Significance of a change in dividend payment frequency

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Abstract

The objective of this paper is to analyse the significance of a change in dividend payment frequency. We initially argue that a change in dividend payment frequency is significant and relevant in the same manner as a change in dividend policy. We analyse the subject using an event study of Sechaba Holdings, a firm listed on the Botswana Exchange` that decided to change its dividend payment frequency from quarterly to bi-annual payment to examine the subject. We specifically used an event study methodology that analyses the significance of abnormal returns that occurred during the event period. The study revealed that the firm's decision to change its dividend payment frequency did not significantly affect abnormal returns during the event period. The study therefore contradicted our initial argument that a change in dividend payment frequency is significant and relevant.

Key Words: *Dividend Policy, Botswana Stock Exchange, Sechaba Holdings, Abnormal returns*

JEL classification: *G21; G28; G35*

Introduction

Dividend policy is one of the most important decisions in corporate finance. It refers to a company's policy which determines the amount of dividend payments and the amounts of retained earnings for reinvesting in new projects (Hashemijoo et al, 2012). Specifically, dividend policy involves the decision about the form, size and frequency of dividend payments (Ali, 2013). The primary motive of investing for any investor is to maximize returns. Returns are largely determined by the dividend income which investors earn as they hold a stock. This means that dividends are an important component of the total equity return (Hallerbach, 2003). Infact, shareholders consider dividend payments as a constitutional right which managers should pay in order to maximize shareholder value (Ordu et al, 2014). Investors therefore frequently demand dividend information because it bears directly on expected portfolio returns (Bilinski and Bradshaw, 2015). Investors need dividend information so that they can make investment and portfolio management decisions that enable them to maximize returns. Thus, a firm's dividend policy pronouncements are an important element in investment and portfolio management decision making.

In July 2015, Sechaba Holdings, a firm listed on the Botswana Stock Exchange made an important dividend policy pronouncement to the media. As reported in the Weekend Post newspaper on the 13th of July 2015, Sechaba Holdings confirmed that its board had decided to change its dividend payment frequency from quarterly to bi-annual. In order not to cause panic among shareholders, the firm advised shareholders not to perceive the change in dividend payment frequency as a change in dividend policy. The firm's directors argued that its dividend policy remain unchanged as it does not result in a reduction in total dividends (Weekend Post, 2015).

The firm's concern was that the investors may perceive the change in dividend payment frequency as a change in dividend policy is understandable. According to dividend policy theory, a change in dividend policy may have implications on the value of a firm, resulting in a loss of shareholder value¹. Though Miller and Modigliani theory argue that dividend policy is irrelevant as the value of the firm is determined by its basic earning power and not whether a firm pays a dividend or not, several empirical studies show that in the real world, with market imperfections such as taxes and transaction costs, and other issues such as information asymmetries and agency problems, dividend policy is very relevant (Borges and Lupi, 2008)². With most financial markets being far off from being perfect, the statement which was issued by Sechaba Holdings management shows that the company was well aware of the possible negative impact of a change in dividend payment frequency being perceived as a change in dividend policy on the share price of a firm. Thus, it had to issue a firm statement advising investors not to perceive the change in dividend payment frequency as a change in dividend policy.

But can a change in dividend payment frequency possibly be perceived as a change in dividend policy such it affects the share price of the firm? The question of the relevance of dividend policy has always been a critical issue in the field of corporate finance. Whilst there is therefore substantial amount of literature on dividend policy supporting the relevance of dividend policy, the subject of the impact of a change in dividend payment frequency on the share price remain largely unexplored. Literature tends to focus on the relevance of dividend policy by focusing on the decision to pay or not pay a dividend and to increase or reduce dividend payments, and not necessarily the decision to change a dividend payment frequency. This is because the assumption is that once the level of payout is decided, the frequency of payment is only of secondary importance and that reporting conventions or other regulatory guidelines might determine the dividend payment schedule (Ferris et al, 2010). In essence, the existing theoretical and empirical literature is not able to provide us with answers as to the significance of Sechaba's decision to change its dividend payment frequency.

However, we can attempt to find answers as to the question of the significance of a dividend policy by thoroughly analyzing the theory of dividend policy. The starting point in the analysis is an introspection of the definition of dividend policy. Most definitions of dividend policy refer to it as a company's policy which determines the amount of dividend payments and the amounts of retained earnings for reinvesting in new projects (Hashemijoo et al, 2012). However it is important to note that the dividend policy decision does not only involve the decision about the form, size of dividend payments, but also the frequency of dividend payments (Ali, 2013). Since, dividend payment frequency is part of a dividend policy, it plausible to speculate that a change in dividend payment frequency is likely to be perceived as a change in dividend policy, in the same manner as a change in form and size of payments.

Dividend payments are important especially to those who prefer current income to capital gains. This is because dividends payments are certain and as such investors would prefer in comparison to capital gains which may not be realized if prices fall (Ijaz Ali, 2013). Shareholders value dividends such they expect a dividend, even if they are paid in very modest amounts (Zakić, 2012). The more frequently they earn the dividends they value immensely, the more satisfaction they obtain from dividend payments. In other words, investors derive higher satisfaction from receiving dividend payments frequently. As such lowering the

¹ Decisions which are made by managers determine what investors can expect both in terms of dividends and capital growth, which are in turn reflected through the share price (Panigrahi and Zainuddin, 2015).

² Recent empirical studies that support the dividend relevance theory include studies by Hassan et al (2013); Luvembe et al (2014) and Ajanthan (2013).

frequency of dividends is likely to reduce the satisfaction that they derive from earning dividends. Thus the argument that dividend payment frequency is of secondary importance ignores the higher utility derived by investors from receiving more frequent payments (Ferris et al, 2010).

The management of a firm tends to have more information of the internal operations of a firm than investors. It is important to also note that the ability of a company to pay a dividend or not depends on the cashflow situation of a firm. When there is excess cash which is not needed by the firm for other profitable investment opportunities, management will be expected to pay some or all of the surplus earning as cash dividends or to repurchase the company's stock (Maharshi and Malik, 2015). On the other hand, when a firm is having insufficient cashflow, it will experience difficulties in paying cash dividends.

Most firms prefer to maintain a stable dividend payment stream. Firms with a long-standing history of stable dividend payments are likely negatively affected by lowering or omitting dividend distributions (Luvembe, 2014). This is because omitting or lowering dividends sends a negative signal to the market thereby lowering the firm's share price. As a result, firms tend to keep their dividends constant in order to maximize share price (Karpavicius, 2014). If the variability of the cashflow increase, may be forced to decrease its dividend payments in order to create more room to manoeuvre financially (Nygaard and Zarp-Karsholt, 2013). However, due to the negative impact of dividend policy on share price, a dividend omission in most cases is seen as a last resort effort to get a firm out of financial distress (Bulan and Subramanian, 2008). In the same manner a change in dividend payment frequency is likely to be interpreted by investors as a sign that the company is in financial distress. In other words, the change to a payment frequency will send a signal to investors that the firm is in financial distress thereby affecting the value of the firm. Thus, signaling effect of a change in dividend payment frequency will likely make a change in dividend payment frequency significant.

A change in dividend in payment frequency may have also cause a clientele effect. This is because dividend payment frequency may be used by a firm to attract a certain type of investors. If retired investors who need regular income are the group that management targets, then dividend payment frequency may be used to attract them (Sahin and Nasseh, 2013). In other terms, a dividend payment frequency of a firm attracts a certain type of investors who prefers that dividend payment frequency. When a firm decides to change its dividend payment frequency, it is likely that some investors may be forced to sell off their shareholding. If there is oversupply of shares on the market due to the change in dividend payment frequency, the firm's share price will drop. Moreover, in an imperfect market with information asymmetries and brokerage costs, investors will incur transaction costs as they dispose-off their shareholding. In this case, the change in dividend payment frequency will matter to investors. Thus, using the clientele effect, we can also argue that a change in dividend payment frequency is likely to be significant.

Whilst we can theoretically argue that the change in dividend payment frequency is significant, we can only be sure if we undertake an empirical study. In this paper, we investigate the significance of a change in dividend payment frequency. The aim is to find out whether a change in dividend payment frequency matters. The study fills the gap in dividend policy literature regarding the significance of a change in dividend payment frequency. Besides adding to existing literature on dividend policy, we expect the study to have implications on the formulation of a dividend payment frequency in firms. The rest of the study is laid out as follows: Section 2 discusses data and methodology, Section 3 presents the results and discussion and Section 4 discusses the conclusion.

Data and Methodology

We used an event study to analyse the effect of a change in dividend payment frequency following an event methodology process explained by Mackinlay (1997) and Brooks (2013). We firstly determined the event period for the study. The event was publicly appeared in the media on the 13th of July 2015. We therefore took 13th of July 2015 as the actual event date. Considering the possibility that information from an event can filter through before the actual announcement, we considered 5 days before the actual event data as the pre-event period. We also considered that after the actual event date it may take several days for investors to make decisions to readjust their portfolio in response to the event, especially in relatively

illiquid markets like the Botswana Stock Exchange. As a result, the post event period considered 15 days after the actual day of the event. Thus the event period consisted of a total of 21 days.

We then determined the estimation period of daily expected returns for Sechaba stock. We decided to our estimation period to start from the beginning of the year 2015 up to the day prior the actual event date. The period consists of 124 trading days.

Having determined the event period and the estimation period, we collected daily Sechaba stock returns and market returns data for the entire period under consideration. We then estimated the following simple non-constant market model of normal returns using estimation period data³.

$$R_{et} = \beta R_{mt} + \varepsilon_t \quad (1)$$

The estimated model was then used to compute expected returns(R_{et}) of the Sechaba stock. The next step was to calculate the abnormal returns(AR_t) and cumulative abnormal returns(CAR_t). Abnormal returns were calculated by finding the deviation of expected return(ER_t) from the actual return(R_t) as follows.

$$AR_t = R_t - R_{et} \quad (2)$$

The cumulative abnormal return were calculated by finding the sum of abnormal returns within a particular period $T_1 + 1, \dots, T_2$.

$$CAR_t = \sum_{t=T_1}^{T_2} AR_t(T_2, T_2) \quad (3)$$

Finally, we performed a two tailed hypothesis test of the significance of the absolute returns within the event period. The null hypothesis for the test is that abnormal returns are equal to zero (or not significant). The test static for is computed using the following formula which is assumed to be normally distributed.

$$\emptyset = \frac{CAR_t(T_1, T_2)}{\sqrt{Var(CAR((T_1, T_2)))}} \sim N(0, 1) \quad (4)$$

Cumulative abnormal returns were used for the test statistic instead of abnormal returns because study considered a longer event period. The reasoning was therefore to analyse the behavior of abnormal returns over the entire event period consisting of 21 days. The variance of cumulative abnormal returns is estimated by multiplying the event period plus one day by the variance of the absolute returns (Brooks, 2013). This is shown mathematically as follows.

$$Var(CAR(T_1, T_2)) = (T_1 - T_2 + 1)Var(AR_t) \quad (5)$$

The variance of the absolute normal returns ($Var(AR_t)$) is assumed to be the variance of the residuals ($Var(\varepsilon_t)$) of the estimated model of expected returns in equation 1 above.

$$Var(AR_t) \approx Var(\varepsilon_t) \quad (6)$$

³ A scatter plot of the data showed that a non-constant linear model provides a better estimation.

The null hypothesis is tested at 5% and 10% levels of significance. The null hypothesis is rejected if the test statistic falls outside the critical region. Rejection of the null hypothesis indicates that abnormal returns during the event period were significant. Conversely, acceptance of the null hypothesis indicates that abnormal returns during the event period were insignificant.

Results and Discussion

As explained in the previous section, the methodology involved estimating a non-constant linear market model of expected returns. The results of the estimation are shown below.

Table 1: Estimated Linear Market Model

Return-Sechaba	Coef.	Std. Err.	t	P> t
Market Return	0.2049119	0.096094	2.13	0.0147006

The model was then used to estimate the expected returns in the event period. After calculating expected returns, it was then possible to calculate data was then used abnormal returns and cumulative abnormal returns as shown in equation 2 and 3. The complete returns data is summarized in the table below.

Table 2: Returns data

Event day	R	ER	AR	CAR
15	0	0.002	-0.002	-0.02
14	0	0.0246	-0.0246	-0.0446
13	0	0.0307	-0.0307	-0.0753
12	0	0.0369	-0.0369	-0.1122
11	0	0.0287	-0.0287	0.1409
10	0	0.0246	-0.0246	-0.1655
9	0	0.041	-0.041	-0.2065
8	0	-0.002	0.002	-0.2045
7	0	0.0348	-0.0348	-0.2393
6	0	-0.1127	0.1127	-0.1266
5	0	0.1354	-0.1354	-0.262
4	0	0.0143	-0.0143	-0.2763
3	0	0.0164	-0.0164	-0.2927
2	0	0	0	-0.2927
1	0	0.0041	-0.0041	-0.2968
0	0	0.0328	-0.0328	-0.3296
-1	0	0.1803	-0.1803	-0.5099
-2	0	-0.0246	0.0246	-0.4853
-3	0	-0.0123	0.0123	-0.473
-4	0	0.0328	-0.0328	-0.5058
-5	0	-0.123	0.123	-0.3828

Finally, a two-tailed hypothesis test of the significance of abnormal returns was conducted. The hypothesis test was conducted at 5% and 10% levels of significance using a test statistic ($\emptyset$) of -0.25455 calculated using the formula explained in the previous section.

Table 3: Hypotheses test

Test statistic($\emptyset$)	Level of significance(α)	Critical Region	Reject/Accept
-0.25455	10%	$-1.645 < Z_{\alpha/2} < 1.65$	Accept
-0.25455	5%	$-1.95 < Z_{\alpha/2} < 1.95$	Accept

Ho: AR=0

Since the computed test statistic is within the critical region at 5% and 10% levels of significance, the null hypotheses is accepted. This shows that the absolute returns in the event period are not significant. This implied that the Sechaba's change in dividend payment frequency did not affect the returns of its stock. Thus, based on this analysis, we can conclude that a change in dividend payment frequency is not significant.

Contrary to our argument that a change in dividend payment frequency is significant, the results show otherwise. The results probably explain why changes in dividend payment frequency are not given much attention in financial literature. However, we are still adamant that a change in dividend payment frequency matters. In this investigation, we are of the view that results of the study were largely affected by the illiquidity of the Botswana Exchange. When a stock market exhibit high levels of illiquidity, stock prices become less responsive to new information. Liquidity is generally described as the ability to trade large quantities quickly at low cost(Liu, 2006).When a market is illiquid, investors are discouraged from selling off their stock as will be too costly to do so. Moreover, illiquid markets tend to attract long-term investors who tend to hold stocks for a long time. Such investors are less likely to readjust their portfolios as a result of a change in dividend payment frequency. Thus for further examination of the significance of a change in dividend payment frequency, we suggest a close examination of similar situations in relatively liquid markets.

Conclusion

The study investigated the significance of a change in dividend payment frequency. To examine the subject, we used analysed the impact of Sechaba Holding's public announcement of a change in dividend payment frequency from a quarterly to bi-annual payments. We argued that a change in dividend payment frequency is significant and relevant in the same manner as change in dividend policy which is largely explored in financial literature. Using an event study methodology which examine the significance of absolute returns during an event period, our results revealed that a change in dividend payment frequency is insignificant and irrelevant. The results contradicted our argument, probably justifying why the effect of change in dividend payment frequency has largely been ignored in dividend policy literature. We were however of the view that the illiquidity nature of the Botswana Stock Exchange may have caused the contradiction. Therefore, we suggested that a similar study be undertaken on the subject in relatively liquid markets.

References

- Ali, I(2013). Dividend payment behavior of European listed firms: Three essays. Business administration. Universite de Grenoble, 2013.
- Ajanthan, A (2013).The relationship between dividend payout and firm profitability . A study of listed hotels and restaurants in Sri Lanka. International Journal of Scientific and Research Publications, Volume 3, Issue 6, June 2013.

- Bilinski, Pawel and Bradshaw, Mark T(2015). Analyst Dividend Forecasts and Their Usefulness to Investors: International Evidence (October 21, 2015). Available at SSRN<https://ssrn.com/abstract=2677094>
- Borges, M.R (2008).Is the Dividend Puzzle Solved? Working Papers. WP 38/2008/DE/CIEF
- Brooks, C. (2013). Introductory Econometrics for Finance. University Press, Cambridge, United Kingdom
- Bulan, L., and Subramanian, N. (2008). A closer look at dividend omissions: Payout policy, investment and financial flexibility. Investment and Financial Flexibility, 6 November. Available at SSRN: <http://ssrn.com/abstract=1335854>
- Ferris, S.P; Noronha, G and Unlu, E(2010). The More, the Merrier: An International Analysis of Dividend Payment Frequency,” Journal of Business Finance and Accounting, 37 (1&2), 2010, 148-170. DOI: 10.1111/j.1468-5957.2009.02174.x
- Hallerbach, W.G(2005). Holding Period Return-Risk Modeling: The Importance of Dividends Estudios de Economía Aplicada, vol. 23, núm. 1, abril, 2005, pp. 45-65
- Hasan, A.M; Asaduzzaman, M and Karim, R(2013). The Effect of Dividend Policy on Share Price: An Evaluative Study. IOSR Journal of Economics and Finance .Volume 1, Issue 4(Sept-Oct. 2103). pp 2321-5925.
- Hashemijoo, M; Ardekani, A.M and Younesi,N (2012). The Impact of Dividend Policy on Share Price Volatility in the Malaysian Stock Market. Journal of Business Studies Quarterly 2012, Vol. 4, No. 1, pp. 111-129.
- Karpavicius, S. (2014). Dividends: Relevance, Rigidity, and Signaling. Journal of Corporate Finance, Vol. 25. Pp 289-312. <http://dx.doi.org/10.1016/j.jcorpfin.2013.12.014>
- Liu, W(2006). A liquidity-augmented capital asset pricing model. Journal of Financial Economics 82 (2006) 631–671
- Luvembe, L; Njangiru, M.J and Mungami, E.S(2014). Effect of Dividend Payout on Market Value of Listed Banks in Kenya.International Journal of Innovative Research and Development. Vol 3 Issue 11.
- Mackinlay, A.C (1997). Event Studies in Economics and Finance. Journal of Economic Literature Vol. XXXV (March 1997), pp. 13–39
- Maharshi, N and Malik, S(2015). The Impact Of The Dividend Policy On The Market Price Of The Shares And Growth Of Joint Stock Companies Covered In Sensex. International Journal of Innovative Science, Engineering & Technology, Vol. 2 Issue 1, January 2015. .
- Nygaard, C and Zarp-Karsholt, A(2013). Pieces to the Puzzle: New Evidence on the Interpretation of Dividends.A Study on the Information Content of Dividends Hypothesis using the Novel Approach of High-Frequency Data and Systematic Risk. Masters Thesis. MSc. Applied Economics & Finance. Copenhagen Business School
- Ordu, M. M; ,Enekwe, C. I and Anyanwaokoro, M (2014). Effect of Dividend Payment on the Market Price of Shares: A Study of Quoted Firms in Nigeria. IOSR Journal of Economics and Finance. Volume 5, Issue 4. (Sep.-Oct. 2014), pp 49-62.
- Panigrahi,S and Zainuddin, Y(2015). Dividend Policy Decisions:Theoretical Views and Relevant Issues.Reports on Economics and Finance, Vol. 1, 2015, no. 1, 43 – 58. Available at :<http://dx.doi.org/10.12988/ref.2015.596>.
- Sahin, O.F and Nasseh,A(2013).Effects of Monthly Dividend Payments: The Case of Realty Income Corporation. Journal of Accounting and Finance vol. 13(3) 2013
- Weekend Post (2015). Sechaba changes dividend payment frequency. Published 13 July, 2015 [<http://www.weekendpost.co.bw/wp-news-details.php?nid=1229>]
- Zakić, V; Vasiljević, Z, and Zarić, V(2012). Relevance of dividend policy for food industry corporations in Serbia. Review Article. Economics of Agriculture 4/2012