



Stock market liquidity and firm dividend policy: Evidence from a Frontier Market

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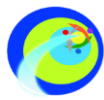
Abstract

Scholars have been studying dividend policy since the days of Modigliani and Miller (1958). However, until quite recently, the idea of liquidity has rarely been mentioned. The study examined whether there was a relationship between the firm dividend policy and any share liquidity criteria in the Sri Lankan context. This study represents 50 companies listed on the Colombo Stock Exchange (CSE) and performance throughout 2015-2019. It has been used Amivest liquidity, turnover liquidity, and Gopalan liquidity as the liquidity measures. Combined linear regression was used to examine the relationship between variables. Using some statistical tests the study has determined that there was no meaningful relationship between dividend policy and liquidity measures of Amivest liquidity and turnover liquidity. However, the study detected a significant reverse relationship between dividend policy and Gopalan liquidity. It emphasizes that firm dividend policy is affected by the firm liquidity but not by the stock market liquidity in the Sri Lankan context.

Keywords: Colombo Stock Exchange, dividend policy and stock market liquidity

Introduction

In financial management, dividend policy has been recognized as a "dividend puzzle" due to its problematic situation for decades. A company's dividend policy determines the amount to be paid to the shareholders as dividends on the company's net income and is a crucial decision in every business organization. And also, it is necessary to give major concern about liquidity as it plays a major influence on any financial market. Stock market liquidity applies to the degree to which a market, such as the stock market of a country or the real estate market of a region, enables buying and selling at stable, clear rates or low-cost trading shares without impacting the price as soon as possible. Moreover, there are less published empirical studies regarding stock market liquidity and firm dividend policy in Sri Lanka. Moreover, different researchers have reported different conclusions regarding this relationship. Based on the background, the current study aims to fill a gap in the existing literature by addressing the research problem as to examine the critical question of whether there is any kind of a relationship between stock market liquidity and firm dividend policy and to identify the nature or direction of the relationship if any exists. Furthermore, sub-objectives identify whether



there is any relationship between firm dividend policy and liquidity measures of Amivest liquidity, turnover liquidity and Gopalan liquidity.

Literature Review

In a sense, the dividend is a reward for investors who have taken a risk by investing in a particular company's shares. As per Modigliani and Miller (1958), investors should be indifferent about whether or not they earn dividends now or future capital appreciation, a concept known as the irrelevance theory of dividends. Illiquidity affects smaller firms' stocks more strongly, explaining the "small firm effect" changes over time (Amihud Yakov, Brennan, Gruber & Roll, 2000). Banerjee, Gatchev and Spindt (2005) suggested a significant negative relationship between the liquidity of a firm's stock market and its likelihood of paying dividends. Ghodrati et al., (2014) investigated stock market liquidity and firm dividend policy using four liquidity measures and found no significant correlation between dividend policy and Amivest Liquidity while there was a significant and negative relationship between dividend policy and turnover Liquidity. There was also a significant and direct relationship between dividend policy and liquidity measures of Gopalan liquidity and flow liquidity. It has found an inverse relationship between stock market liquidity and dividend amounts paid (Griffin, 2014). Nadia Sawitri and Sulistyowati (2018) examined stock liquidity and dividend policy using Indonesia's public financial firms. Asset liquidity, driven by the Amihud illiquidity ratio, has an insignificant negative effect on dividend policy as liquidity does not have a quantitative effect on dividend policy. Market liquidity, which is proxied by share turnover, has a significant negative impact on dividend policy as dividends serve as insurance for investment in illiquid stocks. There is a negative association between stock market liquidity and firm dividend policy in countries with sound political institutions (Lai, Saffar, Zhu & Liu, 2020).

Methodology

The population of this research includes all the companies listed on the Colombo Stock Exchange (CSE) in Sri Lanka, which are not of investment, intermediary financial entities, banks, insurance companies, mutual funds, and leasing companies. Fifty companies were selected under a stratified random sampling method. The performance of these companies was subject to study based on performance data over the period 2015-2019. This study used secondary data and required data mainly obtained from the CSE data library and annual reports of particular selected companies. Descriptive statistical methods such as mean estimation, variance, standard deviation, and categorized and simplified tables and graphs are used. Combined linear regression was used to analyze the relationship between variables, and t-test



and f-test were used to generalize parameters and estimate relationships. Excel has prepared the data for the analysis has been performed both with Eviews 08 and Excel.

Research Model

The dependent variable is the dividend policy, while the explanatory variables are the Amivest liquidity, turnover liquidity, and Gopalan liquidity.

$$DIV_{it} = \alpha + \beta_1 AMI_{it} + \beta_2 TL_{it} + \beta_3 GP_{it} \dots \dots \dots \text{Equation (01)}$$

Definitions of Variables

Table 1. Definitions of Variables

Variables	Measurement	Source
Dividend Policy (DIV)	$\frac{\text{DividendPayment}}{\text{NetProfit}}$	Ghodrati and Ghazi Fini (2014)
Amivest Liquidity (AMI)	$\frac{\sum_y VK_{id}}{\sum_y R_{id} }$ Where, VK _{id} = Daily share volume R _{id} = Return of stock i on day d	Goyenko, Holden, and Trzcinka (2009)
Turnover Liquidity (TL)	$\frac{\text{NumberofTradedSharesOveraPeriod}}{\text{CompanySharesVolume}}$	Ghodrati and Ghazi Fini (2014)
Gopalan Liquidity (GP)	$\frac{\text{TotalCash}}{\text{BookValueofCompanyAssets}}$	Gopalan, Kadan, and Pevzner (2012)

Research Hypothesis

Main hypothesis: There is a relationship between dividend policy and measures of liquidity criteria.

Sub-Hypotheses:

1. There is a relationship between dividend policy and Amivest liquidity.
2. There is a relationship between dividend policy and Turnover liquidity.
3. There is a relationship between dividend policy and Gopalan liquidity.

Results and Discussions

First, assumptions of the combined linear regression method were analyzed. Then the correlation study was carried out, and the relationship between variables has been examined by the combined linear regression method.



Table 2. Correlation Analysis

Variables	Without Classification	Small Sized	Large Sized
	DIV	DIV	DIV
AMI	0.00386	0.03179	-0.04119
t-Statistic	0.06080	0.35282	-0.45719
Probability	0.95160	0.72480	0.64830
TL	0.07665	0.12817	0.04109
t-Statistic	1.21076	1.43326	0.45612
Probability	0.22710	0.15430	0.64910
GP	-0.115415*	-0.02482	-0.23807**
t-Statistic	-1.82978	-0.27529	-2.71843
Probability	0.06850	0.78360	0.00750

(***), (**) and (*) Indicate significance at (1%), (5%) and (10%) respectively.

According to correlation analysis, it has been found that Gopalan liquidity has a significant correlation with the dividend policy of the firm (before classified). Furthermore, this analysis was carried out under two firm categories: small and large, based on book value for market value. It reported no significant correlation between any of the liquidity criteria with the dividend policy of small firms. On the other hand, it has a clear association between the Gopalan liquidity in large-sized companies and the dividend policy.

Table 3. Regression estimation for the relationship between dividend policy and Amivest liquidity

Variables	Symbol	Coefficient	T-Statistics	P-value	R-squared	F-Statistic Sig.Level	Durbin-Watson
Constant Coefficient	β_0	-0.751069	-1.134921	0.2575	0.000015	0.003697	0.8685
Amivest Liquidity	LNAMI	0.002569	0.0608	0.9516		0.951567	

$$LNDIV_{it} = -0.751 + 0.0026LNAMI_{it} \dots \dots \dots \text{Equation (02)}$$

As shown in the above-mentioned regression model, there is an insignificant positive correlation between dividend policy and Amivest liquidity.

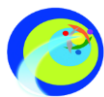


Table 4. Regression estimation for the relationship between dividend policy and turnover liquidity

Variables	Symbol	Coefficient	T-Statistics	P-value	R-squared	F-Statistic Sig.Level	Durbin-Watson
Constant Coefficient	β_0	-0.45538	-1.97308	0.0496	0.005876	1.465937	0.87581
Turnover Liquidity	LNTL	0.07129	1.210759	0.2271		0.22714	

$$LNDIV_{it} = -0.455 + 0.0721LNTL_{it} \dots\dots\dots \text{Equation (03)}$$

As shown in the above-mentioned regression model, there is an insignificant positive correlation between dividend policy and turnover liquidity.

Table 5. Regression estimation for the relationship between dividend policy and Gopalan liquidity

Variables	Symbol	Coefficient	T-Statistics	P-value	R-squared	F-Statistic Sig.Level	Durbin-Watson
Constant Coefficient	β_0	-1.05927	-5.00884	0.0000	0.013321	3.34809	0.89763
Gopalan Liquidity	LNGP	-0.08007	-1.82978	0.0685		0.068483	

$$LNDIV_{it} = -1.059 - 0.080LNGP_{it} \dots\dots\dots \text{Equation (04)}$$

As shown in the above-mentioned regression model, there is a significant negative correlation between dividend policy and Gopalan liquidity under 0.1 error level.

Table 6. Regression estimation for the relationship between dividend policy and liquidity criteria

Variables	Symbol	Coefficient	T-Statistics	P-value
Constant Coefficient	β_0	-0.504226	-0.550552	0.5824
Amivest Liquidity	LNAMI	-0.01607	-0.337995	0.7357
Turnover Liquidity	LNTL	0.085814	1.300342	0.1947
Gopalan Liquidity	LNGP	-0.080556	-1.825872	0.0691

$$LNDIV_{it} = -0.504 - 0.016AMI_{it} + 0.086LNTL_{it} - 0.081LNGP_{it} \dots\dots\dots \text{Equation (05)}$$

According to regression results, there is an insignificant positive correlation between dividend policy and Amivest liquidity (Table 3). Similarly, there is an insignificant positive correlation between dividend policy and Turnover



liquidity (Table 4). In contrast, there is a significant negative correlation between dividend policy and Gopalan liquidity, as presents in Table 5. Finally, a regression was run with all the liquidity criteria (Table 6), and it proved that only the Gopalan liquidity has a significant relationship with firm dividend policy.

After the research hypotheses were put forward and tested, the following results were detected.

Table 7. Summary of Findings

Variables	R ²	D.Watson	F-statistic	t-statistics	Sig.level	Result
Amivest Liquidity with dividend policy	0	0.8685	0.0037	0.0608	0.1	Rejected
Turnover liquidity with dividend policy	0.00588	0.87581	1.46594	1.21076	0.1	Rejected
Gopalan liquidity with dividend policy	0.01332	0.89763	3.34809	-1.8298	0.1	Accepted

Conclusions and Recommendations

Based on the results, only the Gopalan liquidity was significant. It is a firm liquidity indicator, whereas the other two liquidity criteria of Amivest liquidity and turnover liquidity are stock market liquidity measures. Therefore, it can be concluded that, although there is no significant correlation between stock market liquidity and firm dividend policy, there is a significant relationship between firm dividend policy and firm liquidity in the Sri Lankan context. Based on the significant negative correlation between the dividend policy and the Gopalan liquidity, it can be suggested that owners who have invested in high liquid companies are less likely to receive dividends. Then management can omit the dividend or reduce it and invest more because of the lower tendency to pay.

On the other hand, if their business is low in liquid, the dividends anticipated are higher than the capital gains. Furthermore, in the case of a company's liquidity, management may have an idea of whether investors want dividends or capital gains. Liquid markets and illiquid markets may differ from each other's, and their dividend policy may also differ according to their liquidity nature of the market and the liquidity of the firm. Therefore, investors can make better investment decisions if they concern firm liquidity in the Sri Lankan context and may have better rewards as they prefer.

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