INFORMATION QUALITY AND TAX OPTIMIZATION
CASE OF TUNISIAN FIRMS

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ABSTRACT: The importance of taxation in the financial and accounting business environment are encouraged to study the impact of tax optimization on the quality of information on a sample of 36 companies listed on the stock between 2000 and 2010, the result shows that the tax optimization increases the quality of information in the Tunisian context.

KEYWORDS: Information quality, Total Accruals, effective rate tax, Optimization tax

JEL Classification: M41

INTRODUCTION

The taxation occupies a central role in the management of the firm but its importance occulted by its apparent technique. However, it is a paramount element in the comprehensive strategy of the firm. Moreover, it must answer requirements of performance and the improvement of the situation of the firm. There are several samples that resemble the tax (charge required), that is to say, with common characteristics. Indeed, we can say that the tax is a compulsory levy but we cannot say that all compulsory levies are taxes. Generally in some countries, where accounting and taxation are closely related (Rossignol, 1999), countable handling for tax objectives constitutes a major motivation in many firms where the structure of the properties is concentrated. Indeed, the leaders will manage the results for the maximization of profits in order to optimize the amount of tax paid at the firm. Collins et al., (1998) studied the practices of multinational firms and showed that the results do not clearly conclude the importance of taxation as a motivation for earnings management. We can notice that these jobs remain scarce and are based on data from American context.

Admittedly, it is possible that the accounting manipulation for tax purposes is limited to low-tax countries. Also, it can be costly for managers because in case of a tax audit, recovery and penalties may exceed the portions of gains. The firm is confronted in its environment with several types of decisions which, generally, affects these loads and the tax cost in a specific way. The firm requires strategic and technical choices that may have tax implications. In this case, the manager of the firm will take into account these choices to minimize taxes and maximize profits with several practices. To minimize the cost tax, we can use different legal methods of character, such as tax optimization or an illegal method like tax evasion.

Tax optimization in the management affects the quality of published information and the performance of the firm. Indeed, we will try to study the relation between tax optimization and the quality of countable published information. Particularly, we interest in the accounting
incomes since they constitute on the one hand an information source (Biddle et al., 1995) and a connection between accounting and taxation on the other hand. Like all the tax systems in the world, and specifically the systems of the countries in the process of development, the Tunisian tax system presents comprehensible characteristics which contribute to any economic development effort. Among these characteristics, we include the adoption of different codes: the Incentive Investment Code (IIC), Taxes on personal income (TPI) and Corporate tax (CT).

**Tax optimization: Concept and Legality**

According to the French Academy (1986): to optimize consists to do something as well as possible and to carry to its degree of effectiveness. Optimize or maximize literally means "to give something optimum performance" and "optimal" ie "the most favorable state. Piriou (1997) defined tax optimization as being techniques which make it possible at a firm to mobilize its chargeable plate between two countries. Within the framework of the management of the firm, tax optimization consists with well managing the applicable taxation by the firm in an optimal way. That is to say the minimization of the fiscal charges and the maximization of the receipts in a possible way. Capiez (1994) “tax optimization consists in minimizing mainly the income tax in order to maximize the result after taxes”. It confirmed the idea, for each firm to a given economic situation, under the constraint of a certain volume of production of goods or services to be realized and corresponding costs of exploitation.

**Review of literature:**

To optimize the fiscal charge consists in controlling the variables to act to reduce with the greatest effectiveness, without exposing the firm at the risks such as the risk tax which can be higher than the made savings. This concern is in the accounting of certain operations and the decisions we quoted the investment and the financing. In particular, tax planning was used by several research like tax optimization. This idea is confirmed in the work of Scholes and Wolfson (1992); Brue et al., (2007). Dego (2003). Mills et al., (1998) who showed that tax planning consists for all the firms, with an economic situation given to obtain the maximum performance, a method of the minimization of the costs including the fiscal charges.

In addition, Graham and Tucker (2006) estimated that the tax optimizations produce equal to nine percent deductions (9%) of total assets. However, Dyreng et al., (2008) found that there is a consistent change in the ability of companies to maximize tax benefits. Nevertheless, tax optimization does not encourage by the researchers to invest research, but it encourages “to minimize mainly the income tax in order to maximize the bottom line after tax in the context of the economic constraints of the company”. Since the fiscal charges represent an important expenditure for the firm which must be paid within precise times. It is the combination of a theoretical carding brush and a technique, tax optimization represents a management downwards loads Hoffman (1961). This management constitutes a capacity of the firm to arrange its activities so as to minimize the tax evasion. Tax optimization consists in reducing the fiscal charges to increase the benefit after taxes under certain constraints. And to minimize this load, the variables should well be controlled to act not to increase the tax risks. This appears in the accounting of certain operations and decisions. In particular, the leader of the firm will choose accounting methods and financial and decisional to save the tax. He will rather may find it beneficial to find solutions for the national firms that international. It is for that, that it is necessary well to clarify the determinants of tax optimization and to specify its role in the minimization of the fiscal charges of the firm. These determinants are on the one hand financial order like the investment, the debt, profitability; in addition of an informational nature like the quality of information (reference).
In accounting, the tax appears in the assessment and in the state of result what explains requires it disclosure of the financial statements which represents contents of information in this direction will influence the future profitability of the firm. On the one hand, the tax reduction is not necessarily the goal of effective tax planning, and secondly, fiscal management is not always equivalent to minimize the corporation tax. But the exercise adequately and appropriately judgment which could ultimately maximize future performance. Tax optimization affects the choice of financial accounting and the results (e.g., the results of year-end dividend payments, future earnings growth (Lev and Nissim, 2004) and vice-versa). In particular, several current of research explained the changes in the fiscal charges or of effective tax rate (ETR) in terms of characteristics of the firm we quote Zimmermann (1983); Gupta and Newberry (1997) and Holland (1998).

The intention was recently turned to the comprehension of the motivation under – unclaimed of these variations and the potential consequences. Traditionally, tax optimization is regarded as driving with an increase in the benefit after taxes and thus in the interest of the shareholders. What is the view generally taken in the valuation models of firms? Assuming that shareholders need to control the decision of tax managers. Slemord (2004) suggested a sequence between management compensation (earnings wish) and TIE. The effect of this implicit valorization is compatible with the anecdotal evidence of a negative association between the TIE and the price of the action (Swenson, 1999). Studies of the corporation tax related to the effect of valorization by making valorization of the shareholders and various categories of tax optimization in terms of the benefit expected including the risk. The importance of tax information was shown by standard IAS 12 (taxable income) like an obligation for the firms to publish tax information (IASB 10). By consequence tax optimizations can be classified permanent or calendar. On the other hand in practice, the distinction between the two can be fuzzy or the temporal differences are continuously replaced.

Studies of tax optimization in the American context have suggested that “Shelter tax” is curved towards the activity of the permanent economies (Wilson, 2009). However, although the timing difference does not affect the overall tax burden in the income statement benefit calendar cash flow occur (Maydew and Shackelford, 2007). By studying the valuation effects of temporary and permanent differences, it is necessary to control the management statement as it may give rise to similar differences (Hanlon, 2005; Phillips et al., 2003). In addition, offering differences in tax planning activity, it is necessary to isolate non-discretionary items, such as tax depreciation, it has potential effect on the valuation of the firm and does not represent a tax optimization activity (Frank et al., 2009). In the literature on the potential impact of tax related to the evaluation of two different specific sources were examined. Amir and Sougiannis (1999), Atwood and Reynolds (2008) find that the current use of tax losses in the previous period to the relevant value.

In the same way, when the firm is installed in different countries with statutory variable tax rates, the variations of tax rate can provide a saving in tax entered in value of the firm (Bauman and Show, 2008). The evaluation of the variations of tax rate depends on stabilities of the tax jurisdictions, the policy of tax and the timing of tax declaration of the firm. On the other hand, certain studies show that he is not connected a direct link between the value of the firm and tax optimization. This absence was allotted to the effect of non-quantifiable of the tax costs (Cloyd and al., 2004). Desai and Dharmapala (2006) found that in an organization of tax optimization this variation can involves a reduction of the value of the firm. This reduction appears when managers have both the possibility of underestimating the accounting profit and the tax base. If the two forms are complementary underestimate the lack of transparency in tax optimization
provides coverage to extract rents at the expense of shareholders by minimizing benefited accounting manager.

In order to solve this complementary relationship the firm is obliged to make a proficient governance mechanism. Indeed, Desai and Dharmapala (2006), showed that tax optimization will evaluate negatively by the shareholders or by the weakness of governance which would accept the reduction in profit countable. When the organization of government of the firm is strong, the reduction in the accounting incomes is not possible and tax optimization also does not import any advantage of diversion. Desai and Dharmapala (2009) have provided empirical evidence provide some support for the prediction that moderates the governance of the firm, the relationship between tax optimization and the value of the firm. This finding is consistent with the conclusion of tax optimization which is interpreted as having been made to shareholders only when the level of governance of the firm is high. Shareholders seem to be wary of the motivations of managers and not the positive value of tax optimization. Similarly, Wilson (2009) and Hanlon Slemord (2009) explained that the evaluation of the operation of the tax optimization activity is conditional on the state of governance of the firm. Frank and al., (2009) showed that during the same time, the managers to try to manage the accounting incomes to the top while managing the fall of the taxability.

In tax optimization, the adoption of the accounting methods which minimizes the result of the tax will interpret like a sign on the detention of the firm of favorable information on its future. For example, when a company chooses a tax-free method that reduces the result will be a good sign about the level of cash flows later. It can therefore lead to the following assumption (Raffournier, 1990): "the best firms should choose the methods that reduce the result, while if tax effect is the opposite." In particular, tax optimization is the research of the taxable way by the manager to satisfy the interest with its firm. Business management is a requirement for the development and survival of the firm. According to Collete (1998) tax planning does not mean putting the breach of the legislation. That is to say, it must be managed in accordance with regulations.

The proposed governmental tax measures will significantly change the situation of firms. Optimized management of capital, the search for yield and performance will be associated to the choice of tax strategies. There are strategies such as investment in bare ownership. It is the right to sell and what follows as the product. In second place, the firm seeks to reduce the tax base. Accordingly, the taxpayer will be able to consider operations on a purely free basis, it has the possibility also of considering a donation with the profit of his children.

The recent literature on tax optimization has suggested that the important factors that influence tax management include the corporate tax rate (Klassen et al., 1993), the non-consideration of tax rates (Scholes and al., 2009), and tax or judicial different treatments. Senior management accounting systems of the firm may have a positive impact on the quality of internal information, offering a real-time management information on the financial situation of the firm and eliminate barriers between the accounting cycles (Brazel and Dang, 2008). This allows managers unprecedented access to accounting information. The information can be improved by centralized and standardized firm and transaction processing, and reducing cycle time reports. All this will result in a better and faster access to accurate information and transparency. The acquisition of information at a time (the task of finding information) and information integration (the task of evaluating the informational impact) will be improved (Hodge and al., 2004). We do not support that the company has a capacity to plan effectively taxes that are
enhanced by an environment of internal information. This enhancement allows the acquisition and integration of information both necessary to the tax function are generally decentralized and buried in bespoke systems for financial management (Cranford, et al., 2012). Before the seventies, the information is available and accessible to bring everyone at no cost. Since the idea was changed and asymmetric information, Spence (1974) studied the importance of the information through the signal theory. The signal addresses first by the firm and regards the financial or accounting information policy. Some firms establish tax-free methods that reduce their results of seek to improve their accounting results in the presence of a fiscal impact.

Signal theory reveals another part of the explanation of the relationship between the effective tax rate and profitability of firms. This theory was introduced by Ross (1977), as an instrument of information asymmetry and generates multiple costs such as tax firm. Moreover, different empirical research based on the theory of signals to show the importance of taxation in improving performance. In particular Tunisian group is also characterized by a lack of financial transparency. This lack manifests itself in various ways: Quality of accounting information sometimes questionable, unavailability of consolidated financial statements, intragroup opacity commercial and financial relations, lack of visibility on the actual value of the portfolio of financial investments, debt camouflaged behind carry trade capital, insufficient information on the guarantee of bank liabilities, reluctance to credit ratings. In many studies that watches this lack of transparency may result from a desire to tax evasion and it is intended to hide the fragile financial situations.

Desai and Dharmapala (2006) stated that when an information asymmetry between managers and shareholders in respect of tax optimization, it can help managers to act in their interests with a negative association between tax optimization and the value of the firm. According to Balakrishnan and al., (2012) found that aggressive tax reduces transparency (that is, the environmental quality of external information), probably because of the complexity of activities designed to avoid taxes. In contrast, we examine how the quality of internal information makes visible the possibility of tax optimization in the Tunisian context. After literature presented we will test the following hypothesis:

**H1: There is a positive effect of the total accruals on the effective tax rate.**

**BIG 4**

Chavagneaux (2010) reported in his study of the role played by large audit firms and professional associations in influencing decision making in the firm. It explains the influence of organizations on accounting and tax practitioners or professionals choice. In Tunisia, the big four audit firms (Pricewaterhouse Coopers House (PWC) , Ernst & Young, KPMG and Deloitte) called big four accounted for 8% of the total structure of accounting professionals , 2% are organized as regional offices and 90% operate individually and the rest are professional accountants employees.

**H2: There is a negative or positive relation between audit and effective tax rate**

**Investment**

According to the literature we present the level of investment of the firm ($\Delta$INV) which represents the change in tangible assets is equal to the change in the gross value of fixed assets between t and t-1. Indeed, it is to retain the amount of gross fixed assets to better understand the effect of changes in assets on tax optimization firm. It should be noted that the change in
property as an investment and the level of taxation assets are related to the operation and are therefore tax deductible (physical relief).

This measure was adopted by Manzon and Plesko (2002) and Tang and Firth (2010) and introduced into the model to show the effect of the investment on tax optimization firm we will test our hypothesis.

**H3: The TIE varies depending on the level of investment firm**

**Debt**
The debt level is measured by the ratio of debt to total assets. This is a standard measure used in several studies conducted in different themes such as firm performance, governance and management accounting result. In the Italian context, and Arachi Alworth (2001) show that tax rates are positively related to changes in the debt of firms. Thus several studies support the findings of Graham (1996) found a positive relationship between the tax rate and debt for Canadian firm. However, interest expense on debt levels is not taxable in the Tunisian context.

On our research, we will use the amount of long-term debt. And we have from our research hypothesis that if interest expenses increase (deductibility of interest) the effective tax rate (ETR) decreases. Debts that do not generate interest are excluded as payables and payables to notice from the union of national security.

This measure is adopted by several researchers we cite as an example the work of Janssen (2005) and Guha (2007). We will test the hypothesis which states that the interest charges increase while the effective tax rate decreases.

**H4: TIE varies inversely with the level of debt of a firm.**

**Size**
Unlike the inconclusive results of applied studies in the United States, the results of Kim and Limpaphayom (1998) confirmed the existence of a negative relationship between firm size and the effective tax rate in emerging economies. In our research, we refer to the work of Wilson (2008) who measured the size of the firm by the natural logarithm of the book value of total assets at the end of the accounting period (Log (total assets)). Econometric point of view the transformation of the logarithm avoids the problem of stationary variables. We test in the Tunisian context, the following hypothesis:

**H5: Firms exploit the large tax benefits to reduce the tax burden, more important than small way.**

**ROA**
Dhaliwal et al., (1992) also suggest that firms with greater variability in profitability have a greater risk of making business decisions that are inappropriate for their tax status and at the same time have greater incentives to engage in tax planning. Dyreng et al.,(2008). Minnick and Noga (2010) argue that profit before tax is an important determinant of changes in tax burden on firms. Then empirical Previous research has found a positive link between the return on assets (ROA) and the effective tax rate. (Gupta and Newberry, 1997). We take our research to the extent ROA = net income / total assets as a measure of the economic viability of the firm. Positioning them in the Tunisian context, then we put forward the following hypothesis:

**H6: There is a positive effect of the return on assets (ROA) on the effective tax rate.**
Conceptual Framework
Accounting is a source of information. It is useful for decision making, connection accounting and taxation. In order to better understand our research context, we try to find the relationship between the quality of information and tax agencies. But initially, we will focus on the tax organizations. Various organizations implied in the tax optimization of the firm:

First of all, the international tax association (IFA) is a non-governmental organization and non-sectorial, created in 1938 in the Netherlands, counts more than 40 miles groups. It brings together payers, their advisors, civil servants; members of the judiciary, and university professors, all aimed at addressing issues of tax order tax news and legislative developments international. Nationally, the fiscal council appears in 1960 with Law No. 60-34 under the Ministry of finance. Originally the council tax, we find:

A. National Chamber of Tax Advice (NCTA):
This room includes recommendations approved by the Ministry of finance. It was created in 1997. Its mission, to carry out the tax burden for taxpayers, assist and defend them to the tax authorities and courts. In tax audit, it must reliably determine the level of tax risk of the firm. Its mission is to be crowned by the contribution made and judgment on fiscal management and optimization of the tax burden of the firm.

B. The Association of Chartered Accountants in Tunisia (ACAT)
The OECT is a professional organization established in 1982 by Law 82-62 of 30 June 1982 (later repealed by Act No. 88-108 of 18 August 1998), and launched under the supervision of the Minister of Finance. Missions OECT is the establishment of the annual accounts to the board of management, business law, tax law, labor law, or consulting for export, the Accountant in this organization is the permanent council of the entrepreneur.
It also provides timely and tailored to different events in the life of the company response. The Auditing occurs particularly in the following areas: accounting, management, legal requirements, information and auditing firm.

C. National Accounting Council (CAC)
The Board of Accounts (CSC) was created in 1997 by Decree No. 75-846. In 1996, CSC has changed the name to become the national accounting council (CNC). The board is placed under the Ministry of Finance. The latter is a body that coordinates for all the theoretical accounting research and improvement and practice. Similarly, the Board is responsible for reviewing projects of laws and regulations that include provisions relating to accounting.
This organization, include several stakeholders such as the Ministry of Finance, the Governor of the Central Bank (or their representative) of the Court of Accounts, the accounting profession, representatives of the various ministries concerned with accounting issues and main bodies. The board consists of three main components: a general meeting, a committee working groups and a permanent secretariat.
The latter should take into account the importance of taxation at standardization. Also, it should establish a coherent plan of action with other parties can ensure the firm load optimization and distribution of a quantity of reliable information.

D. The National Fiscal Council (CFC)
The CNF was created in 2001 by Decree No. 2001-1250 of 28 May 2001. It is a body that ensures mission coordination and evaluation of the tax system and its compliance with the targets particularly in terms of public finance balance of economic efficiency and tax fairness.
It is responsible for giving advice on the tax matters referred to it. The Board is responsible for reviewing projects of laws and regulations that include provisions relating to taxation.

Figure 1: Different agencies involved in taxation in Tunisia

METHODOLOGY

Sample study
The objective of our work is the test of a query that relates to the quality of information is considered determining tax optimization Tunisian firms. And that tax optimization depends also other economic and financial variables such as size, profitability, liquidity and investment incentives. To investigate this question, we use a sample composed of 36 research Tunisian firms traded over a period of 11 years (2000 to 2010).

Measures variables used
We have grouped our variables in Table 1 shown above. We will, in what follows, the variables presented to explain the explanatory variables and their measures

Table 1: Definition and measurement of variables selected

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
<th>Measures</th>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>ETR</td>
<td>Effective tax rate</td>
<td>Tax / income before tax</td>
<td>Christopher et al., 2012; Dyeng et al., 2010; Wilson, 2008</td>
</tr>
<tr>
<td>QINF</td>
<td>Accruals</td>
<td>Income- cash flows</td>
<td>Graham et al., 2012; Lang et Frith, 2011; Heitzman, 2010</td>
</tr>
<tr>
<td>BIG4</td>
<td>Audit quality</td>
<td>dummy variable</td>
<td>DeFond et al., 2011; Mastrolia, 2008; Gramling et al., 2011</td>
</tr>
<tr>
<td>Debt</td>
<td>Debt</td>
<td>debt/ Equity</td>
<td>Guenther, 1994; Yin et Cheng, 2004</td>
</tr>
<tr>
<td>Size</td>
<td>Total Assets</td>
<td>Log Total Assets</td>
<td>Wilson, 2008; Hanlon et Slemrod, 2010</td>
</tr>
<tr>
<td>ROA</td>
<td>Return on assets</td>
<td>Income / total assets</td>
<td>Dyreng et al., 2008; Minnick et Noga, 2010</td>
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</table>
From these variables, our design that is the object of empirical testing is illustrated as follows:

**Presentation of the model**

We employ the following regression specification to test our hypotheses:

\[ ERT_t = \alpha_0 + \beta_1 QINF_{it} + \beta_2 BIG_{it} + \beta_3 \Delta INV_{it} + \beta_4 DEBT_{it} + \beta_5 ROA_{it} + \beta_6 SIZE_{it} + \epsilon_{it} \]

This model was applied to panel data for our sample consists of 373 observations.

**Analyze descriptive**

After the correlation matrix it has no strong correlation between the variables used. Our sample consists of 62.06% of industrial firms and 20.69% of trading firms and 17.25% service firms.

**Statistic test**

After the test of Hausman the portability is greater than 5% we take the random effect and neglect the fixed effect.

**Table 2: Result of estimation**

<table>
<thead>
<tr>
<th>Variable explicative</th>
<th>Coefficients</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT</td>
<td>0.04</td>
<td>2.64</td>
<td>0.00</td>
</tr>
<tr>
<td>BIGNBIG</td>
<td>-0.075</td>
<td>-0.96</td>
<td>0.34</td>
</tr>
<tr>
<td>INV</td>
<td>-0.13</td>
<td>-2.94</td>
<td>0.00</td>
</tr>
<tr>
<td>DEBT</td>
<td>-0.12</td>
<td>-8.56</td>
<td>0.00</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.07</td>
<td>-1.23</td>
<td>0.22</td>
</tr>
<tr>
<td>SIZE</td>
<td>-3.92</td>
<td>-1.16</td>
<td>0.24</td>
</tr>
<tr>
<td>CONS</td>
<td>0.33</td>
<td>2.89</td>
<td>0.00</td>
</tr>
</tbody>
</table>

According to estimates from the quality of information (ACCT) and tax optimization (ERT) this show that if the firm minimizes the tax burden while respecting the laws quality of information increases (Tang and Firth, 2010). Also, we can explain by the specificity of Tunisian tax system.

Investment (INV) has a negative and significant coefficient with the effective tax rate this explained by the importance of investment in minimizing the tax and increases tax transparency after you and information quality. Minnick and Noga (2010). The Tunisian tax system has incentives for investment to encourage firms to invest in different areas of Tunisia to minimize the unbalanced regional.

The coefficient on the variable DEBT is negative and statistically significant. It is the short-term debt is used to finance the operating cycles and bank overdrafts or not the investment cycle. As a result, it negatively affects the economic viability holding account of the importance of financial charges. Also, the company will compensate the financial imbalance in the short-term debt (Dyreng et al., 2008, 2010).

**CONCLUSION**

Despite The tax numerous researches, the quality of information and tax optimization is not studied in the Tunisian context. Finding a results show that tax optimization increases the quality of information since it represents a legal activity in the firm. The Increasing of the quality of information can also reduce the tax evasion (Scholes et al., 2002). Our contribution is presumed in the importance of information quality in minimizing tax burdens for the firm in the Tunisian context. Indeed, the quality of information can be a management tool of tax on one
hand and an incentive for investors in the other hand. The limits of our research can be explained by the absence of data for unlisted companies in order to increase the size of the sample. In our opinion there is no research on the tax risks, the quality of information and its role in the tax investment.

REFERENCES


