



# **The Impact of the Board of Directors' Characteristics on the Financial Performance in the Banks Listed on The Egyptian Stock Exchange**

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**Abstract:**

This study aims to know the impact of the board of directors' characteristics on the financial performance by applying to the 13 banks listed on the Egyptian Stock Exchange from 2015 to 2019. The characteristics of the board of directors were determined in (board size, non-executive members, independent members, the duality of the CEO, board meeting periodical, women's representation on the board), and the economic value added (EVA), market value added (MVA) were relied on as indicators for measuring the financial performance. Our finding reveal to: all the characteristics of the board of directors affect (EVA) except the representation of women in the board; we find a positive impact for non-executive members, independent members, board size, and duality of the CEO, but we find a negative impact for the periodical of meetings. Concerning the market value added measure (MVA) we find that all the characteristics of the board of directors affect MVA except independent members, and the representation of women in the board. We find a positive impact for non-executive members, the size of the board, and the periodical of board meetings. On the other hand, we find a negative impact for the duality of the CEO. For Tobin's Q scale, we find a negative impact for independent members, board size, board meeting periodical, duality of the CEO, and women's representation in the board at the level of 1%. We find also a non-linear (quadratic) relationship for non-executive members which take the form of a U letter.

**Keywords:** corporate governance, board of directors' characteristics, financial performance, Egyptian banks.

## **1-Introduction:**

The global financial and banking crisis of 2007-2008 revealed the importance of enhancing the understanding of bank governance because weak and ineffective bank governance mechanisms can affect the performance of banks and their economy as a whole, and banking boards have been blamed as overpayment packages obtained by executive officers even when their companies fail or are rescued by the government, so the application of strong governance practices on banking sector is essential for effective banking systems, which is extremely important to maintain a higher level of customer confidence in the banking system (Sanchez et al., 2020).

Corporate governance has recently attracted more attention from academics and regulators around the world, as corporate governance in financial institutions, especially banks, is unique comparing to non-banking financial institutions. Therefore, the behavior of bank managers and owners has become a key factor that needs attention in implementing corporate governance. That proclaims the improvement of corporate governance can reduce credit risk, operational risks and increase financial performance, and in the absence of sound governance for corporates, there is no banking supervision can work well. The agency's theory suggests that strong corporate governance leads to better performance improvements, and poor governance leads to banks losing the ability to manage their deposits, assets and liabilities (Dikko and Alifiah, 2020).

The board of directors is one of the internal mechanisms that control the performance of directors in companies. It is responsible for monitoring the performance of managers, and it develops strategies aimed at the success of the company (AL-aqra'a, 2020).

The financial performance in the bank has a special place in the stage of

deregulation and globalization in the financial markets, where banks are now practicing their work through the market of intense competition, whether by financial or non-financial institutions, and in the presence of developments and technique, banks have known the importance of focusing and caring about their performance at various levels as a condition for their success in maintaining their activity and the ability to compete especially with regard to the search for a sound methodical basis to enhance the use of money in a more effective and efficient way in the bank until the financial goals are achieved (Al Zahra and Sharpness, 2017) .

Banks also play a crucial role in the macroeconomic environment of any country in the world which leads to the growth and development of the country's economic environment (Chiboole and Jogongo, 2020).

## **2-Literature review and hypothesis development:**

Studies on the impact of governance (board directors' characteristics) on financial performance:

Many researchers have sought to ascertain the quality of corporate governance practices and their role in improving the company's financial performance and reducing different types of risks, particularly financial distress risks (Nasir and Udin et al., 2017; Luqman et al. , 2018 ) .

The study (Abdel Atty, 2018) by examining the impact of board directors' characteristics on the financial performance of the listed companies in Egypt from 2012 to 2017, found a significant relationship between the duality of the CEO and financial performance measured by Tobin's Q.

The study (Akber et al. , 2019) by analyzing the relationship between corporate governance and performance as measured (ROE, Tobin's Q) where 230 listed companies were based from 2004 to 2014, and this study concluded that there is a negative impact of the size of the board of directors on Tobin's Q, and a negative impact of the independence of the

board of directors.

The Study (AL Manaseer et al., 2012) knew the impact of the dimensions of corporate governance (board size, board directors' composition and the duality of the CEO on the performance of commercial banks, through 15 banks listed on Amman Stock Exchange (ASE). This study found that there is a positive impact among external board members and performance, and a negative impact between the size of the board, the duality of the CEO and performance. It also reveals that banks benefit from the large size of the board by providing services more than granting loans.

Several previous researches (Olighi et al., 2016; Ellah et al. , 2017 ; Reaz, 2004) proclaim that the proper application of governance has a positive impact on the financial performance of companies, and studies are still continuing and their results are different, as some studies have found an impact on financial performance (Aslam, Haron and Ahmad, 2021; Almaqtari et al. , 2020 ; Khatib and Nour , 2021 ; Bawaneh, 2020) while other studies have found no relationship (Labelle, 2002; staikouras et al., 2007 ;). However, most of these studies agree that governance has a strong and direct relationship with financial performance, and that relationship varies from a sector to another sector and from a country to another country, depending on the validity of the regulations and laws followed in companies (Assaad, Al-Ma'taaz, 2015).

## **2/1 board size and financial performance**

A study (Gafoor and Thyagarajan, 2018) showed a significant relationship between the size of the board and the bank's performance when the size of the board of directors is between 6 and 9 members. A study (Kivaya et al. 2020) found that there is a negative relationship between the size of the board of directors and the duality of the CEO and the

performance of microfinance institutions. In addition, the study (Abdeljawad and Masri, 2020) explained that the size of the board of directors and the independence of the board affect negatively on management through examining the relationship between the characteristics of the board of directors and the performance of companies in Palestine. results of the study (Johl and Cooper, 2015), through examining the relationship between the characteristics of the board of directors and the performance of the company, indicate that the size of the large board of directors and the meetings of the board of directors which is less frequently have a positive impact on the performance of the company. A study (Topal and Dogan, 2014) also revealed that the size of the board of directors has no significant impact on financial performance through studying the impact of the size of the board on the financial performance of manufacturing companies in Turkey.

The study (Kjola et al., 2017) revealed that there is a positive and important relationship between the size of the board of directors and financial performance through examining the relationship between the size of the board of directors and the financial performance of non-financial institutions in Nigeria, and the study (Riaz et al., 2017) indicated a negative relationship between the size of the board of directors and financial performance through estimating the relationship between the size of the board of directors and financial performance in Pakistan.

In light of the mixed results, the first hypothesis can be formulated as follows:

**H1: There is a statistically significant moral relationship between the size of the Board and the financial performance.**

#### **2/2 CEO duality and Financial Performance:**

The agency's problem supports the separation of CEO and chairman

where the CEO can be considered an opportunistic agent and the presence of CEO duality may maximize the personal interests of managers at the expense of shareholder welfare (Abousamak, Australia, 2018).

The study (Kanakriyah, 2021) tested the impact of the characteristics of the board of directors on the financial performance of industrial companies listed in Oman Stock Exchange from 2015-2019, and the results of this study showed a positive impact on the CEO duality and the size of the company on financial performance.

The study (Shihab Al-Din, Khozala, 2022) by knowing the impact of governance on the performance of Jordanian commercial banks as measured by Tobin's Q, found that there is a negative impact of the duality of the chairman of the board of director on the performance of the bank (Tobin's Q).

The results of the study (Abdalkrim and Zehri, 2019) have revealed that the strength of the CEO is positively linked to the performance of the company, and also revealed that companies whose chief executives officers are more powerful give better performance to the company.

The study (Uyar et al., 2021) by testing whether the structure of the board of directors is linked to financial performance shows that chief executive directors with dual roles and larger boards of directors affects badly the performance of the company. According to (the Egyptian Guide to Corporate Governance) it is not preferable to combine the positions of chairman of the board of directors and the CEO. If this is not possible, the reasons for this should be disclosed in the company's annual report and website.

In the light of the above and the presentation of previous studies, a mix of results has become clear, so the second hypothesis can be formulated as follows:

## **H2: There is a morally significant inverse relationship between the CEO duality and the financial performance**

### **3/2the periodical of board meetings and financial performance**

The board of directors' meeting is hold at least once every three months, with the possibility of the board to use those who are from inside or outside the company to discuss some of the topics related to the company's work. The company's annual report and the board directors' report on the number of meetings and the names of members who have missed the board meetings are disclosed, and the member should not miss more than one third of the board's meetings per year (Egyptian Guide to Corporate Governance 2016).

The study (Abdeljawad and Masri, 2020), through a study of the characteristics of the board of directors and the performance of companies in Palestine, found a positive impact of the duality of the board, gender diversity, frequency of meetings and financial performance.

A study (Tarif, 2017) has learned the impact of the characteristics of the board of directors on the financial performance of industrial and service companies listed in the Amman Financial Market, and this study found a negative impact for the board meetings and the size of the company on the financial performance as measured by Tobin's Q.

The study ( Araoye and Olatunji, 2019) by examining the relationship between the meetings of board of directors and the financial performance of insurance companies in Nigeria, showed that the board meeting has nothing to do with the financial performance. the study (Adams and Mehran,2012) shows that the number of board meetings and the proportion of independent board members have a significant positive impact on both the bank's performance and asset quality.



The results of the study (Mustapha et al. 2020) indicated that there is no relationship between the independence of the board of directors and the return of assets, while there is a negative relationship between board meetings and the return of expenses.

Through the above and the mixing of results, the third hypothesis can be presented as follows:

**H3: There is a morally significant relationship between the board meeting periodical and financial performance.**

#### **2/4 Independent members and financial performance**

The study (Rowe et al. 2011) by examining the relationship between the structure of board governance and the performance of banks showed that there is a positive relationship between the independent board members and the performance of the bank.

The study (Hamdan, 2016) found that there is a reverse effect for the independence of the board of directors in the performance of the company, and that internal directors are the best to manage the institution to reach it to the best levels of performance.

The study (Akbar et al. 2019) indicated that there is a positive impact on the independence of the Board of Directors on property rights, while negatively affects Tobin's Q, and the study (Vintli and Gherghing, 2013) indicated a positive impact for independent members on the value of the company.

The results of the study (Josephine and Joseph, 2015) indicated that the independence of the board of directors has little to do with the performance of Malaysian banks by studying the mechanisms of corporate governance and bank performance which relied on 18 banks from 2009 to 2013. Moreover, the results of the study (Mihail and Micu, 2021) by examining the impact of independent board members on the financial performance of

companies listed on the Bucharest Stock Exchange, proclaimed a positive and statistically significant impact for independent members on financial performance

Through the above, the fourth hypothesis can be formulated as follows:

**H4: There is a morally significant direct relationship between independent members and financial performance**

#### **5/2 Non-executive members and financial performance**

Non-executive directors are an important part of the company's board of directors, although they do not participate in the organization's day-to-day operations, but they play a vital role in monitoring the organization's activities to achieve high performance (Aslam and Haron, 2020). The agency's theory argues that non-executive board members have a significant advantage in monitoring management that helps them to participate efficiently in the decision-making process, and this leads to better performance (Abobakr, 2017)

The result of the study (Mohsin et al , 2016), by examining the relationship between characteristics of the board of directors and the operating performance in banks using 20 bank data over 10 years, shows that non-executive directors in the board have a positive relationship with bank returns and property rights.

The results of the study (Josephine and Joseph, 2015) through a study of corporate governance mechanisms and the performance of the bank, which relied on 18 banks from 2009 to 2013, indicated that the independence of the board of directors has little to do with the performance of Malaysian banks.

This study evaluates the investment by measuring the extent to which companies deviate from the expected level of capital expenditures and research and development expenditures. The results of this study

showed that the characteristics of diversity aimed towards experience and ownership are negatively linked with investment.

Through the above and the presentation of previous studies, the fifth hypothesis can be formulated as follows:

**H5: There is a morally significant expulsion relationship between non-executive members and financial performance.**

#### **2/6 Women's representation in the board and financial performance**

The study ( Huse and Nielsen, 2010), it became clear that women on boards of directors had a positive impact on corporate charitable contributions. The study (Endraswati, 2011) also showed that the proportion of women in the position of director has a negative impact on the performance of legitimate banks in Indonesia, as well as women's work capacity and level of education have a positive impact on the performance of banking services which are compliant to Sharia (Islamic law).

The study (Yusoff, 2010) found that only 3.5% of independent board members are women, and the experience in ruling companies is an integral part of the effectiveness of Malaysia's board of directors. The result of the study (the Smith et al, 2006) also indicates that the level of education of women as a board member has a positive impact on the company's performance.

Moreover, the results of the study (Abdullatif and Mohammad, 2016) showed that there is no statistically significant relationship between the proportions of women on the boards of directors and the senior and middle executive departments of Jordanian banks and the financial performance of these banks.

Through the above and the presentation of previous studies, the sixth hypothesis can be formulated as follows:

**H6: There is a statistically significant moral relationship between women's representation in the Council and financial performance**

**3-Methodology:**

**3/1 measuring independent variables (board of directors' characteristics), subordinated variables (financial performance) and controlling variables (bank size, debt ratio)**

**Table (1) shows these variables:**

Independent variables	Variable code	Measurement method
Board size	BOSIZE	Measured by the total number of board members at the end of the year (Kumar and Singh, 2012)
Non-executive members	Non-EXEM	Ratio of non-executive members to the total number of board members (Jallad, 2020)
Independent members	INDM	It is based on the ratio of independent board members to the total number of board members at the end of the year (Abdulsamad et al., 2018)
Periodical of council meeting	POCM	Measured by the number of meetings held annually (Abdeljawad and Masri, 2020)
CEO duality	CEOD	It is measured by a bilateral variable taking the value (1) if the chairman is the CEO himself or herself and the value (0) if it is not (Alfraih, 2016)
Representation of women on the Board of Directors	PWOBD	The ratio of women's representation in the Board to the total number of board members (Tahan, Najal, 2020)
subordinated variables	Variable code	Measurement method
Economic value added	EVA	Net operating profit after tax - capital cost (Austin, 2005).
Market value added	MVA	Market value of shares - book value of property rights (Masood, Daas, 2015).
Tobin's Q	TQ	Market value of shares+ book value of debt) /

		book value of assets (Future,2015)
Controlled variables	Variable code	Measurement method
Bank size	BNSIZ	Natural logarithm for total bank assets at the end of the year (Akber, 2019)
Debt ratio	DEBTR	The ratio of the bank's total debt, whether long or short, to the bank's total assets at the end of the year (Topal and Dogan, 2020).

### 2/3 Sample of study

The research community consists of banks listed on the Egyptian Stock Exchange from 2015: 2019 which are 13 banks listed between the public and private sectors with a total of 65 annual views. The inspection framework will be formed based on the following secondary sources: The General Investment Authority and reports issued by the Central Bank of Egypt, Egypt for Information Dissemination

**The following are the names of these banks:** Commercial International Bank (CIB), Union National Bank (UNB), Egyptian Gulf Bank (EGBANK), Baraka Bank, National Bank of Kuwait (NBK), Export Development Bank of Egypt, Faisal Islamic Bank, Qatar National Bank (QNP), Suez Canal Bank, Societe Arab International De Bank, Credit Agricole Bank, Abu Dhabi Islamic Bank (ADIB), Housing and Development Bank.

### 3/3 Study model

Based on previous studies and the hypotheses of the study, the following model will be based on a quasi-logarithm form, to clarify the relationship between the characteristics of the board of directors and the financial performance of banks as described in the following equation:

$$\ln FP_{it} = C_{it} + \sum_{k=1}^k \beta_k \times_{it}^k + \sum_{c=1}^c \beta_k Z_{it}^c + \epsilon_{\tau}$$

(FPit) represents the level of financial performance in bank (i) multiplied in time (t), where (t=1, 2 ,...,n), which will be expressed in three variables:

economic value added, market value added, and Tobin's Q scale in line with some previous studies.

(C) represents the constant function,  $(X_{it}^k)$  represents the direction of the target independent variables that reflect the characteristics of the board of directors of Bank (i) multiplied in time (t), which is the size of the board of directors, the proportion of non-executive members, the proportion of independent members, the periodical of board meetings, the CEO duality and the representation of women on the Board.

$(Z_{it}^c)$  represents the controlling variables; based on previous studies the size of the bank and the ratio of indebtedness have been determined as controlled variables, and finally  $\epsilon_t$  represents the error limit in its usual characteristics.

The form can therefore be specified in the following form:

$$\begin{aligned} \ln FP_{it} = & \beta_0 + \beta_1 Non_{EXEM}_{it} + \beta_2 INDM_{it} + \beta_3 BOSIZ_{it} + \beta_4 POCM_{it} \\ & + \beta_5 CEOD_{it} + \beta_6 RWOB_{it} + \beta_7 BNSIZE_{it} + \beta_8 DEBTR_{it} \\ & + \epsilon_t \end{aligned}$$

Where  $(\beta_0)$  expresses the fixed part, while  $(\ln FP_{it})$  expresses the dependent variable which is logarithm the level of financial performance of the bank ( i ) multiplied in time (t), whether expressed in economic value added, market value added, or Tobin's Q scale, and transactions from  $(\beta_1)$  to  $(\beta_6)$  refer to independent variable transactions>

#### 4. Data descriptive analysis and matrix correlation

Table (2) Descriptive statistics for variables, 2015 - 2019

	<i>Obs.</i>	<i>Mean</i>	<i>Median</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>	<i>Normality test</i>
<b>Dependent Variable:<sup>(1)</sup></b>							
<i>EVA</i>	65	683.00	37.725	1580	0.1172	8380.0	[508.64]***
<i>MVA</i>	65	5940.0	676	21300	-15500	119000	[622.48]***
<i>TQ</i>	65	50.991	1.0376	86.85	0.9130	308.59	[40.336]***
<b>Independent Variable:</b>							
• <i>Board characteristics</i>							
<i>BOSIZE</i>	65	10.462	11	2.085	7	15	[3.0536]
<i>Non- EXEM</i>	65	0.5859	0.6	0.103	0.41	0.7857	[2.8036]
<i>INDM</i>	65	0.2407	0.25	0.097	0.0667	0.4545	[2.4119]
<i>POCM</i>	65	9.0462	8	3.109	5	17	[6.9466]**
<i>CEOD</i>	65	0.3538	0	0.482	0	1	[11.212]***
<i>RWOBD</i>	65	0.0814	0.0833	0.081	0	0.2727	[4.4659]
<b>Control Variables:</b>							
<i>BNSIZE</i>	65	21.298	22.221	3.312	16.949	26.318	[8.1897]**
<i>DEBTR</i>	65	0.9151	0.9207	0.025	0.8570	0.9536	[4.3002]

**From this table (2) it is clear that:**

**For the dependent variable (financial performance of banks):**

It is clear that the minimum and maximum of the three financial performance variables of the bank sample falls in a very wide range between banks that have achieved strong positive financial performance in some years and banks that have performed poorly or even negatively in other years. Regarding the ratio of economic value added, it ranged from 0.1172 million for the Union National Bank in 2018, and 8380 million for Suez Canal Bank in 2019.

This great disparity may be naturally reflected as a result of the experiences or circumstances faced by each bank or other regulatory variables. This disparity was confirmed by natural distribution test, which is statistically significant for financial performance variables therefore, the refusal to the of assumption nothingness and accept the alternative assumption that the financial performance variables of banks do not follow the normal

distribution. This means that their value falls in a wide range and does not revolve around their average.

Due to the large size of the standard deviation, and the lack of normal distribution of financial performance variables, this makes the calculation of arithmetic average invalid. This means that it is not meaningful or useful because the arithmetic average is influenced by abnormal or extreme values. Therefore, the statistics of the median will be relied upon here because they are not affected by abnormal values, and accordingly it is clear that the median of the economic value added in the bank sample is equivalent to 37.725 million compared to 676 million for the market value added, as well as the median of Tobin's Q scale is equivalent to 1.0376, which is nearly equal to one.

**For independent variables (board of director's characteristics):**

It is clear from the natural distribution test that all variables of the characteristics of the board of directors follow the normal distribution except the variables of the periodical meetings of the Board, and the CEO duality. This result reflects that the characteristics of the board of directors are largely homogeneous among banks in Egypt which means that banks are similar in the degree to which they follow the rules and protocols of the governance code.

On average, it is clear that the size of the board of directors of banks ranges from (7-15) members with an average of 10.5 members, and most of these members are non-executive members at 58.6%, followed by independent directors at 24.1%, and finally executive directors at 17.5%, which means that non-executive and independent members control more than 80% of boards of directors, while the representation of women on the board is equivalent to an average of 8.1%, which is very low and does not reflect the level of effective participation of women On the boards of directors of banks.



As for the characteristics of the board that do not follow the normal distribution, we find that the mediator of the board meetings of the is equivalent to 8 times a year in a range of (7-15), and the CEO duality ranges from (0-0.273) to a median approaching zero.

**For controlling variables:**

It is clear that bank sizes do not follow normal distribution, due to the large differences in the asset sizes of these banks, which range from (16.95-26.32) to a median of 22.22, which includes that the sample of the study is rich in its control over the differences between large and small banks.

On the other hand, we find that the debt ratio follows the normal distribution. This means all banks are homogeneous in their debt ratios, which reach 91.5% on average compared to their total assets.

## 4/2 correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<i>ln EVA</i> (1)	1										
<i>ln MVA</i> (2)	<b>-0.5565</b> [-5.31]***	1									
<i>ln TQ</i> (3)	<b>-0.1783</b> [-1.44 ]	<b>0.0111</b> [0.088]	1								
<i>ln BOSIZE(4)</i>	<b>-0.0062</b> [-0.05 ]	<b>0.0037</b> [0.029]	<b>-0.3418</b> [-2.89 ]	1							
<i>Non- EXEM(5)</i>	<b>-0.0847</b> [-0.67 ]	<b>0.0465</b> [0.369]	<b>0.0475</b> [0.378]	<b>0.1061</b> [0.847]	1						
<i>INDM</i> (6)	<b>0.0639</b> [0.508]	<b>-0.0709</b> [-0.56 ]	<b>-0.0873</b> [-0.69 ]	<b>-0.1533</b> [-1.23 ]	<b>-0.7736</b> [-9.69]***	1					
<i>lnPOCM</i> (7)	<b>0.0158</b> [0.126]	<b>0.0424</b> [0.337]	<b>-0.4586</b> [-4.09]***	<b>0.3994</b> [3.458]***	<b>0.0635</b> [0.505]	<b>-0.0106</b> [-0.08 ]	1				
<i>CEOD</i> (8)	<b>-0.0950</b> [-0.76 ]	<b>-0.0227</b> [-0.18 ]	<b>0.1244</b> [0.995]	<b>0.0271</b> [0.215]	<b>0.1090</b> [0.870]	<b>-0.0713</b> [-0.57 ]	<b>-0.0329</b> [-0.26 ]	1			
<i>RWOBD</i> (9)	<b>-0.0398</b> [-0.32 ]	<b>0.0219</b> [0.174]	<b>0.0586</b> [0.466]	<b>-0.0442</b> [-0.35 ]	<b>-0.0299</b> [-0.24 ]	<b>0.0295</b> [0.235]	<b>0.0369</b> [0.294]	<b>0.1218</b> [0.974]	1		
<i>BNSIZE</i> (10)	<b>0.9887</b> [65.42]***	<b>-0.5739</b> [5.56]***	<b>-0.1867</b> [-1.51 ]	<b>-0.0146</b> [-0.12 ]	<b>-0.0871</b> [-0.69 ]	<b>0.0641</b> [0.510]	<b>0.0064</b> [0.051]	<b>-0.1168</b> [-0.93 ]	<b>-0.0365</b> [-0.29 ]	1	
<i>DEBTR</i> (11)	<b>-0.0158</b> [-0.13 ]	<b>-0.0954</b> [-0.76 ]	<b>-0.1024</b> [-0.82 ]	<b>0.0518</b> [0.411]	<b>-0.0280</b> [-0.22 ]	<b>0.0915</b> [0.729]	<b>0.1072</b> [0.395]	<b>0.0378</b> [0.300]	<b>0.1779</b> [1.435]	<b>0.0718</b> [0.572]	1

**The results of the correlation matrix can be summarized as in table3:**

The correlation of financial performance variables with each other

Although, the indicators of economic value added, market value added, and the Tobin's Q scale are supposed to reflect the same thing, which is the level of financial performance. However, in fact we find that the correlations between them are totally heterogeneous; we find that the correlation between economic value added and market value added is an average reverse correlation equals 55.7% and statistically represents 1%. We note that the correlation of the Tobin's Q scale to the variable of the economic value added and the market value added is very weak and statistically non-indicative. These heterogeneous correlations may raise problems of heterogeneity results of the impact of the characteristics of the Board of Directors on financial performance using three variables.

**The correlation of the characteristics of the board of directors with financial performance:**

The correlation of the characteristics of the board of directors with economic value added and market value added was very weak and not statistically significant, as it did not exceed the 10% barrier. Similarly, with regard to the correlation of board characteristics with the Tobin's Q scale, there is a negative and statistically significant correlation to the periodical of board meeting, and the size of the board with the Tobin's Q scale is equivalent to -45.9%, -34.2% respectively. This was expected as the signs of weak correlations between the board's characteristics with the three financial performance variables are heterogeneous, and we find that correlation of non-executive members is inverse correlation with economic value added whilst direct correlation with market value added, Tobin's Q

scale and vice versa for independent members.

**The correlation of independent variables with each other:**

Regarding the correlation between independent variables with each other, they ranged from weak to medium, and according to Anderson (1990) the correlation coefficients which is greater than 0.7 may indicate that it is possible for the model to face the problem of multicollinearity, accordingly, there was no possibility of multicollinearity to be found between the study of variables except for a single strong correlation between non-executive and independent members (77.4%), which requires to be careful while actually applying to make sure that this problem is neutralized, and the results are not affected.

**5. Empirical methodology:**

This section aims to clarify the statistical methods used to test hypotheses through which accurate statistical results can be obtained and through which the real relationship in the study community can be inferred; it also includes analysis of multiple regression and impact size.

**5/1 Multiple Regression to determine the statistical significance of the relationship:**

**To test the appropriate standard method for estimating the decline** of the study model, five statistical tests were based on, and the results of these tests are summarized in table 4. Based on the results of these tests, pooled OLS methodology and the one-way fixed effects methodology were relied on as follows:

**Pooled OLS methodology:**

This methodology depends on the stability of all transactions, whether for banks or time. This means not to take into account the individual

differences if they are founded between banks or the difference of time for data collected, as in the following equation:

$$y_{it} = \beta_{1i} + \beta_2 x_{2it} + \dots + u_{it}$$

**one-way fixed effects methodology:**

It is called the micro-box model that uses imaginary variables because it allows the cut part of the y-axis to differ when the bank differs. This makes us take into account the individual differences of each bank while analyzing, but we still assume that the slope transactions are fixed for each bank, as shown by the following equation:

$$y_{it} = \beta_{1i} + \beta_2 x_{2it} + \dots + u_{it}$$

The only difference between the models of small collected boxes is to put the code (i) on the cut part of the y-axis to express its possibility to differ when the bank differs, and these differences may be due to the characteristics of each bank, such as the size of the bank, or its market experiences etc. Therefore the term fixed effects is due to the fact that although the cut part of the y-axis differs between views, it does not differ by time difference and therefore it is fixed in time, and If the time test shows that time is influential in the slope, the measurement method turns into a two-way fixed effects model that can be expressed in the following equation:

$$y_{it} = \beta_{1it} + \beta_2 x_{2it} + \dots + u_{it}$$

**5/2 Effect size to determine the practical significance of the relationip:**

The effect size provides a quantitative measure for the size of the difference between groups or correlation between variables and thus provides an evaluation of the strength of the results which is not provided by the tests with statistical significance alone. It indicates whether the

relationship has a small, medium or large practical importance in the administrative environment of the study sample. There are many different measures of the appropriate effect size for different tests, including measures of difference or correlation. The effect size provides us also with additional information for the strategic decision to accept or reject the hypothesis of nothingness.

The effect size is calculated from partial correlations between both the board's characteristics indicators and the financial performance indicators which measure the correlation between the dependent and independent variable with the control of the rest of the other variables in the model. Then these links turn into a natural scale (fisher's  $Z_r$ ) and table 5 explains the interpretation of the indicators the different effect size based on Cohen (1988) and Hattie (2009):

**Table (4) interpretation for different effect sizes**

<i>Effect Size</i>			<i>Interpretation</i>	
<i>Cohen's d</i>	<i>r*</i>	<i>η<sup>2</sup></i>	<i>Cohen(1988)</i>	<i>Hattie(2009)</i>
< 0	< 0	-	Adverse Effect	
0.0	0.00	0.000	No Effect	Developmental effects
0.1	0.05	0.003		
0.2	0.10	0.010	Small Effect	Teacher effects
0.3	0.15	0.022		
0.4	0.20	0.039		
0.5	0.24	0.060	Intermediate Effect	Zone of desired effects
0.6	0.29	0.083		
0.7	0.33	0.110		
0.8	0.37	0.140	Large Effect	
0.9	0.41	0.168		
≥ 1.0	0.45	0.200		

\*Cohen (1988) reports the following intervals for r: 0.1 to 0.3: small effect; 0.3 to 0.5

## 6-Results and analysis

### 6/1 First model evaluation (board of directors' characteristics and financial performance):

In this model, the impact of the characteristics of the board of directors on the level of financial performance of the listed banks is estimated through three regressions: the first regressions REG 1 is concerned with economic value added, the regressions decline REG2 is concerned with market value added, the third regressions REG3 on the Tobin's Q scale, and before estimating any, we should first confirm its quality and free of various measurement problems in order to ensure the results obtained, and this is done through the use of various diagnostic tests. The results of the three regressions are shown in table 5:

**Table (5): Diagnostic Tests results for first model**

<b>Tests used</b>	<b>Reg(1)</b>	<b>Reg(2)</b>	<b>Reg(3)</b>
<i>Heteroskedasticity</i>	(18.533)	(35.572)**	(27.188)
<i>Serial Correlation</i>	(11.180)***	(5.3050)**	(65.536)***
<i>Cross-Section Dependence</i>	(-1.302 )	(-1.324 )	(-0.921 )
<i>Normality</i>	(19.502)***	(7.4910)**	(17.967)***
<i>Collinearity</i>	Values < 10	Values < 10	Values < 10
<i>Omit variables</i>	(1194.3)***	(229.29)***	(1638.6)***
<i>Function Form</i>	(1.1877)	(10.062)***	(4.0994)**
<i>Non-linearity test (squared terms)</i>	(10.232)	(20.014)**	(17.069)**
<i>Non-linearity test (log terms)</i>	(11.761)	(12.596)**	(14.069)**

**Note:** \*\*\*, \*\*, \* indicate significance at 1%, 5% and 10% respectively

**Based on the statistical indication of the confirmed tests, it is clear that:**

The estimated three regressions were free of cross-section dependence, as the VIF test also showed that there was no problem of multicollinearity

between independent variables, as the value of inflation factors for all independent variables in the three regressions same below 10, and the regressions don't not suffer from the problem of heteroscedasticity with the exception of regression (2).

In contrast, the three regressions suffer from the problem of serial correlation among residuals of the first degree, as well as the problem of heteroscedasticity for the second regression only, and that the residuals do not follow the normal distribution (normality).

Accordingly, these regressions have been estimated by the use of the (Whit cross-section standard errors) and( Firm GLS Weights ) which are effective in eliminating the problems of heteroscedasticity and the serial correlation among residuals by revising the standard results (through standard deviation), and therefore the resulting capabilities are highly efficient and can be relied upon significantly, and the problem of the non-normal distribution of the residual is not of great importance here because according to statistical theory, OLS capabilities are responsible for normal distribution in general, with an increase in the size of the samples, and therefore in large samples as in the current study. This means that the statistical inference will follow the normal OLS method assumed natural distribution.

For the good characterization of the model (linear or non-linear form), the results of the tests (Functional Form), (Auxiliary regression) for the first slope are not statistically significant, which shows that the first slope is fully linear, while the result of these tests is a statistical function of the second and third slopes, due to the relationship between non-executive members and the Tobin's Q scale in the third slope is not linear, and



therefore non-executive members will be expressed in the third slope in the square form. Therefore, after confirming the regressions used and addressing measurement problems, we can continue to perform the standard analysis to test the theories of the study, as shown by the following table 6.

**Table (6):** Board characteristics and financial performance: Econometric results

**Dependent variable:** *ln EVA & ln MVA & ln TQ*

	<i>ln EVA</i> <i>Reg (1)</i>	<i>ln MVA</i> <i>Reg (2)</i>	<i>ln TQ</i> <i>Reg (3)</i>
<i>Dependent variable(-1)</i>	-0.0125 [-2.763]***	-0.1337 [-9.109]***	-0.3928 [-13.99]***
<i>Non- EXEM</i>	1.2505 [ 2.719]***	20.423 [ 3.152]***	-6.1473 [-5.991]***
<i>Non- EXEM_squared</i>			5.1559 [ 6.197]***
<i>INDM</i>	1.9566 [ 3.861]***	0.0465 [ 0.007]	-0.1801 [-2.861]***
<i>ln BOSIZE</i>	0.4296 [ 1.796]*	3.7624 [ 1.815]*	-0.5117 [-14.74]***
<i>ln POCM</i>	-0.1465 [-3.188]***	2.8333 [ 2.101]**	-0.1951 [-15.56]***
<i>CEOD</i>	0.0845 [ 1.939]*	-1.5335 [-2.780]***	-0.0409 [-17.73]***
<i>RWOBD</i>	-0.2652 [-0.693]	3.0774 [ 0.873]	-0.2071 [-4.481]***
<i>BNSIZE</i>	0.9600 [ 93.73]***	32.621 [ 19.21]***	0.0029 [ 3.671]***
<i>BNSIZE_squared</i>		-0.7932 [-19.75]***	
<i>DEBTR</i>	-10.146 [-17.74]***	17.471 [ 3.465]***	0.4229 [ 3.051]***
<i>Constant</i>	4.5326 [ 7.001]***	-346.93 [-27.25]***	5.7222 [ 16.97]***

<i>Key Regression Statistics</i>			
<i>Method</i>	<i>OLS</i>	<i>OLS</i>	<i>1Way FEM</i>
<i>Adjusted R-squared</i>	99.3%	93.9%	99.9%
<i>Durbin-Watson stat.</i>	2.0319	2.0699	2.0986
<i>Fisher test (F-stat..)</i>	(703.6)***	(61.49)***	(6920.9)***
<i>Post-hoc Stat. Power</i>	88.5%	88.5%	88.5%
	<i>Effects Statistics</i>	<i>Specification</i>	
<i>Robust test</i>	(0.3683)	(0.3272)	(28.367)***
<i>Residual variance test</i>	(0.3346)	(0.4338)	(471.17)***
<i>Breusch-Pagan test</i>	(5.5163)	(9.1879)	(100.12)***
<i>Hausman test</i>	---	---	(24.189)***
<i>Time test</i>	(0.6003)	(0.6586)	(8.9097)*

**Method:** (OLS & 1way fixed effects) with white robust standard error

**Note:** \*\*\*, \*\*, \* indicate significance at 1%, 5% and 10% respectively

Before explaining the regression factors, it is clear that from the results of the induction tests below the table that the results came statistically insignificant in the first and second regression as the sample of banks used has the same fixed part in the two regressions. Therefore, the methodology of the small squares will be more appropriate than the methodology of fixed effects or randomizations, as well as the time is not affecting the two regressions. In contrast, the results of these tests were statistically significant in the third regression relative to the impact of the characteristics of the Board on the Tobin's scale. Q, but time is still not influential either, so the methodology of fixed or random one-way effects will be more appropriate than the methodology of the small squares collected in this regression, and the methodology of fixed effects has been tested based on The Husman Test.

Concerning the first regression, which is about the impact of the board's characteristics on economic value added, it is clear that all the characteristics of the board of directors affect EVA except the

representation of women in the board. We find a positive impact for non-executive directors on the economic value added at the level of 1%, where the value of the regression factor (1.2505) which indicates that an increase of non-executive members on the board of directors by 1% will lead to an increase in the added economic value of banks by (1.2505) on average, this finding is consistent with some studies (Aslam and Haron, 2020; Mohsin et al . , 2016 ; Jensen and Meckling, 2008) arguing that non-executive members play an important role in the company's policy of contributing efficiently to the development of the company's strategies and achieving its objectives.

We also find a positive impact on the size of the board and this result is consistent with a number of studies (Gafoor and Thyagarajan, 2018; Johi and Cooper , 2015 ; Kjola et al., 2017) as the more the size of the board increases, the better performance will be because of the different skills, knowledge and experience. This enhances the ability of the company to better understand and respond to different stakeholders.

We also find a positive effect for the duality of the CEO but at the level of 10% and this result is consistent with some studies (Tazilah et al,2021 ;Mollah and Zaman, 2015) justified this support as saying that if the CEO himself is chairman of the board of directors , he will be able to understand the business and administrative processes and be familiar with the decision-making process. As a result, this helps the CEO duality to speed up decision-making that enhances financial performance.

On the other hand, there is a negative impact for the periodical of the board meetings on the economic value added at the lever of 1%. Consequently, if the periodical of the board meetings increases in numbers,

this will lead to the decrease the EVA of banks by (0.2652) on average, and this result is consistent with the study of some studies (Hanh et al., 2018; Mustapha et al. , 2020 ; Jackling and Johi, 2009;Tarif, 2017)

At the level of controlling variables, we find a positive impact on the size of the bank, and a negative impact on the debt ratio on the EVA at the level of 1%. Although we note the magnitude of the impact of the debt ratio on EVA, the increase in the debt ratio by 1% will lead to a decrease EVA of banks by (10.146) on average. This finding is consistent with the study (Abdeljawad and Masri, 2020).

Concerning second regression, which is about the impact of the board's characteristics on the market value added, we find that all the characteristics of the board affect the MVA except therepresentation of women in the board. We note the positive impact for non-executive members on MVA at the level of 1%. The value of the regression factor, which is equal to (20,423), indicates that a 1% increase in non-executive members of the board of directors will lead to a 20.423% increase in the market value added of banks on average.

We also find a positive impact for the size of the board, and the periodical of the board meetings, and in return we find a negative impact of the CEO duality on the market value added at the level of 1%, so the increase of this duality will lead to a decrease in the market value added of banks by (1.5335) on average, the results of this study are consistent with the study (Hamdan, Sartawe, 2013), (Massoud, Daas, 2014).

As for the controlling variables, we note that the relationship of the size of the bank to the market value added is non-linear (quadratic relationship), as the quadratic relationship takes the form of an inverted U

letter. the impact of the size of the bank on the market value added is positive in small size banks, while turning negative at large size banks, and to ascertain the credibility of this non-linear relationship was conducted test (Sasabuchi-Lind-Mehlum) as shown in table 8, which came to confirm the assumption of nothingness (Inverse U shape) .It is shown also from the table that the great value (turning point) of this variable is equivalent to 20.3894. It means that banks with a size of 20.39 have a positive impact on the market value added, and the table also shows that the positive part is more inclined than the negative part, which means that the positive impact of small banks on MVA is much greater than the negative impact of large banks on MVA.

Unlike the first regression, there is a huge positive impact on the market value added at the level of 1%, increasing the debt ratio by 1% which will increase the market value added of banks by (17,471) on average.

For the third regression, the impact of the board's characteristics on the Tobin's Q scale shows a negative impact for members, as well as a negative impact on the size of the board, the periodical of board meetings, the duality of the CEO, and the representation of women on the board on the TQ scale at the level of 1%. This result is consistent with some studies that dealt with the same variables (Abdel Atty , 2018 ; Akber et al. , 2019) as well as the study (Shihab al-Din, Khadala, 2022), in contrast we find a positive effect at the level of 1% also for controlling variables (bank size, debt ratio) on the Tobin's Q scale.

We also find that the relationship of non-executive members on the Tobin's Q scale is non-linear and takes the form of a U letter. The impact of

the non-executive member ratio on the Tobin's Q scale is negative at small levels of non-executive member ratios, and turns into positive at high levels of ratios non-executive members, as confirmed by the (Sasabuchi-Lind-Mehlum) test in table 8, which resulted in the rejection of the assumption of nothingness with the accepting of (Inverse U Shape) relationship.

Thus, it leads to the acceptance of alternative assumption with a real (U Shape) relationship. The small value (coup point) of this variable is equivalent to 0.59966. banks with less than 60% of the board's size have a negative impact on the Tobin's Q scale, while banks with a non-executive member ratio of more than 60% of the board's size have a positive impact on their TQ scale,

It is clear that the positive part of the regressive is very close to that of the negative part, which means that the positive effect is almost equal to the negative part.

We also note for the three variables that the variable in the previous period on the dependent variable in the current period is negative. It ensures that the financial performance of banks does not take a continuously upward general trend, but the financial performance of banks is going through annual changes between ups and downs, which are consistent with the raw data. We have never seen a bank during the entire period achieved upward financial performance without falling.

Moving to the general statistics of regressions , it is clear to us through the value of the adjusted R2 factor that the study model explains between 93% and 99% of the changes that occur in the financial performance of the banks, and the rest of the small percentage is due to random error as a result of the presence of other variables that have not

been controlled within the model, which is a very high identification rate that refers to the accuracy of the characterization of the model as well as the statistical value(Durbin-Watson) appears about value 2. Fisher Test refers to the rejection nothingness assumption and acceptance of the alternative assumption by having a statistical indication of the study model at a moral level of 1%. Finally, we note the rise of the index of post-regression strength which reaches 88.5 %

**Table (7) Sasabuchi–Lind–Mehlum test for an inverse U-shaped relationship:**

		<i>Reg(2)</i> <i>BNSIZE</i>	<i>Reg(3)</i> <i>Non- EXEM</i>
$x_i$	$\uparrow \beta =$	32.621 [ 19.21]***	-6.1473 [-5.991]***
$X_i^2$	$\hat{\gamma} =$	-0.7932 [-19.75]***	5.1559 [ 6.197]***
Interval	$x_{i(\min)}$	16.949	0.4100
	$x_{h(\max)}$	26.318	0.7857
Slope at	$\hat{\beta} + 2\hat{\gamma}x_1$	5.0441 [ 5.302]***	-1.7724 [-3.03]***
Slope at	$\hat{\beta} + 2\hat{\gamma}h$	-8.6913 [-8.888]***	1.7387 [3.523]***
Sasabuchi test (t-value)		[ 5.300]***	[ 3.03 ]***
Extremum Point	$-\beta / (2\hat{\gamma})$	20.3894	0.59966
		Extremum inside interval	Extremum inside interval

**Note:** - \*\*\*, \*\*, \* indicate significance at 1%, 5% and 10% respectively.

- Null hypothesis: Monotone or Inverse U shape

## **research results:**

The current study examined the impact of the characteristics of the board of directors on the financial performance, as measured by the added economic value, the added market value, and Tobin's Q in the banks listed on the Egyptian Stock Exchange, where a sample of (13) banks was used, during the period from 2015-2019, and by using the descriptive analysis of the variables and the results of Analyzing the hypotheses, the researcher reached the following results:

**The result of testing the first main hypothesis: There is a statistically significant relationship between the characteristics of the board of directors and the economic value added (EVA) in banks listed on the Egyptian Stock Exchange. This result is consistent with the study (Tassin, Hajj Sahrawi, 2018).**

The following sub-hypotheses are derived from the main hypothesis:

1/The result of the first sub-hypothesis indicated that there is a positive effect of non-executive members on the economic value added in banks listed on the Egyptian Stock Exchange.

2/The result of the second sub-hypothesis showed that there is a positive effect of the size of the board of directors on the economic value added in banks listed on the Egyptian Stock Exchange.

3/explained the result of the third sub-hypothesis; There is a positive effect of independent members on the economic value added in banks listed on the Egyptian Stock Exchange.



4/explained the result of the fourth sub-hypothesis; There is a negative effect of the periodicity of board meetings on the economic value added in banks listed on the Egyptian Stock Exchange.

5/explained the result of the fifth sub-hypothesis; There is a positive effect of the dual managing director on the economic value added in the banks listed on the Egyptian Stock Exchange.

6/explained the result of the sixth sub-hypothesis; There is no relationship between women's representation on the board and the economic value added (EVA) in banks listed on the Egyptian Stock Exchange.

**The result of testing the second main hypothesis; There is a statistically significant relationship between the characteristics of the board of directors and the market value added (MVA) in the banks listed on the Egyptian Stock Exchange.**

From this main hypothesis the following sub-hypotheses are derived:

1/explained the result of the first sub-hypothesis; There is a positive impact of non-executive members on the market value added in banks listed on the Egyptian Stock Exchange.

2/The result of the second sub-hypothesis showed that there is a positive effect of the size of the board of directors on the market value added in the banks listed on the Egyptian Stock Exchange.

3/ explained the result of the third sub-hypothesis; There is no significant relationship between the independent members and the market value added in the banks listed on the Egyptian Stock Exchange.

4/explained the result of the fourth sub-hypothesis; There is a positive effect of the number of board meetings on the market value added in banks listed on the Egyptian Stock Exchange.

5/explained the result of the fifth hypothesis; There is a negative impact of the duality of the managing director on the market value added in the banks listed on the Egyptian Stock Exchange.

6/explained the result of the sixth sub-hypothesis; There is no significant effect of women's representation on the board of directors on the market value added in banks listed on the Egyptian Stock Exchange.

**The result of testing the third main hypothesis; There is a statistically significant relationship between the characteristics of the board of directors and Tobin's Q in the banks listed on the Egyptian Stock Exchange.**

From this main hypothesis the following sub-hypotheses are derived:

1/explained the result of the first sub-hypothesis; The existence of a non-linear relationship (quadratic relationship) for non-executive members on Tobin's Q in banks listed on the Egyptian Stock Exchange, meaning that the effect of the non-executive members ratio on Tobin's Q scale is negative at small levels of non-executive members ratios, and turns positive at high levels of non-executive members ratios Non-executive members.

2/The result of the second sub-hypothesis explained: There is a negative effect of the size of the board of directors on Tobin's Q in the banks listed on the Egyptian Stock Exchange.

3/explained the result of the third sub-hypothesis; The presence of a negative effect among the independent members of Tobin's Q in the banks listed on the Egyptian Stock Exchange.

4/explained the result of the fourth sub-hypothesis; There is a negative impact of the number of board meetings on Tobin's Q in the banks listed on the Egyptian Stock Exchange.

5/explained the result of the fifth hypothesis; There is a negative impact of the dual managing director on Tobin's Q in the banks listed on the Egyptian Stock Exchange.

6/explained the result of the sixth sub-hypothesis; There is a negative impact of women's representation on the board of directors on Tobin's Q in banks listed on the Egyptian Stock Exchange.

### **Recommendations and future studies**

1/The current study recommends the need to benefit from the experiences of other countries in the subject of governance and to enhance the advantages of their experiences, taking into account the nature of the Egyptian environment.

2/To enable rapid and better decision-making and solid financial performance, a fair board size is advised.

3/reducing the number of board meetings yearly since they are costly and may have a detrimental effect on financial performance.

4/Conducting more studies on the impact of the characteristics of the board of directors on the financial performance and applying them to the Egyptian banks with the development of the sample size, as the current study relied on the banks listed on the stock exchange only.

5/The current study recommends that banks should pay attention to the criteria of market value added and economic value added as one of the criteria used in evaluating their performance.

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## أثر خصائص مجلس الإدارة على الأداء المالي في البنوك المدرجة بالبورصة المصرية

### ملخص البحث باللغة العربية

تهدف هذه الدراسة إلى معرفة أثر خصائص مجلس الإدارة على الأداء المالي وذلك بالتطبيق على البنوك المدرجة بالبورصة المصرية ، وعددهم 13 بنكاً وذلك في الفترة من 2015 إلى 2019 ، وتم تحديد خصائص مجلس الإدارة في ( حجم المجلس ، الأعضاء الغير تنفيذيين ، الأعضاء المستقلين، ثنائية العضو المنتدب، دورية اجتماعات المجلس ، تمثيل المرأة في المجلس)، وتم الاعتماد على القيمة الاقتصادية المضافة (EVA) ، القيمة السوقية المضافة (MVA) ، Tobin's Q كمؤشرات لقياس الاداء المالي ، وقد توصلت هذه الدراسة الى النتائج التالية : جميع خصائص مجلس الإدارة تؤثر على EVA باستثناء تمثيل المرأة في المجلس ، فنجد تأثير إيجابي للأعضاء غير التنفيذيين ، والأعضاء المستقلين ، حجم المجلس ، وثنائية العضو المنتدب ، ولكن نجد تأثير سلبي لدورية الاجتماعات. بالنسبة لمقياس القيمة السوقية المضافة (MVA) نجد أن جميع خصائص مجلس الإدارة تؤثر على MVA باستثناء الاعضاء المستقلين، وتمثيل المرأة في المجلس، فنجد تأثير إيجابي للأعضاء الغير تنفيذيين، حجم المجلس، دورية اجتماعات المجلس، وفي المقابل نجد تأثير سلبي لثنائية العضو المنتدب. بالنسبة لمقياس Tobin's Q ، نجد تأثير سلبي للأعضاء المستقلين ، حجم المجلس ، دورية اجتماعات المجلس ، ثنائية العضو المنتدب ، تمثيل المرأة في المجلس عند مستوى دلالة 1 % ، كما نجد وجود علاقة غير خطية ( تربيعية ) للأعضاء الغير تنفيذيين والتي تأخذ شكل حرف U ، أي أن تأثير نسبة الأعضاء الغير تنفيذيين على مقياس Tobin's Q تكون سلبية عند المستويات الصغيرة من نسب الأعضاء غير التنفيذيين ، وتتحول إلى إيجابية عند المستويات المرتفعة من نسب الأعضاء غير التنفيذيين.

**الكلمات الافتتاحية:** حوكمة البنوك، خصائص مجلس الإدارة، الأداء المالي، البنوك المصرية.