An Empirical Investigation of Adopting IFRS Accounting Standards Evidence from Morocco

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Abstract
This article examines whether Moroccan listed companies have adopted the IFRS accounting standards. It aims to propose a logistic regression model to explain the adoption of IFRS in the Moroccan context. We conducted a quantitative study using a questionnaire with 43 companies listed on the Casablanca stock exchange. Definitely, we can say that overall, our main results suggest that the adoption of these standards is justified initially by firm size. The existence of institutional shareholders and membership in the financial sector tend to favor the choice of adoption of IFRS.

Keywords: Logistic regression model; IFRS; the contingency theory.

1. Introduction
Several studies have been conducted to assess the adoption of international accounting standards by developing countries (Briston and Wallace.1990, Kirby.2001). Europe was the first major adopter of IFRS. European Regulation of 19 July 2002 has indeed devoted to the adoption of IFRS for consolidated accounts of listed companies in the European Union after 2005. It is thus nearly 7500 European groups including 900 French who have made the transition to IFRS.

According to the IASB, since 2001 more than 100 countries have required or permitted the use of IFRS, while other major economies have established deadlines for convergence (or adopting) IFRS. Note first that the EU has already adopted IFRS for the consolidated accounts of companies making public offerings. Alongside the European Union there are several developing countries that have already adopted the international standard for individual accounts. Other countries have already begun the process of convergence like, Japan (2011), Canada (2011), Brazil (2010), China (2010), South Korea (2011), and India (2012).

A further provides that the united States have indicated that they are willing to trade their legendary “U.S. GAAP” against IFRS from 2015. When the Group of 20 (G20), it has recently reaffirmed (in September 2009) during their meeting in "Saint Petersburg" their commitments to the global convergence of accounting standards calling accounting bodies to redouble efforts to achieve a single set of high quality, in the context of their independent standard processors and complete their convergence project by June 2011.

For the Arab countries, we note that seven countries apply the international benchmark for individual and / or consolidated accounts, these countries are Morocco, Jordan, Palestine, Syria, Lebanon, Yemen and Egypt. Historically Moroccan accounting standards is deeply inspired by French accounting standards. The European harmonization of accounting standards and economic ties between Morocco and the countries of the European Union lead us to predict an alignment of Moroccan accounting standards on the IFRS. The implementation of IFRS by Moroccan companies has been a profound change in the thinking and practice of accounting. The opening of the Moroccan capital of companies to foreign investors, the process of privatization and the free trade agreements such as those concluded with the European Union and the United States, is all factors which explain the interest in Moroccan companies to convert to the new standards.

Furthermore comparability, neutrality and transparency of financial statements, IFRS are likely to reduce the cost and effort of publication of the financial statements according to several standards. This paper examines whether Moroccan listed companies have adopted the international accounting standards IFRS.

The paper is organized as follows: section one will review the relevant literature, Section two will presents the data collection, methodology and the mains results, The third section discusses the results in relation to the literature.

2. Literature Overview
Several studies have examined the adoption of the IFRS accounting standards in the emerging countries. Indeed many authors confirm that firm size influences adopting of IFRS standards (Zimmerman, 1990, Hand and Skantz, 1998, and Ahsina, 2012). Other authors have suggested that loans contracts influences accounting choices, Marchal and al (2007), show the growth of debt during the first application of IFRS accounting.
The executive compensation contracts affect accounting choice, Williams and Rao (2006) show that managers, part of whose remuneration consists of stocks option, have more risky behavior in the management of equity.

To Mtanias and Paquerot (1999), the choice of managers depend also on the presence of majors shareholders, the pressure on managers is more important and reduces the flexibility in the management of accounting data.

Healy and al (1999) show that institutional investors are the agents most demanding in term of regular financial information.

Moreover, El gazzar (1998) argues that institutional shareholders can influence the choice of a layer of information.

Listing on a foreign markets influence accounting choices, Cuyperts and Briynik (2005) showed that a listing on a US market encouraged the groups to voluntarily recognized accounting standards (US.GAAP or IAS-IFRS).

To construct our model to explain the choice of adopting IFRS in the Moroccan case, we retain the traditional variables of the contingency theory, namely: firm size, debt ratio, international listing, and distribution of stock option, presence of controlling shareholders, and presence of institutional shareholders.

3 data collection, methodology and the mains results

To conduct this study, we compiled data from the site of Casablanca stock exchange. For each listed company, we collected the information needed to send the survey. The directory was procured in an Excel table. This allowed us to easily export the entire contact list in the mailer.

Figure 1: Modelling the adoption of IAS / IFRS
A model needs to be tested. It is therefore necessary to make assumptions that will be faced with the reality on the ground during the quantitative survey.

To Watts and Zimmerman (1990), “it is clear that there is a relationship between accounting choice and other variables of the firm, as the debt level and size.”

We retain the traditional variables of positive accounting theory, namely size, leverage and methods of executive compensation. With these fundamentals, we add the shareholding structure, and listing in foreign stock markets. The expected correlation between accounting choice and the transition independent variables are inferred from the literature. The model aims to bring out the determinants of choice from the estimated explanatory factors. We hypothesize about the meaning of the relationship between potential explanatory factors and the choice of transition to IFRS.

Results confirming the influence of firm size on accounting policy choices have been highlighted by numerous studies (Watts and Zimmerman, 1990; Raffournier 1995; Hand and Skantz, 1998). Similarly K.Ahsina in 2012, showed that size influences the implementation of management control systems.

Hypothesis 1: The largest listed companies tend to opt for the choice of accounting standards internationally recognized.

Loan contracts influence accounting choices: Previous research devoted to Anglo-Saxon countries (Defond and Jiambalvo, 1994; Ball et al., 2008) demonstrated the influence of contractual clauses related to the rate debt on the choice of accounting practices. However, as emphasized Cormier et al. (2004), debt contracts rarely include French formal contractual commitments. However, the application of IAS / IFRS has an impact on leverage.
Moreover, Marchal et al. (2007) show the growth of debt during the first application of international accounting standards. The authors emphasize that the change in debt was above 10% in absolute value for 45% of the groups.  

**Hypothesis 2:** Companies listed on the most leveraged will tend to adopt IFRS in order to improve the debt ratio. The executive compensation contracts affect accounting choices: The positive theory assumes that managers maximize their utility. Therefore, if they have stock-based compensation, they will tend to manage accounting numbers to maximize the value of their stock options. Williams and Rao (2006) show that managers, part of whose remuneration consists of stock options, have more risky behavior in the management of equity. Accounting choices are assumed to be affected by the opportunism of executives with stock options.  

**Hypothesis 3:** The group plans to distribute stock options to their executives will tend to opt for the international reference IFRS, having a positive impact on equity.  

Singhvi and Desai (1971) argue that ownership structure has a significant influence on the quality of annual reports. It therefore seems necessary to measure the influence of ownership structure on accounting choices during the transition to IAS / IFRS. There are generally two types of shareholders, the majority shareholder in one hand and the institutional shareholder other.  

The ownership concentration influences the accounting choices. The choice of managers depends on the presence of one or more major shareholders. Under these conditions, the pressure on managers is more important and reduces the flexibility in the management of accounting data. A majority shareholder can more effectively control accounting decisions that minority shareholders, because it has sufficient voting power to influence officers or possibly convince other shareholders to support it in case of opposition to the direction of the company (Mtanios and Paquerot, 1999).  

**Hypothesis 4:** the presence of a majority shareholder influences the choice of transition to IFRS.  

The influence of institutional shareholders accounting choices: Healy et al. (1999) show that institutional investors are the agents most demanding in terms of regular financial information and published in due course. Moreover, El-Gazzar (1998) argues that institutional shareholders can influence the choice of groups demanding a new layer of information. Institutional shareholders are active partners in the company, they can choose to influence leaders to force them to increase the performance of the firm (and Mtanios Paquerot, 1999).  

**Hypothesis 5:** the presence of institutional shareholders affects the choice of transition to IFRS. Thus, as the case, these shareholders may favor standards which result in an increase in equity to reflect the economic value, then, on the contrary, for the sake of transparency of accounts, they can support options having a negative impact on equity.  

Dumontier and Raffournier (1998), El-Gazzar et al. (1999), Ashbaugh (2001) and Cuijpers and Buijinik (2005) showed that a listing on a U.S. market encouraged the groups to voluntarily adopt an internationally recognized accounting standards (U.S. GAAP or IAS / IFRS). In these circumstances, we can assume that the firms listed outside of the Moroccan market would tend to choose the nearest repository of European listed companies.  

**Hypothesis 6:** Given these interpretations, companies listed on several stock markets tend to adopt international accounting standards IFRS. Like Cazavan-Jeny and Jeanjean (2007) as well as Boukari and Richard (2007), we assume that companies establishing a positive impact will be helped to choose the materials having a negative effect on equity in the objective of minimizing the consequences of the transition.  

**Hypothesis 7:** Firms that have adopted the IFRS are more relevant and reliable financial reporting compared to those who have kept Moroccan accounting.  

To explain the accounting choices of transition, we used an econometric model to identify characteristics that influence the accounting policy of the companies listed on the Casablanca Stock Exchange.  

The dependent variable model is the choice of transition to IFRS. Each choice is a dichotomous variable. The choice of transition to IFRS is coded 1, while the choice there is no coded 0.  

The following variables were used: firm size, leverage, executive compensation in stock options, shareholder structure and listing on an international financial market. We add as a control variable impact of IAS / IFRS on the reliability and relevance of financial statements.  

### 3 Sample and methodology  

This work is devoted to the accounting choice of transition to IAS / IFRS conducted by listed companies, except banks, it circumscribes, already, the reference population to listed companies or not applying IAS / IFRS. For each listed company, we collected from the site www.casablanca-bourse.com, the information needed to send the survey: the coordinates of the headquarters, the names of key executives, electronic and telephone contact details of CEO’s and / or members of financial communication service. The directory was produced in an Excel table, which allowed us to easily export the entire contact list in the mailer  

Of a total of 69 questionnaires sent, 43 were filled, a response rate of 62.32%. The response rate is very favorable. Recalcitrant companies have been systematically re-launched, often several times and with different
interlocutors, we believe that the refusal to respond to these companies is not only due to lack of time respondents, as has often been argued. For some of these companies, the refusal would seem to result from the fear of information leaks out.

The choice of the logistic regression model has emerged for two reasons. First, the dependent variable is qualitative - the act of choosing or not the move to IFRS -, thus preventing the use of ordinary multiple regression. And several explanatory variables are qualitative - the existence of a stock option plan, the existence of controlling shareholders and / or institutional or even the impact or not on the relevance of financial statements, which prohibits the use discriminant analysis.

Moreover, the use of logistic regression is common in positive theory of accounting. Thus, in a review of the literature devoted to publications on accounting choices during the 90s, Fields et al. (2001) identify the regression method (including logistics) as a solution to the problem of analysis of accounting choices.

To study a dichotomous dependent variable (in our case: " adoption of the standards IAS/IFRS": “1”, or, “non- adoption of IAS / IFRS”: “0 ”), several statistical methods are possible. In this study, we chose logistic regression. Under this method, the model is written as:

$$\logit(P) = \log \left( \frac{P}{1-P} \right) = \alpha + \beta_1 \times \text{Size} + \beta_2 \times \text{Debt ratio} + \beta_3 \times \text{Stock option} + \beta_4 \times \text{Presence of controlling shareholders} + \beta_5 \times \text{Presence of institutional shareholders} + \beta_6 \times \text{Level of reliability and relevance} + \beta_7 \times \text{industry}.$$ 

4 Main results

The explanatory analysis has been exposed by analyzing two varied and logistic regression analysis. The results presented are particularly interesting because they analyze the accounting choices of a 43 of companies listed on the Casablanca Stock Exchange and they reflect the choices made by the companies most affected by IFRS.

In conclusion of the logistic regression analysis, one can draw a table summarizing the results of hypothesis testing.

<table>
<thead>
<tr>
<th>N°</th>
<th>Title of hypothesis</th>
<th>variables tested</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&quot;The largest companies tend to opt for the choice of an internationally recognized accounting standards&quot;</td>
<td>Size of the firm</td>
<td>validated</td>
</tr>
<tr>
<td>2</td>
<td>&quot;The higher the ratio of debt to equity is high, more listed companies tend to adopt IFRS&quot;</td>
<td>Ration of debt</td>
<td>rejected</td>
</tr>
<tr>
<td>3</td>
<td>&quot;The group plans to distribute stock options to their executives will tend to opt for the international reference IFRS&quot;</td>
<td>Existence of stock option plans</td>
<td>rejected</td>
</tr>
<tr>
<td>4</td>
<td>&quot;The presence of a majority shareholder influences the choice of transition to IFRS&quot;</td>
<td>Presence of majority shareholders</td>
<td>rejected</td>
</tr>
<tr>
<td>5</td>
<td>&quot;The presence of institutional shareholders influence the choice of the transition to IFRS&quot;</td>
<td>Presence of institutional shareholders</td>
<td>validated</td>
</tr>
<tr>
<td>6</td>
<td>&quot;Companies in certain industries tend to adopt international accounting standards IFRS&quot;</td>
<td>Industry</td>
<td>validated</td>
</tr>
<tr>
<td>7</td>
<td>&quot;Firms that have adopted the IFRS are more relevant and reliable financial reporting compared to those who have kept Moroccan accounting&quot;</td>
<td>Relevance of IFRS statements</td>
<td>rejected</td>
</tr>
</tbody>
</table>

5. Conclusion

This paper's objectives were to observe and understand the behavior of companies listed on the Casablanca Stock Exchange in view of the choice of the transition to international accounting standards IAS-IFRS. For this, we used a quantitative approach to understand the phenomenon of change in accounting standards in a global perspective.

The research question that guided this work was formulated as follows: what are the factors explaining the choice of transition to IAS / IFRS made by companies listed on the Casablanca Stock Exchange?

We responded by highlighting the influences experienced by firms during the selection process of transition. We have highlighted the link between the IFRS and the intrinsic characteristics of companies. Decisions depend on the size, composition of ownership, and industry. Similarly, financial and human resources allocated to IFRS projects are crucial in the process of choice.

Finally, the choice of the transition is largely subject to the behavior of preparers. Thus, the normative and technical complexity of IAS- IFRS has highlighted the limited cognitive capacities of practitioners who are not able to capture the entire body optimally, much less to anticipate the effects of the passage of the financial statements.
6. References
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