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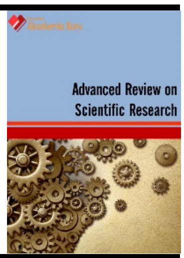

Dividend policy and price volatility: Theory vs practice

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ABSTRACT

Dividend policy is one of the most important element to measure changes in stock prices. The relationship between dividend policy and stock price volatility shows different results based on different studies. This paper focuses on the relationship between dividend policy and stock price volatility through seminal literature on both theoretical and empirical evidences from 1989 to 2016. The various consequences of this relationship depend upon each country specific characteristics, different data sample and different methodology techniques which utilized by researchers in developed and developing countries. Most of the studies found negative relationship between dividend policy and stock price volatility, while developed countries have more impact on this relationship as compared to developing countries. Based on the prior literature, this paper argues that the relationship between dividend policy and stock price volatility is inconsistent and the organization needs to decide the dividend policy according to their capability and organizational culture.

1. Introduction

Dividends is a distribution of profits among shareholders. In other words, dividends is a reward that attributable to shareholders from their investment through the provision of equity share capital [15]. Furthermore, dividend policy is a policy which deals with dividends payment and retains earnings for the re-investment purpose of the firm. Dividend policy means the practice that management follows in making dividend payout decisions, or in other words, the size and pattern of cash distributions over the time to shareholders [5, 23, 27].

Dividend policy is a significant concept in finance theories and empirical researches, but still an ambiguous matter in corporate finance [24]. The dividend policy of a company reflects how prudent the financial management of the company. The future prospects, expansion, diversification or mergers decisions are also effected by dividing policies, moreover, for a healthy and buoyant capital market, both dividends and retained earnings are important factors. Investors consider dividend as

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a return on their investment and firms use it to enhance their investment by attracting more and more investors [5].

Among the clouding picture of dividend policy, it is still a debatable issue for not only academicians also for practitioners. Besides, it has great importance for the companies to attain more investors through this profit return attraction [15]. The practitioners and academicians have different perceptions regarding financial policies of corporations. According to some pioneer researchers, dividend payments have inverse relationship with firm value [30, 63, 56, 27]. Theoretically, payment of dividends used as a signal for investors in capital market [2]. The corporate analyst and investment analysts proclaimed that dividends play a great role to convey firm's information to investors. Companies who pay high dividends have ability to reduce the risky investment, so ultimately risk transferred to new investors [25]. Additionally, less dividend paying companies face the high-risk issues in capital market [69].

Stock price is a symbol of overall strength of the firm which indicates the value of firm Consistent ups and downs in stock prices are known as volatility [30]. The stock price volatility may consider as the risk that face by the investors in the stock market [21, 51].

Dividends influenced on the share price volatility instead of retained earnings [30]. When stock price movement occurs, investor evaluates the stock prices and revises their expectations of future cash flow [42]. Mostly investors are risk averse, they just consider what they are gaining in the form of dividends and less concerned about future as capital gains [4]. Moreover, risk has become an important factor to explain the illustrious value effects of payout policies [31, 32, 72]. If share price of firm increases continuously then it means firm's management is performing efficiently [70]. On the other hand, there are chances to replace management when they are not able to make good returns for investors and enhance the risk of firm [42]. Investors are always more conscious and attentive for the dividends return and firms provide protection to investors because in the long run firm's share valuation may be affected by the investment risk [43].

It is considerable debate on the issue that whether dividend policy and stock price volatility have negative relationship, positive relationship or have no relationship. Researcher is motivated from the seminal literature; this paper is intended to provide a review on the relationship between dividend policy and share price volatility by focusing on theoretical and empirical literatures.

2. Measurements of Dividend Policy and Stock Price Volatility

The requirement of dividend is increasing among investors in emerging markets same as developed markets [90]. The investors usually look for high dividend policy ratios therefore the companies should manage their dividend policies carefully. Companies need to manage their dividend policy carefully to maximize the shareholder value. Market value of shares is greatly affected by the dividend policy. Poor dividend policy ratios can result in fall of market value of shares and thus loss of shareholder value. The measurement ratios of dividend policy are discussed below:

- **Dividend Payout Ratio**

Dividend payout ratio compares the dividends paid by a company to its earnings [20]. The part of earnings that is not paid out in dividends is used for reinvestment and growth in future earnings. The formula for calculation of dividend payout ratio is given below [68]:

Dividend Payout Ratio = Total Dividends / Total Net Earnings x 100%

Or,

Dividend Payout Ratio = Dividend per Share / Earnings per Share (EPS) x 100%

It should be noted that the dividends are not paid from "earnings"; in fact, they are paid from the "cash". Dividend payout ratio compares dividends to the earnings, not to the cash. A company will not be able to pay dividends if it does not have sufficient cash, even if it has a high level of earnings.

- **Dividend Yield**

Dividend yield is the amount that a company pays to its shareholders annually for their investments [35]. It is expressed as a percentage and indicates attractiveness of investing in a company's stocks. Dividend yield is considered as return on investment (ROI) for income investors who are not interested in capital gains or long-term earnings.
It is calculated as

Dividend Yield Ratio = Dividend per Share / Market Value per Share

Dividend yield is important for the investors who are seeking long term investments and a consistent return every year [42]. Old companies have been observed consistent in paying dividends with a very small or no variation. Investment in such companies' shares is relatively secure and less risky and their payout ratio is also high as compare to new companies. It also helps in making a comparison of other investments, such as, deposits, debentures, certificates, government securities etc. [70].

- **Dividend Coverage Ratio**

Dividend coverage ratio indicates the vulnerability or margin of safety, of dividend payments to a drop-in earnings [78]. The dividend cover ratio is used to assess a company's ability to pay dividends to its ordinary shareholders from its distributable earnings.

Dividend Cover = Earnings per Share / Dividends per share

3. Theoretical arguments on relationship

Dividend policy is a puzzle [18]. As few researchers suggested it is not relevant to firm value and shows no effect on the stock prices, and some researchers proposed there is relationship between dividend policy and investors interest in firm's value. Some key theories of dividend policy are mentioned below in table 1.

- *Bird-in-hand theory*

This theory stated that dividends have different worth than retained earnings in the form of capital gains within uncertain world and asymmetry information [5]. Furthermore, this theory proposed "dividends as a bird in hand are more valuable than future capital gain as two in hand" [30]. Investor will prefer dividends rather than retained earnings due to future cash flow uncertainty. There is some following assumption of this theory:

- Investors have imperfect information about firms' profitability
- High tax rate on cash dividends
- Dividend consider as an expected cash flow signal

Dividend have high tax cost rather than capital gain. While, some investors prefer to attain capital gain and avoid high tax risk and some investors prefer dividends as cash in hand. Moreover, high dividend paying firms have less investment and can reduce the risk, which ultimately reduce the cost of capital and thus stock price will be affected. Furthermore, firms rate of return (r) and cost of capital (k) along dividend policy shows effect on the market share price of firm

Table 1
Theoretical Literatures on Stock Price Volatility and Dividend Policy

Theory	Researcher	Year	Statement
Dividend Irrelevance Theory	Miller and Modigliani [63]	1961	Dividend policy is not relevant to investors. It is not possible to change shareholders' wealth during the fixed investment policy and increment in payout is only possible on the sale of priced stock
Bird in Hand Theory	Gordon [30]	1963	Dividends as a bird in hand is more valuable than future capital gain as two in hand
Agency cost and the free cash flow theory	Jensen and Meckling [46]	1976	Dividends distribution resolved problems that can exist in agency relationships due to unaligned goals or different aversion levels to risk. The most common agency relationship in finance occurs between shareholders (principal) and company executives (agents).
Signaling Hypothesis	Lintner [56]	1956	Dividend payment provides a great information of the firm, this is also proof of fluctuation in share prices.
Clientele Effects of Dividends Theories	Pettit [78]	1977	It explains that how a company's stock price will move according to the demands and goals of investors in reaction to a tax, a dividend or another policy change. Because of this adjustment, the stock price will move up or down.

- *Agency cost and the free cash flow theory*

Agency cost happens due to interest conflict among shareholders and management [84]. The nature of conflict can be direct or indirect. Most of the time, this conflict occurs when management do not work for shareholder profit maximization but prefer their own interests. If managers conduct activities by their own interest, it could be costly for the shareholders, for instance, non-profitable investments with high return but also high management compensation is not affordable for shareholders [4]. The shareholders borne all the cost, however, shareholder required high payment of dividend during excess free cash flow. The agency cost can also be happened between bond holders and shareholders due to distribution of dividends between shareholders who demand for high dividend and bond holders who expect low distribution of dividend [26].

- *Signaling Theory*

It is assumed that market represents the perfect information about the company for both management and investors [23]. However, different studies illustrated companies only float time being information in market which is essential for investors [25]. Moreover, this situation increases communication gap among investors and managers [36]. To overcome on this issue, managers decided to pay dividends. Managers considered dividends is a signal and reflect all private information of company to investors [82]. While, managers do not cut dividends as per requirement of situation, they can only increase dividends amount during consistent earnings increment [56]. Furthermore, dividend payment is not only provided information to investors, it also determined the fluctuation in stock prices of company [78].

- *Clientele effects of dividends theories*

This theory revealed that investors need to pay tax on dividend and capital gain and they also bear transaction cost on securities trade [42]. Moreover, the firms who have dividend policies they faced different clientele issues. It is responsibility of firm to provide benefits to investors [78]. Besides, firms on growth stage offer less dividend as an attraction tool for investors or clientele, while, firms on maturity stage pay high dividends and gain high profit [5].

4. Empirical findings on the relationship

Based on different theories and assumptions several studies empirically tested the impact of dividend policy on the stock price volatility (Table 2). Some researchers conduct studies on the relationship of dividend policy and volatility of stock price in financial and non-financial sectors of developed and developing countries they examined stock price volatility and dividend policy relationship by controlling firm financial factors including leverage, firm size and growth.

Table 2
Empirical Literature on Stock Price Volatility and Dividend Policy

Findings	Control Variables B/W Relationship	Employed by
Relationship between Dividend policy & Stock price volatility (Positive Findings)	Earning volatility Firm size Financial Leverage Growth in Assets Industry Pattern	[8,9,23,26,33,35,39,42,56,67,78,80,85,89]
Relationship between Dividend policy & Stock price volatility (Negative Findings)	Earning volatility Firm size Financial Leverage Growth in Assets Earnings Per share	[15, 16, 18, 20, 25, 26,34, 36,43,44,47,49,50, 53,54,56,60,72,74,75,76,79,81,82,87,91,104]
No relationship between dividend policy and stock price volatility	Earning volatility Firm size Financial Leverage Growth in Assets	[1, 75]

Some studies described that dividend policy has shown negative effect on the stock price volatility ([3],[14],[72],[43],[91],[22],[30],[56],[68],[71],[69],[42],[79]). Some studies exhibited negative significant relationship between dividend policy and stock price volatility in developed markets ([3],[14],[72],[43],[91]). This reaffirms that larger firms are at their maturity stage, more diversified and are in better position to generate debt finance at favorable cost. Hence such firms' payout high dividends so their stock prices remain stable comparative to smaller or growing firms.

Moreover, changes in dividends have a relatively strong effect on the share price. First of all, decreasing company's dividends signals that everything is probably not going as planned and expected financial results were not achieved [14]. This reflects on the share price, presumably making it decrease in value. Large swings are always a sign of high volatility and risk. Companies should always aim to maintain a steady dividend growth pattern, or at least keep the dividend unchanged [72]. By doing this, companies gain trust from investors and the company also appears much more desirable in the eyes of the investors.

Moreover, the findings of relationship between dividend policy and stock price volatility have also negative results in developing markets ([6],[10],[22],[30],[56],[68],[71],[69],[42],[79],[81],[82],[87],[91],[104]). These findings suggested that dividend policy is main determinant of stock price volatility in developed and developing markets. According to efficient market hypothesis, these findings also indicated that all firm information is clearly floated to investors in developed stock markets [79]. These findings also suggested that relationship can be in any direction and it depends upon financial system, political environment, state of economy and other global events. As a company distributes a higher proportion of their earnings as dividends to their shareholders, the decision to do so sends out a positive signal telling market participants that the company is doing well financially. This immediately reflects to the share price by making it more stable, thus less risky. In addition to this, a company with a high dividend yield certainly does not seem undesirable for investors. Hence, the possible rise and increased stability in the share price.

On the other hand, some studies highlighted that there is positive relationship between dividend policy and stock price volatility in developed ([8],[23],[26],[35],[39],[56],[78],[80],[85],[89]). These findings suggested that when dividend payment will increase than volatility also increase. Agency cost argument proposed that payment of dividends decreases costs and increases cash flow increases. This motivates the managers for the payment of dividends to distribute cash to stockholders rather than reinvesting the earnings at a rate less that the cost of capital or misuse that in organizational inefficiencies. extensive reinvestment of retained earnings will cause the future earnings to grow faster and are of the view that this positive relationship is not absorbed by other factors dividend like simple mean reversion in earnings. Moreover, dividend omission causes more changes in the stock prices than by dividend initiation. They found that dividend omission causes stock prices to fall by 7% on average and with dividend initiation the stock prices rises by over 3%. In other words, the effect of dividend omission on stock price is double of the effect of dividend initiation on stock prices. However, "the finding that stock prices under-react to dividend announcements is suspect on other grounds. It seems reasonable that under reaction would occur because market underestimates the information in dividends about future earnings"

While some studies indicated the positive findings of relationship between dividend policy and stock price volatility in developing countries ([9],[33],[42], [48], [50],[67],[87]). It happens when firms have more investment opportunities then they do not need to invest more in dividends payment to investors. These findings indicated that those companies who pay small amount of dividend have more growth potential as compared to companies who reinvest in their assets. In a broader perspective, it was presented that earnings of companies have positive relationship with share prices and ultimately with their volatilities [87]. The determination of stocks prices is actively traded on stock market for the retention of profit. Whenever a firm initiates the payment is more important than dividends because investors measures free cash flow as more important for firms than dividends [48]. However, the investors take more returns for three years following the interest in earnings than in free cash flows.

Few studies presented that there is not significant relationship between dividend policy and stock price volatility [1,75]. It means dividend policy have no effect on stock price volatility, it might be happened due to using different methodology and small sample size. This also occurs due to weak form of efficiency as past dividends influenced current dividend levels and company's officials is always hesitated to announce dividend cuts [1]. Furthermore, assumptions about the market efficiency were not correct because stock prices under weak form of efficiency were affected by herd mentality and inexperience investors [75]. The stable along with efficient markets are easy to predict but the actual markets, where high discuss price fluctuations exists then it can be difficult to layout a model which could forecast the price ranges and returns in the more accurate method.

5. Conclusion

This paper reviewed seminal literature about the relationship between dividend policy and stock price volatility on the basis of theories and empirical evidences. The review finds evidence of little consensus on the relationship between dividend policy and stock price volatility- in either developed or developing countries. Based on the literature, there are three possible causal directions including: positive direction, negative direction and no direction of causality between dividend policy and stock price volatility. Of the three, negative direction dominates the literature surveyed. Overall, this review concludes that the relationship between dividend policy and stock price volatility is ambiguous; hence, the argument that dividend policy explicitly leads to change in stock prices can only be taken with caution because the results varies depending on the variables, the data sets and the methodology used.

Since both management and investors are concerned about the volatility of stock prices, and imperative variables to be considered by financial experts before settling on venture choices and by an administration in figuring dividend policies for their organizations.

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