DETERMINANTS OF DIVIDEND POLICY OF PUBLIC AND PRIVATE COMMERCIAL BANKS IN INDIA: A PANEL DATA APPROACH

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ABSTRACT

The study investigates the factors influencing dividend payout of Indian commercial banks by using a fixed effects approach in panel regression. The study considers 19 public sector banks and 10 private sector banks during the period from 2007 to 2014. Profitability, size, liquidity, leverage, growth opportunities and risk are the factors considered in influencing dividend payout. Profitability has a negative effect on dividend payout and it concludes higher the profit of the bank, the less they prefer to pay out dividends. It could be due to the fact that profitable banks have more opportunities for growth. Risk found to be a positive effect on dividend payout and it confirms that lower the risk of the banks denotes low volatility in their cash flow, resulting in an increase of dividend payout. The liquidity of the banks has a negative effect on dividend payout and it concludes liquidity is essential for the smooth operation of banks. Size, leverage and growth opportunities are found unrelated to dividend payout of the listed Indian commercial banks.

Keywords: Dividend policy, Commercial Banks, Profitability, Size, Leverage, Growth Opportunities, Risk, Panel Data.

INTRODUCTION:

Dividend decision is one among the difficult choice that the management must make in allocating their profit to reinvest within the company or distribute to shareholders (Baker & Powell, 2005, p. 402). Investors give attention to dividends because they get a yield on their investment or chance to sell their stocks at a higher price in the future (Black, 1976). Lenders look dividend carefully because they feel that the more the dividend payment, the less will be the amount available for redemption their claims (Parua & Gupta, 2010). Dividend policy refers to the payout policy that a firm follows in determining the size and pattern of cash distributions to shareholders over time (Baker, 2009, p. 3). Payment of dividend makes the shareholders happy. On the other side, it diminishes the internal source of fund for making investment in golden projects, which results in curtail the growth of the firm, and in turn affects wealth of the shareholders. So, Decision on the amount of earnings to pay as dividend is one of the major financial decisions that a firm's managers face.

The firm's manager is in a position to balance the satisfaction of the shareholder and the growth of the firm in deciding the dividend payout. The firm's manager considers numerous factors in making dividend payout to the shareholders. In other words, the declared dividend payout consists of factors considered by the managers, which is not essentially mentioned. Identify the key factors in determining dividend decision is more popular between academicians and researchers. In developed countries, Extensive studies have been done in factors influencing the dividend decision of the firms. India is one of the emerging economy and companies are frequently involved in dividend payments. A handful of studies is done on determinants of dividend policy of commercial bank have been conducted in India, but a universally acceptable conclusion is yet to be drawn. Against the backdrop, it is worthwhile to study the factors determining dividend policy. The main objective of the study is to identify the key factors influencing of dividend policy of the public and private commercial banks.

DATA SOURCE AND PERIOD OF THE STUDY:

The commercial banks listed in the National Stock Exchange are considered for the analysis and list drawn from NSE website (www.nseindia.com). The financial data required for the study are taken from "Capitaline Plus" database software. The period of the study for analysis is eight years from 2006-2007 to 2013-2014.

SELECTION OF SAMPLE BANKS:

According to RBI, there are 26 public sector banks and 20 private sector banks operating in India. Among the banks, 22 public sector banks and 15 private sector banks were listed in NSE. Out of 37 banks, four banks were removed due to non-availability of data and another four banks were dropped due to non-declaration of dividend during the study period. Finally, 19 public sector banks and 10 private sector banks were selected for the study. The purposive sampling method has been adopted for the sample selection. The list of banks selected for the study is shown in the Appendix A.

REVIEW OF LITERATURE:

Dividend policy is one of the most debatable subjects in the field of financial management. Black (1976) states that "The harder we look at the dividend picture the more it seems like a puzzle; with pieces that just do not fit together". In the current scenario, finding out the key factors determining the dividend policy is one of the issues still unsolved, which made the dividend took like a puzzle. Since Miller and Modigliani publication, ample of researchers have focused on how the dividend policy affects the value of the firm and what are those determinants which affect the dividend decisions. Studies relating to determinants of dividend policy are:

Authors & Year	Sample & Period of Study	Variables		Findings (Effect)
		Dependent	Independent	
Literature in Foreign Context				
Lintner (1956)	28 Companies & 1918 - 1941	Dividend	• Current earnings • Past Dividend	• Current earnings • Past Dividend
M. C. Gupta and Walker (1975)	198 Banks & 1965 – 1968	Dividend	• Profit • Growth • Liquidity	• Profit (+) • Growth (+) • Liquidity (-)
Rozeff (1982)	1000 Companies & 1974 - 1980	Dividend Payout Ratio	• Ownership • Growth • Beta	• Ownership (+) • Growth (-) • Beta (-)
Barclay *et al.* (1995)	6780 Companies & 1963 - 1993	Dividend Yield	• Investment opportunities • Future Earnings • Corporate Taxes • Firm Size	• Investment opportunities (-) • Firm Size (+)
Dickens *et al.* (2002)	677 Banking Firms 1998 – 2000	Dividend Yield	• Market-to-Book Ratio • Capital- to-Assets • Size • Future Earnings • Inside Ownership • Past Dividend • Earnings Volatility	• Market-to-Book Ratio (+) • Size (+) • Future Earnings (+) • Inside Ownership (+) • Past Dividend (+)
Myers and Bacon (2004)	69 Firms & 2001	Dividend Payout Ratio	• Price Earnings Ratio • Return on Equity • Profit Margin • Debt-Equity Ratio • Current Ratio	• Debt-Equity Ratio (+) • Price Earnings Ratio (+)
Ben Naceur *et al.* (2006)	48 Firms & 1996 – 2002	Dividend per Share	• Profitability • Ownership • Leverage • Size • Market Liquidity	• Profitability (+) • Size (-) • Market Liquidity (-)
Al-Malkawi (2008)	160 Companies & 1989 – 2003	Dividend (Dummy)	• Agency Cost • Size • Profitability • Leverage • Growth and Investment Opportunities	• Size (+) • Profitability (+) • Leverage (-) • Growth and Investment Opportunities (+)
Weber and Procianoy (2009)	181 Financial Institution 2001 - 2006	Dividend	• Profitability • Risk • Financial Slack • Taxes • Investment Policy • Stability of Dividend • Consumer Index Price	• Profitability (+) • Investment Policy (+) • Financial Slack (-)
Moradi *et al.* (2010)	73 Corporations & 2000 – 2008	Dividend Payout Ratio	• Firm size • Beta • Price-Earnings Ratio • Debt/Equity Ratio • Profitability • Growth of Accumulated Earning	• Beta (+) • Profitability (+)
Rafique (2012)	53 Non-financial companies &	Dividend Payout Ratio	• Corporate Tax • Growth opportunities	• Corporate Tax (+) • Firm size (+)

Authors & Year	Sample & Period of Study	Variables		Findings (Effect)
		Dependent	Independent	
	2005 -2010		• Firm size • Financial Leverage • Profitability	
Ardestani *et al.* (2013)	62 Companies & 2006 – 2008	Dividend Payout Ratio	• Investment opportunities • Financial Leverage • Debt Maturity • Profitability • Risk	• Investment opportunities (+) • Profitability (-) • Debt Maturity (-) • Risk (-)
Lee (2013)	154 Banks & 1994 – 2009	Dividend	• Size • Debt Ratio • Loan Ratio • Profitability	• Debt Ratio (+) • Loan Ratio (+) • Profitability (+)
Zameer *et al.* (2013)	27 Foreign and Domestic Banks 2003 – 2009	Dividend per Share	• Size • Leverage • Liquidity • Profitability • Agency Cost • Growth • Last Year Dividend • Risk • Ownership Structure	• Liquidity (-) • Profitability (+) • Last Year Dividend (+) • Ownership Structure (+)
Maldajian and El Khoury (2014)	4 Banks & 2005 – 2011	Dividend Payout Ratio	• Profitability • Liquidity • Leverage • Size • Growth • Risk • Past Dividend	• Profitability (-) • Size (+) • Growth (+) • Risk (+) • Past Dividend (+)
Literature in Indian Context				
Mahapatra and Sahu (1993)	90 Companies & 1978 – 1989	Dividend Payout Ratio	• Lintner's Model • Brittain's Cash flow Model • Brittain's Explicit Depreciation Model • Darling's Model	**Brittain's Cash Flow Model:** • Cash Flow (+) • Past Dividend (+)
Mishra and Narender (1996)	39 Companies & 1985 – 1994	Dividend per Share	• Earning per Share • Past Dividend per Share	• Earning per Share (+)
Reddy (2002)	All Companies in NSE and BSE & 1990 – 2001	Dividend payer and Non- payer (Dummy)	• Size • Profitability • Investment Opportunities	• Size (+) • Profitability (+)
Bodla *et al.* (2007)	33 Banks 1996 - 2006	Dividend	Lintner's Model	**Lintner's Model** • Past Dividend (+) • Earnings (+) • Cash Flow (+)
John and Muthusamy (2010)	10 Companies	Dividend Payout Ratio	• Growth in Sales • Earning per Share • Price Earning Ratio • Market Value to Book Value • Cash Flow	• Growth in Sales (-) • Earning per Share (+) • Price Earning Ratio (-) • Market Value to Book Value (-) • Cash Flow (+)

Authors & Year	Sample & Period of Study	Variables		Findings (Effect)
		Dependent	Independent	
			• Leverage • Liquidity • Return on Assets	• Leverage (-) • Liquidity (-) • Return on Assets (-)
A. Gupta and Banga (2010)	150 Companies (16 Industries) & 2001 to 2007	Dividend Rate	• Ownership Structure • Leverage • Profitability • Liquidity • Growth	• Leverage (+) • Liquidity (+)
Rizvi and Khare (2011)	20 Banks & 2000 - 2008	Dividend Payout Ratio	• Risk (Beta) • Earning per Share • Sales • Debt Equity Ratio • Cash from Operation • Corporate Tax	• Risk (-) • Sales (-) • Debt Equity Ratio (-)
Mistry (2012)	28 Companies & 2004 -2009	Rate of Equity Dividend	• Size • Liquidity • Inventory turnover ratio • Profitability • Retained Earnings	• Size (+) • Liquidity (-) • Inventory turnover ratio (-) • Profitability (+) • Retained Earnings (-)
Kumar and Kumar Jha (2012)	10 Companies & 2007 - 2011	Equity Dividend	• Linter's Model • Brittain' s Cash Flow Model • Brittain's Explicit Depreciation Model • Darling's Model	**Brittain's Explicit Depreciation Model** • Current Net Profit (-) • Past Net Profit (+) • Cash Flow (-) • Depreciation (-) • Change in Sales (+)
Acharya *et al.* (2012)	30 Companies & 1998 - 2009	Dividend per Share	• Earnings per Share • Past Dividend per Share • Cash Flow per Share • Current Ratio • Debt Equity Ratio • Fixed Assets share Price	• Earning per Share (+) • Past Dividend (+)
S. Gupta *et al.* (2013)	172 Companies & 2004 - 2008	Dividend	• Past Dividend • Net Profit • Cash Flow • Depreciation • Earning per Share • Past Earning per Share • Past Share Price Period	• Current Earning (+) • Past Dividend (+)

There are numerous research works are well documented in the developed economy for several decades. A Lot of market and firm characteristics have been suggested as potential significant in determining firm's dividend policy. In India, handful of research work has been carried out on determinants of dividend policy. Most of the Indian studies have compared the efficiency of Lintner's model, Brittain's model, Darling model and Dobrovolsky's model. In case of the banking sector, very few studies like Bodla et al. (2007) and Rizvi and Khare (2011) have been carried out with the small sample, limited factors and efficiency of Lintner's model. This study will attempt to bridge the gap in literature by examining the determinants of bank dividend policy.

VARIABLES DESCRIPTION:

Potential variables for determining dividend payout of the firm are selected from the previous literature. Profitability, size, liquidity, leverage, growth opportunity and risk of the firm are selected as potential determinants of dividend payout of Indian commercial banks. The list of variables is summarized in Table 1.

Table 1: Variables Description

Variables	Symbol	Proxy	Description	Expected sign
Dependent				
Dividend Policy	DP	Dividend Payout Ratio	Dividend paid is divided by net profit after tax and then multiplied by 100	Nil
Independent				
Profitability[1]	PRO	Return on Assets	Net profit before interest and tax is divided by total asset and then multiplied by 100	+
Size[2]	SIZ	Total Assets	LN of Total Assets	+
Liquidity[3]	LIQ	Liquid assets to Total assets	Liquid asset is divided by total assets and then multiplied by 100. Liquid assets means cash in asset, balance with RBI, banks in India and banks outside India, and Money at call and short notices.	+
Leverage[4]	LEV	Total Deposits to Total Assets	Total deposits is divided by Total assets and then multiplied by 100. Total deposits includes demand, saving and term deposits	–
Growth opportunity[5]	GRO	Revenue (Interest and non-Interest Income)	$\text{LN}\left(\frac{\text{Current Revenue}}{\text{Previous Revenue}}\right) \times 100$	–
Risk[6]	RIS	Price Earnings Ratio	Market price per share (MPS) is divided by Earning per share (EPS).	+

HYPOTHESES:

The research hypotheses for the study are formulated as

1. Profitability of the banks as a positive effect on the dividend payout ratio.
2. Size of the banks as a positive effect on the dividend payout ratio.
3. Liquidity of the banks as a positive effect on the dividend payout ratio.
4. Leverage of the banks as a negative effect on the dividend payout ratio.
5. Growth opportunities of the banks as a negative effect on the dividend payout ratio.
6. Risk of the banks as a positive effect on the dividend payout ratio.

RESULT AND DISCUSSION:

Table 2: Correlation Coefficients: Dividend Payout, Profitability, Size, Liquidity, Leverage, Growth and Risk

Variables	1	2	3	4	5	6
	Public Sector Banks (*n* = 152)					
1. Dividend Payout						
2. Profitability	0.192[b]					
3. Size	0.020	-0.090				
4. Liquidity	-0.095	-0.009	0.910[a]			
5. Leverage	0.103	-0.084	0.082	0.073		

[1] John and Muthusamy (2010), Lee (2013), Moradi et al. (2010), Ben Naceur et al. (2006), Reddy (2002), Zameer et al. (2013).
[2] Maldajian and El Khoury (2014).
[3] World Bank and International Monetary Fund (2005, p. 23)
[4] Maldajian and El Khoury (2014).
[5] A. Gupta and Banga (2010), John and Muthusamy (2010), Rafique (2012), Zameer et al. (2013).
[6] John and Muthusamy (2010), Maldajian and El Khoury (2014).

6. Growth	0.016	0.068	-0.163[b]	-0.050	-0.069	
7. Risk	0.292[a]	0.009	0.508[a]	0.396[a]	0.097	-0.167[b]
	New Private Sector Banks (*n* = 40)					
1. Dividend Payout						
2. Profitability	-0.423[a]					
3. Size	0.497[a]	0.494[a]				
4. Liquidity	0.327[b]	0.658[a]	0.977[a]			
5. Leverage	-0.226	0.531[a]	0.272	0.348[b]		
6. Growth	-0.272	-0.135	-0.330[b]	-0.321[b]	-0.046	
7. Risk	-0.375[b]	-0.160	-0.500[a]	-0.467[a]	-0.236	0.315[b]
	Old Private Sector Banks (*n* = 40)					
1. Dividend Payout						
2. Profitability	0.307					
3. Size	-0.192	-0.082				
4. Liquidity	-0.001	0.418[a]	0.863[a]			
5. Leverage	-0.374[b]	-0.173	-0.446[a]	-0.527[a]		
6. Growth	0.004	0.317[b]	-0.224	-0.043	0.029	
7. Risk	-0.349[b]	-0.278	0.147	-0.007	0.261	-0.292
	Overall (*n* = 232)					
1. Dividend Payout						
2. Profitability	0.106					
3. Size	0.044	0.003				
4. Liquidity	-0.022	0.092	0.930[a]			
5. Leverage	-0.039	-0.039	-0.044	-0.015		
6. Growth	-0.094	0.051	-0.198[a]	-0.110	-0.035	
7. Risk	-0.143[b]	0.018	-0.093	-0.003	-0.036	0.251[a]

Note: [b] and [a] denotes significant at 5 percent and 1 percent level respectively. ***n*** denotes bank-year observations.

Source: Capitaline Plus and complied through SPSS 15

Table 2 presents Pearson's correlation matrix between dividend payout and independent variables, namely, Profitability, Size, Liquidity, Leverage, Growth and Risk. The correlation matrix of the public sector banks exhibits that dividend payout is positive significant correlated with profitability (γ = 0.192) and risk (γ = 0.292). Size is negatively significant correlated with growth (γ = -0.163) as well as positively significant correlated with liquidity (γ = 0.910) and risk (γ = 0.508). There is a positive significant correlation between liquidity and risk (γ = 0.396). Growth and risk (γ = -0.167) expresses a negative correlation, which is significant at 5 percent level. Under new private sector banks, dividend payout is positively significant correlated with size (γ = 0.497) and liquidity (γ = 0.327), and also negatively significant correlated with profitability (γ = -0.423) and risk (γ = -0.375). Profitability is positively significant correlated with size (γ = 0.494), liquidity (γ = 0.658) and leverage (γ = 0.531). Size is negatively significant correlated with growth (γ = -0.330) and risk (γ = -0.500), and high positively significant correlated with liquidity (γ = 0.977). There is moderate multicollinearity exists between profitability and liquidity. Liquidity is negatively significant correlated with growth and risk, and also positively significant with leverage (γ = 0.348). There is a positive significant correlation

between growth and risk (γ = 0.315). Under old private sectors, dividend payout is negatively significant correlated with leverage (γ = -0.374) and risk (γ = -0.349). Profitability is positively significant with liquidity (γ = 0.418) = and growth (γ = 0.317). Size is high positively significant towards liquidity (γ = 0.863) and negatively significant towards leverage (γ = -0.446). Liquidity and leverage has negatively significant correlation (γ = -0.292).

In the overall correlation matrix, there is a negatively significant correlation between dividend payout and risk (γ = -0.143). The similar correlation found in the new private sector bank as well as old private sector banks, but an opposite correlation found under public sector banks. There is a very high positive correlation between size and liquidity (γ = 0.930), which significant at 1 percent level. A similar correlation found in all bank groups. It clearly denotes the multicollinearity between size and liquidity.[7] To address the problem both explanatory variables are not included simultaneously in regression. There is a significant negative correlation between size and growth (γ = -0.198). Growth and risk has a positively significant correlation (γ = 0.251).

Panel data have been employed in the present study and it extends several econometric benefits than pure cross section and pure time series data sets. The most apparent advantage is that the large number of observations in panel data, which will raise more reliable parameter estimates and thus enable us to test the robustness of our linear regression results. The individuals, firms, state, or countries are heterogeneous. Time series and cross-section studies do not control the heterogeneity and run into the risk of obtaining biased results. Panel data control heterogeneity, less multicollinearity among the variables, more degrees of freedom and more efficient. Panel data make it possible to identify and measures affects that cannot be detected in pure cross section or time series data (Hsiao, 2003). To study the effect of six explanatory variables on dividend payout, the following multiple regression models have been employed in considering the multicollinearity among the explanatory variables.

Model 1: $ln(DP_{it}) = \propto_0 + \beta_1\, ln(PRO_{it}) + \beta_2\, SIZ_{it} + \beta_3\, ln(LEV_{it}) + \beta_4 GRO_{it} + \beta_5\, ln(RIS_{it})$

Model 2: $ln(DP_{it}) = \propto_0 + \beta_1\, ln(PRO_{it}) + \beta_2\, LIQ_{it} + \beta_3\, ln(LEV_{it}) + \beta_4 GRO_{it} + \beta_5\, ln(RIS_{it})$

Model 3: $ln(DP_{it}) = \propto_0 + \beta_1\, LIQ_{it} + \beta_2\, ln(LEV_{it}) + \beta_3 GRO_{it} + \beta_4\, ln(RIS_{it})$

Table 3: Regression Analysis of the Effect of Profitability, Size, Liquidity, Leverage, Growth, Risk on Dividend Payout

REGRESSORS	EXPECTED SIGN	Model 1			Model 2			Model 3		
		POOLED	REM	FEM	POOLED	REM	FEM	POOLED	REM	FEM
Intercept		2.708[a] (8.526)	2.861[a] (7.417)	2.993[a] (6.858)	3.021[a] (15.227)	2.893[a] (11.378)	2.845[a] (9.804)	3.024[a] (15.869)	3.047[a] (12.315)	3.025[a] (10.701)
Profitability	+	0.000 (-0.007)	-0.131[a] (-2.899)	-0.145[a] (-3.010)	-0.003 (-0.055)	-0.110[b] (-2.321)	-0.118[b] (-2.322)			
Size	+	0.032 (1.252)	-0.021 (-0.692)	-0.043 (-1.201)						
Liquidity	+				0.010 (0.385)	-0.038 (-1.258)	-0.048 (-1.332)	0.009 (0.384)	-0.062[b] (-2.082)	-0.075[b] (-2.208)
Leverage	–	-0.033 (-0.588)	-0.014 (-0.393)	0.005 (-0.132)	-0.038 (-0.682)	-0.012 (-0.356)	-0.004 (-0.111)	-0.039 (-0.689)	-0.019 (-0.538)	-0.010 (-0.276)
Growth	–	0.002 (-0.732)	0.001 (0.642)	0.001 (0.799)	-0.002 (-0.932)	0.001 (0.561)	0.001 (0.824)	-0.002 (-0.956)	0.000 (0.220)	0.001 (0.485)
Risk	+	-0.056 (-1.493)	0.139[a] (3.465)	0.190[a] (4.286)	-0.055 (-1.471)	0.134[a] (3.329)	0.181[a] (4.031)	-0.055 (-1.481)	0.139[a] (3.425)	0.190[a] (4.189)
Adjusted R^2		0.003	0.074	0.663	-0.004	0.078	0.664	0.001	0.060	0.657
F-statistic		1.122	4.682[a]	14.802[a]	0.833	4.924[a]	14.836[a]	1.045	4.717[a]	14.805[a]
Breusch and Pagan Test		207.83[a]			211.79[a]			233.04[a]		
Hausman's Test			15.207[a]			14.355[a]			13.342[a]	

Note: REM – Random Effect Method; FEM – Fixed Effect Method. Cross section (Banks) dummies only included. b and a significant at 5 percent and 1 percent level respectively. t-statistics are shown in parentheses.

Source: Capitaline Plus and complied through Stata 13

[7] Correlation coefficient excess of 0.5 indicates the presence of multicollinearity problem(Gujarati, 2004).

Table 3 shows the regression analysis of the effect of profitability, size, liquidity, leverage, growth and risk on dividend payout. In the pooled OLS method, the explanatory variables are found insignificant and the adjusted R^2 is almost zero. The F-statistics of all the models are 0.833 and found insignificant. The reason for the pooled OLS invalid is due to banks individual effect. The individual effects means the intercept of a regression varies across banks, so it causes the explanatory variable insignificant. Breusch and Pagan test help to find out random effect or simple OLS regression is more appropriate. The null hypothesis of the test is OLS regression is more appropriate. Breusch and Pagan test found significant at 1 percent for entire models and support the random effects regression as well as indicate the poor fit of pooled data regression. In Random effects regression, coefficient of profitability and risk found significant for the model 1 and 2 as well as coefficient of liquidity found significant in model 3. The Adjusted R^2s of all models have been improved around 7 percent compare to pooled regression and F-statistics found significant. It indicates the models more efficient in random effect regression than pooled regression. Next to decide fixed effect or random effect is more appropriate, Hausman's test is applied. The null hypothesis of the test is the random effect method is more appropriate for the data. It clearly shows that Hausman's test found significant at 1 percent for the entire model and indicates a fixed effect method is more appropriate.

Under the fixed effect method, the adjusted R^2 of the entire model increases around 66 percent and the F-statistics found significant. It shows that the models have been improved on the fixed effect method compare to the random effect method, which captures the individual effect of the banks. The coefficients of profitability are found a negatively significant effect on dividend payout, and it has been supported by Maldajian and El Khoury (2014). The result does not support the hypothesis that the profitability of the banks as a positive effect on the dividend payout ratio. It concludes that the higher the profitability of the bank, the less they prefer to payout dividends.

The coefficients of the risk are positively significant and it has been supported by Maldajian and El Khoury (2014). It confirms that higher P/E Ratio (lower risk) of the banks denote low volatility in their cash flow, resulting in an increase of dividend payout. Banks with high risk (low P/E Ratio) have high variation in their cash flow which make difficult to finance the future investment plan. So it increases in search of external finance for their needs, which results in a lower dividend payout ratio. The coefficient of liquidity is a negatively significant effect on dividend payout in model 3 and it supported by M. C. Gupta and Walker (1975) and Zameer et al. (2013). The result does not support the hypothesis that the liquidity of the banks as a positive effect on the dividend payout ratio. It concludes that bank operations are based on liquid cash, so high liquidity are preferred by the banks to maintain a substantial amount in cash to smooth operation, resulting in a lower dividend payout. The coefficients of size, leverage and growth are found insignificant, and it denotes these explanatory variables do not affect the dividend payout of the banks.

CONCLUSION:

Profitability, size, liquidity, leverage, growth opportunities and risk are factors considered in influencing dividend payout. Profitability has a negative effect on dividend payout, and it concludes higher the profit of the bank, the less they prefer to payout dividends. It could be due to the fact that profitable banks have more opportunities for growth. Risk found to be a positive effect on dividend payout, and it confirms that lower the risk (higher P/E Ratio) of the banks denotes low volatility in their cash flow, resulting in an increase of dividend payout. The liquidity of the banks has a negative effect on dividend payout, and it concludes liquidity is essential for the smooth operation of banks. Profitability, liquidity and risk are considered as potential factors influencing dividend payout. Size, leverage and growth opportunities are found unrelated to dividend payout of Indian commercial banks.

REFERENCES:

[1] Acharya, P. N., Biswasroy, P. K., & Mahapatra, R. P. (2012). Determinants of Corporate Dividend Policy: A Study of Sensex included Companies. *Indian Journal of Finance, 6*(4), 35-43.

[2] Al-Malkawi, H.-A. N. (2008). Factors influencing Corporate Dividend Decision: Evidence from Jordanian Panel Data. *International Journal of Business, 13*(2), 177-194.

[3] Ardestani, H. S., Rasid, S. Z. A., Basiruddin, R., & Mehri, M. (2013). Dividend Payout Policy, Investment Opportunity Set and Corporate Financing in the Industrial Products Sector of Malaysia. *Journal of Applied Finance and Banking, 3*(1), 123-136.
[4] Baker, H. K. (2009). *Dividends and Dividend Policy* (1 ed.). Hoboken, New Jersey: John Wiley & Sons.
[5] Baker, H. K., & Powell, E. G. (2005). *Understanding Financial Management: A Practical Guide* (1 ed.). United Kingdom: Blackwell Publishing.
[6] Barclay, M. J., Smith, C. W., & Watts, R. L. (1995). The Determinants of Corporate Leverage and Dividend Policies. *Journal of Applied Corporate Finance, 7*(4), 4-19.
[7] Ben Naceur, S., Goaied, M., & Belanes, A. (2006). On the Determinants and Dynamics of Dividend Policy. *International Review of Finance, 6*(1-2), 1-23.
[8] Black, F. (1976). The Dividend Puzzle. *The Journal of Portfolio Management, 2*(2), 5-8.
[9] Bodla, B., Pal, K., & Sura, J. S. (2007). Examining Application of Lintner's Dividend Model in Indian Banking Industry. *The IUP Journal of Bank Management, 6*(4), 40-59.
[10] Dickens, R. N., Casey, K. M., & Newman, J. A. (2002). Bank Dividend Policy: Explanatory Factors. *Quarterly Journal of Business and Economics, 41*(1/2), 3-12.
[11] Gujarati, D. N. (2004). *Basic Econometrics* (4 ed.): Tata McGraw-Hill Education.
[12] Gupta, A., & Banga, C. (2010). The Determinants of Corporate Dividend Policy. *Decision, 37*(8), 63-77.
[13] Gupta, M. C., & Walker, D. A. (1975). Dividend Disbursal Practices in Commercial Banking. *Journal of Financial and Quantitative Analysis, 10*(3), 515-529. doi: 10.2307/2330494
[14] Gupta, S., Dogra, B., & Vashisht, A. (2013). Examining Validity of Known Dividend Models in Indian Companies. *International Journal of Management Excellence, 1*(2), 26-31.
[15] Hsiao, C. (2003). *Analysis of Panel Data* (2 ed.). United Kingdom: Cambridge University Press.
[16] John, S. F., & Muthusamy, K. (2010). Leverage, Growth and Profitability as Determinants of Dividend Payout Ratio: Evidence from Indian Paper Industry. *Asian Journal of Business Management Studies, 1*(1), 26-30.
[17] Kumar, R., & Kumar Jha, P. (2012). *Determinants of Corporate Dividend Policy in India: A Study of Listed IT Companies at BSE.* Paper presented at the XI Capital Markets Conference.
[18] Lee, S. W. (2013). Bank Characteristics and Payout Policy. *Asian Social Science, 10*(1), 12-20. doi: 10.5539/ass.v10n1p12
[19] Lintner, J. (1956). Distribution of Incomes of Corporations among Dividends, Retained Earnings, and Taxes. *The American Economic Review, 46*(2), 97-113.
[20] Mahapatra, R. P., & Sahu, P. K. (1993). A Note on Determinants of Corporate Dividend Behaviour in India: An Econometric Analysis. *Decision, 20*(1), 1-22.
[21] Maldajian, C., & El Khoury, R. (2014). Determinants of the Dividend Policy: An Empirical Study on the Lebanese Listed Banks. *International Journal of Economics and Finance, 6*(4), 240-256. doi: 10.5539/ijef.v6n4p240
[22] Mishra, C. S., & Narender, V. (1996). Dividend Policy of SOEs in India: An Analysis. *Finance India, 10*(3), 633-645.
[23] Mistry, D. S. (2012). Factors affecting Dividend Decision of Indian Cement Industry. *Management Insight, 7*(1), 22-30.
[24] Moradi, M., Salehi, M., & Honarmand, S. (2010). Factors affecting Dividend Policies: Empirical Evidence of Iran. *Poslovna Izvrsnost, 4*(1), 45-61.
[25] Myers, M., & Bacon, F. (2004). The Determinants of Corporate Dividend Policy. *Academy of Accounting and Financial Studies Journal, 8*(3), 17-28.
[26] Parua, A., & Gupta, A. (2010). Dividend History and Determinants in Selected Indian Companies: A Study during 1993-'94 to 2004-'05. *Australasian Accounting Business and Finance Journal, 3*(4), 45-83.
[27] Rafique, M. (2012). Factors affecting Dividend Payout: Evidence from Listed Non-Financial Firms of Karachi Stock Exchange. *Business Management Dynamics, 1*(11), 76-92.
[28] Reddy, Y. S. (2002). Dividend Policy of Indian Corporate Firms: An Analysis of Trends and Determinants. *National Stock Exchange (NSE) Research Initiative Paper*(19).

[29] Rizvi, S., & Khare, S. (2011). Determinants of Dividend Payout Ratios: A Study of the Indian Banking Sector. *Indian Journal of Finance, 5*(2), 24-29.
[30] Rozeff, M. S. (1982). Growth, Beta and Agency Costs as Determinants of Dividend Payout Ratios. *Journal of Financial Research, 5*(3), 249-259.
[31] Weber, R. D. A., & Procianoy, J. L. (2009). *Are Banking Dividends Different? Evidence from the Brazilian Banking Sector*. Paper presented at the Sociedade Brasileira de Finanças, São Paulo.
[32] World Bank, & International Monetary Fund. (2005). *Financial Sector Assessment: A Handbook*. Washington DC: World Bank.
[33] Zameer, H., Rasool, S., Iqbal, 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. doi: 10.5829/idosi.mejsr.2013.18.3.12200

Appendix A: List of Sample Banks

SI. No.	Name of the Banks
Public Sector Banks	
01	Allahabad Bank
02	Andhra Bank
03	Bank of Baroda
04	Bank of India
05	Bank of Maharashtra
06	Canara Bank
07	Corporation Bank
08	Dena Bank
09	Indian Bank
10	Indian Overseas Bank
11	Oriental Bank of Commerce
12	Punjab National Bank
13	State Bank of Bikaner and Jaipur
14	State Bank of India
15	State Bank of Travancore
16	Syndicate Bank
17	UCO Bank
18	Union Bank of India
19	Vijaya Bank
New Private Sector Banks	
20	Axis Bank
21	HDFC Bank
22	ICICI Bank
23	IndusInd Bank
24	Kotak Mahindra Bank
Old Private Sector Banks	
25	Federal Bank
26	ING Vysya Bank
27	Karnataka Bank
28	Karur Vysya Bank
29	South Indian Bank
