# WHY DO COMPANIES PAY DIVIDENDS? : A COMMENT

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# Abstract

This study reviews one of the unresolved research puzzles in corporate finance; why do companies pay dividends? In this context, a qualitative study dealing with content analysis is carried out based on the theoretical and empirical research. After critically reviewing 407 research articles in dividend policy, 50 empirical studies were taken as the sample based on the relevancy to the research puzzle. The content analysis has provided some significant insights and stylized facts with regard to the corporate dividend policy. However the previous research studies were fundamentally flawed in their design based on quantitative approaches in order to elucidate a behavioural explanation. As a result, most of the study findings cannot be relied upon to see consistency with the theories in question. Despite years of theoretical and empirical evidences, the findings show that the dividend puzzle is still remaining as unresolved research phenomenon in corporate finance due to lack of unanimity among the researchers over the explanations. This study provides the reader an all-embracing understanding on the theories and empirical explanations over the dividend puzzle. It is imperative for the researchers to focus on all empirical and theoretical explanations in a single study and test them simultaneously in a triangular approach in order to have a single consensus over this puzzle. Thus, developing a new paradigm or models to deal with the dividend puzzle is suggested, until then the deduction of various theories in different studies are inconclusive and inconsistent.

Keywords: Corporate Dividend Policy, Dividend Puzzle, Triangular Approach

#### **1. INTRODUCTION**

The dividend policy issues are ranging from 1950s to date. Lintner (1956) identified some important research questions which are still valid in the modern practice. He focused on whether the dividend policy to be altered or maintained as previous year dividends, whether to cater younger or older investors, would the investors prefer constant dividends or those which fluctuate with the net earnings. After, Lintner's quarrel, Miller and Modigliani (1961) introduced the irrelevance theory proposing that there is no relationship between dividend policy and stock prices and value of the firm under certain assumptions. They proposed that, organizations are paying dividends not simply because of thinking that it has an impact on increasing the value of the firm. After the irrelevance argument, there are ample researches were conducted in order to investigate the dividend puzzle.

In 1976, Black Fisher argued that "The more we look at the dividend picture, the more it seems like a puzzle with the pieces that just don't fit together". Finally he claimed that the answers to the dividend puzzle are not obvious at all. In a seminal paper, Al-Malkavi et al. (2010) claimed that the Fisher's statement is still valid in the modern finance. In 2007, Bhattacharyya concluded that the famous dividend puzzle is unsolved and search for new explanations for dividends continues. Baker et al. (2002) concluded that, "Despite a voluminous amount of research, we still do not have all the answers to the dividend puzzle." Again after a decade later Baker et al. (2011) noted, "Empirical evidence on whether dividend policy affects a firm's value offers contradictory advice to corporate managers." Finally, Baker and Weigand (2015) emphasized on developing a holistic model which integrate all the modern dividend theories, firm and market characteristics, as well as psychological and behavioural impacts which influence the corporate payout decision. When researching corporate finance, the scholars basically rely on three major approaches. Some researchers use statistical data analysis based on published financial data which is considered under the quantitative research methodology. The second approach is employed by the researchers by performing survey methodology and obtaining primary data from the investors and the corporate managers. It is also coming under the quantitative research methodology. Some researchers used the qualitative approach and few of the researchers used mixed approach (triangular approach) in order to investigate corporate finance issues. The researchers of this study initially intended to focus on the research articles which are conducted through qualitative, quantitative and triangular research approaches, but there is a lack of studies which are conducted through triangular and qualitative approaches. In spite of the method of distributing the dividends, the researchers tend to evaluate most of the available models in order to effectively deal with the dividend puzzle and originality and distinctive contribution is made



through the same. The objectives of this study are to identify whether there are distinctive factors which effect the dividend decision and to critically evaluate the available models in order to have a consensus over the research puzzle. The remainder of this paper includes the literature review, comparative analysis and the author's comments on the research problem; why do companies pay dividends?

# 2. LITERATURE REVIEW

In this section, the researchers tend to review both theoretical and empirical literature with regard to the research puzzle across the past few decades. Dividend policy is reviewed by researchers through qualitative approaches in early of the corporate finance. The first attempt to lay the foundation for dividend policy is the Lintner's (1956) approach. He conducted 28 in-depth interviews among corporate managers in order to investigate three major research questions. The examinations were conducted to check whether dividend payments to be amended or continued as the previous year, would investors prefer stable dividend payouts or those that depends on firm's earnings and would dividend policy shore up younger or older investors. He argued that the existing dividend payout lays the benchmark for future dividend decisions and managers usually have reasonably predetermined payout ratios. He finally posited that managers predictably smooth past and future earnings into the magnitude of a firm's dividend payout. Accordingly, the partial adjustment model was developed by him in order to explain the dividend decision process: to pay or not to pay dividends. As Baker (2015) suggested, Lintner's findings are accordance with the relationship between dividends and firms value: relevance argument. Unfortunately Lintner's stylized description has not come out as a theory, but it has implications for the signalling and relevance theories which were developed after his quarrel. As Lintner suggested. Bulan and Hull (2013) also argued that managers are reluctant to reduce or omit dividends till the creditors force to do so. It is also showing implications for the signalling hypotheses. Benartzi et al. (1997) concluded that, Lintner's model of dividends remains as one of the best explanations of the dividend decision process.

In 1961 Miller and Modigliani proposed the dividend irrelevance theory. After the irrelevance argument, there are number of theories emerged in fast few decades in order to explain the dividend puzzle: why do companies pay dividends?

#### 2.1 Divident Irrelevance Theory

In 1961, Miller and Modigliani proposed the hypothesis of dividend irrelevance under the assumption of perfect capital market, rational behavior of the investors, certainty about the investment policy and perfect management agents (managers' act as ideal agents for shareholders). If one of these assumptions is violated, the irrelevance argument may not hold. The dividend puzzle does not exist in the perfect capital markets and it arises when an attempt is made to reconcile the dividend irrelevance proposition with observed market behavior. As per the irrelevance argument, the investment policy alone determines the firm's value and dividend policy may not have an impact on value of the firm. Hence we could argue that, some companies are not paying dividends since it has no impact on value of the firm under the aforesaid assumptions.

If we write their argument as an econometric model;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \xi$$

Y denotes value of the firm,  $X_1$  denotes dividend policy,  $X_2$  denotes investment policy and  $\xi$  denotes error term

As per Miller and Modigliani's (1961) argument, p value of the dividend policy  $(x_1)$  should be greater than 0.05 and p value of the investment policy should be lesser than 0.05 in the regression model under the conditions of market perfections, perfect management agents, assurance of the investment decision and rational behavior of the shareholders. Hence the reverse side of his argument should reveal that if those conditions do not exist, there could have an impact from dividend policy on value of the firm.

In their argument, Miller and Modigliani emphasized on the informational content and tax clientele of the dividend as well. They argued that, in the real world a change in dividend rate is often followed by a change in the market price. This phenomenon is incompatible with irrelevance, but they called it as "informational content" of dividends, an attribute of particular dividend payments hitherto excluded by assumption from the discussion and proofs. When discussing the imperfections they identified only imperfection which leads а shareholder to have a systematic preference between current dividends and capital gains. When there is no systematic preference is produced, they argued that imperfection occurs in the (random) error term. They identified only imperfection of tax difference between dividends and capital gains; it was elaborated through the "clientele effect".

In 1976, Mark Rubinstein identified few factors which create irrelevance as relevance. He suggested that the market imperfections, the ability of dividend policy to create a new relevant security and the influences of dividend policy, through its effect on the size of aggregate investment, on market-wide discount rates may cause the relevancy in dividend policy. Black (1976) suggested that paying dividends may destroy the value of the firm when considering the tax disadvantage. In 2006, De Angelo et al. criticized the arguments made by Miller and Modigliani asserting that payout policy is not irrelevant and investment policy is not the sole determinant of firm's value, even in a frictionless market.

#### 2.2 Divident Relevance Argument

After the Lintner's (1956) approach, there are numerous theories aroused supporting the dividend relevancy by partially explaining the dividend puzzle; why do some companies pay dividends? In 2000, Lease et al. identified market frictions as the key to the relevance of dividend policy. Baker (2015) also emphasized that; the dividend policy could affect the shareholder wealth because of market imperfections or behavioral considerations. The remainder of the



literature review section discusses about the theories which are developed supporting the relevance argument.

#### 2.2.1. Bird-in-the-hand theory

Lintner (1956) and Gordon (1959) developed one of the early rational for paying dividends stating that dividends are valued than the retained earnings. By using a linear regression, Gordon (1959) stated that dividends have greater influence on the share price than the retained earnings. Hence investors prefer the current dividends rather than the "two in the bush" of future capital gains. Bird-in-the-hand theory was highly criticized by Modigliani and Miller (1961) who claimed that dividend policy does not affect the firm's cost of capital and its value. They called Gordon and Lintner's theory a bird-in-the-hand fallacy. Bhattacharya (1979) proposed that the reasoning underlying the bird in the hand theory is fallacious and suggested that riskiness of project cash flows determines the firm's risk which affects the dividend policy not the other way around. In 1988, Adi and Duane supported bird in the hand hypothesis concluding that dividends are preferred than the retained earnings in the case of bank holding companies.

Baker et al. (2002) conducted a study surveying managers of NASDAQ firms to examine their views about dividend puzzle including Bird in the hand theory. The findings revealed that the findings do not provide support for the bird-in-the-hand explanation for why companies pay dividends. In 2011, Baker et al. found no significant support for bird in the hand hypothesis. Baker and Sujatha (2015) conducted a survey research in order to assert manager's views about dividend policy in India. Their findings revealed a mixed result in bird in the hand explanation and show some support for the explanation stating that investors prefer the dividends to uncertain stock price appreciation.

# 2.2.2 Taxes and tax clienteles

In their seminal article, Miller and Modigliani (1961) suggested that a differential taxation of capital gains and dividends may possibly lead to a tendency for each corporation to attract a particular "clientele' comprised of those investors who have a preference for its dividend policy. In 1970, Elton and Gruber presented empirical evidence supporting the existence of such a clientele effect indicating that higher the firm's dividend payout ratio is for the lower the tax brackets and lead to different clienteles. Few years later, Miller and Scholes (1978) also confirmed the same findings. In 1970, Brennan developed the capital asset pricing model (CAPM) to test the relationship between tax risk-adjusted returns and dividend yield. His model maintains that a stock's returns before the tax should be positively and linearly related to its dividend yield and to its systematic risk. He suggested that, a stock with higher dividend yield will sell at lower prices because of the disadvantage of higher taxes associated with dividend income. Fred et al. (1976) concluded that the lower the personal tax bracket, the higher is the transformation curve, which in turn means that the investor is better off in utility terms. In their analysis, La Porta et al. (2000) found no conclusive evidence on the effect of taxes on dividend policies in the Australian context. Baker and Powel (2000) opined mixed support for the tax preference explanation for paying dividends in the US market. Baker et al. (2011) surveyed the managers of US and non US firms and findings show highly differential results depending on the time period and country. He concluded that taxes are a second-order determinant of dividend decisions for the US firms and managerial surveys involving non-US firms produced mixed results.

In 2014, Anastacia et al. studied the dividend policy using four countries including Ghana, Kenya, Nigeria and South Africa. Ghana and South Africa records a negative relationship between dividend payout and taxes while Kenya and Nigeria recording a positive relationship. Tax systems in Ghana, Kenya and Nigeria favor capital gains as against dividends while South Africa favoring dividends as against capital gains. It shows that a country's tax system also have moderating impact on the tax preference of the shareholders. In their survey in India, Baker and Sujata (2015) found that 68 percent of respondents express agreement that investors are attracted to the firms that have dividend policies appropriate to their particular tax condition. In a study based on the secondary data, Manon et al. (2015) proposed that, following a tax cut, firms increased the dividend payouts and investors benefited from the reduced tax rate through larger increases in dividends. Subba (2015) conducted a study among 413 non financial firms and the results do not provided any evidence of the existence of dividend tax clientele in Australia.

# *2.2.3 Informational asymmetry and signaling models*

Lintner's (1956) stylized facts have not come out as a theory, but it has connotation for the signaling theory. Pettit (1972) also observed that the market reacts positively to the announcement of dividend increases and negatively to the announcement of dividend decreases. He argued that, "dividend announcement, when forthcoming, may convey significantly more information than the information implicit in an earnings announcement". The early arguments supported the signaling hypothesis have not developed as a theory. In 1979, Bhattacharya developed signaling explanation for dividend puzzle based on asymmetric information. He assumed that investors have imperfect information about firms' profitability. Since the managers have private knowledge about the project cash flow and they signal this knowledge to the market through dividends. In the signaling equilibrium, higher value of the support is signaled by higher dividend.

There are voluminous empirical studies which focus on signaling hypothesis and results could be seen as mixed. Aharony and Swary (1980) posited that dividend and earning announcements are proper test for signaling hypothesis and support for the results obtained by Pettit even after controlling for contemporaneous earnings announcements. De Angelo et al. (1996) revealed that dividends tend not to be reliable signals because of few reasons. They argued that behavioral bias leads managers to overestimate future earnings when growth prospects fade and management make only modest cash commitments by underestimating the reliability of such signals. Baker and Powel (1999) studied the



dividend policy issues in regulated and non regulated firms. The findings show that the signaling explanation receives the most support than the other explanations for paying dividends. Kai and Zinlei (2008) concluded that there is a negative relation between asymmetric information and dividend policy. Their results do not support the signaling theory of dividends. Contrary to their findings, Richard (2010) affirmed the signalling hypothesis. Patra et al. (2012) studied the determinants of dividend policy in Greece and they found strong support for the signaling explanation. Xin et al. (2014) concluded that, the results obtained from the secondary data analysis do not lend support for the signaling hypothesis of stock dividends. Subba (2015) emphasized on the existence of the evidence for signaling hypothesis as profitability has a significant positive influence the dividend payout decisions of Australian firms. Febriela and Sylvia (2014) studied the Malaysian Stock market, using 90 companies as a sample; they concluded that dividend-paying status, increment in size of the dividend and persistence in payout are signals of higher earnings quality which support the signaling hypothesis. Claudiu and Marilen (2014) investigated the drivers of dividend payout policy by analyzing the behavior of 2,636 companies from sixteen emerging countries. The results of the generalized method of moments system technique principally support for the signaling hypothesis. Anastacia et al. (2014) studied the determinants of dividend decisions of firms in Sub-Saharan Africa (SSA) and results provide consistent evidence for dividend decisions. They identified the determinants such as firm profitability level, investment opportunity sets, taxation, leverage, institutional shareholding and risk influence the dividend decision. The results affirmed the signaling Reza et al. (2014) studied the theory as well. information content of the dividend using 9,959 firmyear observations in the Chinese companies listed in the Shenzhen and Shanghai stock exchanges. The authors concluded that announcements of cash dividend payments do not signal future performance but indicate good governance practices of publicly traded firms in China. Baker and Sujata (2015) identified the signaling hypothesis as one of the most highly supported explanation for paying cash dividends in the Indian context.

# 2.2.4 Agency cost explanation

Miller and Modigliani (1961) proposed the irrelevance argument under three major assumptions. They assumed that there are no conflicts of interests between managers and shareholders and all of the traders have equal and priceless information, no brokerage fees, transfer taxes and other transaction costs are incurred when securities are bought, sold or issued. In reality, this assumption is questionable where the owners of the firm are distinct from its management and managers are imperfect agents for Jensen and Mecling (1976) defined shareholders the agency relationship as a contract under which investor(s) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. They defined agency costs as the sum of the monitoring expenditures by the shareholder, the bonding expenditures by the agent and the residual loss. They assumed individuals solve these normative problems and given that only stocks and bonds can be issued as claims. Rozeff (1982) investigated the optimal dividend payout policy through two market imperfections; the agency cost and transaction cost associated with issuing external financing. He argued that the increased dividends may cause lower agency costs, but he was unable to explain the mechanism. Easterbrook (1984) has done a study with the purpose of asking whether dividend is a method of aligning manager's interest with the shareholders and providing the mechanism for the relationship between dividends and agency costs. He proposed it as agency-cost explanation of the dividend puzzle. He identified the dividends as a method of reducing the agency cost of the management and a good explanation for the dividend puzzle; why firms simultaneously payout dividends. The empirical evidence for the agency cost hypothesis is also enormous. Claire and Robert (1989) supported the agency theory explanation confirming that dividends are chosen in tandem by managers to control agency costs.

In their survey, Baker and Powel (1999) found a mix results with regards to the agency cost explanation. Jasim and Hameeda (2011) carried out a study using published market data in Saudi Arabia, the results revealed that agency cost is not a critical driver of dividend policy. Jean-Paul et al. (2011) suggested that higher agency costs tend to decrease stock price fluctuations, controlling for market capitalization. It reflects that firms with higher agency costs may have average lower market capitalizations. They argued that firms with higher agency costs tend to be closer to their dividend boundaries than firms with lower agency costs but otherwise similar characteristics. In their study, Claudiu and Marilen (2014) also found a strong support for the agency cost hypothesis. Subba and Dollery (2015) also supported the agency cost view of dividend policy in the Australian context. In their study, Baker and Sujata (2015) recorded that respondents provide a little support for the agency explanation.

# *2.2.4.1 Substitute and outcome model of dividends: Corporate Governance*

La Porta et al. (2000) studied the agency cost theorem using sample of firms from 33 countries around the world. They distinguish two alternative agency models of dividends. Dividends were considered as outcome of effective legal protection of shareholders in the first model, which enables minor shareholders to pull out dividend payments from corporate insiders. In the second model, dividends were considered as a substitute for effective legal protection, to establish reputations for good treatment of investors through dividend policies. The findings suggested that the agency approach is highly relevant to an understanding of corporate dividend policies around the world. Specially, they found a consistent support for the outcome agency model of dividends. Yinging (2000) studied the dividend policy and ownership structure in the Chinese context. His findings were consistent with the "substitute model" and dividends are considered as the substitute for legal protection of outsiders. According to the model, the dividends are paid to establish a reputation for



the good treatment of outside shareholders and it could be taken as one reason to pay off dividends. In 2013, Setiawan and Phua also supported on the application of substitution theory in Indonesia rather than the outcome theory.

In 1990, Donaldson proposed the stewardship theory and highlighted that corporate governance plays a positive role in reducing agency costs. In the stakeholder theory, Freeman (1994) also emphasized on the corporate governance impact on the dividend policy. Jiraporn and Chintrakarn (2009), Jiraporn and Ning (2006), Jiraporn et al. (2011) and Subba (2015) found significant evidence of the influence of corporate governance mechanisms on dividend decisions dealing with the agency problem. Moreover, Subba (2015) identified that corporate governance rating has a significant positive impact on the decision to pay dividends in the Australian context.

#### 2.2.5 Free cash flow hypothesis

Jensen (1986) identified the "Free cash flow" as the cash flow in excess of that required to fund all projects that have positive net present values when discounted at the relevant cost of capital. He posited that the conflicts of interest between investors and managers over payout policies are especially severe when the organization generates substantial free cash flow. The free cash flow theory was developed in order to address the problem of how to motivate managers to disgorge the cash rather than investing it at below the cost of capital or wasting it on organization inefficiencies. Jensen suggested that increment in dividend payouts may help to mitigate the free cash flow under managers' control, thereby preventing them from investing it in negative NPV projects or inefficiencies. As a result, paying more dividends will reduce the agency costs between managers and shareholders. Furthermore, Jensen has identified debt as a substitute to dividends in reducing the agency costs of free cash flow by reducing the excess funds. Since the large shareholders are in better position to impose and benefit from agency cost method, ownership concentration is expected to be associated with higher payout. Anup and Narayanan (1994) argued that dividends and managerial ownership are substitute mechanisms for reducing agency costs of free cash flows in all-equity firms. Shleifer and Vishny (1997) developed an alternative hypothesis stating that large shareholders prefer to extract private benefits of control rather than receive dividends that equally benefit all shareholders: rent extraction hypothesis. This was articulated and investigated by Faccio et al. (2001) and Gugler and Yutoglu (2003). Consistent with Gugler and Yutoglu (2003), Kimie and Pascal (2011) found that firms with higher ownership concentration pay lower dividends and supports the "rent extraction hypothesis". They opined that major shareholders do not appear to use dividend policy to remove excess cash and impose greater financial discipline on managers.

# 2.2.6 Pecking order theory of dividends

Myers (1984) developed the packing order hypothesis in order to explain the financing decisions. He suggested that the cost of issuing risky debts overwhelm other costs and benefits of debts and dividends which lead to the pecking order. According to the theory, firms finance investments first with retained earnings, secondly with safe debts, thirdly with risky debts and finally with the equity. Myers emphasized that the pecking order model does not explain why companies pay dividends, but once the companies tend to pay dividends, the pecking order hypothesis will automatically taking to the consideration. The first attempt to study the pecking order theory with dividends was the study done by Fama and French in 2002. They argued that, in line with the pecking order hypothesis more profitable firms are less levered, firms with more investments have lower long -term dividend payouts. Basiddiq and Hussainey (2012) also found evidence supporting pecking order hypothesis.

# 2.2.7 Life Cycle theory of dividends

Mueller (1972) argued that, if large mature firms are investing too much, the stockholders may consume less due to the reduction in their dividend income. In contrast, the young firms making new stock issues will find a lower demand for their issues as stock holders cut back on their purchases of these stocks to compensate for the reduction in their dividend income. Accordingly, Mueller's argument on the decision to pay or not to pay dividends is based on the life cycle of the organization. Fama and French (2001) argued that firms with current high profit/low growth perspectives tend to pay dividends and low profit/high growth firms tend to not to pay dividends. Confirming the theory, De Angelo et al. (2006) argued that firms tend to pay dividends when retained earnings are a major portion of total equity (mature firms) and falls to when most equity is contributed rather than earned (young firms). Baker and Powel (2012) studied the dividend policy in Indonesia using 52 firms as the sample. The respondents (managers) agreed that life cycle explanation helps to explain why their firms pay dividends. Gizelle et al. (2013) studied the determinants of dividend policy in ADR firms and the results were highly supported for the life cycle and catering explanations. In 2015, Baker and Sujata identified the life cycle explanation as one of the most dominant explanation for the dividend puzzle. Subba et al. (2015) also found a support for the Life Cycle explanation when paying dividends.

# 2.2.8 Catering theory of dividends

Baker and Wurgler (2004) proposed the catering theory stating that the decision to pay dividends is driven by prevailing investor demand for dividend payments. They have tested this prediction constructing four stock price-based measures of investor demand for dividend payers. They identified that non-payers tend to initiate dividends when demand is high through each measure. They observed that payers tend to omit dividends when demand is low through some measures. Hoberg and Prabhala (2009) found little support for the view that dividends appear and disappear because firms "cater" to dividend fads. They emphasized that there is nothing empirically incorrect about the relationship that Baker and Wurgler (2004) established. Lin et al. (2012) argued that investor's preference for dividends outweighs signaling in organization's dividend



decision. They argued that, when investor's preference for dividend is steady, the signaling theory is supported. When market dividend premium is negative, firms may decrease their dividend payout, and when dividend premium is positive firms may increase their dividend payout. Nopphon (2013) studied the dividends and catering incentives in Thailand, the results suggest that the decision to pay dividend could be affected by the catering incentives and it affirm the catering theory of dividends in an emerging market. Claudiu and Marilen (2014) studied the dividend policy analysing sixteen emerging markets and findings were in contrast to the catering But, Baker and Sujata (2015) identified hypothesis. catering theory as one of the most supported explanations for paying dividends in the Indian context.

#### 2.2.9 Stakeholder Theory

Stakeholder theory was proposed by Cornell and Shapiro in 1987 developing the work of Titman (1984). They argued that implicit claims creates the link between the investment and financing decisions of the firm and the level of net operating income of the firm could be affected by financing decisions like dividend- payout ratio. They defined the "net organizational capital (NOC)" as the level of noninvestor stakeholder influence on dividend payouts and hypothesize that managers of a firm can signal their ability to make payoffs on implicit claims by paying higher dividends.

Few years later, Shapiro (1990) emphasized on a different hypothesis on the relation between dividend policy and NOC. He proposed that the dividend

stability is particularly concerned by the firms with relatively high levels of NOC and these firms may have lower dividend-payout ratios to signal stakeholders that they expect to be able to make payoffs on implicit claims. Holder et al. (1999) found a substantial relationship between dividend payout and firm focus as a proxy for NOC and suggested that non-investor stakeholders enter into the dividend decision through implicit claims. Hence their results provide some evidence against the separation of the investment and financing decisions of the firm and product market influences on dividend policy. There is a lack of empirical studies on the non stakeholder's impact on the dividend decision.

#### 2.2.10 Behavioral Explanations

2009, Shefrin studied different behavioral In elucidations of dividends and concluded that mix of anecdotal and empirical evidence support for behavioral theory. His findings show that demographic factors such as retired, low income and older households favor dividend paying stocks. Baker et al. (2011) concluded that there is mixed evidence in Germany for behavioral explanations and lack of support in the Netherlands. Turner et al. (2013) also found a little support for the behavioral explanation. Since both investors and managers are part of dividend decision making process, it is imperative to further investigate on behavioral explanation of dividends in the social research. So the researchers should fill this gap in order to have a single consensus over the puzzle.

#### **3. COMPARATIVE ANALYSIS**

Table 1. Used methodologies of the sample in order to explain the dividend puzzle

Methodological Approach	Used methodology % (out of 50 articles)
Quantitative Approach (Published Data)	68%
Quantitative Approach (Survey Data)	20%
Quantitative Approach (Quantitative Modeling)	12%
Qualitative Approach	0%
Triangular Approach	0%

(Source: Authors construction)

The researchers of this study have critically analyzed 407 research articles in dividend policy, out of which 50 empirical studies <sup>9</sup> were taken as the sample based on the importance and relevancy to the research puzzle; why do companies pay dividends. As per the table 1, 34 studies (68%) were based on the quantitative research approach which used the published data (secondary data) in order to test the explanations. 10 studies (20%) were based on the survey data and it also used the quantitative research methodology, six studies (12%) were based on the quantitative modeling. Based on this understanding this study formulates its first and second research gaps in dividend puzzle.

**Research Gap 1:** When we look at the used methodologies of the sample, most of the studies used (68%) proxy variables and 100% of the studies were based on the quantitative methodology in order to explain a behavioural decision. It is debatable, if

the researchers tend to use only the quantitative approaches in order to elucidate a behavioural explanation.

**Research Gap 2:** Even though 100% of the methodologies on quantitative approach and contradictory in their findings, no one shows a positive signal to use triangulation approach in order to have more validity and completeness over their findings.

Table 2. represent the sample breakdown of the focused explanations and highest number of research articles (20 articles) were focused on signaling theory while behavioral explanations representing the lowest percentage (6%). It is imperative to note that there is no research study which is focused on all the theoretical and empirical explanations and tested them concurrently in order to minimize the unanimity among the researchers.

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<sup>&</sup>lt;sup>9</sup> Please see the appendix 01

Theory	Number of research articles	% (out of 50 articles )
Bird in the Hand Explanation	6	12%
Tax Preference Theory	13	26%
Signalling Theory	20	40%
Agency Cost Theory	17	34%
Free Cash Flow Theory	6	12%
Life Cycle theory	10	20%
Catering Theory	8	16%
Behavioural Explanation	3	6%

**Table 2.** Sample breakdown of the focused theories

Source: Authors' Construction

Based on the above understanding this research emphasize on the following research gap.

**Research Gap 3:** There is no research study which is focused on all the explanations in a single research and tested them simultaneously in order to have a single consensus over the research puzzle.

So as Bhattacharyya (2007) suggested, "A properly conducted research should take into account the empirical implications of all the theories

and test them simultaneously. This is the task for future".

Table 3 represents the acceptance and rejection rate of dividend theories in the selected sample and it indicates that all the dividend explanations are inconsistent in its studies. Out of the sample, Life Cycle and Catering theories scored the highest acceptance rate while the lowest acceptance is scored by the Bird in the Hand explanation.

Table 3. Acceptance a	nd rejection rate	of dividend	theories in t	the sample studies
<b>Table J.</b> Acceptance a	nu rejection rate	or urviuchu	uncomes in a	and sample studies

Theory	Accepted %	Rejected %	Mixed %
Bird in the Hand Explanation	33%	50%	17%
Tax Preference Theory	62%	15%	23%
Signaling Theory	75%	25%	-
Agency Cost Theory	69%	15%	15%
Free Cash Flow Theory	83%	17%	-
Life Cycle theory	90%	10%	-
Catering Theory	86%	14%	-
Behavioral Explanation	67%	-	33%

Source: Authors' Construction

Based on the above understanding this study formulates its fourth research gap in dividend puzzle as follows.

**Research Gap4:** All of the dividend explanations were contradictory in different studies in different contexts. There is no single consensus over the research puzzle.

So as Baker and Weigand (2015) emphasized, developing a holistic model is required which integrate all the modern dividend theories, firm and market characteristics, as well as psychological and behavioural impacts which influence the corporate payout decision: to pay or not to pay dividends.

# 4. AUTHOR'S COMMENT : CONCLUSION

Having rigorous review on the available literature, the authors of this paper emphasize on their comments as concluding remarks.

There are no distinct factors which effects dividend policy decision alone, isolated theories may not explain the puzzle, a holistic model should be developed considering all the explanations and empirical implications of the theories and test them simultaneously in order to explain the prevailing dividend puzzle.

In order to have more psychological insights on the phenomenon, the researchers should use the qualitative methodology through case studies, indepth interviews and other qualitative approaches as well. Yesmin and Rahman (2012) emphasized on the importance of applying the triangulation approach which increases the validity and completeness of the research findings. They argued that the "triangulation is not aimed merely at validation but at deepening and widening one's understanding, and tends to support interdisciplinary research rather than a strongly bounded discipline of sociology or anthropology" The dividend puzzle itself is based on psychological decision making process. Hence the explanations based on published numerical data and survey results should be validated through a triangulation approach; otherwise the deduction results of various explanations based on such approaches under different conditions or contexts are inconclusive and inconsistent same as today.

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Appendix 1. Comparative Analysis of findings of Empirical Studies

X - Rejected				ppendix 1. CC	1	,	0	1			
$\sqrt{-Accepted}$											
Empirical Study	Methodology	Bird in the hand	Tax Preference	Signaling Hypothesis	Agency Cost	Free Cash Flow	Life Cycle Theory	Catering Theory	Behavioral Explanations	Corporate Governance	Stakeholder Theory
Bhattacharya (1979)	Quantitative Modeling	Х									
Adi and Duane (1988)	Quantitative / Published Data	$\checkmark$									
Baker et al. (2002)	Quantitative / Survey Data	Х									
Baker et al. (2011)	Quantitative / Survey Data	Х	$\checkmark$		$\checkmark$						
Baker and Sujatha (2015)	Quantitative / Survey Data	Mix Results	Mix Results		Х		$\checkmark$				
Basiddiq and Hussainey (2012)	Quantitative / Published Data			Х	$\checkmark$						
Elton and Gruber (1970)	Quantitative / Published Data										
Miller and Scholes (1978)	Quantitative Modeling										
Brennan (1970)	Quantitative Modeling										
Fred et al. (1976)	Quantitative Modeling		$\checkmark$								
La Porta et al. (2000)	Quantitative Modeling		Х		$\checkmark$					$\checkmark$	
Baker and Powel (2000)	Quantitative / Survey Data		Mix Results								
Anastacia et al. (2014)	Quantitative / Published Data		$\checkmark$		$\checkmark$	$\checkmark$					
Manon et al. (2015)	Quantitative / Published Data										
Subba (2015)	Quantitative / Published Data		Х				$\checkmark$			$\checkmark$	
Aharony and Swary (1980)	Quantitative / Published Data										
De Angelo et al. (1996)	Quantitative / Published Data			Х							
Baker and Powel (1999)	Quantitative / Survey Data	$\checkmark$	$\checkmark$		Mix						
Kai and Zinlei (2008)	Quantitative / Published Data			Х							
Patra et al. (2012)	Quantitative / Published Data				Mix						
Xin et al. (2014)	Quantitative / Published Data			Х							
Febriela and Sylvia (2014)	Quantitative / Published Data										
Claudiu and Marilen (2014)	Quantitative / Published Data				$\checkmark$		Х	Х			
Reza et al. (2014)	Quantitative / Published Data			Х						$\checkmark$	

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Empirical Study	Methodology	Bird in the hand	Tax Preference	Signaling Hypothesis	Agency Cost	Free Cash Flow	Life Cycle Theory	Catering Theory	Behavioral Explanations	Corporate Governance	Stakeholder Theory
Claire and Robert (1989)	Quantitative / Published Data				$\checkmark$						
Jasim and Hameeda (2011)	Quantitative / Published Data				Х		$\checkmark$				
Jean-Paul et al. (2011)	Quantitative				$\checkmark$						
Subba and Dollery (2015)	Quantitative / Published Data			$\checkmark$	$\checkmark$		$\checkmark$			$\checkmark$	
Baker and Sujata (2015)	Quantitative / Survey Data			$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$			
Anup and Narayanan (1994)	Quantitative / Published Data					$\checkmark$					
Shleifer and Vishny (1997)	Quantitative / Survey Data					$\checkmark$					
Faccio et al. (2001)	Quantitative / Published Data					$\checkmark$					
Gugler and Yutoglu (2003)	Quantitative / Published Data					$\checkmark$					
Kimie and Pascal (2011)	Quantitative / Published Data					Х					
Fama and French (2001)	Quantitative / Published Data				$\checkmark$						
De Angelo et al. (2006)	Quantitative / Published Data										
Richard (2010)	Quantitative Modeling										
Baker and Powel (2012)	Quantitative / Survey Data							$\checkmark$			
Hoberg and Prabhala (2009)	Quantitative / Published Data							$\checkmark$			
Lin et al. (2012)	Quantitative / Published Data							$\checkmark$			
Nopphon (2013)	Quantitative / Published Data							$\checkmark$			
Jiraporn and Chintrakarn (2009)	Quantitative / Published Data				$\checkmark$					$\checkmark$	
Jiraporn and Ning (2006)	Quantitative / Published Data				$\checkmark$					$\checkmark$	
Jiraporn et al. (2011)	Quantitative / Published Data										
Shefrin (2009)	Quantitative / Survey Data								$\checkmark$		
Baker et al. (2011)	Quantitative / Survey Data		Mixed						Mixed		
Turner et al. (2013)	Quantitative / Published Data			$\checkmark$	$\checkmark$				$\checkmark$	$\checkmark$	
Shapiro (1990)	Quantitative / Published Data										$\checkmark$
Setiawan and Phua (2013)	Quantitative / Published Data									$\checkmark$	
Holder et al. (1999)	Quantitative / Published Data										$\checkmark$
Gizelle et al. (2013)	Quantitative / Published Data										

Appendix 1. Comparative Analysis of findings of Empirical Studies - Continued

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