

Dividend Policy: The Case of the Moroccan Company Maroc Telecom

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Abstract: *The distribution policy or dividend policy refers to the choice of the company as to the fraction of profits to be distributed to shareholders in the form of dividends. It is a question of returning part of the cash generated by the company to the shareholders. The effect of the distribution of dividends on the value of the company is not entirely neutral. Indeed, the company may decide to increase the distribution rate to signal a high profitability, or to reduce agency costs and avoid underinvestment by management, or to boost the stock price. During the elaboration of this paper, we tried to highlight the different dividend policies by applying it to the company Maroc Telecom.*

Keyword: Dividend, Distribution, Theory, Agency Theory

1. Introduction

The main objective of the company's financial strategy is to optimize the financial structure of the company. The financial strategy differs from the financing proposal because it does not just cite the various financing granted by investors but presents the financing strategies that the entrepreneur wants to put in place from the launch of the company.

The net profit or the "net operating income" has only two possible assignments. Of apart, the reinvestment in the company in the form of self - financing, on the other hand the distribution to shareholders in the form of a dividend or share repurchase, or even a reduction of capital. The dividend, as well as share repurchases, have the primary objective of making to the shareholders of the funds who no longer find it necessary to invest in the company at a rate of profitability that corresponds at least to the cost of capital, thus avoiding destroying value. We thus reallocate funds from mature companies or sectors that have become less risky, to companies or new, rapidly developing sectors that need capital clean.

Secondary objectives can also be pursued: to report that the company that renounces voluntarily to liquidity is in good health and that she is confident in the evolution of her results (signal theory); reduce the room for maneuver of the leaders by depriving them of a part of the cash flows generated by the company (agency theory); respond to wishes shareholders who, in certain phases, are willing to overpay companies paying large dividends and which, in other phases, are willing to overpay companies paying few dividends; provide liquidity to the shareholder who may need it; modify gradually the structure of the shareholding by strengthening the weight of certain shareholders at the detriment of that of other shareholders.

Many researchers have tried to solve various aspects of the policy of dividends, subjects of ambiguities, such as the interactions that may exist between policy of dividend and ownership structure. Most studies have focused on the markets developed in contrast to emerging markets which are very different. One of the difficulties the financial situation that the company suffers from is that of responding to the choice of dividend policy adequate to the conflict management of the various stakeholders because the dividend is a fundamental component of profitability, and its distribution decision proves to be among the most important decisions of the firm.

Thus, we can ask ourselves about the theoretical underpinnings of such a policy and what are the main practices and factors influencing these? In a first time, we will define the dividend policy as well as the different types of this policy, then we will study its practices and its determinants. In a second step, we will present the different theories relating to the said policies.

1.1 General information about the dividend policy

Like any research work, during this first part, we will define everything first the concept of dividend, then we will develop the latter by presenting its typology. By the next, we will discuss the various practices implemented by companies regarding concerns the distribution of dividends, before closing on the multiple factors likely to impact the said distribution.

1) Definition

First of all, dividends are also a sufficiently interesting topic. Becoming a shareholder means accepting to take the risk of losing all or part of your stake. In return for this risk, the shareholder expects compensation for his investment. It is why the dividend is often defined as the money that the shareholder of a company receives every year or everything depends on the payment method.

Accountably speaking, when a shareholder buys shares in a company, he becomes the owner of a part of his profit in the proportion of shares that holds them. The dividend is therefore the remuneration of its share of shares. That is, in the distribution of wealth created, the share of the company's profits returning to the shareholders is distributed under form of dividend.

The dividend also called coupon, this remuneration, is variable depending on the results of the company, as it can also be deducted from the profits deferred to new or in reserves, Or in case of zero profit. But this does not imply that the dividend is a mandatory nor automatic direct debit. The payment of the dividend falls under a decision of the general meeting of shareholders.

The commercial code allows the general assembly to distribute in the form of dividend any sum forming part of the distributable profit, provided that the capital own funds after distribution are at least equal to the share capital increased by the reserves not which may be statutorily or legally distributed, such as legal reservations, and exclusion made of possible revaluation deviations, not distributable. The part of the profit not paid in dividend is therefore kept in the company and is recognized as a liability on the balance sheet in there serve or carry - over account again.

1.2 The types of dividends

In a clear way, to be entitled to a dividend, you must be in possession of action, however there are many types of actions. Likewise, there are several types of dividends:

a) Cash dividends

- **The classic dividend:** The company's board of directors decides to allocate an amount X to the payment of dividends, and this amount is divided by the number of existing shares to give the dividend per share which will be poured out.
- **The priority dividend:** This dividend is paid only to holders of Shares at Priority Dividend (ADP). In fact, the ADP is not an action like the others. Normally, a share allows the person who owns it to vote at the meetings general conditions of the company, and therefore to participate in its decisions.
- **The exceptional dividend:** The exceptional dividend is distributed essentially during certain mergers, or when the company has just completed a sale that brought in a lot more money than she needs. In the same field of idea, some companies with abundant, and unused, cash can benefit their shareholders, who may have investment ideas.
- **The interim dividend:** The company may decide to pay a fraction of dividend before the General Meeting has approved the accounts. It is a use very widespread in the United States.
- **Increased dividend:** To reward the loyalty of some of their shareholders, who, for example, have held shares for X years, or have registered their registered securities, some companies pay them an increased dividend. This mark - up cannot be more than 10%.

b) Dividends in shares

It is a question of replacing the payment of a sum of money by the allocation of shares. This method has advantages for both the shareholder and the company. The shareholder does not have to ask the question of reinvesting its dividends, while the company does not have to disbursing money and increases its capital.

The usefulness of dividend in shares for the company:

- To satisfy the expectations of its shareholders in terms of dividends, without kind of committed.
- To increase the ease of negotiation of its shareholders by increasing the number of shares outstanding and causing the share price to decrease.
- To reinvest.

The usefulness of a dividend for the shareholder:

- To have more shares from which to earn dividends additional.
- To have more action for a profitable future resale, when the price of shares are rising again.

c) Payment of the dividend in kind

Finally, the articles of association may provide for the payment of dividends by delivery of goods in kind: securities held in portfolio, goods in stock. However, payment in kind cannot not be imposed on shareholders, if the articles of association do not provide for it. Indeed, this is a dation in payment which can only take place if both parties agree to it.

1.3 Dividend distribution practices

- 1) **The distribution of all dividends: Rubner (1966)** suggests a distribution of all profits in the form of dividends. His suggestion is based on the fact that shareholders prefer to receive "more" dividends "to less" dividends. In practice, companies do not adopt this strategy because they are not encouraged either by the taxation, nor by the shareholders. The reason for this is that on the one hand, the distribution of dividends significantly affects the company's self - financing and on the other hand, the capital gains tax rates are often higher than those of coupons.
- 2) **Absence of dividend distribution: Clarkson and Elliot (1966)** argue that the dividend constitutes a "luxury" that neither companies nor shareholders can afford allow. In practice, whatever the merits of this approach, it is rare to see companies retain all profits in reserves without distributing dividends.
- 3) **Residual dividend policy:** Insofar as the company adopts only the profitable projects, having a positive net present value, any additional profit must be distributed in the form of dividends: this is the approach of a residual dividend. In practice, this policy is not followed by managers since, in general, companies opt for a policy characterized by an increase over time of the earnings per share, so that the dividend per share is less variable than the earnings per share. The behavior of companies in terms of distribution shows that the dividend generally increases with a "phase delay" of a period compared to the increase in profit that immediately follows the increase in profit, with a certain delay. This information allows the financial

market to anticipate the future benefits of the company. It seems that the dividend constitutes the fundamental decision variable and that it represents a residue. Companies often adopt a constant payout ratio in which the dividend represents a given percentage of the profits. This behavior is not consistent with the residual policy since we observe, in practice, that the companies continue to distribute the dividends, even when they increase their indebtedness.

- 4) **The policy of a stable dividend:** By rejecting the hypothesis of a distribution of 100% profits in the form of dividends and that of the retention of all the profits, the researchers observe that the companies attribute an importance considerable to the dividends of the previous year. These results suggest that the companies tend to follow a relatively stable payout ratio over the long term. Lintner (1956) shows that dividends are related to long - term profit and that the companies follow a "target" dividend ratio. He also notes that the leaders of the companies attach great importance to changes in the dividend compared to the previous year.
- 5) **Share repurchase:** Instead of paying dividends, companies can pass on their liquidity to shareholders by buying back their own shares. Share repurchases are a very widespread way of distributing profits to shareholders. Very practiced in the US, but also in France. The plan must be approved by the General Assembly.
 - % Of the targeted capital (capped at 10%);
 - Duration of the operation 18 months;
 - Financing (self - financing or debt);
 - Analysis of the consequences.

1.4 Factors that may influence the distribution of dividends

- 1) **Debt:** Jensen, Solberg and Zorn (1992): These authors emphasize the aspect negative debt on the payment of the dividend. They use an equation system simultaneous in order to study the interaction between financial policies and property managerial with the informational asymmetry between managers and investors external.
- 2) **The level of risk:** Chen and Steiner (1999): develop a model in which a high level of risk leads to a low dividend payment. Indeed, a firm risky will then resort to external financing from where it will try to keep its internal liquidity and thus decide to limit its level of dividend payment.
- 3) **Profitability:** Jensen et al. (1992): suggests that high profitability can induce a high dividend since a high profitability implies a high free - cash - flow.
- 4) **Investment opportunity:** Mayers and Majluf (1984): in their hierarchical financing suggest that the firm, if it has investment opportunities, can being forced to choose between paying dividends or investing.
- 5) **The size of the firm:** Jensen (1986): suggests that large firms have important free - cash - flow and therefore they are more available to pay important dividends. Crutchley and Hansen (1989) affirm this positive relationship between the size and the level of dividend distribution due to the fact that large firms have a easier access to the capital market, so they will offer their liquidity in large part in the form of dividends.

- 6) **Remuneration:** Competent managers have a high remuneration and have a great access to profitable investment opportunities that reduce free - cash - flow and therefore lead to a decrease in the dividends distributed.
- 7) **Free cash flow:** In principle, these are investments to maintain or increase production.
- 8) **Free - cash - flow =** Cash flow generated by operations - capital expenditure. Free cash flow or free cash flow is used to:
 - Pay interest repayment;
 - Make diversification or other investments;
 - Pay dividends to shareholders;

Finally, and to conclude on this point about the factors influencing dividend policy, we must point out that these are only a few factors among many others and that the framework of this report, it would be tedious to identify all the determining factors of this policy.

2. Theoretical framework relating to the dividend policy

The determination of the dividend policy amounts to deciding the proportion of profits reinvested in the company, time stability of dividends, dividends in action and the redemption of shares. All this follows beforehand from a theoretical framework specific to this problem. Through this part, we will try to identify the different hypotheses, postulates and models of theories relating to dividend policy as well as their limits.

2.1 Thesis of neutrality

In a balanced financial market where there is no imperfection, the distribution of dividend does not affect the value of the share and investors are indifferent between receiving income in the form of dividends or capital gains. Thus, the most striking approach, regarding what is called "dividend neutrality" in determining the value of the action, is certainly the one proposed by Modigliani and Miller (1961).

2.2 Modigliani and Miller's theorem

Modigliani and Miller argue that, under certain conditions and for a level given investment, the amount of dividends distributed does not affect the wealth of shareholders. Thus, these authors argue that there is no optimal dividend policy and that, under these conditions, the total market value of the company is independent of its dividend policy. For this, they posed mainly on the following three hypotheses:

- The perfection of the capital markets: It follows that no agent, whether buyer or seller, only has a size large enough to have an impact on the price. All the agents have the same access to information that is free and available to all. There is no transaction cost or commission fee. In addition, there is no such thing as tax distortion between the taxation of dividends and that of capital gains;
- The rationality of the agents: this means that their satisfactions increase as their wealth levels increase and

they are indifferent to the nature of their income (payment of dividends or capital gains).

- The perfect certainty: it implies a complete insurance, for investors, in future investments and profits. It is then not necessary to make the difference between an obligation and an action as resources of society. At this level, only actions are considered in the Modigliani and Miller analysis.

Under these assumptions, the valuation of stock prices can be obtained using the following fundamental principle: the share price is such that the rate of return (dividend + capital gain invested) of each share is the same on the market regardless of the period.

To demonstrate this result, M&M first take the case of a funded company only by own funds. Modigliani and Miller estimate that the rate of return required by shareholders on an investment in shares and equal to the sum of the dividends and the gain in capital. In other words:

$$K(t+1) = (D(t+1) + P(t+1) - P(t)) / P(t)$$

Where:

P(t+1): The share price for the company at the end of the period (t+1);

p(t): The share price for the company at the beginning of the period (t);

D(t+1): The dividend per share paid by Company j at the end of the period (t+1);

K(t+1): The rate of return by during the period (t, t+1)

This equality can be obtained thanks to an arbitration argument. If she wasn't verified, shareholders who hold shares that pay little (low - price return high) could increase their wealth by selling these stocks and investing in those that yield more (high yield - low price).

This process can indeed lower the price of stocks with a low yield and increase that of high - yielding stocks until the difference in terms of efficiency be eliminated. Anyway, summing the above equations, we get the following equation:

$$V(t) = (D(t+1) + n(t)P(t+1)) / (1+K(t+1))$$

D(t+1): is the dividend for the period t+1 → number of existing shares $n(t)$ weighted by the dividend per share in t+1.

The value of the company is the dividend increased by the value of the share (representing a possible resale price) on the same date, updated. When the company issues m shares news in t+1, m t+1, at a price P t+1, The current value of the new shares is written:

$$V(t) = (D(t+1) + V(t+1) - m(t+1)P(t+1)) / (1+K(t+1)) \quad (2)$$

M(t+1) * P(t+1): indicates the funds received as a result of the issue of m t+1 new shares at the date t+1. The present value of dividends and shares in t+1, net of the value updated new shares, issued at the prevailing price on date t+1.

In relation (2), V t+1 is the market value of the old and new shares:

$$V(t+1) = n(t)P(t+1) + m(t+1)P(t+1) \quad (3)$$

The number of shares in t+1 is the sum of the numbers of old and new shares:

$$N(t+1) = n(t) + m(t+1) \quad (4)$$

The total value of the shares in t+1 is the total number of shares in t+1 weighted by the value of the action on this same date:

$$V(t+1) = n(t+1)P(t+1) \quad (5)$$

The company has an internal resource consisting of its operating profit REX t+1 and an external resource corresponding to the possible issuance of new shares m t+1 * P t+1.

These resources can have three jobs that are variable and fixed operating expenses CVF t+1, the renewal investment t+1 and the dividend distribution DIV t+1. In insofar as the sources of funds must be equal to the uses of funds, it is possible to write:

$$REX(t+1) + m(t+1)P(t+1) = D(t+1) + CVF(t+1) + I(t+1) \quad (6)$$

Equation (6) is equivalent to:

$$REX(t+1) - D(t+1) - CVF(t+1) - I(t+1) = -m(t+1)P(t+1) \quad (7)$$

By replacing $-m$ t+1 * P t+1 in equation (4) by its value given by (6), the value of the company is written:

$$V(t) = (DIV(t+1) + V(t+1) + REX(t+1) - DIV(t+1) - CVF(t+1) - I(t+1)) / (1+K(t+1)) \quad (8)$$

Equation (8) is finally written:

$$V(t) = (V(t+1) + REX(t+1) - CVF(t+1) - I(t+1)) / (1+K(t+1)).$$

We notice that the variable $D(t)$ has disappeared. $V(t+1)$, $I(t)$, $REX(t)$ are variables assumed to be independent of $D(t)$ and are so by nature. It can be demonstrated, by recurrence, that $V(t+1)$ is independent of the distribution in t+1, $V(t+2)$ is also independent in t+2, the same is true for all subsequent distributions.

2.3 Limits of the theory of neutrality

Several criticisms have been made against the M. M. model of 1961: thus:

Some critics believe that the result of neutrality of the dividend policy obtained by M. M. follows directly from their hypothesis of a certain environment. According to them, the framework uncertain of the real markets means that shareholders are not at all indifferent between capital gains and dividend gains: being risk averse by nature, they prefer necessarily the dividends.

Taking this criticism into account, M. M. abandon their hypothesis of total certainty, and consider in 1966, the case of uncertainty. Only here, too, they manage to prove that the dividend policy is neutral. Their conclusion is based on the familiar argument of arbitration: given two firms that have exactly the same risk of activity, the same anticipated profits, and similar investment policies, the prices of the two firms on the they must necessarily be equal. Indeed, according to M. M., the evolution over time of the dividend

distribution policy cannot affect the market value of the two firms, because the sum of the current value of the anticipated dividends and the final value, is the even for both.

Note, however, that if this reasoning holds completely on the theoretical level, it is essentially thanks to the hypothesis of perfection of the capital markets, which allows the recourse to arbitration operations. It would then be sufficient, that there are transaction costs, to that the assumption of neutrality of the dividend distribution policy, be questioned cause;

The second criticism which was essentially made to Mr. M. is related to the problem uncertainty and the preference that investors have for dividend gains. Basing on the theory of signaling, several researchers claim that dividends represent a vector of information. This argument assumes that dividends have a positive effect on the share price, so on the value of the firm, because they give investors a information on the company's profit - making capacity.

M. M. recognize this fact but affirm that these are the current and future benefits which are the determinants of the firm's value, and that dividends being only a reflection of these factors, they do not themselves determine the value of the firm.

3. Thesis of non - neutrality

There has not been, in favor of dividend neutrality, so powerful Modigliani and Miller. On the other hand, a whole series of arguments in favor of non - neutrality which argues that the value of the share is determined, or in any case influenced, by the dividends paid. They have been advanced by various authors among which we can mention Gordon, Linter. . . etc. Studies empirical data also support this postulate.

3.1 Gordon's model

In order to remove the uncertainty that weighs on future dividends, Gordon and Shapiro assume that the company's dividends have a constant growth rate, g , (and a regular distribution policy):

In his model, Gordon continues to assume as Ezra Solomon did, that:

- H1: the cost of equity (kc) is constant;
- H2: the rate of return on investments (r) is also constant.

$$P_0 = B_1 \cdot (1 - b) / (kc - r \cdot b)$$

Thus, according to Gordon, the value of the firm is a function of the retention rate (or distribution ($d = 1 - b$)), which proves the existence of an optimal dividend policy.

1st Case: $r > kc$

In this case, the rate of return on the capital invested in the company is higher than the rate of return offered by the market on this same kind of investments. The shareholders therefore have every interest in ensuring that the company applies a retention rate of 100%, and therefore that it never distributes dividends. It is under these conditions that it reaches its maximum value.

2nd Case: $r < kc$

In contrast to the previous case, the optimal retention rate here is 0%, and the dividend distribution rate is 100%. Thus, shareholders have an interest in obtaining the maximum possible dividends in order to be able to reinvest them at a higher rate on the market.

3rd Case: $r = kc$

In this case, the company finds itself in a situation where its shareholders are completely indifferent between receiving dividends or not: there is therefore no optimal dividend policy.

It is clear from this analysis that we are facing extreme situations that contradict the reality of the financial markets, since in practice, most firms choose to distribute a part strictly between 0 and 100% of their profits. It is therefore necessary to abandon the restrictive assumptions of the Gordon model in order to obtain more credible results.

3.2 Walter's model

According to this model, the optimal dividend rate is determined solely by the profitability of investments. This means that dividends are only a residual element in the company's policy. Thus, that the shareholder must be indifferent between the current income (the dividend) and the capital gain (the capital gain obtained by reinvesting the profits).

Thus, for Walter, the market P - value of a company's stock is equal to:

$$P = \frac{D + r/kc (B - D)}{Kc}$$

With:

D: The dividend per share;

B: Earnings per share;

a: The rate of return on investments;

kc: The rate of return required by shareholders.

4. Signal Theory

Classical and neoclassical financial theory has found itself silent in front of certain financial behaviors related to the real world. It only makes it possible to partially represent reality.

Signal theory strives to provide clearer and more convincing answers and explanations to such a phenomenon. His logic is no longer to appreciate the models in according to their hypotheses but rather according to their ability to explain certain behaviors observed.

This theory is based on the concept of information asymmetry that characterizes the information held by the various economic agents. Indeed, the information disseminated by companies is not necessarily the real one.

Thus, the theory of signals calls into question the framework general approach to neoclassical analysis where the market conveys perfect and symmetrical information and thus presents a new framework analysis.

The new analytical framework

In the framework of analysis of the theory of signals, the players on the market are subdivided into two categories according to the quality and quantity of the information they hold.

We find:

- On the one hand, the managers, majority shareholders named "insiders" having a complete information on the company's situation.
- On the other hand, minority shareholders and potential investors generally the market and who are named "outsiders" possessing only information fragmented.

However, this segmentation of the market into two categories of players is not the resulting only from the asymmetry that characterizes the information held by the different actors, it is also the consequence of an asymmetry of power opposing the actors having direct power (insiders) to those with only indirect power (outsiders).

Information asymmetry and information advantage

Access to information is an increasing necessity. But in reality, this information is poorly distributed between the different market players. Thus, we note an asymmetry information or even a heterogeneity of information, which is linked to a non - fair exchange of information between the various partners of the company who themselves have divergent interests.

The leaders are considered informed since they know the situation and benefit from an informational advantage.

Signal theory is a way of studying the relationships that may exist between the "Insiders" and the outsiders. Indeed, following the divergence of access to information, there will be a transmission of signals (information transfer) from the first to the last. Indeed, the imperfect and asymmetric information situation will encourage informed operators to transmit messages to those less informed. The managers have privileged information as to the investment opportunities of the company, which the shareholders (outsiders) do not have.

So, for the company to be well evaluated by external agents, the managers (information holders) will emit signals. This signaling activity is essential to reduce the information differential that may exist between the manager and the external agents. For their part, the latter pick up the signals and infer the true value of the company.

4.1 The advent of signal theory in the analysis of dividend policy

The signal theory presents an attractive explanation by showing that the dividend is an extremely powerful communication tool between the company and its market. As information is sometimes imperfect, dividends constitute an appropriate signal of the flows of future liquidity of the company.

In the following, we will analyze the informative content of dividends, in a first part. A second part will be devoted to

the study of the impact of the change of dividends and whether this change constitutes a signal about past or future earnings.

The informative content of dividends

There are strong reasons to believe that the distribution of dividends constitutes a signal of great interest: indeed, the payment of an income (dividends) in the form of liquidity to shareholders is much more credible than any other form of communication.

It is a signal that is characterized by its simplicity, its visibility and that satisfies expectations small shareholders.

In addition, many authors have emphasized the importance of content information of the dividend policy by advancing the fact that the dividend announcement provided the missing piece allowing the market to estimate the current result of the company.

Changes in dividends communicate information to investors and financial markets. Indeed, the idea of an informational role of the dividend has its origins in the study of Lintner (1956). The latter shows that companies are not increasing the dividends only when managers notice a steady increase in results.

According to Modigliani and Miller (1961), a change in the financial structure or a company's dividend policy could contribute to changing the perception that it is made of its risk class even if, the company maintains its level of risk. In effect, Modigliani and Miller showed that the increase (decrease) in dividends would be analyzed by investors as being a sign that managers anticipate a rise (decrease) in the future profits of the firm.

As shown by Miller and Rock (1985), Bhattacharya (1979), John and Williams (1985), changes in dividends represent direct signals issued by managers to the market regarding the company's results in the future. The notion of the informational role of dividends refers to the assumption that dividends convey information on the future profits of the company. This information allows the speakers on the market a better forecast of profits.

Later, Modigliani and Miller (1964) show that the informational content of the dividend explains the price changes following the announcement of the information. In the extent that managers only increase the distribution rate in the event that they believe to be able to keep it in the future.

In this context, any change in the declaration of dividends will result in a change, of the same sign, in the share price. The increase in the dividend is perceived so, as a credible signal that executives are forecasting high profits for the next few years. If this information is not anticipated by the market, the announcement leads to a rise in prices.

This result indicates that the price change does not result from the amount of dividends but rather information related to the company's growth prospects.

On the other hand, the decrease in dividends is bad news since the value of the company is a function of its future economic results. When we expect a lower dividend (important), the stock market value of shares decreases (increases).

Modigliani and Miller have explicitly confirmed that the dividend has a content informational in an imperfect market. They admitted that the players in the market (investors) all tend to interpret the increase in dividends as being a sign of an increase in the company's future earnings, which increases the price of the action. This is mainly due to the role of the dividend as being a descriptor of the forecasts of the managers in particular with regard to the future profits of the firm.

Kathryn. L. Dewenter and Vincent. A. Warther (1998) have developed a relative model to the asymmetry of information. This model shows that managers have information privileged regarding the prospects of the firm that the investors do not have, and that the dividends report some of this information to the market. This implies that the announcements of dividend changes must be positively linked to returns shares, as a dividend level signals high current or future gains.

4.2 The models of the signal

Many dividend signaling models have been designed by Battacharya (1979), Kalay (1980), John and Williams (1985) and their main focus was to demonstrate the possibility of using the dividend policy as part of an activity effective signaling that allows the uninitiated (outsiders) to perceive the unobservable characteristics of the firm by highlighting the informational role of dividends.

4.2.1 Presentation of the model

Battacharya used signal theory to explain the dividend policy.

To the extent that managers have better information about the results of the company, the dividend is used to report the state of the future financial position of the society.

In his model, he assumed that the shareholders do not know exactly the profitability of the firm's investment projects and that no ex - post indicators are at their disposition to appreciate the quality of the benefits.

Moreover, this framework of analysis by Battacharya (1979) assumes the existence of a risk moral in the information communicated by the accounting documents to which we do not can't be totally trusted.

The cash flows generated by the company rated (X) are assumed to be random and uniformly distributed over the interval $[0, t]$, and they are risk neutral. Therefore, discounted at the risk - free rate. The dividend will be used as a signal of the flows of future liquidity of the firm.

We note:

D : Announced dividend.

- If $(X) > D$: then the company will have to reinvest $(X - D)$ and the shareholders will receive $(1 - T) D$ because they pay $T * D$ in the form of tax.
- If $(X) < D$: then the company will have to finance itself for an amount equal to $(D - X)$ (borrowing himself).

With:

X_1 : cash flows generated at $t = 1$

D_0 : dividend signals at $t = 0$

As agents of the shareholders, the managers seek to maximize their wealth. Therefore, they must determine a dividend level such as the value of the company, which is a function of this dividend, $V(D)$ is maximum, but without forgetting the effect of tax, nor the refinancing penalty if the dividend is very large given the achieved result.

4.2.2 The limits of the model

The Battacharya model (1979) highlights the fact that dividends can eliminate information asymmetry between managers and shareholders. But this model is based on unrealistic assumptions. Indeed, it is not obvious that the companies borrow to pay dividends that they have promised.

5. Agency theory

The theory of the agency or theory of mandates challenges the postulate representing the company as a single actor to emphasize the differences of interests relations between the various partners (managers, shareholders and creditors).

The company's behavior therefore results from a complex balancing process which causes a certain number of costs called agency costs and which are necessary for that the agents adopt a behavior in accordance with the interest of the shareholders who have mandated. The theory of agency or mandates therefore corresponds to an attempt to put in parallel with agency theory and signal theory while identifying the role of the dividend policy in the resolution of conflicts of interest and the minimization of information asymmetry.

During this chapter, we will try to focus on the different conflicts interest as well as the costs incurred by the various partners of the firm in a first section, in the second section, we explain the role of the dividend in the reduction of agency costs and the level of information asymmetry.

5.1 The foundation of the agency theory

The agency theory is a theory that seeks to optimize the management of conflicts interests between the various partners of the company as soon as there is an agency relationship, and which considers the firm as a set of actors whose objectives may not converge.

An agency relationship is a contractual relationship by which the shareholders or all other providers of funds called principal or principal give the right to the managers of companies called agents or mandataries to perform tasks on their behalf and to their own accounts.

In principle, the agents undertake to act in the interests of the principals, but each agent tries to maximize his personal wealth and does not act in the interests of proxies.

It is from this moment that we talk about a conflict of interest that will give rise to agency costs. These costs appear since the managers do not have a right residual in the firm, which implies the substantial divergence between the interests of the leaders and those of the other participants.

In this section, we identify the different conflicts of interest in a first part, and the agency costs generated by these conflicts in a second part.

At the company level, conflicts of interest can pit managers against shareholders:

Conflicts of interest between managers and shareholders

According to Jensen Meckling (1976), conflicts of interest between shareholders and managers arise from the fact that the proxies do not own all of the funds own of the company.

Thus, the managers do not benefit from the total gain accumulated by the company, although that they are almost one hundred percent responsible for the management. The consequence of this situation is that the leaders will tend to decrease their efforts and transfer the resources of the firm on their own behalf. In these circumstances, the leaders (agents) no longer maximize the equity of the shareholders (principals) and it is at this moment that we can witness conflicts.

The different agency costs

Conflicts of interest between the various agents of the companies generate costs that are qualified by agency costs. These costs are borne in order to limit the differences of interest between the various partners of the company, their existence is due to the difficulty in controlling the activity of managers: these costs can be classified into three categories.

5.1.1 Monitoring costs (monitoring costs)

These costs are manifested on the occasion of the establishment of a control system or audit by the principals. These are costs borne by the shareholders (principals) in order to limit the aberrant activities of the managers (agents) and in order to ensure a management consistent with their own interests.

5.1.2 Customs clearance costs (bonding costs)

These costs are borne by the agents (managers) in order to show the principals (shareholders) that they are acting well in their interests and that their activities are not aberrant.

5.1.3 Residual or opportunity costs (residual costs)

These costs manifest themselves once the monitoring costs exceed the marginal income from the activity carried out by the agents. Indeed, this cost opportunity arises from the difference between what would be the fortune of the principals in the case where they carry out these activities themselves and in the event that they entrust the task to agents.

The dividend policy is a source of conflicts, but it is considered by the leaders as a means of reducing agency costs. In this section, we will then explain how dividends constitute a source of conflicts in companies in part one, and how they are used as a means of control in other firms.

5.2 Dividend policy and resolution of agency problems

Dividends are certainly considered as a source of conflicts but can be used also as a means of resolving existing conflicts in the company between the various partners of the firm.

5.2.1 The dividend policy and the agency cost of equity

This type of conflicts appears mainly in companies with diffuse shareholdings whose managers do not hold any significant share of the capital. Indeed, the fragmentation of the shareholding weakens its control and gives the power to the managers to the company. Thus, the distribution of profits in the form of dividends constitutes an effective way to control the activities of the managers since these payments are offset by new funds on the market and minimizes the costs of controlling the directors by shareholders.

However, the dividend entails other costs namely:

- **The tax cost:** it is the difference in taxation between the values and the dividends.
- **The transaction cost:** this cost is linked to the issuance of new securities.

In his Roseff model (1982), considers the different costs associated with the payment of dividends. He found that the share of capital obtained by the this is negatively related to the dividend payout ratio. It is at say, the more executives own shares in the company they run, the less they distribute dividends.

In this context, the distribution of dividends constitutes an implicit mechanism allowing shareholders to control the management of the managers and to know if the latter act in the interest of the company and then that an adequate dividend policy allows to reduce the agency costs of own funds and prevents any transfer of wealth from one investor to another.

The dividend policy and the agency cost of debts. If an adequate dividend policy makes it possible to solve the agency problems between shareholders and managers, it can also be a source of conflict between shareholders, managers, and bondholders, because shareholders can transfer the wealth of bondholders by choosing a dividend policy that increases the risk.

To maintain an optimal dividend level, shareholders and leaders can adopt one of the following mechanisms:

- Either issue debts or use the proceeds of the issue to pay the dividends
- Either adopt a suboptimal investment policy and pay the balance in the form of dividends.

Moreover, Titman and Wassel (1988) have identified in their studies an index which helps bondholders to guarantee their repayment in the event of insolvency of the company. This index is none other than the fixed assets included in the assets of his record. This index can provide the necessary information for the control of directors by creditors.

Empirically, they found a significantly positive relationship between the guaranteeing assets and the dividend payout ratio. This is explained by the fact that creditors, when they decide to grant a loan, must ensure that all first, the existence of the guaranteed assets belonging to the company.

Jensen and Meckling (1976), established a link between agency costs and the value of the company, indeed to maximize this value, it is necessary that the agency costs borne be minimums.

Using this method of cost minimization, Jensen and Meckling (1979) have concluded that high dividends reduce agency costs and as a result reduce the asymmetry of information at the firm level while attracting external investors.

Case study: Maroc Télécom

Maroc telecom is a publicly traded company, so stock information constitutes a essential complement for the study of the current and future situation of the company. So the accounting information complements that of the market and vice versa. To get an idea about the stock market situation of Maroc telecom the online stock exchange website offers the price history of the Maroc telecom share as well as its dividend calendar.

Table 1: Key figures taken from the company's annual accounts

	2013	2014	2015
Capital social	5274572040	5274572040	5274572040
Shareholders' equity	19933000000	20163000000	19704000000
Number of titles	879095340	879095340	879095340
Turnover	28559000000	29144000000	34134000000
Operating profit	10978000000	10266000000	10340000000
Net income	5540000000	5850000000	5595000000

Table 2: The dividend distributions of the Maroc telecom share

Year	Detachment	Payment	Type	Amount in dhs
2015	31/05/2016	02/06/2016	Total	6.36
2014	29/05/2015	02/06/2015	Total	6.7
2013	23/05/2014	28/05/2014	Total	6
2012	23/05/2013	03/06/2013	Total	7.4
2011	22/05/2012	25/05/2012	Total	9.26
2010	20/05/2011	31/05/2011	Total	10.58
2009	26/05/2010	02/06/2010	Total	10.31
2008	25/05/2009	25/05/2009	Total	10.83
2007	19/05/2008	19/05/2008	Total	9.2
2006	15/05/2007	15/05/2007	Total	7.88
2005	12/06/2006	12/06/2006	Total	6.96
2005	02/05/2006	02/05/2006	Exceptional	11.29
2004	04/05/2005	04/05/2005	Total	5

Based on the above data, the following table is drawn in thousands:

Year	Profit	Number of shares	Dividend in dhs	Yield	PBA	Equity
2013	5540	8, 79	6.3	6.28%	0.0063	92.74
2014	5850	8, 79	6.7	6.14%	0.0067	112.37
2015	5 595	8, 79	6.36	5.71%	0.0064	111.38

Recall that:

- **Earnings per share** = earnings /number of shares
- **Distribution rate** = dividend per share /earnings per share
- **Rate of return** = amount of dividend/share price

We can from these financial statements of the company or even the stock market history, that the company adopts a dividend distribution policy and not retention, according to these stock market indicators we can get an idea of the decision of the general assembly. In other words the distribution rate is 100%, a total distribution of the profit, which is a very large amount.

The dividend amount seems relatively stable during the 3 years from 2013 (6 in 2013; 6.9 in 2014; 6.36 in 2015). This stability is generally observed at the level of the BPA calculated above; we note the non - variability of the distribution rate during these three years in particular. Maroc telecom is therefore leading a stable dividend policy.

To analyze Maroc telecom's dividend policy, this study will be based on the following three assumptions:

- Does Maroc telecom's dividend policy modify its financial structure;
- Does Maroc telecom's dividend policy affect the value of the company;
- Does Maroc telecom's dividend policy affect the choice of shareholders between a dividend or a capital gain in terms of yield and the rate of taxation.

Dividend policy and financial structure

Beginning with this argument, forcing the company to make a commitment to pay dividends could be an alternative that requires both the executives:

- To discipline themselves in their investment choices (it must be profitable);
- To reduce the available liquidity (free cash - flow).

In both cases, the dividend payment brings out cash that could have be used to repay interest or finance large investments. And if the firm cannot find enough to finance these projects, it turns to debt. Otherwise says a dividend policy can change the debt ratio. Which translates into a modification of the financial structure of the firm.

In our case, based on the financial situation of Maroc telecom (the data above and the annexes), the company is generally powerful, its cash at the end of the period 2015 is positive 3, 082, 000, 000 DHS, as well as with an operating result of 10, 340, 000, 000 DHS, regardless of the debt cost, it is generally absorbable.

Then a total dividend distribution informs about the value of this firm expressed in profitable projects with a positive NP. So we can conclude, this policy of total dividend distribution even if it changes its financial structure, but its influence is

minimal due to the fact that the company invests in high added value projects and its cash flow at the end of the period is largely positive.

Dividend policy and the value of the company

Some financial theorists claim that the amount of the dividend paid by the firm is neutral as to the value of the firm and therefore, that the dividend policy is neutral for shareholders. The argument for the neutrality of dividend policy has its roots in the hypothesis of Modigliani and Miller.

The main idea of this proposal of the neutrality or non - neutrality of the dividend is simple. It is a question of checking if the firms that pay more dividends offer less potential for appreciation of the stock but offer their shareholders the same return total according to their risk class and the cash flows that they secrete, according to their investment decisions.

The Modigliani and Miller model, took as the starting point of their demonstration the expected profitability of holding a share:

With:

P_{t+1} : share price at the end of the $t+1$ period (after dividend payment)

P_t : the price of the share on date t (before date of posting)

D_{t+1} : dividend per share on the date $t+1$

K_{t+1} : market rate during period $(t, t+1)$

V_t : the total value of the company at the beginning of period t

D_{t+1} : dividend paid at the end of period $t+1$

N_{t+1} : number of actions plus m_{t+1} new action.

- Based on the tables of the evolutions above, the model is tested for the year 2014 for the period between 31/12/2014 and 31/12/2015

$$A) K(t+1) = (D(t+1) + P(t+1) - P(t)) / P(t)$$

⇒ **The market rate of return**

$$K(t, t+1) = (div_{2014} / p_{2014} + p_{2015} - p_{2014}) / p_{2014}$$

$$= (6.7 + 111,65 - 113,80) / 113,80$$

$$= 3,998 \text{ or } 4\%$$

The value of the company at the end of the period (after payment of the dividend)

$$B) V(t) = (D(t+1) + n(t) P(t+1)) / (1 + K(t+1))$$

$$V(t) = (6.7 + 879095340 * 111,65) / (1 + 0,04)$$

$$= 94\,375\,956\,459,326 \text{ dhs}$$

We note:

$$N_{t+1} = n_t + m_{t+1}$$

With:

m_{t+1} : issuance of m new shares

In our case Maroc telecom did not proceed to an increase in the share capital by issuance of new securities therefore:

$$N_{t+1} = n_t = 879095340 \text{ shares}$$

The total value of the shares in $t+1$ is the total number of shares in $t+1$ weighted by the value of the share on the same date.

$$C) V_{t+1} = N_{t+1} * p_{t+1}$$

With:

I_{t+1} : investment

X_{t+1} : the net profit

NB:

Investments During the 2014 financial year, investments reached 4,901 million, an increase of MAD 106 million. This increase essentially represents the acquisition of 3G and 4G licenses by Gabon Telecom in addition to the ongoing investment in infrastructure.

$$D) V_t = n_t * p_t = (X_{t+1} - I_{t+1} + V_{t+1}) / (1 + k(t+1))$$

$$V_t = 879\,095\,340 * 113,8 = (5\,850\,000\,000 - 4\,901\,000\,000 + (879\,095\,340 * 111,65)) / (1 + 0,04)$$

$$V_t = 100\,041\,049\,692 \neq 95\,288\,456\,452,884 \text{ dhs}$$

In the latter equation, the dividend term is absent, while the value of the company has changed. The authors of neutrality according to this model sought to show the independence of the dividend from other variables, in particular investment variables.

Far from this last hypothesis, we really notice that the value of the Maroc telecom share at the beginning of the period before detachment of the dividend was 100,041,049,692 MMdhs while that after dividend payment is 95,288,456,452.884 MMdhs, a decrease of 4.98%. This leaves us questioning the model of neutrality.

In other words, real experience has shown that on the same day of the detachment of the dividend, the share price will automatically decrease, then the payment of the dividend corresponds to an outflow of money for the company, this will decrease the value of the company by the same amount.

To show this, it suffices to look at the evolution of the share price of Maroc telecom between its date of detachment of the dividend and the day of payment.

Between the 29 - 05 - 2015 and 01 - 02 - 2015 the price went from 116.95 to 115.7, so who is causing the price to drop by 1.25%? This is good because the date of 06 - 29 - 2015 was the date of the detachment of the dividend. Because in reality, the 01 - 02 - 2015 was not a catastrophic day for Maroc telecom.

Dividend policy and choice of shareholders

Another problem of the dividend is that which puts the shareholder investors disagreement between the choice of dividend or share capital gains. Two elements are taken into consideration:

- Tax incidence or disadvantage
- The highest yield or profitability

Generally, if there is no tax, or if the dividend and the capital gain are taxed at the same tax rates, in this case investors will be neutral as to receive their return in the form of a dividend or capital gain. But not neutral regarding their return brought.

The concern of every shareholder is to pay less tax by taking advantage of profitability high. But this option usually

remains optimal and perfect, so it is the challenge of shareholders in current times.

If we assume that the tax rates of dividends are generally high by compared to those of capital gains. The choice of a shareholder will dictate the rate of return what each product offers (dividend or added value). However, a high profitability of

transfers regardless of the tax rate leads to an increase in the tax fraction this which is a tax disadvantage for the shareholder. In this case it is a question of saying that the imposition 40 of a dividend is interesting than the taxation on capital gains, So the choice of a shareholder is now not easy to do.

In one part, in the following - we will try to visualize the complexity of choosing a shareholder in the presence of a dividend distribution policy, in particular he is to explain that a dividend distribution policy influences the choice of the shareholder.

Either:

A shareholder holding 100 Maroc telecom shares his taxation will be as follows:

Dividend

Gross amount of the dividend received: $6.7 \times 100 = 670$ dhs

He received a tax at the rate of 15.5% withheld at source 103.85

Its profitability is 566.15 dhs.

Added value

If had acquired these shares at 90 dhs one, on the date before posting he decided to sell these actions:

He is taxed at a rate of 15% on the proceeds from the sale of his shares:

$(100 \times 116, 5) - (90 \times 100) = 2650$ taxable transfer proceeds, so $(2650 \times 15\%) = 397.5$

Withholding tax on release

Its profitability will therefore be $2650 - 397.5 = 2252.5$ dhs

Excluding any other deduction from fees (collection fees); account - keeping or securities custody fees), it is noticed that the profitability what the sold shares bring is more than that of dividend, in this case if the shareholder is interested in this return, he has a greater interest in the disposal of his shares that he has in obtaining a dividend, but he pays more tax by giving up its titles.

If we assume that the company will pay a high dividend of 11dhs compared to 6.7 dhs in this case:

The shareholder will pay as withholding tax: $(11 \times 100 \times 15, 5\%) = 170, 5$ dhs

But its profitability will be: $1100 - 170.5 = 929.5$ dhs

So, we can conclude that the distribution of high dividend at the expense of the rate increases the tax fraction, which constitutes a tax disadvantage on the part of shareholder despite its profitability, then if the dividend paid continues to increase, the withholding tax will increase likewise.

So, in the case of a high dividend distribution policy the choice between dividend and surplus value is becoming more and more complex, because if the shareholder wants to adopt an optimal strategy of high profitability with less tax, a distribution to high dividend does not allow minimizing the tax, because whatever the choice of the shareholder his taxation will be high.

6. Conclusion of the Study

In a brief way, the dividend policy may appear an easy question, at the on the contrary, it is not simply a question of deciding the number of profits that will be distributed, it is a question of finding an adequate so - called arbitration solution to the requirements of the firm but as even admissible by the shareholders.

In our case study, the company Maroc telecom distributes all of its results (signal positive to investors) for almost the last three financial years starting in 2013, this decision in addition to influencing its stock market value, forms an instrument for the transfer of shares of the managers for the benefit of the shareholders, which another problem raised in the agency theory, considers the divergence of interest between the chief executives of companies and the investor shareholders.

However, the Maroc telecom company remains a strong company with a strong profit annually, which hides the great controversies of the politics of dividend.

One of the fundamental elements for evaluating companies by the market and one of the important determinants of profitability are dividends. Within an efficient market without taxation or transaction costs, dividends have no impact on the company. However, dividend policy remains a very controversial topic content of various theories and arguments presented to stop its influencing factors.

Indeed, the theories, that of information, signal, agency. . . make it possible to provide satisfactory explanations and to understand the complexity of the choices of the appropriate dividend policy. The theories constitute numerous limits which are at the origin of recusal of certain arguments.

The best dividend policy is the one that allows companies to distribute dividends as a result of undertaking profitable projects. In general, a shareholder is focuses particularly on the company's investment strategy as well as on the dividend policy.

It must also be noted that within the framework of these theories we can finding numerous limits relating to a certain number of failures in the markets financial, such as the difference between the dividend tax rates and those of capital gains, transaction costs, information costs, etc. . . .

To have an effective dividend policy that maximizes the profit of a shareholder, in the various life cycles of a company, it is necessary:

- In the case of the take - off, that the shareholders consider the existence of profitable investment program

in relation to cash flow: this which does not allow them to anticipate their dividend.

- In the case of the period following the start - up, the company distributes a dividend low compared to its profit to ensure its sustainability.

It should be noted that, empirical studies have not been able to conclude on the superiority or the validity of one of the theories. Each company is free to choose one of the dividend policies that seem to him the most advantageous, avoiding all tax penalties relating to profits and respecting some restrictive clauses (emission contracts bondholders. . .).

Finally, it seems that there is no accounting convention, let alone tax encouraging or requiring a company to adopt a specific dividend policy.

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