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Does A Logical Coherence Relationship Exist between Strategic Financial Decisions?

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Abstract

This paper investigates the logical ties between investment, financing and dividends decisions, creating the coherence of these three strategic financial decisions of the firm. Basing on results of a questionnaire addressed to a number of financial managers of firms, a comparative survey between two investigations, one achieved at United States (by W.Pruitt and Y.Gitman on a sample of 114 firms) and the other done in Tunisia (carried on a sample of 45 firms situated in different industrial zones) allows to give an appreciation of the coherence between financial decisions. Our results permit to explain the coherent behavior of strategic financial decision-makers through the analysis of the impact of every financial decision on two others.

Keywords: Coherence, strategic financial decisions, financial managers

Introduction

Previous works of the research presented by Myers (1974) aimed to analyze the interactions between investment and financing decisions. His discussion amounted to the following affirmation: while determining net present value of an investment project, it is necessary to take into account the effect of an additional investment on the capacity of firm indebtedness, which permits to modify its financial position. The study of Myers (1977) is the first to put in evidence "tax effect" in a simultaneous survey of investment and financing decisions.

In the latter spirit, Miller (1977) suggests that the reason for which firms don't tie exclusively on the indebtedness be owed to a balance of personal taxation. Especially, the future income from the owned capitals (essentially the component, capital gain) is imposed to a less elevated exceptional rate than the income coming from interests.

In addition to the works of Myers (1977)¹, Hite (1977) was the first to formalize the "complementarity" between tax saving and modifies the Modigliani and Miller (1963) model, and this takes into account leverage effect on the optimal production decision. He shows that growth in financial leverage reduces the capital cost, and therefore increases the optimal level of output.

¹ Myers (1977) suggests that the additional investment permits increasing the capacity of indebtedness and generating the economy of tax, leading to increase the value of the firm in accordance with the results of Modigliani and Miller (1963).

Miller (1977) concludes that the growth of firm net present value due to "the pure leverage effect" of Modigliani and Miller (1963), varying only the debts level, is strictly lower to "the total leverage effect" which requires all taxes fit in an optimal way to a total indebtedness.

De Angelo and Masulis (1980) suggest that every firm have an optimal unique capital structure. Thus researches, studied the financial decisions taking account tax, confirm the observation of Myers (1977) stipulating that while investing, it is necessary to take tax effects on indebtedness into consideration.

We can refer here to the agency theory that reconciliates theory with reality to explain divergences of interests between different firm partners and to affect the observed behavior of the firm. Jensen and Meckling (1976) show that the existence of agency costs to debts and to equities; increases with conflicts of interests between the different financial partners of the firm. So, conflicts exist between leaders shareholders (or present shareholders) and external shareholders (or new).

In the same way, the indebtedness generates a conflict between shareholders and bondholders. Indeed, the external shareholders are themselves interested in the advantages granted to leader-shareholders, whereas bondholders are interested to the expropriation of their wealth by shareholders. In fact, although it is always admitted that firms take their capital structure decisions given by the investment, the agency theory provides an

analytic instrument with which the problem of the relationship between decisions could be landed.

Other previous works are focused on the choice between debt and equity and their effects on investment decision. In practice, most firms choose to finance an important part of a new investment by their retained profits. This idea had constituted the starting point of two works by Myers (1977) and Myers and Majluf (1984) concerning information asymmetry between managers and shareholders.

Heitor and Murillo (2007) consider that the existence of asymmetric information can change the opinion of managers on the selection of projects and on the choice of the corresponding financing. Thus, "in the case of perfect information, there are few reasons that oblige the firm to resort to the internal financing"². On the other hand, the asymmetric information justifies the "pecking order theory" of Myers (1977) which implies that managers prefer firstly internal financing, secondly no risky debts and finally risky debts or new stock issues. In contrast to the Modigliani and Miller (1958) theory, the precedent development suggests a certain relationship between financing and investment decisions. This relationship has an impact on dividend distribution decision, since the choice of an optimal financing decision implies earning retention and this leads to the coherence between strategic financial decisions.

Thus, it is clear that financing decision cannot be dissociated from investment and dividend distribution decisions. Indeed, when distributing profit, firms are confronted with two alternatives: either to distribute dividends (and increase its capital to assure its growth that can lead to a fiscal penalty); or to proceed to profit retention.

If this conception makes coherence between on the one hand, investment decision and indebtedness and on the other hand dividend distribution decision, it doesn't permit to explain why firms distribute a part of their incomes to shareholders in spite of the prohibitive fiscal cost of this operation. Modigliani and Miller (1961) found that dividend distribution must not prevent firms to establish a policy of value maximization. They also demonstrated that in perfect capital markets, the firm value is independent of the way with which its investments are financed. An implication of this

² Hubbard R., Kashyap A. and Whited T., 1995: "Internal finance and firm investment", *Journal of Money, Credit and Banking*, August, vol. 27, no. 3, pp. 683-701.

theorem is that investment decision won't be influenced by dividend distribution decision. This theorem is denominated by Fama (1974) and Miller (1977) "the separation principle".

The importance of effective distributions can be demonstrated, while considering dividend, as a signal. Dividends constitute one of signals used by managers to diffuse privileged information on firm future performance.

Modigliani and Miller (1961) had already developed this idea. These authors underlined the informational effect of dividends. But lately, signal theory supports this hypothesis of a theoretical level while justifying the necessity of an informative dividend aspect and specifying the necessary conditions to its existence. In this implicit relation of strategic financial decisions, investment decision is strongly related to dividends considered as an indicatory variable of financial constraints, Rauh (2006). Decreasing dividend is aimed at developing investment opportunities, growth and thereby leading to increase returns.

In fact, whether or not to distribute dividends depends on the decisions of investment and financing. Some firms proceed by borrowing funds to finance their investments that generate liquidities to distribute dividends. In this perspective, dividend policy of firms becomes an under-product of financing decision.

Empirically, if firms have a steady dividend policy, it must not be the rule for the residual dividend policy, Dhrymes & Kurz (1967), in a cross section survey of American firms, conclude that a meaningful interdependence exists between investment and dividend decisions of firms, a conclusion affirmed by Mc Cabe (1979). In addition, neither the studies of the Indian and French firms, Johar, (1973); and Mc Donald, *et al.* (1975), nor the survey of Higgins (1972) on American firms, affirmed the Dhrymes and Kurz results.

Fama (1974) criticized the cross sections methodology employed by Dhrymes and Kurz (1967) and concluded that there isn't evidence to reject the hypothesis that investment and financing decisions are independent.

The hypothesis of independence between investment and dividend decisions doesn't exclude the simultaneous determination of dividend policy and external financing.

So a complementarily effect exists between these decisions. Every variable changes while modifying the other and this trivial relationship creates a coherent mechanism between financing decision and at the same time investment and dividend distribution decisions that affects necessarily operating cycle return.

The purpose of this paper is to fill this void by reporting the results of a recent opinion survey of senior financial executives of American and Tunisian firms, concerning the logical ties between investment, financing, and dividend decisions in their firms. After presenting at the introduction a brief review of the theoretical interrelationships between all the three strategic financial decisions of firms, the second section presents hypotheses and describes survey methodology. The third analyses the results and, where appropriate, compares and contrasts our findings with those found by Pruitt and Gitman (1993) with American firms. The final section presents a summary and final conclusion.

Hypotheses and Survey Methodology

The questionnaire analyses the explanatory variables of investment decisions, stock issues, indebtedness and dividend distribution, according to an ordering of importance of these variables to firms’ financial managers. The questionnaire permits to clarify the

differences existing between results found in United States, by Pruitt and Gitman (1993), and in Tunisia. A basic premise of our study is that increased perspective in business finance can be gained through better understanding of the practical financial managers' behavior.

The purpose of this paper is to appreciate the coherence between strategic financial decisions by firms’ financial managers through a comparative study.

In this research, we propose to test two hypotheses concerning the strategic financial decisions:

- 1) Decisional variables of investment policy affect financing decision and therefore dividend distribution.
- 2) Beliefs of practicing financial managers seem to reflect a coherent behavior between the decisional triplex: investment, financing and dividend decisions.

Survey results

1. The impact of investment decision on financing and dividend distribution decisions

Table 1 summarizes participant's responses for the interdependence of investment decision and the two other decisions:

TABLE 1: SUMMARY OF RESPONSES TO STATEMENTS CONCERNING INVESTMENT PRACTICES

Survey Statement	Percent Disagree		Percent neither Disagree nor Agree	Percent Agree	χ^2	Significativity
	US	TN				
1. Current corporate investment is influenced by the amount of dividend paid by the firm	US	91.4	6.4	2.2	12.40	0.20%
	TN	42.2	8.9	48.9		
2. The amount of debt and/or equity the firm issued influences the current amount it invests.	US	55.3	19.1	25.6	1.09	29.60%
	TN	42.2	0.0	57.8		
3. Current corporate investment is influenced by the amount of new debt capital obtained by the firm.	US	65.9	19.1	15.0	8.02	0.46%
	TN	28.9	0.0	71.1		
4. The amount of new stock issue influences the firm’s current investment expenditures.	US	68.1	14.9	17.0	16.93	0.02%
	TN	17.8	20.2	62.0		
5. The past variability of the firm’s earnings influence the current amount it invests.	US	40.5	14.9	44.6	3.75	5.26%
	TN	35.6	0.0	64.4		

The behavior of United States financial managers is compliant to the theory developed by Modigliani and Miller (1961), which states that the firm value is determined only by the beneficial capacity of its assets or by its investment policy, and that the method of earnings distribution doesn't affect this value.

The results of the questionnaire show that the neutrality hypothesis is not verified in the Tunisian environment. This means that investment decision is related to dividend distribution. This conclusion is in coherence with Gordon and Shapiro (1956) and Walter (1956) theories, which suggest that dividend distribution policy, must be rigorous. It must be inserted in the financial

strategy and therefore managers grant an importance to dividend distribution policy because it affects directly the firms' self-financing capacity.

About investment and financing decisions interaction, we notice divergences of attitudes. Indeed, in United States, results of researches show that neutrality of financial structure theorem of Modigliani and Miller (1958), is verified. Consequently, financial structure doesn't have an impact on the firm value. We also notice that interviewees belonging to the two countries supported the relationship that exists between the investment and the variability of profits. This shows that a narrow relationship exists between investment decision, operating return and the risk assumed by firms as confirmed later by Hennessy and Whited (2007).

Considering investment as a residual decision means to admit the pre-eminence of distribution dividend policy in cash-flows ventilation. In other terms, firms pay dividends and the hangover will serve to finance

investments. So, to have a complete adaptation of investment policy, it is necessary that dividend distribution policy becomes rigid and that self-financing of investment becomes the only way to procure funds. It means in fact to confuse between retention and self-financing with investment. The interviews addressed to financial directors showed a very clear tendency, on the one hand, to the stability of dividend distribution policy, and on the other hand, a preference for internal funds. In fact, the survey shows that 53.3% of interviewees support that "the dividend distribution decision must be residual after fixing the necessary financing amount to investments" hypothesis.

Accordingly, Modigliani and Miller (1961) suggest that there isn't an optimal capital structure and that dividend distribution is a "simple detail". In a perspective of shareholders' satisfaction maximization, the volume of dividends retained, is not the most important factor.

2. The impact of financing decision on investment and on dividend distribution decisions

Table 2 summarizes the responses to the statements concerning corporate financing activity

TABLE 2: SUMMARY OF RESPONSES TO STATEMENTS CONCERNING FINANCING PRACTICES

Survey Statement	Percent Disagree		Percent neither Disagree nor Agree	Percent Agree	χ^2	Significativity
1. The level of the firm's current investment outlays influences the amount of new debt and/or equity it issues.	US	10.70	12.80	76.50	1.80	17.90%
	TN	60.00	0.00	40.00		
2. The level of previous dividends paid by the firm influences the amount of new debt and/or equity it issues	US	82.60	3.20	14.20	14.80	0.06%
	TN	55.60	8.90	35.60		
3. The past variability of the firm's earnings influences the amount of new debt and/or equity it issues	US	36.2	25.5	38.3	0.022	88.15%
	TN	48.9	0	51.1		

Table 1 and table 2, shows the importance of cash-flows distribution in determining the adequate method to finance investments. This suggests that operating earnings affect the relation that exists between investment and financing decisions and therefore the risk perception for the two countries.

Modigliani and Miller (1961) demonstrated the non-relevance of dividend distribution policy and financing decisions in a perfect market. Firms prefer in fact to maintain a stable ratio of indebtedness. They proceed in fact to reinvestment and to issue new stocks, when the level of debts is so important compared to its equities. However, they prefer debts to owned capitals, when their indebtedness ratio is low.

To establish the determinants of funds resources as Rauh (2006), it is necessary to explain the determinants of financing and the potential links of this source of funds with the other decisional or structural variables.

It appears in all interviews, that entrepreneurs show a strong preference for internal financing. In fact 51.1% affirm the implicit relation that exists between the investments financing and the level of cash-flows.

This problem of financing facing the opportunities of investment and dividend distribution constitutes a basic element of the coherence that is directed by the firm operating in its strategic financial decisions.

3. The impact of dividend distribution decision on investment and on financing decisions

The relationship between dividend distribution decision and the other strategic financial decisions are analyzed through table 3.

TABLE 3: SUMMARY OF RESPONSES TO STATEMENTS CONCERNING DIVIDEND PRACTICES

Survey Statement	Percent Disagree		Percent neither Disagree nor Agree	Percent Agree	χ^2	Significativity
1. The amount invested by the firm last year influences the amount of dividends it pays this year.	US	79.4	7.9	12.7	2.8	24.66%
	TN	31.1	24.4	44.4		
2. The amount of debt and/or equity issued by the firm influences the amount of dividends it pays.	US	84.1	6.3	9.6	3.73	15.46%
	TN	37.8	20	42.2		
3. The past variability of the firm's earnings influences the amount of dividends paid.	US	14.2	11.1	74.7	8.4	1.5%
	TN	26.7	20	53.3		

The hypothesis of financial decision separation stipulated by Modigliani and Miller (1958) is confirmed in United States but not in Tunisia, and it is clear that for these two countries dividend distribution decision is very dependent on operating earnings.

These differences in results between the two countries indicate that, even though there is not an implicit relation between the three decisions, coherence in the process of strategic financial decision exists. According to these results, we can suggest that the coherence between strategic financial decisions is the only phenomenon explaining differences in responses of the two countries. In other terms, even though there is not a relation between some variables, financial decisions are always harmonized.

According to the results of the interviews addressed to several firm managers, John Lintner (1956) shows that dividend policy of the firm can be summarized in four points:

1. Firms tend to reach on the long-term a target ratio of distribution;
2. Managers grant more importance to the change of dividends than to their level;
3. Managers adjust dividends according to the evolution of "the permanent profit"; temporary fluctuations of profits have few effects on the adjustment of dividend distribution level;
4. Managers must be very prudent when taking the decision to adjust dividend distribution level, mainly when the firm is facing opportunities of investment, and that there are possibilities that managers don't adjust dividends to the level they have announced.

Level of dividend distributed must be adjusted to profits realized according to the distribution target ratio. The more prudent the firm is, the slower it moves towards its target, therefore, the lower its rate of adjustment would be.

Fama and Babiak (1986) estimated the target ratio and the rate of adjustment of every firm. They found that on average, firms aim to distribute approximately the half of their net profit. Since dividends constitute a future profit indicator, it is not necessary to surprise them because unexpected dividends rises are generally discerned as good news that increases the price of stocks.

However, managers don't only consider the past profit tendency, but also try to determine the amount of the future earnings. Investors know and often interpret an important increase of dividends as a sign of optimism managers.

Therefore a very important relationship appears empirically between dividend distribution decision and the two other decisions of the firm, creating a mechanism of a coherent behavior between these strategic decisions. If investment policy is constant, dividend policy becomes arbitration between cash dividend and stock issues or acquisitions. So, if the firm has a simple and perfect market, no problem is occurred because the decision doesn't have any effect on the firm value. The controversy on the effects of dividend policy appears in an imperfect market, the supply of dividend harmonizes precisely with the demand, and the firm value main constant while modifying its dividend policy.

Summary and Conclusion

The relationship between investment, financing and dividend distribution decisions and referring to the operating cycle return generate a coherence empowered by the manager's decisions behavior at their financial scheduling process. Accordingly, several empirical studies analyzed the financial decision interdependence with the normative value theory of Modigliani and Miller (1961), showing that, in a perfect capital market, only investment policy determines the firm value. In this structure, the choice between an independent, simultaneous or residual dividend distribution policy doesn't has a consequence.

While taking into account of the normative assessment approach hypotheses, a residual dividend policy is sometimes preferred to minimize the external financing associated to its cost, Biermen (1968), and Horne *et al.* (1977). The adoption of such policy must result in dividend fluctuations, while considering that opportunities of investment and its profitability vary in time. In addition, dividends have tendency to be steady and to have a weak fluctuation from a period to another, and conservation of dividends is generally eliminated (Lintner, 1956 and Smith, 1971). Thus, as Modigliani and Miller (1961) argued, it is reasonable to propose an independent investment policy, which gives alternatives that dividends are determined simultaneously with an external financing or independently of investment policy. The choice will be in fact an independent dividend policy with an external financing, generally represented by debts.

The results of our survey lead to the conclusion that financial decisions (debt, equity and distributions) of Tunisian firms do have a significant impact on investment decisions. In addition, it appears that financial managers of those firms do not take into account investment and dividend distribution decisions when deciding the amount of new funds that will be raised. Finally, dividend decisions of Tunisian firms and in contrast with American ones are not influenced only by the level of earnings, but also by both investment and financing decisions. In this problematic of strategic financial decision coherence, results of our research drove to have a precise vision of network relationship between decisional financial variables. This coherence for financial managers' behavior remains the center of the interdependence of strategic financial decisions. It drives the decisional mechanism between, on the one hand earning operating cycle and on the other hand investment, financing and dividend distribution triplex.

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