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Kontakt/Contact ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics Düsternbrooker Weg 120 24105 Kiel (Germany) E-Mail: *rights[at]zbw.eu* https://www.zbw.eu/econis-archiv/

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The Relationship between Dividend Payout and Financial Performance: Evidence from Top40 JSE Firms

Lenny P Mamaro¹, Robert N Tjano²

Abstract: The study investigates the relationship between dividend payout ratio and the financial performance of Top40 JSE (Johannesburg Stock Exchange) based on the market capitalization on dividend payment. The several empirical studies have been conducted both developed and developing countries, however to date there is no universal agreement especially in developing countries like South Africa on the relationship between dividend payout and financial performance despite few empirical evidence studies conducted in South Africa. The study therefore analyses the relationship between the two variables dividend payout ratio (DPR) dependent variable and financial performance (independent variable) which is measured by net profit margins (NPM), liquidity (LIQ), leverage (LEV), growth (GRO) and firm size (SIZE). Through panel data Top40 companies on the JSE from 2010-2015 were purposively selected for analysis. The fixed effect model was applied as recommended by Hausman test. In order to eliminate the problem of collinearity, autocorrelation and heterokedasticity the study employed the generalized least squares (GLS). The regression results found negative relationship between dividend payout with net profit margins (NPM), leverage (LEV), growth (GRO), and firm size (SIZE).

Key words: Fixed effect model; random effect model; pooled effect model; Top40 FTSE; GLS; Dividend payout ratio; financial performance

JEL Classification: B26

1. Introduction

There are many different reasons why firms or companies should pay or not pay dividends to investors who invested (Amidu and Abor, 2006). Most academic researchers wondered why companies pays dividend and why investors are interested in payments of dividends; The companies may pay dividends as a rewards to their existing shareholders and to persuade potential investors to invest in shares, however investors pays close attention to dividends since through dividends they get on their shares or investments (Karani, 2015, p. 5). Successful firms are able to create income than unsuccessful firms (Chumari, 2014). The current study need to determine the relationship between dividend payout and financial performance of firms operating in South Africa as compared to firms operating in developed countries. The Top40 JSE was chosen based on the fact that it represents more than 80% of market capitalisation of the JSE.

Research Questions

Due to subtle or scant research on which company's factors significantly influence dividend payout decision in emerging markets there is a need to gain understanding of the relationship between dividends payout and firm performance among listed companies in South Africa. The following questions below addressed in the study.

¹ Department of finance Risk Management and Banking, South Africa, Corresponding author: lennyphulong@gmail.com.

² Department of Business Management, University of South Africa.

- What association exist between dividend payout and financial performance of Top40 FTSE/JSE firms in South Africa?
- What impact net profit after tax, revenue growth, net profit margin, liquidity, leverage and firm size on dividend payout ratio of Top40 FTSE/JSE firms in South Africa?

Research Objectives

Despite the empirical studies conducted on the relationship between dividend payout and financial performance there is a huge space to be filled in order to respond to this (Aurangzeb and Dilawer, 2012). The purpose of this study is to investigate the relationship between of dividends pay out and firm performance over a period of six (6) years from 2010-2015, and the factors influencing dividends payout on firm performance in South Africa. The study objectives are twofold.

- To determine the association between dividends payout and financial performance among listed firms in South Africa.
- To determine the impact of return on assets, net profit margins, financial leverage, liquidity, growth and firm size on the dividend payout ratio.

Research Hypothesis

In light of the above-mention research objectives and related questions, the following hypothesis have been formulated:

 H_1 : Profitability/net profit margin has a positive relationship with dividend payout ratio.

 H_2 : Financial leverage has a negative relationship with dividend payout ratio.

 H_3 : Liquidity has a positive relationship with dividend payout ratio.

 H_4 : Growth opportunities has a positive relationship with dividend payout ratio.

 H_5 : Firm size has a positive relationship with dividend payout ratio.

The above hypothesis will be evaluated using correlation analysis and regression analysis.

Theoretical Framework

The bird-in-the-hand theory states that dividends represent the shareholders as an increase in wealth drives share prices up, while investors prefer large dividend payouts rather than capital gain Al-Kuwari (2007) argued that dividend payout has more influence on share price and future cash flow. The main reason behind this explanation is that paying large dividends reduces the cost of capital but leads to an increase in firm value. This is supported by Lintner (1956) and Gordon (1962). Some researchers such as Bhattacharya (1979) have argued that risks in the firm influence dividend distribution to investors. An increase in riskiness of cash leads to lower dividend payments. On the other hand, an increase and decrease in dividend payments does not affect the riskiness of the firm. The overall explanation indicates that riskier cash flows tend to pay small dividends (Al-Kuwari, 2007).

The idea of dividend payment is one possible method used to minimise conflicting interests among a firm's stakeholders, which usually involve managers vs shareholders, shareholders vs bondholders (creditors) and even major stakeholders (institutional investor or controlling owner) and all other shareholders as they differ regarding the investment experience. The truth is that shareholders are not being informed about the details of a firm's transactions as a result of the gap that exists between

managers and owners, which arises because of separation of ownership and control and as a result of the information gap known as the agency problem. Being the owners of a firm's resources, managers may use their power to gain the private benefits of control (Afza and Mirza, 2014).

Managers access a firm's financial information more often than investors do. When they announce changes in dividend policy, managers try to convey information to the market and other stakeholders in as positive a way as possible in order to achieve long-term objectives (Firer, Gilbert and Maytham, 2008). Signalling theory suggests that firms with poor future prospects should not take actions that are easily duplicated with poor prospects. Firms make a long-term commitment to future growth in order to pay cash dividends over a short period of time (Firer *et al*, 2008).

The clientele preference theory argues that dividend payments are taxed directly whereas capital gains are not taxed until the share is sold (Al-Kuwari, 2007). For tax reasons, most investors do not prefer high dividend payouts, they prefer large amount of retain earning to avoid tax. The importance of capital gains is that they lead investors to favour lower dividends (Al-Kuwari, 2007). Contrary to the theory, some suggest that firms should pay lower dividends in order to maximise share price. Modigliani and Miller (1961) are in agreement with clientele theory, observing that this theory influences dividend payout in imperfect capital markets, but in perfect markets, it does not influence dividend payout policy.

The Modigliani and Miller model (1959) runs counter to the relevance theory of dividend, which states that an increase in dividend payout leads to an increase in financial performance. In addition, Modigliani and Miller (1961) argue that dividend payout does not affect shareholders' wealth, which means that irrespective of the percentage paid, as dividends to investors, do not influence dividends are not influenced. However, this argument is based on two assumptions, namely a perfect capital market and a rational investor. It is commonly accepted that wealth creation is determined by retained earnings and financing by the particular firm. Therefore, MM theory states that paying large or small dividends does not affect financial performance. Transaction costs arise when a firm uses external funding in the form of debt, which leads to high interest costs. However, some firms prefer to use internal funding based on their capacity to use this type of funding that influences dividend payment.

Al-Kuwari (2007) argues that external funding is more costly than internal funding. The residual theory of dividends is that a firm pays dividends from earnings after financing all net present value projects. The major problem facing a firm's managers is the investment of large portions of dividends when this is not appropriate. The importance of adopting a residual dividend policy is that it saves flotation and other costs associated with issuing debts by generating funds internally (Zameer, Rasool, Igbal and Arshad, 2013). Firm managers believe that high retention increases growth.

2. Methodology

The study uses the panel data, which consist of Top40 listed companies on the Johannesburg Securities Exchange (JSE) ranked based on their higher market capitalization. The companies were selected because they have consistently been appearing on Top 40 on average from the years 2010 to 2015. The choice of the period is significant owing to the fact that it is covers the period pre- and post-global economic crisis of 2008. This decision takes into account the fact that although most of countries were affected by this crisis, in particular in the United States and the other parts of Europe, South Africa was moderately affected. Thus, it will be interesting to determine the trend of dividend

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payout decision during that era. The hypothesis testing includes both random effect, fixed effect and pooled effect which recommended by the Hausman test. The random effect model was applied as recommended by Hausman test. In order to eliminate the problem of collinearity, autocorrelation and heterokedasticity using the generalized least squares (GLS).

3. Literature Review

In a situation where a firm pays low dividend due to low cash availability, the management will consider external sources of financing could be either lending or share issue it is importance to balance firm's needs (Manneh and Naser, 2015). The retained earning plays an important role for future expansion, which would lead to higher dividend payout. The dividend payout decision starts with profitability, if the firm experience high profitability lead to high dividend payment to shareholders. In order to pay cash dividend to shareholders or issue further shares depend on the level of the firm's unappropriated profit or excess cash and such distribution can be in cash or by issue of additional shares (Azeez and Latifat, 2015). It is important to consider investment opportunities when making such decision that would increase future earnings and if such opportunities are not available, the management should distribute the earnings to shareholders (Abdul and Haruto, 2012). The dividend payment does not only

The larger the proportion of dividend paid, the lower funds being retained for investments and the more the company will have to place reliance on alternative sources of funds such as issue of additional shares and or debt capital to finance selected viable projects (Sindhu, 2014). The firms' profitability been considered as the primary determinant of the firms' capability to pay dividend currently and in the future prospect. Murekefu and Ouma (2012) conducted a study on the relationship between dividend payout and firm performance among firms listed on the Nairobi Security Exchange. They found that there is strong and positive relationship between dividend payout and performance. They also state that firms that pay high dividends without considering investment needs may therefore experience lower future earnings or decrease in firm value.

Amidu and Abor (2016) conducted the research on the determinants of dividend payout ratio in Ghana for a period of six years. The dependent variable is dividend payout ratio and independent variables profitability, institutional holdings, cash flow, sales growth, tax, market to book value and risk. They found a positive association between dividend payout and profitability, cash flow and tax and a negative association between dividend payout and risk, institutional holding, growth and market to book value. The significant variables were profitability, cash flow, sales growth and market to book value.

Al-Malkawi et al (2007) carried out the study on the determinants of dividend payout in Jordan of public firms listed on the Anman stock Exchange for a period from 1989 to 2000. Their findings showed that the insider and state ownership positively affect the amount of dividend payments. In addition to the results, size, age and profitability found to be determinants factor of dividend payout policy in Jordan. The results supported the agency hypothesis and are broadly consistent with the pecking order theory but not supported for the signaling hypothesis.

Biza-Khupe and Themba (2016) conducted on the relationship between dividend payout and financial performance of listed firms in Botswana. The dependent variable dividend payout and independent variables involve profitability, risk and size. Their results showed the positive relationship between profitability, firm size and dividend payout whereas systematic risk found negatively relationship.

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Ijaiya, Sanni, Amujo and Suleiman (2014) on the relationship between dividend policy and financial performance used financial reports for five years; their findings show an insignificant relationship between dividend payout ratio and financial performance. Mutisya 2014 on the relationship between financial performance and dividend payout, firm size and leverage as independents variables for a period 2009 to 2013 using regression analysis, findings show a positive relationship between variable but there is a negative relationship between financial performance and leverage

Model of Specification

$$Y_{i,t} = \alpha_i + \beta X_{i,t} + \varepsilon_{i,t} \tag{1}$$

In equation (1), subscripts i and t respectively represents the cross-sectional and time series dimension of the data, while α and β also connotes constant and regression coefficients respectively. As Y it represents the dependent variable, X ist represents the set of exogenous variables of firm I time t, and e measures the error term. The specific panel regression equation used for the study is as follows:

$$DPR_{i,t} = \alpha i + \beta_1 NPM_{i,t} + \beta_2 LEV_{i,t} + \beta_3 LIQ_{i,t} + \beta_4 GRO_{i,t} + \beta_5 SIZE_{i,t}$$

Where:

$DPR_{i,t} = Dividend payout$

The dividend payout ratio referred as a percentage, which paid to the investors or shareholders as a return of risk invested in the firms and reflected as a percentage of net income available to them after all expenses including interest and tax deducted.

 $Dividend \ payout = \frac{Total \ dividend \ paid}{Net \ profit \ after \ tax}$

NPM = Net Profit Margins

Net profit margin (NPM): The net profit margin ration gives a good indication of the overall level of firm's profitability. This ratio indicates how much of each Rand obtained from firm's generated profit (Rehamn, Khan and Khokhar, 2014). It is important to note that net profit margins provide evidence to firm policies and decision regarding the dividends payments. The higher the profit margins the more effective the firm converting revenue into profit (Rehman et al, 2014, p. 187).

 $Net \ profit \ margin = \frac{Net \ profit \ after \ tax}{Sales/Turnover}$

$LEV_{i,t} = Leverage$

The financial leverage ratio is the firm indicate the firm's ability to access external financing from money lenders or financial institutions. According to Ahmad and Wardani, (2014) described it as the ratio which measures the firm's method of financing and the firm's ability to meet its short-term obligation. According to Al-Malkawi (2007) has argued that the higher the financial leverage tend to lower the dividends payout ratio and transaction cost due to external financing. The study use debt to total asset ratio to measure leverage of firm.

 $Debt \ to \ total \ asset \ ratio = \frac{Total \ debt}{Total \ asset}$ LIQUIDITY

Liquidity is measured by current assets divided by current liabilities and indicates the firm's ability to pay short-term liabilities (Mehta, 2012). The dividend payout is dependent on a firm's profitability and cash flow. Poor liquidity leads to a small dividend payout ratio (Kinfe, 2011). In measuring liquidity, which is an important factor for dividend payout, Al-shubiri (2011) and Mehta (2012) suggested the use of Current Ratio as a measure of liquidity.

$LIQ = \frac{Current \ assets}{Current \ liabilities}$

A firm's high growth in revenue will require greater financing. If a firm experiences high growth in revenue and investment opportunities it will need either internal or external financing, and will be more inclined to pay small or no dividends (Alzomaia and Al-Khadhiri, 2013).

$GRO_{i,t} = Asset growth$

The firm's high growth in revenue will have a greater need for financing purposes. If the firms experience high growth in revenue and investment opportunities which will need either internal or external financing, and thus tend to pay little or no dividends (Alzomaia and Al-Khadhiri, 2013).

$$Assets growth = \frac{Asset (current) - Asset (previous)}{Asset (previous)}$$

$SIZE = Total \ assets$

There are the different measures of size of the firm's other studies used employment, sales and market capitalization and total assets. The Size of the firm was measured by the natural logarithm of the book value of the firm's Total Assets.

Size = Natural log of Total Assets

The above equation indicates that the dividend payout ratio (DPO) serves as the dependent variable. This was used to measure Top 40 FTSE/JSE index firms' performance. Dividend payout ratio (DPR) was the dependent variable and explanatory variables included net profit margins (NPM), financial leverage (LEV), liquidity (LIQ), asset growth (GRO) and firm size (SIZE).

The Findings and Interpretation

It was important to check whether serial correlation exists between two series of observation, namely time series and cross-section data (Gujarati and Porter, 2009). Autocorrelation is mainly useful when conducting time series data. According to Nguimkeu and Rekkas (2011), the presence of autocorrelation results in biased hypothesis testing. The hypothesis testing using autocorrelation is as follows:

 H_0 : shows that there is no autocorrelation.

 H_1 : shows that there is autocorrelation.

The Durbin Watson (DW) test ranges from 0 to 4, where 2 represents that there is no autocorrelation (Kai *et al.*, 2014). Critical values between 1.5 and 2.5 are commonly accepted when using the Durbin Watson test. The decision rule indicates that H0 is rejected is when d value is within 1.5 to 2.5, but otherwise H0 is rejected as indicated in table 3 below.

	DPR	NPM	LEV	LIQ	GRO	SIZE
Mean	0.3740	0.1077	0.6675	0.9211	0.1468	18.1542
Median	0.3637	0.0443	0.6927	0.9428	0.0889	17.9326
Maximum	3.7734	3.8019	1.2383	4.9148	10.7489	21.3938
Minimum	-1.2640	-0.5625	0.0040	0.0000	-1.0000	15.5032
Std. Dev.	0.4666	0.3010	0.2782	0.9874	0.9193	1.4165
Observations	120	120	120	120	120	120

Table 1. Descriptive Analysis

Source: E-views output

The table 1 indicate the summary of descriptive statistics of Top 40 FTSE/JSE companies indicate the mean of DPR has average 0.3740, its standard deviation is 0.4666 with minimum of -1.2640 and maximum of 3.7734 respectively. While Net profit margins (NPM), Leverage (LEV), liquidity (LIQ) and size (SIZE) had average mean, 0.07193, 0.1077, 0.6675, 0.9211, 0.1468, 18.1542 and Standard deviation of 0.1065, 0.3010, 0.2782, 0.9874, 0.9193, 1.4165 minimum, -.02371, -0.5625, 0.0040, 0.0000, -1.0000, 15.5032 and maximum of 1.0438, 3.8019, 1.2383, 4.9148, 10.7489, 21.3938 respectively.

Table 2. Correlation Analysis of Variables

Completion	DDD	NDM	TEV	L IO	CDO	SIZE
Correlation	DIK			LIQ	GNU	SILE
Probability						
DPR	1.0000					
ROA	0.2135					
NPM	0.2486	1.0000				
LEV	0.1918	-0.1822	1.0000			
LIQ	-0.3159	0.2964	-0.6376	1.0000		
GRO	0.0046	0.01129	0.0402	0.0213	1.0000	
SIZE	0.0652	0.1497	0.3574	-0.3292	-0.2249	1.0000

Source: E-views output

Table 2 showed that that net profit margin (NPM), leverage (LEV), growth (GRO), and Size (SIZE) are positively related to dividend payout ratio. An increase in this variables lead to an increase in dividend payout ratio by 0.2135, 02486, 0, 1918, 0.0046, and 0.0652 respectively. Only liquidity (LIQ) is negatively related to dividend payout ratio (DPR) by -1.2640.

Dependent variable : DPR				
	Random effect model	Pooled effect robust	Fixed effect robust	GLS robust
NPM	0.9282***	0.9292***	1.0106***	0.9292***
	(3.9070)	(4.1928)	(3.5067)	(4.1928)
LEV	0.0717	-0.0627	0.6282	-0.0627
	(3.3913)	(-0.4341)	(1.2530)	(0.5330)
LIQ	-0.0863**	-0.1282***	-0.0702	-0.1282***
	(-2.1996)	(-3.3636)	(-1.5340)	(-3.3636)
GRO	-0.0094	-0.0063	-0.0041	-0.0063
	(-0.4420)	(-0.2667)	(-0.1864)	(-0.2668)
SIZE	-0.0377	-0.0463	0.0515	-0.0463**
	(-1.1296)	(-1.9831)	(0.5862)	(-1.9831)
_cons	-1.9891	1.2774**	-1.03011	1.2774***

Table 3. Regression Analysis

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	(-1.6480)	(2.9649)	(-0.6237)	(2.9649)	
N	120	120	120	120	
R-squared	0.1520	0.2187	0.5093		
Durbin Watson (DW)	1.7088	1.3139	2.0544		
F-stat	4.0871	6.1662	4.1086		
Prob> F-stats	0.0019	0.0000	0.0000		
Hausman Test	5.6034				
Prob> chi2	0.34670				
t statistics in parentheses					
* p<0.10	" ** p<0.05"	"*** p<0.01"			

Source: author own compilation

Table 4. Hausman

Correlated Random Effects: Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.603381	5	0.3467
	Comment Enderson contract		

Source: E-views output

Table 4 Hausman test with a p-value of greater than 5% which accept null hypothesis that random effect model appropriate, therefore the fixed effect model model is not appropriate since the p-value is 0.3467.

Tuble 4.1. Results Hausman Test Equation 2				
20 firms from Top 40 FTSE/JSE	Cross section Chi-square statistics	Decision		
No: observation 120				
	5.603381	Random		
Hypothesis testing	H_0 : Random effect is appropriate	effect model		
	H_1 : Fixed effect model is appropriate			
** ** and *** indicates significance at 100/ 50/ and 10/ respectively				

Table 4.1 Results Hausman Test Fountion 2

⁴ indicates significance at 10%, 5% and 1% respectively. <u>ج</u> * and **

Panel regression analysis involve pooled, fixed effect and random effect model and the choice between fixed effect and random effect is finalised by hausman specification test (1978) therefore the results of the study is based on random effect model. The regression results found negative relationship between dividend payout ratio of Top40 firms with profitability and liquidity, positive relationship were found on dividend payout (DPR) with net profit margins (NPM), leverage (LEV), growth (GRO), and firm size (SIZE).

Research hypothesis of study	Decision of full model (2010-2015)
	Reject/Do not reject H ₀
H_1 : There is a positive relationship between dividend payout and profitability.	Reject H ₀
H_2 : There is a positive relationship between dividend payout ratio and net profit margins.	Do not reject H_0
H_3 : There is a negative relationship between dividend payout ratio and financial leverage.	Reject H ₀
H_4 : There is a positive relationship between dividend payout and liquidity.	Reject H ₀
H_5 : There is a positive relationship between dividend payout and growth in assets.	Do not reject H_0
H_6 : There is a positive relationship between dividend payout ratio and firm size.	Do not reject H_0

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Source: Author own compilation

4. Findings and Discussion of the Results

The findings demonstrated that net profit margin had a positive significant relationship with dividend payout ratio, and a negative insignificant relationship between growth and size with dividend payout was found. Liquidity has a negative relationship whereas leverage reports a positive relationship with dividend payout ratio. The findings imply that in the Top 40 FTSE/JSE firms, large size firms pay less dividends, more firms that are profitable pay more dividends, higher leverage firms pay dividends, many current asset firms pay lower dividends, and finally lower growth firms pay higher dividend.

The study focused on a quantitative study and applied the ordinary least square (OLS) to address the research hypothesis on the relationship between dividend payout and financial performance. The study was intended to fill a gap in the knowledge in this study area, which has not been researched by many scholars in South Africa. The current study investigated the relationship between dividend payout and financial performance of 20 firms selected from the Top 40 FTSE/JSE listed companies, taken from the McGregor and Bloomberg annual report.

	8			
Variables	Possible reason			
Financial leverage (LEV)	Top40 JSE firms make use of internal financing that			
_	influence the low dividends payout to its shareholders.			
Liquidity (LIQ)	To40 JSE firms have poor liquidity in relation to dividends			
	payout that could be due to shortage of cash flow available			
Growth (GRO)	Top40 JSE firms pay less dividends which resulted in an			
	increases the retained earnings for future investment			
	opportunities			
Firm Size (SIZE)	Top40 JSE firms are well established recently and less			
	likely to be matured.			

Table 6. Possible reason for contradicting results on some variables

5. Recommendations for Future Research

The financial performance was limited to Top 40 FTSE/JSE firms. The area of research was comparable to other emerging countries. The sampling of the study was limited to Top 40 FTSE/JSE firms, and was a small sample. In further research, the sample should to be enlarged in order to increase the accuracy of the results. Further research could be conducted using the International Financial Reporting Standard (IFRS).

Future studies could use primary data, which would provide the views of managers, investors, brokers and lawmakers on the dividend policy and behaviour of emerging markets. Furthermore, such a study could be conducted into the legal aspects of dividend policy in emerging markets; this could influence the regulatory bodies. Factors such as inflation, gross domestic product, interest and economic recession could be investigated in Top 40 FTSE/JSE firms using other methodology, which considers.

Investors

The study will help South African investors to be in a better position to make decisions on firms they would prefer to invest in.

Managers

The study will assist managers to declare dividends that give a positive future image of a firm.

Financial Analysis

This will increase their knowledge in relation to dividends therefore; they can give advice to their clients with more confidence.

Academicians

This will add to the body of knowledge in finance and create room for further research.

Creditors

6. Conclusions

The main objective of the study was to establish the relationship between dividend payout and financial performance of Top 40 FTSE/JSE firms for a period of six years, from 2010 until 2015. The random effect regression model was used to determine the relationship. The study found that there was a positive and significant relationship between dividend payout and financial performance.

References

Abdul, R. & Haruto, T. (2012). Determinant of dividend payout ratio: Evidence from Karachi Stock Exchange (KSE). *Journal of Contemporary Issues in Business Research*, 1, (1), 20-27.

Ahmad, G.N. & Wardani, V.K. (2014). The Effect of Fundamental Factor to Dividend Policy: Evidence in Indonesia Stock Exchange, *International Journal of Business and Commerce*, 4, (2), 14-25.

Al-Kuwari, D. (2007). Determinants of the dividend payout ratio of companies listed on emerging stock exchanges: the case of the Gulf Cooperation Council (GCC) countries. PhD Thesis, Cardiff, UK: University of Wales.

Al-Kuwari, D. (2009). Determinants of the Dividend Policy in Emerging Stock Exchanges: The Case of GCC Countries. *Global Economy & Finance Journal*, 2, (2), 38-63.

Al-Malkawi, H. A. N. (2007). Determinants of Dividend Policy in Jordan, An application of Tobit Model. *Journal of Economic and Administrative Sciences*, 23, (2), 44-70.

Al-Shubiri, F.N. (2011). Capital Structure and Market Power: Evidence from Jordanian Banks. *Managing Global Transitions*, 9, (3), 289-310.

Alzomaia, T S F., & Al-Khadhiri, A. (2013). Determination of Dividend Policy: The Evidence from Saudi Arabia. *International Journal of Business and Social Science*, 4, (1), 181-192.

Amidu M. & Abor J. (2006). Determinants of dividend payout ratios in Ghana. The Journal of Risk Finance, 7, 136-145.

Aurangzeb, & Dilawer, T. (2012). Earning Management and Dividend Policy: Evidence from Pakistani Textile Industry, *International Journal of Academic Research in Business and Social Sciences*, 2, (10), 362-372.

Azeez, A & Latifat, M. (2015). Relationship between dividend payout and firm performance: Evaluation of dividend policy of Oando PLC. *International Journal of Contemporary Applied Sciences*, 2, (6), 56-70.

Biza-Khupe, S. & Themba, A. (2016). The Relationship between Dividend Payout and Firm Financial Performance: A Study of Botswana Listed Companies. *Archives of Business Research*, 3, (4), 33-40.

Chumari, T. (2014). The relationship between dividend payout and financial performance: A case study of listed companies in Kenya. *Unpublished MBA project*, University of Nairobi.

Damodaran, A. (2007). Return on Capital (ROC), Return on Invested Capital (ROIC) and Return on Equity (ROE): *Measurement and Implications*. Working Paper.

Firer, C., Gilbert, E., & Maytham, A. (2008). Dividend policy in South Africa. Investment Analyst Journal, 68, 5-19.

Gordon, M.J. (1959). Dividends, earnings, and stock prices. The Review of Economics and Statistics, 41, (2), 99-105.

Gujarati, D. N., & Porter, D. C. (2009). Basic Econometric. (5th Ed.). Kuala Lumpur: McGraw-Hill Higher Education.

Ijaiya, M. A., Sanni, M., Amujo E. M., and Suleiman, H. B, (2014). Dividend Policy and Financial Performance: A Survey of Selected Quoted Firms in Nigeria, 17, (1), 19-32.

Karani, L. O, (2015). An evaluation of factors affecting dividend payout ratio of locally owned commercial banks in Kenya. *United States International University Africa Project Report Submitted to the Chandaria School of Business* in Partial Fulfillment of the Requirement for the Degree of Masters in Business Administration (MBA).

Kinfe, T. (2011). Determinants of dividend payout: an empirical study on the bank industry in Ethiopia. Thesis submitted to Addis Ababa University in partial fulfilment of Masters of Accounting and Finance.

Manneh, M.A., & Naser, K. (2015). Determinants of corporate dividend policy: Evidence from Emerging Economy. *International Journal of Economics and Finance*, 7, (7), 229-239.

Mehta, A. (2012). An empirical analysis of determinants of dividend policy-evidence from the UAE companies. *Global Review of Accounting and Finance*, 3, (1), 18-31.

Modigliani, F & Miller, M. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34, (4), 411–433.

Modigliani, F., & Miller, M. (1956). Corporate income taxes and the cost of capital: a correction. *American Economic Review*, 53, 433-443.

Murekefu, T. M. & Ouma O. P. (2012). The Relationship between Dividend Payout and Firm Performance: A Study of Listed Companies in Kenya. *European Scientific Journal*, 8, (9), 1857 – 7881.

Mutisya, B., M. (2014). *The relationship between dividend payout and financial performance of firms listed at the Nairobi Securities Exchange*. Master of Business Administration (MBA), University of Nairobi, Kenya.

Nguimkeu, P. E., & Rekkas, M. (2011). Third-order inference for autocorrelation in nonlinear regression models. *Journal of Statistical Planning and Inference*, 141, (11), 3413–3425.

Rehman, M.Z., Khan, M.N & Khokhar, I. (2015). Investigating Liquidity-Profitability Relationship: Evidence from Companies Listed in Saudi Stock Exchange (Tadawul). *Journal of Applied Finance & Banking*, 5, (3), 159-173.

Sindhu, M.I. (2014). Relationship between free cash flow and dividend: Moderating role of firm size. Journal of Finance and Accounting, 5, (5), 16-23.

Zameer, H., Rasool, S., Igbal, S. & Arshad, U. (2013). Determinants of dividend policy: a case of banking sector in Pakistan. Middle-East Journal of Scientific Research, 18, (3), 410–424.

Appendix

Correlated Random Effects - Hausman Test Equation: Untitled Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.603381	5	0.3467

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
NPM	1.010545	0.928156	0.026608	0.6135
LEV	0.628158	0.071672	0.217797	0.2331
LIQ	-0.070245	-0.086341	0.000556	0.4950
GRO	-0.004094	-0.009361	0.000034	0.3656
SIZE	0.051503	-0.037659	0.006607	0.2727

Cross-section random effects test equation: Dependent Variable: DPR Method: Panel Least Squares Date: 06/05/19 Time: 09:56 Sample: 2010 2015 Periods included: 6 Cross-sections included: 20 Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.030110	1.651502	-0.623741	0.5343
NPM LEV	1.010545 0.628158	0.288173 0.501343	3.506725 1.252951	0.0007
LIQ	-0.070245	0.045793	-1.533991	0.1284
GRO	-0.004094	0.021965	-0.186377	0.8525
SIZE	0.051503	0.087854	0.586230	0.5591

Effects Specification

Cross-section fixed (dummy variables)

R-squared Adjusted R-squared	0.509311 0.385347	Mean dependent var S.D. dependent var	0.366927 0.336521
Sum squared resid	6.612694 3.637411	Schwarz criterion Hannan-Ouinn criter.	0.536043
F-statistic Prob(F-statistic)	4.108551 0.000000	Durbin-Watson stat	2.054391



Source: E-views output

Table 1. Pooled Effect Model

Dependent Variable: DPR Method: Panel Least Squares Date: 06/04/19 Time: 15:24 Sample: 2010 2015 Periods included: 6 Cross-sections included: 20 Total panel (balanced) observations: 120

Coefficient	Std. Error	t-Statistic	Prob.
1.277402	0.430837	2.964934	0.0037
0.929179	0.221615	4.192756	0.0001
-0.062684	0.144402	-0.434091	0.6650
-0.128163	0.038103	-3.363599	0.0010
-0.006304	0.023636	-0.266711	0.7902
-0.046332	0.023363	-1.983105	0.0498
0.212876	Mean depend	lent var	0.366927
0.178353	S.D. depende	0.336521	
0.305039	Akaike info criterion		0.511951
10.60755	Schwarz crite	0.651325	
-24.71705	Hannan-Quir	0.568552	
6.166221	Durbin-Wats	1.313903	
0.000043			
	Coefficient 1.277402 0.929179 -0.062684 -0.128163 -0.006304 -0.046332 0.212876 0.178353 0.305039 10.60755 -24.71705 6.166221 0.000043	Coefficient Std. Error 1.277402 0.430837 0.929179 0.221615 -0.062684 0.144402 -0.128163 0.038103 -0.006304 0.023636 -0.046332 0.023363 0.212876 Mean depender 0.178353 S.D. depender 0.305039 Akaike info d -24.71705 Hannan-Quir 6.166221 Durbin-Wats 0.000043	CoefficientStd. Errort-Statistic 1.277402 0.430837 2.964934 0.929179 0.221615 4.192756 -0.062684 0.144402 -0.434091 -0.128163 0.038103 -3.363599 -0.006304 0.023636 -0.266711 -0.046332 0.023363 -1.983105 0.212876 Mean dependent var 0.178353 S.D. dependent var 0.305039 Akaike info criterion 10.60755 Schwarz criterion -24.71705 Hannan-Quinn criter. 6.166221 Durbin-Watson stat 0.000043 -0.000043

Table 2. Fixed Effect Model

Dependent Variable: DPR Method: Panel Least Squares Date: 06/04/19 Time: 15:24 Sample: 2010 2015 Periods included: 6 Cross-sections included: 20 Total panel (balanced) observations: 120

Variable Coefficient Std. Error t-Statistic	Prob.
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Journal of Accou	unting and Manage	m e n t	ISSN: 2284	4 - 9459	JAM vol	. 9, no.	2(2019)
	С	-1.03011	0 1.65150	2 -0.623741	0.5343		
	NPM	1.01054	5 0.28817	3 3.506725	0.0007		
	LEV	0.62815	8 0.50134	3 1.252951	0.2133		
	LIO	-0.07024	5 0.04579	3 -1.533991	0.1284		
	GRO	-0.00409	4 0.02196	5 -0.186377	0.8525		
	SIZE	0.05150	3 0.08785	4 0 586230	0 5591		
		0.05150	0.00705	1 0.500250	0.5571		
		Effects S	pecification				
	Cross-section fixed (d	ummy variał	oles)				
	R-squared	0.50931	1 Mean dep	endent var	0.366927		
	Adjusted R-squared	0.38534	7 S.D. depe	ndent var	0.336521		
	S.E. of regression	0.26383	2 Akaike in	fo criterion	0.356043		
	Sum squared resid	6.61269	4 Schwarz o	criterion	0.936771		
	Log likelihood	3.63741	1 Hannan-Q	uinn criter.	0.591879		
	F-statistic	4.10855	1 Durbin-W	atson stat	2.054391		
	Prob(F-statistic)	0.00000	0				
		Table 3. I	Random Effe	ct			
	Dependent Variable: I	OPR					
	Method: Panel EGLS	(Cross-section	on random eff	ects)			
	Date: 06/04/19 Time:	: 15:25					
	Sample: 2010 2015						
	Periods included: 6						
	Cross-sections include	ed: 20					
	Total panel (balanced)	observation	s: 120				
	Swamy and Arora esti	mator of cor	nponent varia	nces			
	Variable	Coefficient	Std. Error	t-Statistic	Prob.		
		0.080000	0.600177	1 647007	0 1021		
		0.989090	0.000177	2 006007	0.1021		
		0.928130	0.257502	5.900997	0.0002		
		0.071672	0.185159	0.391311	0.0903		
	LIQ	-0.086341	0.039252	-2.199639	0.0299		
	GRO	-0.009361	0.021179	-0.441994	0.6593		
	SIZE	-0.037659	0.033337	-1.129639	0.2610		
		Effects Spe	cification				
				S.D.	Rho		
	Cross-section random			0.163783	0.2782		
	Idiosyncratic random			0.263832	0.7218		
		Weighted S	tatistics				
	R-squared	0.152008	Mean depen	dent var	0.201613		
	Adjusted R-squared	0.114816	S.D. depend	ent var	0.281162		
	S.E. of regression	0.264529	Sum squared	l resid	7.977233		
	F-statistic	4 087051	Durbin-Wat	son stat	1 708795		
	Prob(F-statistic)	0.001890	Duronn Wu	son stut	1.100120		
		Unweighted	l Statistics				
	R-squared	0.202866	Mean depen	dent var	0.366927		
	Sum squared resid	10.74245	Durbin-Wat	son stat	1.268933		
	•						

Table 4. GMM

Dependent Variable: DPR Method: Generalized Linear Model (Newton-Raphson / Marquardt steps) Date: 06/04/19 Time: 15:26 Sample: 2010 2015 Included observations: 120 Family: Normal Link: Identity Dispersion computed using Pearson Chi-Square Convergence achieved after 1 iteration Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
С	1.277402	0.430837	2.964934	0.0030
NPM	0.929179	0.221615	4.192756	0.0000
LEV	-0.062684	0.144402	-0.434091	0.6642
LIQ	-0.128163	0.038103	-3.363599	0.0008
GRO	-0.006304	0.023636	-0.266711	0.7897
SIZE	-0.046332	0.023363	-1.983105	0.0474
Mean dependent var	0.366927	S.D. dependent var		0.336521
Sum squared resid	10.60755	Log likelihood		-24.79465
Akaike info criterion	0.513244	Schwarz criterion		0.652619
Hannan-Quinn criter.	0.569845	Deviance		10.60755
Deviance statistic	0.093049	Restr. deviance		13.47634
LR statistic	30.83111	Prob(LR statistic)		0.000010
Pearson SSR	10.60755	Pearson statistic		0.093049
Dispersion	0.093049			