

Managerial ownership, Debt and Dividend Policy of Tunisian Companies: Evidence of a Simultaneous Analysis

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Abstract

The purpose of this article is to examine the interrelationship between managerial ownership, debt and dividend policy. The analysis is done using a simultaneous equation on a sample of 80 anonymous Tunisian companies during the period 2010-2014. The empirical results indicate that management ownership has a negative and no significant relationship with debt. This finding is contradicted by the Agency Theory. In addition, the results provide strong support for the Pecking Order Theory, suggesting a negative relationship between debt and dividend policy. However, the relationship between managerial ownership and dividend policy is positive and significant, which means that companies with a high level of executive ownership consciously choose a high level of dividends.

Keywords: *Managerial ownership, Debt, Dividend Policy, Simultaneous Equation*

I. INTRODUCTION

A Manager plays a key role in maximizing shareholders' wealth. This role is conditioned by his participation in the capital of the firm. Indeed, managers who have a property in the company may have incentives to make decisions that contradict the interests of shareholders. The contradiction between the interests of the managers and the interests of the shareholders arises from the conflicts that undermine firm value.

Previous studies show that managerial ownership and business decisions affect firm value. An important part of the literature indicates that managerial ownership helps to align management interests with those of external shareholders. Jensen and Meckling (1976)[1] show that inside ownership is an excellent incentive to manage the company in the interest of shareholders. It is seen as a solution to align the interests of both parties, thus reducing the costs of control. However, Charreaux (1997)[2] proves that a significant participation of the managers in the capital of the firm increases their decision-making powers and reduces firm value.

Debt is an important mechanism for controlling management behaviour and for mitigating agency problems (e.g. [1]-[3]). In addition, dividend policy plays an important role in solving agency problems (e.g. [4],[5]-[6]).

Solving agency problems requires the setting up of a panoply of tools adopted by the owners of the companies. These owners can combine the debt policy and the dividend policy. This also implies that managerial ownership as well as debt and dividend distribution can be taken simultaneously because of the existence of substitution effects and the links between them. (e.g. [7],[8]-[9]).

Previous studies look at each decision separately in the Tunisian context. Empirical studies on the simultaneous equation between managerial ownership, debt and dividend policy are not discussed in the Tunisian context. This article empirically analyzes this simultaneous relationship on a sample of anonymous Tunisian firms.

This research brings several contributions to the existing literature. First, it provides evidence to reinforce the notion of business monitoring between ownership structure and corporate policies (managerial ownership, debt and dividends). Second, it provides additional explanations of financial theories in the Tunisian context. Finally, it contributes to the increasing number of documents, using the simultaneous equation as an alternative to Ordinary Least Squares regression (OLS).

The rest of this article is structured as follows. Following this introduction, section 2 presents a review of the relevant literature, covering the fundamental theoretical discussions that assume managerial ownership, debt and payment of dividends. It ends with the specification of the main assumptions to be tested. Section 3 describes the sample of firms, variable definitions, data sources and methodology. Section 4 presents the results of the empirical tests and Section 5 concludes the entire work.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Examining the relationship between managerial ownership, debt and dividend policy requires a theoretical framework. The main theories are Agency Theory, Signaling Theory, and Pecking Order Theory. This section concludes with a discussion of the interrelationship between managerial ownership, debt and dividend policy.

A. Agency Theory

According to the Agency Theory, the separation of ownership and management creates conflicts of interest between the partners of the company. In this context, managers are encouraged to consume excessive benefits rather than maximize shareholders' wealth. Agency theory suggests some mechanisms to alleviate the problem of the agency.

The first mechanism suggested by [1] is to increase managerial ownership to align the managers' interest with those of external shareholders. Some studies show the role of managerial ownership in controlling managerial opportunism [10] and in improving corporate performance [11]. However, on the one hand, the low participation of managers in the company's capital can widen the gap between shareholders' interests and the interests of managers (e.g. [12]). As a result, shareholders incur additional monitoring costs to control opportunistic behavior. On the other hand, when managers hold a large share of a company's shares, an increase in their ownership may prevent it from being replaced or they may end up being punished for their wrong decision. The managers consume more benefits or reduce risky corporate investment opportunities to protect his own interests (e.g. [13]).

The second mechanism used to reduce agency costs is debt (e.g. [3],[14]-[4]). Debt increase will result in a risk of business failure and loss of jobs, which would further motivate managers to efficiently utilize cash flows and reduce their benefits. In addition, the increase in debt would put pressure on managers, preventing them from investing in profitable projects to generate cash flow and to make periodic payments.

The third mechanism used to reduce the agency's costs is the dividend policy (e.g. [3]-[14])). Dividend payments increase the use of external funds to finance existing and future investments, and the issuance of new securities makes managers monitored by the capital market [15], which leads managers to act more in the interests of shareholders.

B. Signaling Theory

Signaling Theory emphasizes information asymmetry between managers, shareholders and banks. Ross (1977) [16] assumes that managers are more aware of the investment opportunities of the firm than other partners. The outsiders are faced with a great information asymmetry regarding the actual value of the present and future investment. Therefore, they consider any change in the capital structure and dividend policy as a signal of the company's performance. If managers decide to add more debt to the capital structure, the outsiders will interpret it as a signal of higher future cash flows (e.g. [16]).

Thus, a high level of debt shows a greater confidence of the manager in the future performance of the company. However, if the managers decide to finance a new investment

by issuing new shares, this decision indicates that this company has an unfavorable outlook and that it is trying to seek new investors to share the losses. Similarly, foreigners also suggest dividends as positive signal, as only profitable companies can pay dividends.

In addition, Leland and Pyle (1977) [17] show that the equity held by managers could signal the quality of the firm. Managers will not be willing to invest significant assets in the company's shares unless they are convinced are convinced that their business has a profitable future outlook (e.g. [18])

C. Pecking Order Theory

According to Pecking Order Theory, companies follow a hierarchy of financial decisions when establishing their capital structure. Indeed, the most profitable company is able to finance projects by internal funds rather than external funds (e.g.[19],[20]-[21]). According to this theory, companies initially fund projects with retained earnings. If the unsuccessful profits are not sufficient, companies use the debt and, if additional financing is required, the last option for the company is to issue shares. This financing order is explained by the costs of each type of financing. Indeed, retained earnings almost do not result in fees and do not require disclosure of the company's financial information, either. On the contrary, external sources used to finance can lead to very high costs [22], such as the issuance of new shares, which may result in lower dividends.

The three theories agree that managerial ownership, debt and dividend policy are all useful for mitigating agency costs and for resolving information asymmetry. However, using these mechanisms generates costs. First, the excessive level of ownership held by managers can lead to rooting problems. Charreaux (1997) [2] remarks that a significant participation of the managers in the capital of the firm allows them to increase their decision-making power and to manage in a way contrary to the maximization of value. In addition, rooted managers require an increase in compensation (e.g.[13]).

Second, debt entails substantial costs, including bankruptcy costs and agency costs. Finally, the payment of dividends is not free of charge. The payment of dividend requires a capital increase, which will generate significant costs for investors (e.g [23]Crutchley and Hansen, .

Vo and Nguyen (2014) [24] point out that companies find it optimal to combine executive ownership, debt and dividend policy to control agency conflicts in the firm.

D. The Interrelationship between Managerial Ownership and Debt

On the one hand, a positive relationship between managerial ownership and debt is proved by [17],[25]-[26]. These authors show that firms with greater managerial ownership have higher debt ratios than firms with lower managerial ownership, and this serves to avoid the cost of

issuing shares. The use of debt reduces the need for share issuance and thus increases managerial ownership. Alternatively, managers try to avoid diluting their control over the company by issuing more debt (e.g.[25]). In addition, Agrawal and Mandelker (1987) [27] point out that the managers' willingness to accept a financial risk associated with an increase in financial debt is significant if that manager holds a significant share of capital.

On the other hand, a negative relationship between managerial ownership and debt is proved by [20], [7], [28]-[8]. A high debt ratio increases the risk of managers relative to shareholders. They will face the high risk of job loss when the company uses a high level of debt. In addition, the risk of bankruptcy increases with the excessive use of debt. As a result, managers are reducing debt to limit the risk of losing work and personal wealth.

On the basis of this analysis, the study assumes that:

H1: There is a negative relationship between managerial ownership and debt.

E. The Interrelation between Managerial Ownership and Dividends Payout

Studies such as [3],[7]-[29] show a negative relationship between managerial ownership and dividend payments. In other words, companies with significant managerial ownership tend to increase internal funds to the detriment of dividend payments. Jensen (1986) [4] proves that managers are reluctant to pay a dividend. Alternatively, Chen and Steiner (1999),[8] Kim et al. (2007) [30] contend that managerial ownership and dividends solve agency problems. Therefore, managerial ownership and dividends are substitutable mechanisms to reduce agency costs.

Other studies show a non-linear or non-monotonic linear relationship between managerial ownership and the dividend. Indeed, Schooley and Barney (1994)[31] show that the increase in managerial ownership decreases agency costs and the dividend until the manager takes root. Dividends begin to rise afterwards. Moreover, Farinha (2003)[32] points out that the effect of the managers' participation on the dividend is first negative and then becomes positive at a level of 30%. This author shows that the increase in the participation of the directors makes it possible to align their interests with those of the shareholders, thus making the dividends less necessary. On the basis of the above analysis, a research hypothesis is developed as follows:

H2: There is a negative relationship between ownership of management and dividend payout.

F. The Interrelationship between Debt and Dividend Payout

Myers and Majluf, (1984) [19] point out that firms prefer to finance projects with their retained earnings. If a company pays a large dividend, this will result in a decrease in free

cash flow, increasing the need for additional sources of external financing to maintain an optimal capital structure (e.g.[15]- [14]). Myers and Frank (2004) [33] stipulate that debt and dividend are positively related when these two used to send a positive signal to foreigners. This signal makes it easier to access the capital market and to improve firm value. However, Jensen et al. (1992) [7], Faccio, Lang and Young (2001) [34] show debt and dividend payment are negatively related. Debt generates financial costs that result in the liquidation of the company. As a result, the company tends to pay lower dividends to maintain a good liquidity situation and cash flow. Rozeff (1982), [3] and Jensen (1986)[4] conclude that debt and dividend can be alternative mechanisms that reduce free cash flow.

On the basis of the above analysis, a research hypothesis is developed as follows:

H3: there is a negative relationship between debt and dividend payout.

G. The Other Variables

Managerial ownership, debt and dividend policy may be influenced by other factors. These factors are cash flow, firm size, profitability, sector, liquidity and trade credit.

Easterbrook (1984) [14]and Jensen (1986)[4] argue that free cash flow is at the heart of agency problems between managers and shareholders. In this case, several empirical studies show that managerial ownership is an obvious solution to agency conflicts. Lange and Sharpe (1995), [35] Himmelberg, Hubbard and Darius (1999) [36] note the positive impact of free cash flow on managerial ownership.

Jensen (1986)[4] considers debt as an effective way to control the management of available cash flows. Stluz (1990) [37] shows a positive relationship between debt and free cash flow. Previous studies show that managerial ownership is significantly greater in small firms than in large firms. As the firm increases, management risk aversion and constraints on managerial wealth limit the willingness of managers to increase their share (e.g. [23]-[7]).

Firm size has an influence on the use of debt. Large companies are more diverse than smaller companies in the sense that they are more able to accept high debt ratios (e.g. [21]).

Myers (1977)[22] shows that the most profitable firms should have low debt. Ross (1977) [16] points out that the most profitable firms have high debt loads. However, Ziane (2004) [38] shows that profitability is negatively correlated to debt for a sample of 2,880 small and medium-sized French companies observed during the period 1993-2000.

In earlier studies, profitability was an important explanatory variable of dividend policy(e.g. [39]). Signal theory supports a positive relationship between corporate

profitability and dividend payments. As such, profitable firms are more likely to pay dividends (e.g.[40]- [7]).

Kapoor (2006) [41] notes the existence of sectoral differences in the determinants of the company's dividend policy. The results are consistent with the conclusion of [42]-[43] that the type of industry has an influence on dividend policy. Farinha (2002)[31] shows that sectorial ownership has an effect on dividend policy. Ben Hassena and Affess(2009) [44] prove that the sectors of activity have a positive influence on dividend distribution.

Miller and Rock (1985) [40] show that firms prefer to use internal sources (such as available liquidity). Thus, the liquidity position of a company has a negative impact on debt. Similarly, Myers and Majiluf (1984) [19], Friend and Lang (1988) [20], Kim et al. (2007), [30] show that firms with very liquid assets can use these assets to finance their investments without recourse to debt. For dividend payments, companies that pay dividends can raise funds easily and at low cost because they can reduce their dividend payments(e.g. [45]). Marchica and Mura (2007), [46] and Afza and Adnan (2007), [47] show a negative relationship between firm liquidity and dividend payments. Companies that pay dividends can either reduce or cut dividends when they have a cash shortage. Thus, holding large sums of money allows companies to avoid these situations. In this case, the relationship between dividend payments and liquidity is positive. Drobetz and Grunger (2007), [48] prove that the liquidity held by the firm is positively correlated with the dividend payment.

Trade credit is the money transferred between companies. It is considered an important source of short-term external financing. It is measured as the difference between the period of recovery of receivables and the period of payment of accounts payable.

III. DATA AND METHODOLOGY

Jensen et al. (1992) [7], Chen and Steiner (1999)[8], Kim et al. (2007) [30] suggest that firms can minimize agency costs by jointly optimizing managerial ownership, debt and dividend payment. It is necessary to examine simultaneously managerial ownership, debt and dividend payment in the Tunisian context.

A. Data Set Explanation

Our sample consists of 80 public limited companies, of which 32 companies are listed on the Tunis stock exchange and 48 are unlisted companies, for the period between 2010-2014. The data are collected through the website of the stock exchange, the advice of the financial market and through the offices of expert accountants.

B. Research Methodology

We use the following models while using a simultaneous equation model with panel data to test hypotheses. This model uses three equations. The first equation describes the relationship between managerial ownership, debt, dividend

payment decision, cash flow, profitability and firm size. The second equation describes the relationship between debt, managerial ownership, dividend payment decision, cash flow, trade credit and firm size. The third equation describes the relationship between dividend payment decision, debt, manager property, liquidity, sector and profitability.

The specification of the system of simultaneous equations is defined by the following equations:

$$INSD = \beta_0 + \beta_1 DET_{it} + \beta_2 DIV_{it} + \beta_3 CASHFLOW_{it} + \beta_4 ROA_{it} + \beta_5 SIZE FI_{it} + \varepsilon_{it} \quad (1)$$

$$DET = \alpha_0 + \alpha_1 INSD_{it} + \alpha_2 DIV_{it} + \alpha_3 CASHFLOW_{it} + \alpha_4 TRADCRE_{it} + \alpha_5 SIZE FI_{it} + \varepsilon_{it} \quad (2)$$

$$DIV = \gamma_0 + \gamma_1 DET_{it} + \gamma_2 INSD_{it} + \gamma_3 Cash_{it} + \gamma_4 SEC_{it} + \gamma_5 ROE_{it} + \varepsilon_{it} \quad (3)$$

$i = 1, 2, \dots, 80$ and, $t = 2010, 2011, \dots, 2014$

□ i : number of firms

□ t : the estimation period

Table 1 Definition of the variable

Definitions
Dependent Variables for model1
INSD: managerial ownership is the ratio of the number of shares held by a manager to the total number of shares (e.g.[49])
DET : Debt is the ratio between the book value of long-term and short-term debt to The book value of total assets (e.g.[50]-[51])
DIV: Dividend policy Is a variable that takes the value of 1 when the company distributes a dividend and 0 if no. (e.g.[52])
Explanatory variables
CASHFLOW : Cash flow Net operating income plus depreciations (e.g.[53])
ROA: The return on assets is the ratio of net income and total assets. (e.g.[54])
SIZE FI: Company size is the natural logarithm of size of total assets. (e.g.[55])
TRADCRE : trade credit It is measured as the difference between the period for collection of receivables and the payment period for accounts payable. (e.g.[53])
SEC : Sector is a binary variable that takes the value of 1 when the company operates in the industry sector, and 0 if no.
ROE: Return on equity is the ratio of net income to equity.
CASH : Log of (Total Liquidity and Liquidity Equivalent / Net Assets) Ratios (e.g.[56]). Or Net assets are total assets minus cash and cash equivalents.

IV. EMPIRICAL RESULTS

A. Descriptive Statistics

Table 2 Descriptive statistics for variables used of our research variables.

Variables	Obs	Mean	Std.Dev	Min	Max
<i>INSD</i>	400	0.148	0.166	0	0.755
<i>DET</i>	400	0.326	0.326	0.004	2.487
<i>DIV</i>	400	0.787	0.407	0	1
<i>CASHFLOW</i>	400	0.192	0.195	-0.084	1.972
<i>ROA</i>	400	0.066	0.094	-0.280	0.729
<i>SIZE FI</i>	400	16.303	2.219	10.912	21.29
<i>TRADCRE</i>	400	-1.062	1.541	-5.063	3.315
<i>Cash</i>	400	0.0915	0.122	0.0001	0.71
<i>SEC</i>	400	0.475	5	0	1
<i>ROE</i>	400	0.098	0.099	-5.545	7.659

Note: **INSD** managerial ownership is the ratio of the number of shares held by a manager to the total number of shares. . **DET** is the ratio between the book value of long-term and short-term debt to the book value of total assets. **DIV** is a variable that takes the value of 1 when the company distributes a dividend and 0 if no. **CASHFLOW**: cash flow is Net operating income plus depreciation. **ROA** is the return on assets. It is the ratio of net income and total assets. **SIZE FI** is the natural logarithm of total assets. **TRADCRE** : trade credit. It is measured as the difference between the period for collection of receivables and the payment period for accounts payable. **CASH** is Log of (Total Liquidity and Liquidity Equivalent / Net Assets) Ratios. **ROE**: Return on equity is the ratio of net income to equity. **SEC**: Sector is a binary variable that takes the value of 1 when the company operates in the industry sector, and 0 if no

Table 2 reports the descriptive statistics of our research variables.

The managerial ownership varies from 0 to 75.5% with an average of 14.8% and a standard deviation of 16.6%. These values show that the manager carries out all the functions of the companies. The average debt of Tunisian companies is 32.62. On average, 0.787 Tunisian companies pay dividends.

The profitability is measured by ROA, and ROE. On average, return on assets (ROA) is 0.066. This profitability varies between -0.28 and 0.729. On average, return on equity (ROE) 0.098 is. This profitability varies between -5.484 and 7.659

The mean level of CASH of Tunisian firms is 0.0915. Its maximum value is 0.71 for a listed company operating in the transport equipment trade. Its minimum value is 0.0001 recorded for a listed company that operates in the development of pharmaceutical products.

The average size of Tunisian companies is 16.30%. The minimum size is 10.912 and the maximum size is 21.29, with a standard deviation of 2.219.

The average value of trade credit is -1.061. Its maximum value is 3.315. Its minimum value is (-5,063).More than half of Tunisian society belongs to the industry sector. The average cash flow value is 14,192.

B. Correlation Matrix

Table 3 presents the correlation matrix between dependent and independent variables. The results indicate that most correlations of variables are small, implying that multicollinearity does not pose a serious problem in this study.

Table3: Correlation Matrix

	<i>INSD</i>	<i>DET</i>	<i>DIV</i>	<i>CASHFLOW</i>	<i>ROA</i>	<i>SIZE FI</i>	<i>TRADCRE</i>	<i>Cash</i>	<i>SEC</i>	<i>ROE</i>
<i>INSD</i>	1									
<i>DET</i>	-0.252	1								
<i>DIV</i>	0.303	-0.384	1							
<i>CASHFLOW</i>	0.084	0.022	0.131	1						
<i>ROA</i>	0.197	-0.369	0.410	0.062	1					
<i>SIZE FI</i>	-0.333	0.319	-0.350	-0.215	-0.288	1				
<i>TRADCRE</i>	-0.091	0.215	-0.128	0.035	-0.067	0.301	1			
<i>Cash</i>	0.1266	-0.2767	0.1775	-0.0359	0.0914	-0.1874	-0.0324	1		
<i>SEC</i>	-0.0004	0.0550	0.065	0.125	0.0675	-0.047	0.1314	-0.1089	1	
<i>ROE</i>	0.089	-0.146	0.207	0.0249	0.323	-0.062	-0.061	0.131	0.046	1

Note: **INSD** managerial ownership is the ratio of the number of shares held by a manager to the total number of shares. **DET** is the ratio between the book value of long-term and short-term debt to the book value of total assets. **DIV** is a variable that takes the value of 1 when the company distributes a dividend and 0 if no. **CASHFLOW**: Cash flow is net operating income plus depreciation. **ROA** is the return on assets. It is the ratio of net income and total assets. **SIZE FI** is the natural logarithm of total assets.

TRADCRE is a trade credit. It is measured as the difference between the period for collection of receivables and the payment period for accounts payable. **CASH** is Log of (Total Liquidity and Liquidity Equivalent / Net Assets) Ratios. **ROE**: Return on equity is the ratio of net income to equity. **SEC**: Sector is a binary variable that takes the value of 1 when the company operates in the industrysector, and 0 if no.

C. Regression Results

Table 4. Les résultats de régression

	INSD (1)	DET (2)	DIV (3)
INSD	-	-4.685 (0.108)	1.787 (0.002)***
DET	-0.221 (0.002)***	-	-0.5139 (0.002)***
DIV	-1.165 (0.375)	-0.273 (0.531)	-
CASHFLOW	0.094 (0.019)**	0.257 (0.110)	-
ROA	0.169 (0.109)	-	-
SIZE FI	-0.0169 (0.002)***	-0.082 (0.123)	-
TRADCRE	-	-0.0004 (0.975)	-
Cash	-	-	-0.0034 (0.909)
SEC	-	-	0.0663 (0.064)*
ROE	-	-	0.0529 (0.120)
Constante	0.5593 (0.002)	2.526 (0.016)	0.655 (0.000)***
R-sq	0.034	4.493	0.0807
Cki2	71.65	36.29	95.89

Note. *** p<0.01; **p<0.05; *p<0.1.

Equation 1: Managerial Ownership Equation.

Table 4 (column 2) shows the results of the regression analysis between debt, dividend and other explanatory variables to managerial ownership. Debt has a negative (-0.221) and a significant (0.002) coefficient at a level of 1%. This coefficient shows a negative relationship between managerial ownership and debt. In other words, the increase in managerial ownership reduces the use of debt. This relationship proved by (e.g.[20],[7],[28]-[8]). Managerial ownership resorts to high risk as shareholders in highly-indebted firm. As a result, managers will seek to limit debt in order to reduce the risk of losing work and personal wealth. In this case, hypothesis 1, which underlines the existence of a negative relationship between managerial ownership and debt, was supported.

According to Table 4 (column2) the coefficient of DIV is not significant. This relationship shows that dividend have no influence on managerial ownership. The coefficient of dividend is negative (-1.165) and no significant (0.375). This relationship is verified by [24] on a sample of 80 companies from Vietnam. In this case, the hypothesis of the negative relationship between managerial ownership and dividend payment H2 was unsupported.

Cash flow has a positive (0.094) and significant (0.019) coefficient. This coefficient shows that the relationship between managerial ownership and cash flow is positive. This relationship is proved by [35],[36]-[24].

Profitability has a positive and no significant coefficient on managerial ownership. This coefficient shows that profitability has no impact on managerial ownership.

Firm size affects significantly and negatively managerial ownership. These findings, which are in line with those of [28], [23]-[7], suggest that managers reduce their ownership as firm size increases. These authors show that managers' aversion to risk and that the constraints on managerial wealth limit the managers' willingness to increase their share when the size of the firm increases. This relationship disagrees with the one proved by [24] who rather demonstrate a significant positive effect of firm size on managerial ownership. They indicate that managers tend to increase their ownership when the size of the firm becomes larger.

Equation2: Debt Equation

Table 4 (column 3) shows the results of the regression analysis between managerial ownership, the dividend and other explanatory variables to debt. In the equation with leverage as dependent variable, the relation with managerial ownership and dividend are negative and no significant. This result disagrees with the one proved by [7], showing that managers have an incentive to reduce financial risks. In addition, these authors suggest the existence of a substitution relationship between debt and dividend in the agency's conflict control mechanism. In this case, hypothesis 1, which underlines the existence of a negative relationship between managerial ownership and debt; and hypothesis 3, which underlines the existence of a negative relationship between debt and dividend policy, were both supported.

Cash flow has a positive (0.257) and no significant (0.110) coefficient. This coefficient shows that debt does not depend on the cash flow generates. This finding, which agrees with the result of,[57] suggests that the level of indebtedness is motivated more by fiscal or risk management reasons than by the desire to control managers.

Firm size has a negative (-0.082) and no significant (0.123) coefficient on debt. This coefficient shows that the size of the firm has no influence on debt. This result disagrees with those (e.g.[21]). These authors show that large firms are more

diversified than smaller ones, which makes them more capable of accepting high debt ratios.

The relationship between debt and commercial credit has a negative and no significant coefficient. This relationship shows that commercial credit has no influence on debt.

Equation3: Dividend Equation

As shown in Table 4 (column 4), the coefficient of the managerial ownership variable is positive (1.787) and significant (0.002) at a 1% level. This coefficient shows that managerial ownership requires a large dividend payment. This result shows that the increase in the managerial ownership makes it possible to align their interests with those of the shareholders, thus making the dividends less necessary (e.g.[32]). As result, hypothesis 2, which underlines the existence of a negative relationship between the managerial ownership and dividend payment, was unsupported.

Debt affects significantly and negatively dividend policy. These findings, which are in line with those of(e.g.[3],[4]-[34])suggest that debt and dividend are alternative mechanisms that reduce free cash flow. Hypothesis 3, stipulating the existence of a negative relationship between the debt and the dividend, was supported.

The relationship between cash and dividend has a negative and no significant coefficient. This coefficient shows that the dividend distribution does not depend on the cash generated. This result disagrees with those of (e.g.[45],[46]- [47]). These authors show the existence of a negative relationship between the holding of cash and the payment of dividends.

Sector has a positive and significant coefficient. This result shows that sector has an influence on dividend payment. This result is in agreement with [44] findings. These authors prove that the sectors positively influence the dividend payments.

The relationship between dividend policy and profitability has a positive and no significant coefficient. This result shows that profitability has no influence on the dividend policy, which disagrees with the signaling theory that supports a positive relationship between profitability and dividend payments (e.g. [40]-[7]).

V. CONCLUSION

This study examines the relationship between managerial ownership, debt and dividend policy using simultaneous equations. The managerial ownership has a negative and no significant impact on debt, and a positive and significant impact on dividend policy. Debt has a negative and significant impact on managerial ownership and dividend. The dividend has a negative and no significant impact on managerial ownership and debt.

This study has an implication not only for managers but also for investors. Owner managers will face higher risks than other investors. One of the causes of risk is debt. As a result,

managers tend to increase their ownership to take control, which might affect the firm's policies as well as its value. These leaders avoid the use of debt and the payment of dividends in order to avoid the loss of their jobs and their wealth. Investors will be more careful in their choices of the company to invest in the funds. Indeed, a large debt ratio can lead to a transfer of wealth from shareholders to creditors. This transfer might prevent the value creation process. In addition, an important managerial ownership makes it possible to align the interests of managers with those of investors. In addition, a significant dividend payment attracts new investors who are not only providers of financial capital but also on cognitive resource.

Managerial ownership, debt and dividend policy can be used as substitutes to reduce agency conflicts, which implies that the company should be cautious while using these mechanisms. This study is among the first studies that have examined the relationship between managerial ownership, debt and dividend policy in the Tunisian context. Although the current study is based on a small sample of companies, the finding suggests an important conclusion for Tunisian companies in the field of corporate governance. However, with a small sample size, one should be careful, as the results may not be transferable to all Tunisian companies.

This research raises many questions requiring further investigation. It would be interesting to assess the effects of ownership structure on debt and dividend policy in the simultaneous equation. In addition, it would be important to integrate other governance mechanisms into the analysis of the relationship between these policies such as the board of directors and the behavioural and cognitive aspects of leader.

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