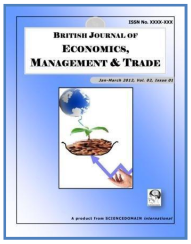

British Journal of Economics, Management & Trade
4(4): 523-540, 2014

SCIENCEDOMAIN *international*
www.sciencedomain.org

Factors Influencing Bank Transparency: Case of Emerging Markets

Samir Srairi[1*] and Ismail Ben Douissa[2]

[1]*University of Jendouba, Tunisia.*
[2]*University of Sharjah, United Arab Emirates.*

Authors' contributions

Author SS designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author IBD prepared data, managed the analyses of the study and approved the final manuscript

Original Research Article

Received 28th July 2013
Accepted 14th November 2013
Published 2nd January 2014

ABSTRACT

Using a random effect regression, this paper examines internal and external factors that may explain the differences of transparency across banks. Our sample is an unbalanced panel data of 69 commercial banks operating in seven emerging countries (Egypt, Lebanon, Malaysia, Morocco, Thailand, Tunisia and Turkey) over the period 2006-2009. The results relative to governance variables indicate that ownership concentration has a negative effect on transparency. We also find a positive correlation of transparency with government ownership. Concerning macroeconomic and juridical indicators, we observe a positive association of transparency with the existence of an explicit system of deposits insurance, the protection of stockholders' rights, and a negative one with the development of financial market and inflation. Finally, as for the impact of banks' characteristics, the empirical results show only an association between transparency and profitability measured by ROE and ROA.

Keywords: Basel II; stability; transparency; information; corporate governance.

**Corresponding author: Email: srairisamir3@gmail.com*;

1. INTRODUCTION

The recent wave of corporate scandals (Enron, Equitable life, WorldCom, Xerox, heath south and others) and financial crises (subprime 2008, Asia,1998, Mexico, 1994,..) has revived the interest for the issue of governance and transparency. Many studies [1,5] showed that weak corporate governance mechanisms in banks are pointed out as the main factors contributing to the recent financial crisis. Several international institutions, such as the Basel Committee on Banking Supervision (Basel 2 and 3), G7 Finance Ministers, International Monetary Fund, World Bank and the Financial Stability Board have called for increased transparency and disclosure in the banking sector. Recently, Basel 3 introduces several new rules to increase the stability and transparency of the banking sector [2]. In addition, numerous scholars, such as (Jordan et al.; Nier; Chen and Hassan; Demirgüç-Kunt et al.; Bushman and Williams; Jeffrey and Rusticus) also advocate a transparent bank system. It has been argued that the measures that enhance transparency reduce the likelihood of major bank problems, increase financial stability [3,4,5,6,7,8,9] or at least limit the accumulation of bad debts [10]. The main argument for transparency is that it improves market discipline. Pillar three of Basel Capital Accord (Basel 2) addresses corporate governance concerns by focusing on market-discipline mechanism to improve the flow of information between management and investors. Market discipline is a set of disclosure recommendations which is expected to enhance transparency, to limit excess risk-taking, to allow market participants to assess key information for banks financial position and to permit better supervision [11,12]. In the banking literature, the issue about the benefits of enhancing bank transparency is very ambiguous. Many researchers conclude that transparency may have various beneficial effects. According to many studies transparency can increase fundamental value and reduce overall funding costs by facilitating screening and monitoring [13,14,15,16]. Other empirical studies such as Chipalkat, Welker, Botosan have demonstrated that high-quality disclosures improve a firm’s market liquidity and reduce its cost of capital [17,18,19,20]. However, and according to many studies, transparency has not always been considerably desirable in all circumstances [5,21]. For example, Matutes and Vives showed that in cases when bank risk is exogenous and beyond the control of the bank, enhanced transparency can lead to reduction of the bank’s value [22,23]. These costs and benefits of transparency raise the question of transparency determinants [24]. The factor impacting disclosure and transparency remain of much interest to managers, investors and researchers. In the literature, there are a number of papers that identify the determinants of disclosure and transparency, especially in the developed countries and in non-financial companies. However, in the banking sector, a few studies have investigated the determinants of bank’s transparency in developing countries [25] (18 countries); [17] (Indian banks); [21] (Indian banks); [26] (Kazakhstan banks). To fill in this gap, the present paper contributes to the existing literature by examining the factors influencing the transparency of banks in seven emerging countries. Since transparency and corporate disclosure are quite complex, we attempt in this research to consider a large number of variables that represent determinants of transparency. Then, the aim of this study is to analyze how bank’s specific characteristics, bank governance and the banking environment affect the transparency of banks. By considering all these factors together, we can develop a more comprehensive model of the transparency decision including several variables that have not been empirically examined in the prior literature or have not yielded consistent results. This paper makes several contributions. It is the first study that analyzes the determinants of banks’ transparency in developing countries. Second, we examine a variety of variables by introducing internal and external factors that may be important in explaining the level of transparency in a bank. Finally, we collect data from an important number of banks (69) for a recent period 2006-2009. The rest of the paper is organized as follows. The next section presents the sample, analyzes the factors influencing the level of transparency and describes the model used in this study. Section 3 reports empirical findings and section 4 concludes the paper.

2. METHODOLOGY

2.1 Sample and Data

To compute the composite index of transparency and to analyze the determinants of bank's transparency, we use annual data from balance sheet accounts and income statements of 69 banks operating in seven emerging countries (12 banks in Tunisia, 5 banks in Morocco, 6 banks in Lebanon, 15 banks in Egypt, 15 banks in Turkey, 12 banks in Thailand and 4 banks in Malaysia) over the period 2006-2009. All bank financial statement data is taken from Bank scope Database of bureau Van Dijk's company. The macroeconomic variables are sourced from annual report published by central banks in each country and from the International Financial Statistics (IFS). The data of corporate social responsibility is collected from CSR report and annual report for each bank. The rest of variables such as the corruption index and the insurance deposit are collected from the website of transparency international organization and from the report of central bank of each country respectively.

2.2 Measure of Transparency

In the literature, we find several measures of transparency. Some studies (e.g., Durne and Kim; Khanna et al.) simply used the summary scores published by Standard and Poor's in 2001 and 2002 and their samples consist exclusively of non-banking firms [27,28]. The most known research related to the banking sector is the study of Baumann and Nier. These two authors developed a measure of the banking transparency based on the disclosed information, but this measure proves to be deficient in the sense of the third pillar of Basel II agreements [29]. In addition, these previous studies simplified their measures by assessing the degree of transparency by the volume of revealed information. The measure of transparency used here is based on the study of Ben Douissa. This research develops a composite index of the transparency of a bank based on four dimensions: completeness, opportunity, credibility and accessibility of information according to Nelson and not only on the basis of the volume of revealed information. This measure of banking transparency represents the aggregation of four intermediate indexes. Each index represents one of the four dimensions of information [30,31,32]. The first index related to the completeness of information contained financial information (17 sub-indexes) proposed by Baumann and Nier and non-financial information (19 sub-indexes) defined by Perrini and Tencati. The opportunity of information index is represented by the frequency of interim reports (biannual or quarter reports). The third index concerning the credibility of information is formed by three sub-indexes: audit, accounting standards and accounts adjusted by inflation. The accessibility of information index is proxied by two sub-indexes: annual reports disclosure on the bank website and rating agency classification (for more details of all indexes see the study of Ben Douissa).

2.3 Determinants of Transparency

Once the composite disclosure index is calculated bank by bank and of each year of our sample, we examine internal and external factors that may explain the differences of transparency across banks. The vector of explanatory variables comprises bank-governance characteristics, macroeconomic and juridical indicators, and bank-specific variables (Table 1).

Table 1. Variables' description

Variables	Definition and measure
Dependent variables	
TRANS: transparency index	Based on four dimension of information
Independent variables	
<u>Bank governance</u>	
-Mshare: major shareholders	The direct or indirect or indirect of 5% or above of the firm's common stock.
-Mown: manager ownership	Percentage of common stock detained by the execution directors of bank.
-Gown: government ownership	Percentage of common stock detained by the government.
-Bdirect: composition of the board directors	Percentage of independent directors in the board of directors.
-Sreso: social responsibility activities	2: if 2 activities are cited in the annual report; 1: only one activity, 0: no activity.
<u>Macroeconomic and juridical indicators</u>	
-Fmark: Financial market	Total market capitalization to GDP
-Inf: inflation	Annual average rate of inflation
-Dins: deposit insurance system	1: if there is an explicit system of insurance, 0: if the implicit system is adopted.
-Srigh: protection of stockholder's rights	1: if the country adopts common law, 0: if the country adopts civil law.
-Cindex: national corruption index	Index calculated by transparency international.
<u>Bank-specific variables</u>	
-Size: bank size	Natural logarithm of total assets.
-Growth: opportunity of growth	Market to book value of share.
-Depo: deposits	Natural logarithm of total deposits
-Debt: debt ratio	Total debt (without deposits)/ total liabilities.
- ROE: return on equity	Net income to capital equity.
-ROA: return on asset	Net income to total assets.

<u>2.3.1 Characteristics of the bank governance</u>

The bank bank-governance variable that we include in our model represents information about ownership structure, composition of the board of directors and the activities of social responsibility.

2.3.1.1 Ownership structure

The ownership structure consists in detailed distribution of common stock among the different shareholders' categories. First of all, the major shareholders' ownership represents the part of common stock held by the relatively important shareholders. The study of Caprio et al. identified the major shareholder as the direct or indirect holder of 10 % or above of the voting rights in the firm [33]. However, another research considered that the shareholder as a major one if he detains 5% or above of the firm's common stock [34]. Some studies found that the ownership concentration will imply information opacity because major shareholders have a direct access to information via the board of directors [35,36,37]. According to the above-mentioned studies, we assume that the part of the common stock held by major shareholders affects the bank transparency as follows:

H1a: where the common stock is concentrated in the hands of major shareholders the bank has a relatively weak transparency.

Moreover**,** it is important to study managers' ownership as being a determiner of bank transparency. Managers' ownership is measured by the percentage of the voting rights they hold [38]. Jensen and Meckling confirmed that when managers' ownership goes down, the stockholders would demand a stricter monitoring of the executive directors' behavior [39]. In fact, this situation would affect negatively managers' motivation to maximize the firm profitability. As a result, managers would disclose information deliberately to reduce monitoring as requested by outside stockholders [34]. Then we adopt the following assumption:

H1b: An important percentage of common stock held by the executive directors of bank shows relatively a low level of transparency.

Finally, government ownership seems to be a factor in bank transparency. Government ownership encourages the firm to disclose information [34]. Firm managers would be protected for markets' discipline when they reveal information which encourages them to disclose more. Generally, banks would be encouraged to disclose more information to the public since the capital invested by the government belongs to the national taxpayer. As per [34], we expect that government ownership enhances bank transparency.

H1c: A bank shows relatively a high level of transparency where an important percentage of its common stock is held by the government.

2.3.1.2 Composition of the board directors

The board of directors has the main role of ensuring that the executive directors of the company are acting with the intention of maximizing the stockholders' wealth. According to Geneen, the board of directors loses its effectiveness of management control if it is dominated by the executive directors or by the Chief Executive Officer [40]. To achieve its control mission, the board must be independent of the firm's management. There is no consensus concerning what constitutes a good board of directors. However, to maximize transparency, as shown above, stockholders should be represented by an independent board. Several studies have analyzed the link between the percentage of non-executive managers in managers' total number in the board and volunteer disclosure of information [34,41,42]. In our study, we expect that the highest board independence is linked to more transparency and a better control. Consequently, we assume that:

H1d: A bank being characterized by high number of independent directors in its board shows a relatively high level of transparency.

2.3.1.3 The activities of social responsibility

Companies have different priorities of social responsibility because processes and products differ across sectors. In the banking sector, CSR concept becomes very popular during the crisis and the discussion of the moral aspect of banking has become more intense [43]. CSR includes economic, legal, ethical and philanthropic expectation that society has in relation to companies [44,45]. According to Yeung several key elements of CSR in the banking sector have to be defined: understanding the complexity of financial services, risk management, strengthening ethics in the banking business, strategy implementation during the financial crisis, customer protection, and establishing channels for customer complaints. Given the complexity of measuring this concept, we introduce in our study this indicator as dummy variable and we estimate that social responsibility activities would have a positive impact on the bank's volunteer transparency.

H1e: A bank that invests in CSR shows a relatively high transparency.

2.3.2 Macroeconomic and juridical indicator

In addition to the bank governance variable, the transparency of banks is related to the economic and juridical environment of the country. We consider five external determinants: financial market, inflation, deposit insurance deposit, protection of stockholder's rights and national corruption index.

2.3.2.1 Financial market

The banking system and financial markets are sharing the role of financing the economy. As a result, undeveloped financial markets imply that banks are the major contributor to financing the economy. On the one hand, the major economic stake would encourage them to show a relatively high level of transparency. On the other hand, when financial markets are not developed, listed banks would be less encouraged to show more transparency since investors do not have sufficient monitoring power on the bank using market discipline. Consequently, we have two contradictory possible effects. As a result, we assume the following hypothesis:

H2a: The level of financial markets development has an ambiguous effect on bank transparency.

2.3.2.2 Inflation

In the case of high inflation countries, regulators will print too much money and as a result, cannot guarantee the stability of prices. This situation would be favorable for a climate of opacity in the banking system as a whole. In fact, banks would not be strict in terms of lending policies which may increase default risks and could lead after all to reduce the bank risk rating. Consequently, banks would be more opaque. On the contrary, regulators in low inflation countries are led to adopt a monetary policy that can guarantee the stability of prices. The adopted monetary policy allows sending a strong message to banks related to borrowers' quality. In fact, banks would be more selective in lending, which allows adopting a balanced policy of risk taking. This healthy climate would favor the bank transparency and its extroversion towards the public. Several studies such as Archambault and Archambault, Chen et al. showed that there is a negative relationship between inflation and firms' information disclosure. Then, we adopt this hypothesis.

H2b: Banks operating in inflationary countries show a relatively weak transparency.

2.3.2.3 Deposit insurance system

There are two systems of deposits insurance: implicit and explicit. The implicit system represents a regime of total guarantee by public authorities. This system is based on discretionary decisions taken according to the situation. The explicit system has a known limit of deposits coverage as well as the different procedures of intervention. The majority of banking systems that have no explicit system of deposits insurance adopt an implicit system. This later favors the moral hazard. In fact, banks would have an appetite at risk since the deposits coverage exists implicitly and its border can vary according to the situation. As a result, the level of bank transparency would be relatively weak. The explicit system guarantees the confidence of the public on it and contributes to reduce the expense of banking failures. As a result, the bank would adopt balanced risk taking policies and show a relatively high level of transparency. In consequence, we assume the following hypothesis:

H2c: Banks operating in countries adopting an explicit system of deposits insurance show a relatively high level of transparency.

2.3.2.4 Protection of stockholders' rights

According to La Porta et al., stockholders' rights differ from one country to another. The commercial laws in different countries were typically transplanted from both historically known jurisdictions: the common law which has an English origin and the codified civil law which comes from Roman law. France, Germany and Scandinavian countries had developed the civil law. This study showed that on average, countries adopting common law protect the stockholders' rights better than countries adopting civil law [48]. Moreover Archambault and Archambault and Doupnik and Salter found that companies from common-law countries (high protection minor shareholders' rights) disclose more information than companies from civil law countries [46,49]. Then, we adopt the following hypothesis:

H2d: Banks operating in common-law countries show a relatively high level of transparency and those operating in civil-law countries show a relatively low level of transparency.

2.3.2.5 National corruption index

According to La Porta et al., juridical standards are insufficient to protect minor shareholders; the quality of implementation of these norms is complementary. In fact, corruption is a sign of weakness of the implementation of laws related to minor shareholders protection. In the majority of countries, the biggest companies operate in a complicated political environment and have to consider several laws and regulations which constrain their activities [50]. In several countries, to avoid these pressures, firms have to corrupt politicians or regulators. We will adopt the index used by La porta et al. who measures the corruption level of every country using ICR guide (International Country Risk). We assume that banks operating in corrupted countries are necessarily opaque. The scale from 0 to 10 classifies countries from the most corrupted to the most transparent.

H2e: The domiciled banks operating in highly-corrupted countries show a relatively low level of transparency.

2.3.3 Bank-specific variables

In addition to governance variables, economic and juridical indicators, there are other variables explaining bank transparency. Based on previous studies Lang and Lundholm, Branco and Rodrigues, we include the following control variables: bank size, opportunities of growth, debt ratio, deposits, profitability (return on equity and return on assets). These variables are assumed to be linked to bank transparency as follows:

H3a: Large banks show a relatively high level of transparency.

H3b: A bank, in which deposits represent an important part of its liabilities, shows a relatively low level of transparency.

H3c: A bank having interesting growth opportunities shows a relatively high level of transparency.

H3d: A bank having a high debt ratio shows a relatively low level of transparency.

H3e: A bank having high profitability shows a relatively high level of transparency.

In order to investigate the internal and external factors that affect the transparency of banks, we use a two-stage procedure. In the first stage of analysis, we build a multidimensional measure of the transparency which is based on four the dimensions of information. In the second stage, we examine the determinants influencing the transparency of banks by adapting the following linear model:

$$TRANS_{i,t} = \alpha + \beta 1 X_{i,t} + \beta 2 Y_t + \beta 3 Z_{i,t} + \varepsilon_{i,t} \tag{1}$$

Where $TRANS_{i,t}$, is the measure of transparency of bank i in year t, α is a constant, $X_{i,t}$ represents the vector of characteristics of governance' bank, Y_t indicates the macroeconomic and juridical variables, $Z_{i,t}$ concerns the bank- specific variables, β1, β2 and β3 are the vector of regression coefficients, and ε is the disturbance term.

This model is estimated by using fixed effect model (FEM) and random effect model (REM). The first one is tested by Fisher test (F), while the second is examined by Lagrange Multiplier test (LM). In order to find which of these models (FEM, REM) is the most appropriate, we calculate the Hausman test (H).

3. RESULTS AND DISCUSSIONS

The empirical findings on the transparency of banks in seven emerging countries are structured on two main parts. First, we compute the transparency measure using the four dimensions of information and develop a composite index which represents four intermediate indexes. In the second part, we attempt to identify internal and external factors that explicate differences in transparency between banks.

3.1 Transparency Measures of Banks

The composite index of transparency is calculated bank by bank and for each country of our sample.

3.1.1 Transparency score by bank

Overall, we have detected a considerable disparity among banks concerning their transparency indexes. The results show that the least transparent bank is the 'Société Arabe Internationale de Banque' in Egypt with a transparency index equal to 14.57 %. This means that this bank is far from being in compliance with the recommendations of the Basel Committee. On the other hand, the most transparent bank is the Audi SAL bank in Lebanon, which possesses a transparency index equal to 85.03 %. Moreover, a wide disparity exists also among banks of the same country. For example, in Lebanon, the Bank of Beirut SAL has a transparency index of 39.29% which is the lowest at the country level. On the other hand, the transparency index of the Audi SAL bank is 85.03 %.This statement emphasizes the voluntary action of that bank to meet international banking standards.

3.1.2 Transparency by country

Table 2 shows that there is a disparity between seven countries in our sample. First, we observe a lack of banking transparency in the countries of North Africa. Indeed, this statement is due to several factors: micro and macroeconomic, cultural and political factors. Second, Turkey and Thailand appear on the top of the list and seem to be the countries most prepared to apply the Basel II agreements among those of the sample. Indeed, a big effort has been undertaken in these countries regarding banking transparency; for example, Turkey is trying hard to be coherent with European standards at the political, economic, and financial level with the aim of acceding to the European Union. On the other hand, Thailand is a country which attracts important foreign investments in particular in the banking domain. Accordingly, banking transparency is guaranteed.

Table 2. National average of banking transparency

Rank	**Country**	**Number of studied banks**	**National average of the banking transparency**
1	Turkey	15	63,24%
2	Thailand	12	61,63%
3	Lebanon	6	59,80%
4	Malaysia	4	51,91%
5	Morocco	5	51,32%
6	Tunisia	12	35,30%
7	Egypt	15	30,15%
	Total	**69**	

3.2 Determinants of Bank Transparency

Once the proxy of transparency is calculated, in the next step of our analysis, we have to investigate the factors which could affect the transparency of banks. For this reason, we regress the score of transparency on a number of three groups of variables comprising four bank governance characteristics[1], five macroeconomic and juridical indicators and six bank-specific variables. To estimate the panel regression model (equation1), we used three alternative models: pooled ordinary least square, fixed effects model and random effects model. Three tests are used to choose between these models. Firstly, the F test shows that

[1] The variable manager ownership is eliminated in our model because of the high number of missing values

individual effects are present since the relevant F statistic is significant at the 1% level (F(48, 167) =18.34), thus we choose the fixed effects model. Secondly, for the random effects model and in order to investigate whether there is evidence of heteroscedasticity in the residual variance, the Breush-Pagan Lagrange multiplier (LM) is calculated. With the large chi-squared (LM statistic=38.57 with p< 0.000), we reject the null hypothesis in favour of the random effects model. Finally, to choose between these two models (fixed and random), we apply the Hausman test. The result (H=9.13, with prob> Chi2 = 0.8456) provides evidence in favour of a random effects model. Table 3 reports the results of regression using the random effects model.

Table 3. Regression results of bank risk measures on ownership structure variables

Explanatory Variables	Coefficient	t-Student
Bank Governance		
Major Shareholders	-0.518	(-1.94)***
Government ownership	0.001	(2.16)**
Composition of the board directors	-0.0007	(-0.89)
Social responsibility activities	-0.005	(-0.42)
Bank-characteristics		
Size	0.0006	(0.37)
Deposits	-0.001	(-0.07)
Opportunity of growth	0.0001	(0.51)
Debt ratio	-0.083	(-0.63)
ROE	-0.0039	(-1.67)***
ROA	0.001	(1.87)***
Macroeconomic and Juridical indicators		
Financial market	-0.0003	(-1.84)***
Inflation	-0.003	(-1.67)***
Deposit Insurance system	0.146	(2.89)*
Protection of stockholder's rights	0.081	(4.20)*
National corruption index	0.005	(0.29)
Number of observation	235	
F-value	52.76*	
Adjusted R2	0.309	
Lagrange multiplier (LM)	38.57	
Hausman test	9.13	

*Notes: t- statistics are between parentheses. *, ** and *** indicate statistical significance at 1%, 5% and 10%, respectively.*

As can be seen in Table 3, the coefficient of ownership concentration is statistically significant at 5% and negatively related to the index of transparency. The result means that a highly-concentrated bank capital is associated with a low level of its transparency. In fact, when the part of capital owned by major shareholders is increasing, the bank is less motivated to show its transparency since these shareholders would have a direct access to information via the board of directors [53,54]. Our result is in line with the results of Mckinnon et al. and Hamrouni and Lakhal. However some studies [55,56] did not find any effect of ownership concentration or reported a positive relationship between transparency and ownership concentration. As expected, the government ownership indicator has a positive and statistically (5%) significant impact on the level of transparency. This result proves that government ownership is in line with the high level of bank transparency. This finding is consistent with the study of Eng and Mak. However, other studies [57,58] showed that government ownership of banks is associated with poor corporate governance and lower transparency. According to Barth et al., government ownership of banks is less efficient than private ownership. In addition, Francis et al. confirmed that bank stocks in countries with more bank state ownership have less bank specific information content. Referring to the board composition, the variable is insignificant. In our case, the composition of the board of directors (percentage of independent directors) does not explain the level of bank transparency. This is inconsistent with a result reported by other studies [26]: a negative impact, [21]: a positive effect. A possible reason for this statement is that social and cultural factors can intervene to blur this lane. These factors differ from a country to another and do not allow giving a clear tendency of this variable in the sample. For instance, in Turkey, we pointed out that banks are characterized by boards of directors with low percentage of independent managers while their transparency indexes are higher than other studied countries. Also, the variable of social responsibility activities is insignificant. As a result, the existence of social and environmental activities undertaken by the bank does not allow the explanation of its transparency level. This finding could be attributed to the nature of the chosen measure. In fact, this measure allocates the same value to two banks investing different amounts in social and environmental activities. In other words, using this measure, we cannot differentiate between the bank which makes considerable efforts in social responsibility and the one which invests low amounts only for marketing.

Turning to the macroeconomic and juridical indicators, Table 3 shows that the development of financial market is statistically significant (10%) and negatively related to transparency score. This complies with our prediction in the sense that the development of financial markets led banks to get financed by issuing new securities and to finance the economy by buying securities. At the same time, banks tremendously developed their off balance sheet activities (Securities investment, lines of credit, guarantees, contracts on interest rates or on exchange rates, swap, options, etc). These new banking activities favored the bank opacity, a result which obviously complies with the study of Plihon. We also find a negative relationship between inflation and transparency. This result means that banks operating in countries having a comparatively weak level of inflation show a comparatively high level of transparency. Similar results which support the argument of a negative association between bank transparency and inflation were reported in other studies [46,61]. Concerning the juridical indicators, we observe, as expected, that the coefficient of deposit insurance system is significant (1%) and positively correlated to the index of transparency. This result confirms that the existence of an explicit system of deposits insurance encourages banks to show a comparatively high level of transparency compared to the case of an implicit system. The importance of this variable in the explanation of the level of transparency chosen by the bank is in coherence with the report published in 2009 by the Basel Committee on Bank Monitoring and the International Association of Deposits Insurers. The report stipulates that the regulating authorities of the banking system do not control enough the levels of risk chosen by banks and think that the explicit system of the bank deposits insurance plays the role of the supplementary control tool of banks risk taking. As for the proxy of protection of stockholders' rights, the results showed that this variable is significant (1%) and positively correlated with bank transparency. The banks operating in countries adopting Common Law are more transparent than those operating in Civil Law countries. The same result is confirmed by Archambault and Archambault. This statement was also supported by Chen et al. who showed that in emergent countries with weak protection of stockholders, companies which want to reduce their expenses of external financings have to reinforce their governance mechanisms rather than adopt more transparent disclosure policies [61]. Finally,

Table 3 reveals that corruption has no influence on transparency. This finding can be explained by the following reason: some transparent banks represent subsidiaries of Europeans or North American banks and are in obligation to satisfy the same conditions of transparency applied by the mother bank. For instance, several French banks (BNP Paribas, Société Générale, Credit Agricole…) have subsidiaries in Tunisia, Morocco and Egypt.

Now, regarding the effect on bank-specific (control variables) on transparency, the results summarized in Table 3 showed that profitability indicators (ROE,ROA) are strongly associated with bank transparency. Contrary to our expectation, we find a negative association between ROE and the bank transparency level. However, the result shows a positive impact on transparency. This is consistent with the idea that more profitable banking companies disclose significantly more information than do less profitable ones. This issue in the literature is ambiguous. Some studies have shown that profitability influences the level of transparency in a company e.g., [62,63,21]. Other researchers found no relationship between profitability and transparency e.g., [64] and some others suggested that the direction of the relationship is not clear e.g., [65]. In our case, we think that this interesting difference between ROE and ROA is due to the ownership structure of banks. When we analyzed the ownership structure of banks in these countries, we faced considerable difficulties to reveal the 'shareholders of last resort': The ownership origin. In fact, several politicians and Businessmen from Gulf countries are investing in banks capital via funds. The ownership structure of these funds is very difficult to reveal. This could point out the influence of political and cultural factors on bank transparency in emergent countries. Banks in these countries would be more opaque in the case of the high shareholders' profitability. So, this opacity would serve for hiding the wealth of politicians. The remaining control variables are insignificant. In fact, size, deposits, debt ratio and growth variables did not serve to explain the level of transparency of banks.

By analyzing the model's results, we can conclude that all governance, economic and juridical variables are significant except for two variables: board composition and corruption. As for bank characteristics, only the profitability indicator proved to be significant.

4. CONCLUSION

Transparency is a key variable in the financial markets, and even more so in the banking sector. It is widely considered as an important contributor to bank stability because of the use of financial reports in effective market discipline and bank supervision. It is also regarded as a necessary condition for the implementation of corporate governance especially in emerging economies. However, the issue related to factors influencing bank transparency is less analyzed in the banking literature. In order to formulate policies for an enhanced transparency of banks, this paper has used regression analysis to investigate the determinants of banks' transparency for 69 banks operating in 7 emerging economies. The factors that may affect transparency, measured by composite disclosure index, have involved bank's characteristics, Governance variables, and macroeconomic and juridical indicators.

We have obtained several interesting results. First, the transparency scores show an important disparity between banks as well as between countries. The level of transparency in countries of North Africa for all categories of information is low compared to Asia countries. For instance, Turkey is twice as transparent as Egypt. We can explain these differences by several factors, such as micro, macroeconomic, cultural and political factors. Second according to Ben Douissa the decline of transparency indexes in the majority of countries is due to opportunity and credibility indexes. It means that the lack of transparency can be explained by the disparity between qualitative and quantitative of information. Information in these banks is not revealed on time, and its reliability is subject to criticism too. Third, a regression analysis provides evidence that the level of transparency is shaped especially by corporate governance attributes and economic as well as juridical factors. The results suggest that ownership concentration is negatively related to transparency. Our findings support the view that a higher level of transparency occurs in a bank when the part of capital owned by major shareholders is decreasing. We also find a positive relationship between government ownership and transparency. This result is consistent with our hypothesis but is contrary with other studies [57,58]. State ownership of bank presenting a problem for corporate governance since it creates a situation of conflict of interest between the state as a monitoring authority and as a regulatory authority [66]. The variables related to board composition and CSR had an insignificant effect on transparency. Concerning the macroeconomic and juridical indicators, proxies of the development of financial market, inflation, the deposit insurance system and juridical system (stockholder's rights) display the expected sign and have an impact on the level of transparency. Fourth, most bank's characteristics variables such as size, opportunity of growth, deposits and debt ratio are insignificant in explaining the transparency levels. Only, we find association between profitability and transparency.

Based on the results of this study, banks have to increase disclosure and enhance transparency by improving their corporate governance and implementing of voluntary disclosure system with the four categories of information. In addition, makers in these emerging markets, particularly in North Arica, have to undertake actions to develop financial market, to implement an explicit system of insurance and give more protection to minor shareholders.

There are several limitations to this study. First, our study does not include some variables in our model such as market structure [67], the number of subsidiaries in a bank [56] and cultural variables [63]. Second, the time period of analysis is relatively short (4 years), and we estimate that the results can be different if a larger time frame is used. Finally, it would be interesting to widen the sample of study by adding other financial institutions such as insurance and financial companies.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Marcinkowska M. Corporate governance in banks: Problems and remedies. Working Paper. 2012;2. Accessed 8 September 2013. Available: https://is.muni.cz/do/econ/soubory/aktivity/fai/33967799/FAI_issue2012_02_Marcinkowska.pdf.
2. Rohit VM, Sudarsan K, Jitendra K. Basel II to Basel III- the way forward. Accessed; 2013. Available: http://www.infosys.com/industries/financial-services/white-papers/Documents/base-way-forward.pdf.
3. Jordan J, Peek J, Rosengren E. The Impact of Greater Bank Disclosure amidst a Banking Crisis. Federal Reserve Bank of Boston. 1999;99(1).

4. Jordan J, Peek J, Rosengren E. The Market Reaction to the Disclosure of Supervisory Actions: Implications for Bank Transparency. Journal of Financial Intermediation. 2000;9:298-319.
5. Nier E. Bank stability and transparency. Journal of financial stability. 2005;1(3):342-354.
6. Chen Y, Hassan I. Why Do Bank Runs Look Like Panic? A New Explanation. Journal of Money, Credit, and Banking. 2008;40(2):535-546.
7. Demirgüç-Kunt A, Detragiache E, Tressel T. Bank on the principles: Compliance with Basel core principles and bank soundness. Journal of Financial Intermediation. 2008;17(4):511-542.
8. Bushman R, Williams C. Accounting discretion, loan loss provisioning and discipline of banks' risk taking. University of North Carolina; 2009.
9. Jeffrey N, Rusticus P. Bank's survival during the financial crisis: The role of financial reporting transparency. World Banking and Finance Symposium; 2012.
10. Giannetti M. Financial liberalization and banking crises: the role of capital inflows and lack of transparency. Journal of Financial Intermediation. 2007;16(1):32-63.
11. Kalfaoglou F, Sarris P. Modeling the components of market discipline. Bank of Greece. Working paper. 2005;(36).
12. Bliss R, Flannery J. Market Discipline in Governance of U.S. Bank Holding Companies: Monitoring vs. Influencing. European Finance Review. 2002;6(3):361-395.
13. Rosengren E. Will greater disclosure and transparency prevent the nex banking crises? Accessed; 2012.
Available : http://www.bostonfed.org/economic/wp/wp1998/wp98_8.pdf
14. Boot A, Schmeits A. Market Discipline and Incentive Problems in Conglomerate Firms with Applications to Banking. Journal of Financial Intermediation. 2000;9(3)240-273.
15. Flannery M. The Faces of Market Discipline.Journal of Financial Services Research. 2001;20(2):107-119.
16. Diamond D, Verrecchia R. Disclosure, liquidity and cost of capital. The journal of finance. 1991;46(4):1325-1359.
17. Chipalkatti N. Market Microstructure Effects of the Transparency of Indian Banks.National Stock Exchange (India). 2002;17.
18. Welker M. Disclosure policy, information asymmetry, and liquidity in equity markets. Contemporary Accounting Research. 1995;11(2):801-827.
19. Botosan R. Disclosure level and the cost of equity capital. The Accounting Review. 1997;72(3):323-349.
20. Ratnovski L. Liquidity and transparency in bank risk management. IMF/WP. 2013:13/16.
21. Hossain M. The extent of disclosure in annual reports of banking companies. European Journal of Scientific Research. 2008;23(4):659-680.
22. Matutes C, Vives X. Imperfect competition, risk taking, and regulation in banking. European Economic Review. 2000;44(1):1-34.
23. Siritto C. Transparency and bank runs. Department of Economics, New York University; 2013.
24. Tadesse S. The economic value of regulated disclosure: Evidence from the banking sector. Journal of Accounting and Public Policy. 2006;25(1):32-70.
25. Kahl A, Belkaoui A. Bank annual report disclosure adequacy internationally. Accounting and Business Research. 1981;11(43):189-196.
26. Lal Bhasi M, Makarov R, Orazalin N. Determinants of voluntary disclosure in the banking sector: An empirical study. International Journal of Contemporary Business Studies. 2012;3(3):2156-7506.

27. Durne A, Kim E. To steal or not to Steal: Firm Attributes, Legal Environment, and Valuation.University of Michigan; 2002.
28. Khanna T, Palepu K, Srinivasan S. Disclosure practices of foreign companies interacting with U.S. markets. Journal of Accounting Research. 2004;42(2):475-508.
29. Baumann U, Nier E. Market discipline and financial stability: some empirical evidence. Financial Industry and Regulation Division, Bank of England, Financial Stability Report. 2011. Accessed; 2012. Avaible :http://www.bankofengland.co.uk/publications/fsr/2003/fsr14art7.pdf.
30. Ben Douissa I. Measuring banking transparency in compliance with Basel II requirements. Current Issues of Business and Law. 2011;6(1):90-110.
31. Nelson P. Transparency mechanisms at the multilateral development banks. World Development. 2001;29(11):1835-1847.
32. Perrini F, Tencati A. Sustainability and stakeholder management: the need for new corporate performance evaluation and reporting systems.Business Strategy and the Environment. 2006;15(5):296-308.
33. Caprio G, Klingebiel D, Laeven L, Noguera G. Appendix: Banking Crisis Database, with direction of Patrick Honohan and Luc Laeven, Systemic Financial Crises: Containment and Resolution. Cambridge University Press, Cambridge; 2005.
34. Eng L, Mak Y. Corporate governance and voluntary disclosure. Journal of Accounting and Public Policy. 2003;22(4):325-345.
35. Mckinnon J, Dalimunthe L. Voluntary disclosure of segment information by Australian diversified companies. Accounting and Finance.1993;33(1):33-50.
36. Mitchell J, Chia C, Loh A. Voluntary disclosure of segment information: Further Australian evidence. Accounting and Finance.1995;35(2):1-16.
37. Schadewitz H, Blevins D. Major determinants of interim disclosures in an emerging market. American Business Review. 1998;16:41–55.
38. Ruland W, Tung S, George N. Factors associated with the disclosure of managers' forecast. The Accounting Review. 1990;65(3)710-721.
39. Jensen M, Meckling W. Theory of the firm: managerial behaviour, agency costs and ownership structure. Journal of Financial Economics. 1976;3(4):305-360.
40. Geneen H. Why Directors Can't Protect the Stockholders. Fortune. 1984;17:28-32.
41. Makhija A, Patton J. The impact of firm ownership structure on voluntary disclosure: empirical evidence from Czech annual reports. Journal of Business. 2004;77(3):457-492.
42. Chen C, Jaggi B. Association between independent non-executive directors, family control and financial disclosures in Hong Kong. Journal of Accounting and Public Policy. 2000;19(4-5):285-310.
43. Belás J. Social responsibility and ethics in the banking business: Myth or reality? A case study from the Slovak Republic. Economic Annals. 2012;57(195):115-137.
44. Yeung S. The role of banks in corporate social responsibility. Journal of applied economics and business research. 2011;1(2):103-115.
45. Cheng I-H, Hong H, Shue K. Do managers do good with other people' money? Working Paper. Princeton University; 2012
46. Archambault J, Archambault M. A Multinational Test of Determinants of Corporate Disclosure.The International Journal of Accounting. 2003;38(2):173-194.
47. Chen N, Imbs J, Scott A. Competition, globalization and the decline in inflation, Centre for Economic Policy Research. 2004;6495.
48. La Porta R, Lopez-de-Silanes F, Shleifer A, Vishny R. Law and finance. Journal of Political Economy. 1998;106(6):1114-1155.

49. Doupnik T, Salter S. External Environment, Culture, and Accounting Practice: A Preliminary Test of a General Model of International Accounting Development. International Journal of Accounting. 1995;30(3):189-202.
50. Zingales L. The value of the voting right. A study of the Milan stock exchange experience. Review of Financial Studies. 1994;7(1):125-148.
51. Lang M, Lundholm R. Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures. Journal of Accounting Research.1993;3:246-71.
52. Branco M, Rodrigues L. Factors influencing social responsibility disclosure by Portuguese companies. Journal of Business Ethics. 2008;83:685-701.
53. Mckinnon J, Dalimunthe L. Voluntary disclosure of segment information by Australian diversified companies. Accounting and Finance. 1993;33(1):33-50.
54. Hamrouni A, Lakhal F. La transparence de l'entreprise et la structure de propriété : Cas des entreprises françaises. Crises et nouvelles problématiques de la Valeur. 31éme Congrès de l'Association Francophone de Comptabilite (AFC). Nice, France; 2010.
55. Craswell A, Taylor S. Discretionary disclosure of reserves by oil and gas companies: An economic analysis. Journal of Business and Finance Accounting. 1992;3:113-127.
56. Haniffa RM, Cooke TE. Culture, corporate governance and disclosure in Malaysian corporations.Abacus. 2002;38(3):317-349.
57. Barth J, Caprio G, Levine R. The Regulation and Supervision of Banks around the World."In Robert E. Litan and Ricard Herring (Eds.), Integrating Emerging Market Countries into the Global Financial System, Brooking-Wharton. Papers on Financial Services Brookings Institution Press. 2001:183-240.
58. Megginson WL. The Financial Economics of Privatization. First edition, New York: Oxford University Press; 2005.
59. Francis B, Hasan I, Sun X. Political connections and the process of going public: Evidence from China. Journal of International Money and Finance. 2009;28:696-719.
60. Plihon D. Les Banques, nouveaux enjeux, nouvelles stratégies. Coll. Les Etudes, La Documentation Française, Paris; 1998.
61. Chen K, Chen Z, John Wei K. Agency Costs of Free Cash Flow and the Effect of Shareholder Rights on the Implied Cost of Equity Capital. Journal of Financial and Quantitative Analysis. 2009;46:171-207.
62. Wallace S, Naser K. Firm specific determinants of the comprehensiveness of mandatory disclosure in the corporate annual reports of firms listed on the stock exchange of Hong Kong. Journal of Accounting and Public Policy. 1995;14:311–368.
63. Barako G. Determinants of voluntary disclosures in Kenyan companies annual reports. African Journal of Business Management. 2007;1(5):113-128.
64. Wallace R, Naser K, Mora A. The relationship between the comprehensiveness of corporate annual reports and firm characteristics in Spain. Accounting and Business Research. 1994;25(97):41–53.
65. Lang M, Lundholm R. Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures. Journal of Accounting Research. 1993;3:246-71.
66. Caprio G, Levine R. Corporate governance in finance: Concepts and international observations in financial sector governance: The roles of the public and private sectors. EdsR.E.Litan, M. Pomerleano, and V. Sundarajun. Washington, DC: The Brookings Institution. 2002:17-50.
67. Spiegel M, Yamori N. Determinants of voluntary bank disclosure: From Japanese Shinkin banks. 2003;(3).

APPENDIX

List of banks included in the sample

Country	Bank
Egypt	Ahli United Bank (Egypt) SAE
	Arab African International Bank
	Arab Banking Corporation - Egypt
	Bank of Alexandria
	BLOM Bank Egypt SAE
	BNP Paribas Egypt
	Credit Agricole Egypt
	Egyptian Gulf Bank
	HSBC Bank Egypt S A E
	National Bank for Development
	National Société Générale Bank SAE
	Piraeus Bank Egypt SAE
	Société Arabe Internationale de bank
	Suez Canal Bank
	Union National Bank - Egypt SAE
Lebanon	BLC Bank S.A.L.
	Bank Audi S.A.L.
	BLOM Bank
	S.A.L.
	Byblos Bank
	S.A.L
	Bank of Beirut
	Banque BEMO
Malaysia	Alliance Financial Group
	EON Capital Berhad
	Malayan Banking Berhad
	Hong Leong Bank Berhad
Morocco	CREDIT MAROC
	BMCE BANK
	Attijariwafa bank
	Banque central populaire
	BMCI
Thailand	ACL Bank Public Comp
	Siam City Bank Public
	TMB Bank Public Comp
	Krung Thai Bank Public
	Bangkok Bank Public Company Limited
	Bank of Ayudhya Public Company Ltd
	Bankthai Public Company Limited (CIMB)
	Finansa Public Co, Ltd
	Kasikornbank Public Company Limited
	Kiatnakin Bank Public Company Limited
	Siam Commercial Bank Public Company Limited
	Standard Chartered Bank (Thai) Public Company Limited

Tunisia	BH BT UIB ATTIJARI BANK UBCI STB BTK BTE BNA ATB AMEN BANK BIAT
Turkey	TurkiyeKalkinma Bank Alternatifbank A.S. TekstilBankasi A.S.-Te Industrial Develop Bank Sekerbank T.A.S. Fortis Bank AS (absorbée par TEB en 2008) Denizbank A.S. Finansbank A.S. TurkiyeHalkBankasi TurkiyeVakiflarBankasi YapiVeKrediBankasi TurkiyeGarantiBankasi Akbank T.A.S. Turkiye is Bankasi A.S. Turk EkonomiBankasi A.S.

Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sciencedomain.org/review-history.php?iid=389&id=20&aid=2949