EPS and Market to book value aren't correlated with DPS while they were correlated positively in the all sectors analysis. However, the correlation

between ROE and ROA with DPR is positive and significant (corr = .189 and .175 respectively at .01 level). Likewise the correlations between market capitalization is positive and strong .204 with DPR. The correlations between growth assets and DPR is positive and significant .089 but less stronger than all sector analysis. Beta is found to be correlated negatively and more strongly with DPR (corr= -.264 at.01 level).

   Table 7 shows the findings of Technology sector. Unlike the findings at the aggregate level, ROE, Growth assets and Beta aren't correlated with DPR in the case of Technology sector. (But they are correlated positively in the all sectors analysis.). However, FCF and Market Capitalization are significantly correlated (corr=.257 and .149 at .01 level) with DPR. Other variables like EPS, Market to Book Value and Growth of Assets etc. are positively correlated to DPR except Beta is negative but all not significant at .01 level

   Table 8 presents the findings in Finance sector. It is interesting to note that unlike the analysis at All Sector level, FCF, ROE, ROA, Market to book value, growth assets and Beta aren't correlated significantly with DPR. However, the correlation between EPS and Market Capitalization are positive and significant (corr=.556 and .513 respectively at .011 level) with DPR.

   Table 9 shows the findings of Telecommunication sector. Four variables viz., FCF, ROA, Market to Book Value and Market Capitalization are found to be significantly and positively correlated (corr=.697, .723, .131 and .621 respectively at .01 level) with DPR but Beta is correlated negatively and significantly (corr= -.714). Whereas, the correlation of ROE and Growth assets with DPR in this sector are not significant and weak.

9 Multiple Linear Regression Analysis

The present section will elucidate the analysis and relationships, through the multiple regression technique, between dividend payout ratio (DPR) as dependent variable and independent variables comprising of free cash flow, return on equity, return on assets, earning per share, market to book value, growth assets, market capitalization and beta for 9 years from 2003-2011 at All Sectors level and seven sectors at individual level. The output of multiple regressions at All Sector level is shown in tables 10.

Table 10: Summary of the Regressions Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.406[a]	.165	.162	23.0224417

a. Predictor Variables: (Constant), Beta, Growth assets, MBV, ROE, EPS, ROA, Market Cap., and FCF.
b - Dependent Variable: DPR.

R-sq indicates that the influence of independent variables on the dependent variables. It is found that the independent variables determine 16.5% of the DPR i.e., more than 16% of the relationship with DPR can be determined by the eight independent variables.

Table 11: ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	266755.204	8	33344.400	62.910	.000[a]
	Residual	1349993.593	2547	530.033		
	Total	1616748.796	2556			

   Table 11, the ANOVA table, indicates that the F-value is 62.910 at significance of 0.000, which means that 16.5% of the variance of DPR for the listed Malaysian companies had been significantly explained by the eight independent variables.

Table 12: The Coefficients of Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	19.730	.858		23.008	.000		
FCF	-2.867E-6	.000	-.048	-1.589	.112	.357	2.802
ROE	.237	.017	.250	13.743	.000	.988	1.012
ROA	.175	.030	.107	5.735	.000	.945	1.059
EPS	.214	.021	.183	9.938	.000	.969	1.032
MBV	1.430	.320	.086	4.470	.000	.895	1.118
Growth assets	.330	.594	.011	.556	.578	.792	1.262
Market Cap.	1.053E-6	.000	.135	4.603	.000	.379	2.639
Beta	-3.630	.644	-.104	-5.635	.000	.971	1.030

a. Dependent Variable: DPR.

The coefficients of the multiple regression analysis as presented in Table 12 reflects that first, six variables namely, return on equity (ROE), return on assets (ROA), earning per share (EPS), market to book value (MBV), market capitalization and Beta are significant at the 5% confidence level. Second, the other two variables namely, free cash flow (FCF) and growth assets show insignificant relationship.

By analyzing Variance Inflation Factor (VIF) in ROE model, we can find that all independent variables has tolerance value higher than 0.1. Moreover, for all the variables included in the study have VIF value less than 10. This finding suggests that multi-collinearity hasn't been a problem in the study.

10   Conclusion

Present study was aimed at identifying determinant variables of the dividend payout ratio of the listed Malaysian companies. The findings of the empirical analysis carried out during the study using various tools & techniques, the determinant variables of DPR at the All Sector level (pooled data) is presented in this section. The summary table of significant variables (Table 13) broadly reflects the outcome of the correlation analysis carried-out during the study. Table 13 reflects that Market capitalization; Beta, ROA and ROE are the common variables which have influence on DPR across various sectors except in technology sector where it is found that the variable Market capitalization is not significantly associated with DPR. Similarly, ROA, which is significant determinant variable of DPR in four sectors like Construction, Consumer Products, Properties and Telecommunication Sector, it has no influence on the dividend payout ratio of the companies in the Industrial, Technology and Finance sectors.

Table 13: Summary of correlations analysis

Sectors	FCF	ROE	ROA	EPS	M to B	Growth assets	Market capitalization	Beta
All sectors	√	√	√	√	√		√	√
Construction			√	√	√	√	√	
Industrial products		√					√	√
Consumer products	√	√	√	√	√		√	√
Properties		√	√			√	√	√
Technology	√	√						
Finance				√			√	
Telecommunication	√		√		√		√	√

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Appendix
Table 2: Correlations for pooling data

		DPR.	FCF	ROE	ROA	EPS	MBV	Growth assets	Market Cap.	Beta
DPR.	Pearson Correlation	1	.110**	.279**	.141**	.217**	.162**	.008	.163**	.482**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.674	.000	.000
	N	2556	2556	2556	2556	2556	2556	2556	2556	2556
FCF	Pearson Correlation	.110**	1	.027	.061**	.120**	.157**	.304**	.739**	.039*
	Sig. (2-tailed)	.000		.179	.002	.000	.000	.000	.000	.047
	N	2556	2556	2556	2556	2556	2556	2556	2556	2556
ROE	Pearson Correlation	.279**	.027	1	.070**	.068**	.025	.017	.046*	.121**
	Sig. (2-tailed)	.000	.179		.000	.001	.207	.397	.020	.000
	N	2556	2556	2556	2556	2556	2556	2556	2556	2556
ROA	Pearson Correlation	.141**	.061**	.070**	1	.028	.158**	.085**	.090**	.076**
	Sig. (2-tailed)	.000	.002	.000		.160	.000	.000	.000	.000
	N	2556	2556	2556	2556	2556	2556	2556	2556	2556
EPS	Pearson Correlation	.217**	.120**	.068**	.028	1	.109**	-.006	.093**	.154**
	Sig. (2-tailed)	.000	.000	.001	.160		.000	.758	.000	.000
	N	2556	2556	2556	2556	2556	2556	2556	2556	2556
MBV	Pearson Correlation	.162**	.157**	.025	.158**	.109**	1	.008	.266**	-.054**
	Sig. (2-tailed)	.000	.000	.207	.000	.000		.678	.000	.007
	N	2556	2556	2556	2556	2556	2556	2556	2556	2556
Growth assets	Pearson Correlation	.008	.304**	.017	.085**	-.006	.008	1	.009	.000
	Sig. (2-tailed)	.674	.000	.397	.000	.758	.678		.640	.998
	N	2556	2556	2556	2556	2556	2556	2556	2556	2556
Market Cap.	Pearson Correlation	.163**	.739**	.046*	.090**	.093**	.266**	.009	1	.063**
	Sig. (2-tailed)	.000	.000	.020	.000	.000	.000	.640		.002
	N	2556	2556	2556	2556	2556	2556	2556	2556	2556
Beta	Pearson Correlation	-.094**	-.061**	-.014	.120**	.020	-.051*	.023	-.020	1
	Sig. (2-tailed)	.000	.002	.491	.000	.310	.011	.239	.303	
	N	2556	2556	2556	2556	2556	2556	2556	2556	2556

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 3: Correlations for construction sector

		DPR.	FCF	ROE	ROA	EPS	MBV	Growth assets	Market Cap.	Beta
DPR.	Pearson Correlation	1	.032	.019	.256**	.442**	.131**	.095*	.318**	.044
	Sig. (2-tailed)		.485	.683	.000	.000	.004	.036	.000	.332
	N	486	486	486	486	486	486	486	486	486
FCF	Pearson Correlation	.032	1	-.043	.040	.014	.024	.005	.163**	.013
	Sig. (2-tailed)	.485		.349	.376	.765	.595	.908	.000	.771
	N	486	486	486	486	486	486	486	486	486
ROE	Pearson Correlation	.019	-.043	1	-.105*	.109*	.027	.033	-.084	-.010
	Sig. (2-tailed)	.683	.349		.020	.016	.556	.474	.066	.830
	N	486	486	486	486	486	486	486	486	486
ROA	Pearson Correlation	.256**	.040	-.105*	1	.069	.071	.050	.131**	.120**
	Sig. (2-tailed)	.000	.376	.020		.127	.121	.269	.004	.008
	N	486	486	486	486	486	486	486	486	486
EPS	Pearson Correlation	.442**	.014	.109*	.069	1	.065	.051	.102*	-.014
	Sig. (2-tailed)	.000	.765	.016	.127		.155	.261	.024	.756
	N	486	486	486	486	486	486	486	486	486
MBV	Pearson Correlation	.131**	.024	.027	.071	.065	1	.001	.383**	.199**
	Sig. (2-tailed)	.004	.595	.556	.121	.155		.983	.000	.000
	N	486	486	486	486	486	486	486	486	486
Growth assets	Pearson Correlation	.095*	.005	.033	.050	.051	.001	1	.048	.017
	Sig. (2-tailed)	.036	.908	.474	.269	.261	.983		.286	.713
	N	486	486	486	486	486	486	486	486	486
Market Cap.	Pearson Correlation	.318**	.163**	-.084	.131**	.102*	.383**	.048	1	.236**
	Sig. (2-tailed)	.000	.000	.066	.004	.024	.000	.286		.000
	N	486	486	486	486	486	486	486	486	486
Beta	Pearson Correlation	.044	.013	-.010	.120**	-.014	.199**	.017	.236**	1
	Sig. (2-tailed)	.332	.771	.830	.008	.756	.000	.713	.000	
	N	486	486	486	486	486	486	486	486	486

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4: Correlations for industrial Products sector

		DPR	FCF	ROE	ROA	EPS	M to B	Growth assets	Market Capitali	Beta
DPR.	Pearson Correlation	1	.032	.019	.256**	.442**	.131**	.095*	.318**	.044
	Sig. (2-tailed)		.485	.683	.000	.000	.004	.036	.000	.332
	N	486	486	486	486	486	486	486	486	486
FCF	Pearson Correlation	.032	1	-.043	.040	.014	.024	.005	.163**	.013
	Sig. (2-tailed)	.485		.349	.376	.765	.595	.908	.000	.771
	N	486	486	486	486	486	486	486	486	486
ROE	Pearson Correlation	.019	-.043	1	-.105*	.109*	.027	.033	-.084	-.010
	Sig. (2-tailed)	.683	.349		.020	.016	.556	.474	.066	.830
	N	486	486	486	486	486	486	486	486	486
ROA	Pearson Correlation	.256**	.040	-.105*	1	.069	.071	.050	.131**	.120**
	Sig. (2-tailed)	.000	.376	.020		.127	.121	.269	.004	.008
	N	486	486	486	486	486	486	486	486	486
EPS	Pearson Correlation	.442**	.014	.109*	.069	1	.065	.051	.102*	-.014
	Sig. (2-tailed)	.000	.765	.016	.127		.155	.261	.024	.756
	N	486	486	486	486	486	486	486	486	486
M BV	Pearson Correlation	.131**	.024	.027	.071	.065	1	.001	.383**	.199**
	Sig. (2-tailed)	.004	.595	.556	.121	.155		.983	.000	.000
	N	486	486	486	486	486	486	486	486	486
Growth assets	Pearson Correlation	.095*	.005	.033	.050	.051	.001	1	.048	.017
	Sig. (2-tailed)	.036	.908	.474	.269	.261	.983		.286	.713
	N	486	486	486	486	486	486	486	486	486
Market Cap.	Pearson Correlation	.318**	.163**	-.084	.131**	.102*	.383**	.048	1	.236**
	Sig. (2-tailed)	.000	.000	.066	.004	.024	.000	.286		.000
	N	486	486	486	486	486	486	486	486	486
Beta	Pearson Correlation	.044	.013	-.010	.120**	-.014	.199**	.017	.236**	1
	Sig. (2-tailed)	.332	.771	.830	.008	.756	.000	.713	.000	
	N	486	486	486	486	486	486	486	486	486

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 5: Correlations for consumer sector

		DPR.	FCF	ROE	ROA	EPS	MBV	Growth assets	Market Cap.	Beta
DPR.	Pearson Correlation	1	.147**	.134**	.258**	.123**	.321**	-.007	.154**	-.179**
	Sig. (2-tailed)		.001	.001	.000	.004	.000	.867	.000	.000
	N	558	558	558	558	558	558	558	558	558
FCF	Pearson Correlation	.147**	1	-.021	.225**	.015	.352**	.056	.826**	.078
	Sig. (2-tailed)	.001		.616	.000	.727	.000	.187	.000	.065
	N	558	558	558	558	558	558	558	558	558
ROE	Pearson Correlation	.134**	-.021	1	.005	-.056	.045	-.072	-.004	-.081
	Sig. (2-tailed)	.001	.616		.912	.186	.291	.090	.934	.057
	N	558	558	558	558	558	558	558	558	558
ROA	Pearson Correlation	.258**	.225**	.005	1	.006	.274**	.310**	.240**	-.060
	Sig. (2-tailed)	.000	.000	.912		.890	.000	.000	.000	.154
	N	558	558	558	558	558	558	558	558	558
EPS	Pearson Correlation	.123**	.015	-.056	.006	1	.008	.017	.013	.007
	Sig. (2-tailed)	.004	.727	.186	.890		.841	.681	.754	.865
	N	558	558	558	558	558	558	558	558	558
MBV	Pearson Correlation	.321**	.352**	.045	.274**	.008	1	.027	.374**	-.054
	Sig. (2-tailed)	.000	.000	.291	.000	.841		.525	.000	.204
	N	558	558	558	558	558	558	558	558	558
Growth assets	Pearson Correlation	-.007	.056	-.072	.310**	.017	.027	1	.058	.035
	Sig. (2-tailed)	.867	.187	.090	.000	.681	.525		.169	.413
	N	558	558	558	558	558	558	558	558	558
Market Cap.	Pearson Correlation	.154**	.826**	-.004	.240**	.013	.374**	.058	1	.070
	Sig. (2-tailed)	.000	.000	.934	.000	.754	.000	.169		.096
	N	558	558	558	558	558	558	558	558	558
Beta	Pearson Correlation	-.179**	.078	-.081	-.060	.007	-.054	.035	.070	1
	Sig. (2-tailed)	.000	.065	.057	.154	.865	.204	.413	.096	
	N	558	558	558	558	558	558	558	558	558

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6: Correlations for Properties sector

		DPR.	FCF	ROE	ROA	EPS	M to B	Growth assets	Market Capitali	Beta
DPR.	Pearson Correlation	1	.071	.189**	.175**	-.037	.065	.089*	.204**	-.264**
	Sig. (2-tailed)		.096	.000	.000	.381	.127	.035	.000	.000
	N	558	558	558	558	558	558	558	558	558
FCF	Pearson Correlation	.071	1	.050	.135**	-.008	.056	-.016	.505**	-.028
	Sig. (2-tailed)	.096		.241	.001	.855	.187	.702	.000	.511
	N	558	558	558	558	558	558	558	558	558
ROE	Pearson Correlation	.189**	.050	1	-.025	-.022	.007	.042	.036	-.121**
	Sig. (2-tailed)	.000	.241		.554	.599	.871	.326	.399	.004
	N	558	558	558	558	558	558	558	558	558
ROA	Pearson Correlation	.175**	.135**	-.025	1	-.013	.045	.159**	.140**	-.046
	Sig. (2-tailed)	.000	.001	.554		.754	.288	.000	.001	.281
	N	558	558	558	558	558	558	558	558	558
EPS	Pearson Correlation	-.037	-.008	-.022	-.013	1	.002	.000	.000	-.066
	Sig. (2-tailed)	.381	.855	.599	.754		.971	.995	.991	.120
	N	558	558	558	558	558	558	558	558	558
MBV	Pearson Correlation	.065	.056	.007	.045	.002	1	.016	.170**	-.042
	Sig. (2-tailed)	.127	.187	.871	.288	.971		.704	.000	.321
	N	558	558	558	558	558	558	558	558	558
Growth assets	Pearson Correlation	.089*	-.016	.042	.159**	.000	.016	1	.114**	.014
	Sig. (2-tailed)	.035	.702	.326	.000	.995	.704		.007	.733
	N	558	558	558	558	558	558	558	558	558
Market Cap.	Pearson Correlation	.204**	.505**	.036	.140**	.000	.170**	.114**	1	.032
	Sig. (2-tailed)	.000	.000	.399	.001	.991	.000	.007		.449
	N	558	558	558	558	558	558	558	558	558
Beta	Pearson Correlation	-.264**	-.028	-.121**	-.046	-.066	-.042	.014	.032	1
	Sig. (2-tailed)	.000	.511	.004	.281	.120	.321	.733	.449	
	N	558	558	558	558	558	558	558	558	558

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 7: Correlations for Technology sector

		DPR.	fcf	ROE	ROA	EPS	MBV	Growth assets	Market Cap.	Beta
DPR.	Pearson Correlation	1	.161**	-.154**	.071	.010	.067	.023	.115	-.072
	Sig. (2-tailed)		.007	.010	.239	.866	.269	.700	.055	.229
	N	278	278	278	278	278	278	278	278	278
FCF	Pearson Correlation	.161**	1	.028	.079	.295**	.120*	-.030	.634**	-.010
	Sig. (2-tailed)	.007		.637	.190	.000	.045	.615	.000	.862
	N	278	279	279	279	279	279	279	279	279
ROE	Pearson Correlation	-.154**	.028	1	-.013	.051	-.032	-.120*	-.023	-.026
	Sig. (2-tailed)	.010	.637		.826	.398	.592	.045	.705	.661
	N	278	279	279	279	279	279	279	279	279
ROA	Pearson Correlation	.071	.079	-.013	1	.075	.203**	.348**	.110	.318**
	Sig. (2-tailed)	.239	.190	.826		.213	.001	.000	.067	.000
	N	278	279	279	279	279	279	279	279	279
EPS	Pearson Correlation	.010	.295**	.051	.075	1	.102	.011	.306**	-.006
	Sig. (2-tailed)	.866	.000	.398	.213		.089	.849	.000	.918
	N	278	279	279	279	279	279	279	279	279
MBV	Pearson Correlation	.067	.120*	-.032	.203**	.102	1	.120*	.380**	.036
	Sig. (2-tailed)	.269	.045	.592	.001	.089		.045	.000	.547
	N	278	279	279	279	279	279	279	279	279
Growth assets	Pearson Correlation	.023	-.030	-.120*	.348**	.011	.120*	1	-.003	.087
	Sig. (2-tailed)	.700	.615	.045	.000	.849	.045		.954	.148
	N	278	279	279	279	279	279	279	279	279
Market Cap.	Pearson Correlation	.115	.634**	-.023	.110	.306**	.380**	-.003	1	.194**
	Sig. (2-tailed)	.055	.000	.705	.067	.000	.000	.954		.001
	N	278	279	279	279	279	279	279	279	279
Beta	Pearson Correlation	-.072	-.010	-.026	.318**	-.006	.036	.087	.194**	1
	Sig. (2-tailed)	.229	.862	.661	.000	.918	.547	.148	.001	
	N	278	279	279	279	279	279	279	279	279

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 8: Correlations For Finance sector

		DPR.	FCF	ROE	ROA	EPS	M to B	Growth assets	Market Cap.	Beta
DPR.	Pearson Correlation	1	.161[**]	-.154[**]	.071	.010	.067	.023	.115	-.072
	Sig. (2-tailed)		.007	.010	.239	.866	.269	.700	.055	.229
	N	278	278	278	278	278	278	278	278	278
FCF	Pearson Correlation	.161[**]	1	.028	.079	.295[**]	.120[*]	-.030	.634[**]	-.010
	Sig. (2-tailed)	.007		.637	.190	.000	.045	.615	.000	.862
	N	278	279	279	279	279	279	279	279	279
ROE	Pearson Correlation	-.154[**]	.028	1	-.013	.051	-.032	-.120[*]	-.023	-.026
	Sig. (2-tailed)	.010	.637		.826	.398	.592	.045	.705	.661
	N	278	279	279	279	279	279	279	279	279
ROA	Pearson Correlation	.071	.079	-.013	1	.075	.203[**]	.348[**]	.110	.318[**]
	Sig. (2-tailed)	.239	.190	.826		.213	.001	.000	.067	.000
	N	278	279	279	279	279	279	279	279	279
EPS	Pearson Correlation	.010	.295[**]	.051	.075	1	.102	.011	.306[**]	-.006
	Sig. (2-tailed)	.866	.000	.398	.213		.089	.849	.000	.918
	N	278	279	279	279	279	279	279	279	279
MBV	Pearson Correlation	.067	.120[*]	-.032	.203[**]	.102	1	.120[*]	.380[**]	.036
	Sig. (2-tailed)	.269	.045	.592	.001	.089		.045	.000	.547
	N	278	279	279	279	279	279	279	279	279
Growth assets	Pearson Correlation	.023	-.030	-.120[*]	.348[**]	.011	.120[*]	1	-.003	.087
	Sig. (2-tailed)	.700	.615	.045	.000	.849	.045		.954	.148
	N	278	279	279	279	279	279	279	279	279
Market Cap.	Pearson Correlation	.115	.634[**]	-.023	.110	.306[**]	.380[**]	-.003	1	.194[**]
	Sig. (2-tailed)	.055	.000	.705	.067	.000	.000	.954		.001
	N	278	279	279	279	279	279	279	279	279
Beta	Pearson Correlation	-.072	-.010	-.026	.318[**]	-.006	.036	.087	.194[**]	1
	Sig. (2-tailed)	.229	.862	.661	.000	.918	.547	.148	.001	
	N	278	279	279	279	279	279	279	279	279

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 9: Correlations for Telecommunication Sector

		DPR.	FCF	ROE	ROA	EPS	MBV	Growth assets	Market Cap.	Beta
DPR.	Pearson Correlation	1	.161**	-.154**	.071	.010	.067	.023	.115	-.072
	Sig. (2-tailed)		.007	.010	.239	.866	.269	.700	.055	.229
	N	278	278	278	278	278	278	278	278	278
FCF	Pearson Correlation	.161**	1	.028	.079	.295**	.120*	-.030	.634**	-.010
	Sig. (2-tailed)	.007		.637	.190	.000	.045	.615	.000	.862
	N	278	279	279	279	279	279	279	279	279
ROE	Pearson Correlation	-.154**	.028	1	-.013	.051	-.032	-.120*	-.023	-.026
	Sig. (2-tailed)	.010	.637		.826	.398	.592	.045	.705	.661
	N	278	279	279	279	279	279	279	279	279
ROA	Pearson Correlation	.071	.079	-.013	1	.075	.203**	.348**	.110	.318**
	Sig. (2-tailed)	.239	.190	.826		.213	.001	.000	.067	.000
	N	278	279	279	279	279	279	279	279	279
EPS	Pearson Correlation	.010	.295**	.051	.075	1	.102	.011	.306**	-.006
	Sig. (2-tailed)	.866	.000	.398	.213		.089	.849	.000	.918
	N	278	279	279	279	279	279	279	279	279
MBV	Pearson Correlation	.067	.120*	-.032	.203**	.102	1	.120*	.380**	.036
	Sig. (2-tailed)	.269	.045	.592	.001	.089		.045	.000	.547
	N	278	279	279	279	279	279	279	279	279
Growth assets	Pearson Correlation	.023	-.030	-.120*	.348**	.011	.120*	1	-.003	.087
	Sig. (2-tailed)	.700	.615	.045	.000	.849	.045		.954	.148
	N	278	279	279	279	279	279	279	279	279
Market Cap.	Pearson Correlation	.115	.634**	-.023	.110	.306**	.380**	-.003	1	.194**
	Sig. (2-tailed)	.055	.000	.705	.067	.000	.000	.954		.001
	N	278	279	279	279	279	279	279	279	279
Beta	Pearson Correlation	-.072	-.010	-.026	.318**	-.006	.036	.087	.194**	1
	Sig. (2-tailed)	.229	.862	.661	.000	.918	.547	.148	.001	
	N	278	279	279	279	279	279	279	279	279

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

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