

# Impact of the ownership structure on the financial performance of banks listed on the Egyptian Stock Exchange<sup>1</sup>

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## ABSTRACT

*This study aims to find out the impact of the ownership structure on the financial performance of the 13 banks listed on the Egyptian Stock Exchange from 2016 to 2019, and the characteristics of the ownership structure were determined in (concentration of ownership, administrative ownership, foreign ownership, government ownership, institutional ownership) and the researcher relied on the latest standards in measuring financial performance: Added Economic Value Added, MVA Market Value Added, Tobin's Q, this study has reached a set of results and can be summarized as follows: the financial performance impact agreement in the previous period, the concentration of ownership, administrative ownership, foreign ownership and government ownership for the three financial performance variables.*

*On the other hand, we find the different impact of institutional ownership, and the ratio of indebtedness between the three financial performance variables, based on the different impact of these variables between the economic value added and the market value added, which is due to the actual reverse correlation between economic value added and market value added.*

**Key Words:** *Ownership structure, financial performance, Egyptian banks.*

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## **1. INTRODUCTION**

The global economy has recently witnessed a growing awareness of the importance of corporate governance as a key factor in the success of companies in the markets, where the financial problems faced by many large companies in the world have led to the need to establish a set of controls, laws and professional ethical principles, in order to increase confidence and credibility in the information contained in the financial statements, which is needed by many users of financial statements, especially investors, which has clearly demonstrated the importance of establishing good corporate governance practices that can play An active role in the financial field and administrative reform, increasing investor confidence in financial lists, stimulating national investment and attracting foreign investment (Batayneh et al., 2019).

The concept of ownership structure was introduced in 1932 by Berle and Means, where the ownership structure became important in setting the objectives and importance of companies and shareholder wealth and maximizing the profitability of the company, which is essentially the goal of investors (Mosameh and Zorob, 2018).

Since the emergence of the agency's theory and problems, researchers have begun to look for factors affecting the agency's costs in order to reach regulatory best practices to eliminate it as decisions about the structure of ownership and capital structure reflect different ways to reduce the agency's problems among the various stakeholders in the company (Ibrahim, 2011). The ownership structure reflects the identity of the shareholders and the size of their property, where the ownership structure is the main variable that affects the results of the company, and there are two types of ownership structure: the concentration of ownership or the structure of the concentrated ownership, which indicates that the ownership is in the hands of a limited number of shareholders and the other type is the structure of the dispersed ownership, which indicates the presence of a large number of shareholders of the company so that each shareholder owns a small number of shares so that the ownership does not exceed 5% of the shares Company (Choi, 2018).

It became clear (Omran, 2004) that Egyptian companies have gone through many developments with regard to the ownership structure from the 1960s to the 1990s, state-owned companies accounted for most of Egypt's economic activity under the supervision of various ministries, and until the

government achieved the social objectives of providing goods and services at the lowest prices and support as well as providing jobs to reduce unemployment, they use projects belonging to the government sector, and the misuse of resources and incompetence of the administration have exposed. These companies have been criticized for their lack of efficiency and profitability, and have shown a decrease in productivity compared to the productivity of private sector companies.

The ownership structure is one of the most important factors that may contribute to reducing the severity of the agency's problems in the company. Consolidation of ownership and oversight subjects managers to less pressure than external investors and other observers who demand accountability and strategic renewal (Carney, 2005) and focuses financial performance on the uses of financial indicators to measure the achievement of objectives and financial resources statement and provides the company with investment opportunities in various fields, it demonstrates the extent to which the company is able to generate revenues both from its business and capital activities and to achieve a surplus of these activities (Zuhri, 2015) and in the context of the ownership structure within Egyptian companies, revealed the study ( Abo samak, 2020) that the ratio of shareholder control is relatively high, and the ownership structure is an explanation of who the owners of the owned money, the value and percentage of their share of the institution .

The bank's ownership structure helps determine the parties controlling the bank, and relates to the percentage of shareholders who have the power to influence policies and strategies within the bank, and there are three types of ownership of the bank in which cultures, attitudes and behaviors may vary, and therefore the nature of bank management that leads to a different level of bank performance, such as locally owned private banks, state-owned banks, foreign-owned banks (Eduardus et al. , 2007) .The ownership structure is one of the internal basic mechanisms and rules in corporate governance as the diversity of the ownership structure is a tool and control mechanism for the executive management of companies and reflects the nature of the owners and their shares in capital (Hindi, 2009).The relationship between ownership structure and financial performance is important in terms of its impact on the interests of stakeholders in companies where these companies play an important role in building the national economy, achieving sustainable and comprehensive development, and the relationship between ownership structure and financial performance is one of the important issues and topics that academics and policy makers are interested in because it is a key issue in understanding the effectiveness

of the governance system, as well as the use of different ownership structures that allow a better assessment of the financial performance of companies ( Hua and Zin , 2007).

Based on the foregoing, the researcher will study the impact of the characteristics of the ownership structure on the financial performance in the Egyptian banking sector. By focusing on the characteristics of the ownership structure in a way that tests the impact of the ownership structure on the financial performance. The choice of this topic for the study is due to the researcher's observation, through her review of previous studies, that there is a scarcity in determining the extent to which there is an impact of the characteristics of the ownership structure on the financial performance in the banking sector.

## **2. PREVIOUS STUDIES AND HYPOTHESES DEVELOPMENT**

### **2.1 Ownership concentration and financial performance**

The concentration of bank ownership is important because it can affect (or limit) the ability of bank managers to transfer bank profits as financial benefits to themselves or as special control benefits for controlling shareholders that can lead to a decline in the value of the company and can harm non-controlling shareholders who do not have a controlling stake in banks (Ozili and Uadiale, 2017).

the study( Santoso and Santasyacitta, 2020) By knowing the impact of the ownership structure on the financial performance of banks in Indonesia as measured by return on assets and return on property equity, found a range of results, including a positive impact of ownership concentration on financial performance, a positive impact on institutional and family ownership on financial performance, a negative impact of government ownership on financial performance, no effect of foreign ownership on financial performance.

A study (Abdulkarim et al., 2021) by examining the ownership structure and financial performance of Nigeria-listed manufacturing companies showed a negative impact of property ownership concentration on financial performance.

Ibrahim (2012) examined the effects of ownership structure on the performance of listed companies on the Ghana stock exchange. The study covers a period of 2005 to 2009, and the Pearson's Product Moment

Correlation and Logistic Regression was applied on performance indicators such as return on asset (ROA), return on equity (ROE) and dividend yield (DY) while foreign ownership, institutional ownership and ownership concentration was used to measure ownership structure. The study found that there is a significant negative relationship between ownership concentration and firm's performance while insider ownership and institutional ownership has positive relationship with performance of listed companies on Ghana stock exchange.

A study (Khamis et al., 2015) found by studying the relationship between ownership structure and corporate performance, for 42 companies from all sectors on the Bahrain Stock Exchange from 2007 to 2011, and The ROA, Tobin's Q scales were used to measure financial performance, to have a negative impact of ownership focus on financial performance, a positive impact of institutional ownership on financial performance, and no impact of administrative ownership on financial performance.

A study (Ogaluzor and Omesi, 2019) showed through her knowledge of the relationship between share ownership and financial performance as measured by the return on assets of nigeria-listed consumer goods companies, a statistically significant negative relationship between ownership concentration and financial performance.

The study (AL-Amri, 2018) aimed to build a conceptual model that addresses the structure of ownership as an intermediary that affects the relationship between capital structure and financial performance, by applying to all banks listed on Saudi Arabia's financial market from 2010 to 2015, which found that the concentration of ownership positively affects the return on assets and return on equity.

the study (Demsetz, 1972) said that the ownership concentration has been proposed as an internal mechanism for monitoring the conduct of managers by shareholders to alleviate the problems of the company's internal conflict. They also said that this mechanism is important in determining the company's objectives and the extent to which managers are disciplined. Thus, the increase in equity gives shareholders greater incentive to control and control managers, which in turn leads to increased interest in increased financial returns.

A Study (Zouari and Taktak, 2012) found that ownership was 49% concentrated and that in 41 banks of the full sample, the final owner is institutional, and state investors come second as final owners followed by

the final shareholders in the family and using roa and roe as performance measures, empirical evidence shows that there is no clear correlation between the concentration of ownership and the performance of the Islamic Bank. In addition, the results of this study indicate that family and state ownership positively affects the bank's performance.

From the above and the presentation of previous studies it became clear to the researcher that some studies agree that there is a positive relationship to focus ownership on financial performance (Ozili and Uadiale, 2017; Santoso and Santasyacitta, 2020; Classens and Yurtogiu). Justifying this relationship that the concentration of ownership is an effective lever for companies, because larger ownership can reduce the agency's problem between owners and managers, the concentration of ownership reduces the costs of management control and thus performs better performance, as well as the concentration of ownership leads to greater effectiveness and enhances control and governance.

Other studies have agreed that there is a negative relationship between property concentration and performance (Abdulkarim et al., 2021; Hu et al., 2010; Habashy, 2019; Ibrahim, 2012) proved that there was no relationship. Therefore, the first hypothesis can be formulated as follows:

**H1:** There is a significant positive relationship between the concentration of ownership and the financial performance of Egyptian banks.

## **2.2 Foreign investor ownership and financial performance**

Foreign investment is one of the main drivers of economic growth in any country where governments are constantly seeking to attract foreign investment in order to create new jobs, develop economic infrastructure, attract new technologies and management methods, and in order to be able to do so, governments are trying to create a better business environment for foreign investors in the form of strong investment protection, good corporate management and tax cuts (AL-Gamrh et al., 2020)

The study (Leuz et al., 2009) has made it clear that the presence of foreign investors is particularly important in developing countries, where the increasing expansion of foreign investors is one of the most important factors in emerging markets. This is due to limited domestic resources to finance investment, leading many emerging countries to liberalize their financial markets and allow foreign financiers to invest in local companies.

The study (Al qudah et al., 2019) showed a significant negative correlation between the presence of foreign managers and the return on assets, and this unexpected result, foreign managers are expected to play a pivotal role in enhancing the financial performance of banks, justifying the negative result that foreign investors are interested in long-term profits, and are not interested in stimulating the decisions of managers that lead to increased profits for the current period.

The study (Al-Gamrh et al., 2019) found that the impact of two different types of foreign ownership by Arab and non-Arab investors on the financial performance of companies, and this study found that when foreign Arab ownership negatively affects financial performance, non-Arab foreign ownership has a positive impact on financial performance. The agency's theory also suggests that foreign ownership further improves performance (Haat et al., 2008).

The results of the study (Arouri et al., 2014) found a significant positive impact of foreign ownership on the bank's financial performance as measured by Tobin's Q.

A study (Nzau and Musa, 2022) showed from its study of the impact of ownership structures on the financial performance of dubbing companies in Kenya, that foreign contribution negatively affected the financial performance of listed manufacturing companies. A study (Phung and Mishra, 2016) found a set of results, the most important of which is: a concave relationship between foreign ownership and corporate performance, and the company's performance is increasing with increased foreign ownership.

A study (Mosameh and Zorob, 2018) found that there is no statistically significant relationship between foreign ownership and the financial performance of companies.

From the above and the presentation of previous studies, it became clear to the researcher that some studies agree that there is a positive relationship of foreign ownership to financial performance (Phung and Mishra, 2016; Arouri et al., 2014; Greenaway et al., 2014). Justifying the relationship that foreign investors have more experience and experience than local investors in monitoring management behavior accurately, which improves performance and reduces the phenomenon of asymmetry of information. Other studies have also agreed on a negative relationship between foreign

ownership and financial performance (Nzau and Musa, 2022; Alqudah et al . , 2019 ; Tanui et al . , 2021) .

Justifying the relationship, foreign investors are putting great pressure on the administration to direct their behavior towards serving the interests of these investors, thus leading to the emergence of the agency's problem among them and increasing the agency's costs. Other studies have also agreed that there is no relationship between foreign ownership and financial performance (Santoso and Santasyacitta, 2020; Investors may be unable to make strategic decisions that will influence the performance of companies.

**H2:** There is a significant positive relationship between foreign ownership and financial performance in Egyptian banks.

### **2.3 Institutional ownership and financial performance**

Study (Alfariah et al., 2012) investigated the effect of institutional ownership on performance of firm listed in Kuwait Stock Exchange. They used institutional ownership an independent variable and firm performance as dependent variable by applying two multivariate regression models, they found significantly positive relationship between firm performance (ROE and tobin's q) and institutional ownership.

A study (Santoso and Santasyacitta, 2020) found a positive impact on institutional ownership and financial performance. A study (Mohmoudian and Zibihi, 2016) also found a positive relationship between institutional ownership and financial performance.

study (Abdulkarim et al. 2021) showed that institutional ownership has a positive impact on financial performance, recommending that institutional owners invest in using their resources and expertise to exercise control to reduce mismanagement, which is likely to negatively affect the performance of companies.

study (Akbar, 2019) shows that founding investors contribute positively to the company's performance, as founding investors have greater capabilities as well as incentives to reduce managers' abusive behavior.

study (Cornett et al., 2008) showed a positive impact of institutional ownership on financial performance, as the presence of such investors results in a minority of shareholders feeling protected, generating a positive signal for market participants.

(Habashy, 2019) found a positive correlation between institutional ownership and asset return performance, Tobin's Q, where in Egypt institutional shareholders have a great incentive to monitor company managers to improve the company's performance.

A study (Yahaya and Lawal, 2018) found a significant positive impact between institutional ownership and financial performance, as founding shareholders can reduce agency costs through careful performance monitoring.

The results of the study (Ud Din et al., 2021), by examining the impact of the ownership structure on the financial performance of 146 manufacturers listed on the Pakistan Stock Exchange, indicated a significant positive impact between institutional ownership and financial performance as measured by ROA, MBR, indicating that institutional investors play an important role in improving performance.

The study (Arouri et al., 2014) aimed at finding out the impact of the ownership structure and the structure of the Board of Directors on the bank's performance as measured by Tobin's Q, and this study found a significant positive impact of institutional ownership, family ownership, foreign ownership on the bank's financial performance, and the absence of an impact of government ownership on performance.

A Study (Shan and Gong, 2016) indicates the negative impact of corporate ownership on financial performance, as increased level of institutional ownership leads to lower corporate performance because institutional investors will be more involved in procurement strategies and will not be busy monitoring corporate executive management, so the impact of institutional ownership on corporate performance is unclear.

From the above and the presentation of previous studies, it became clear to the researcher that most studies agree on a positive relationship between institutional ownership and financial performance (Arouri et al., 2014; Alfariah et al., 2012; Habashy, 2019; Akbar, 2019; Abdulkarim et al., 2021; Santoso and Santasyacitta, 2020) justifying this relationship that founding investors are an important mechanism for corporate governance and work to improve net performance during their ability to monitor and control corporate managers.

Other studies have also agreed on a negative relationship to institutional ownership and financial performance (Shan and Gong, 2016; Masah, Zarrab, 2018; Al-Ghoutha, 2014). Justifying this relationship that a diversity

of institutional ownership means investments from different companies, leading to a difference of views between these companies to guide investment, as well as directing the interests of institutional investors to procurement strategies and their lack of interest in monitoring the executive management of companies

Therefore, the third hypothesis can be formulated as follows:

**H3:** There is a significant negative relationship between institutional ownership and financial performance

## **2.4 Managerial ownership and financial performance**

Many studies point to the positive role management ownership plays in aligning interests between shareholders and managers as management participation in the company's capital increases, and managers are less inclined to make decisions that adversely affect performance. They use the resources of their companies efficiently to maximize shareholder value and thereby reduce agency costs, however, administrative ownership may be detrimental to the company's performance if it rises to a certain level, suggesting that managers may abuse their powers for their own benefit (Bebchuk et al.2010).

There are two contradictory positions in managerial ownership and their relationship to performance, as in the school of thought, administrative ownership is believed to impair performance, because the majority of shareholders and managers participate in dangerous behavior, leading to problems of information asymmetry and the emergence of the agency's problem, and the agency's theory supports this view (Hussainy and Al-Poulter, 2012).

The study (Berke-Berga et al., 2017) examined on the relationship between managerial ownership and firm performance, using regression analysis. The study sampled 52 listed companies on Nasdaq Riga, Nasdaq Tallinn and Nasdaq Vilnius stock exchanges, in Baltics from 2010-2015. The results reveal that there is positive relationship between managerial ownership and internal performance measure (ROA).

The study (Toal and Ruezi study, 2014) found a strong positive impact between administrative ownership and financial performance, as increased administrative ownership improves performance. A study (Gaffar, 2019) revealed the results of this study by investigating the relationship between the structure of ownership and the development of financial performance,

that administrative ownership with a low supervisory policy shows poor financial performance.

(Benjamin et al., 2014) examined the impact of ownership structure on the financial performance of listed insurance firms in Nigeria. The study uses panel data for seventeen (17) firms for the period 2001 – 2010 (10 years) using least square regression method. The study focuses on two aspects of two independent variables to measure ownership structure which are managerial ownership and institutional shareholding while Firm's performance has been measured through Return on Asset (ROA) and Return on Equity (ROE). Findings indicate that there is a positive significant relationship between ownership structure (institutional and managerial) and firm's performance as measured by ROA and ROE. The study (Bajaher, 2019) this study examined the impact of corporate governance on the financial performance of cement companies listed in Saudi Arabia from 2012 to 2016, and the results of this study found that administrative ownership and the size of the company have a positive and statistically significant impact on the performance of companies.

A study Mousa (2010) this study tested the impact of both management ownership and board characteristics on the performance of companies, through a random sample of 100 companies registered on the Egyptian Stock Exchange, the results of this study found that there is no relationship between administrative ownership and financial performance as measured by Tobin's Q. A study (Ehikioya, 2009) examined the relationship between corporate governance structure and financial performance as measured by roa and Tobin's Q for 107 companies listed on the Nigeria Stock Exchange, which found a negative correlation between administrative ownership and financial performance (ROA, Tobin's Q).

From the above and the presentation of previous studies, it became clear to the researcher that some studies agreed that there is a positive relationship of administrative ownership to financial performance (Bajaher, 2019; Toal and Ruezi, 2014; Habashy, 2019). Other studies have agreed that there is a negative relationship between administrative ownership and financial performance (Abdulkarim et al., 2021; Gaffar, 2019; Ehikioya, 2009).

Therefore, the fourth hypothesis can be formulated as follows:

**H4:** There is a significant relationship negative between administrative ownership and financial performance in Egyptian banks

## **2.5 State ownership and financial performance**

Governments in many industrialized countries have acquired large stakes in major commercial banks, while many countries in Europe, including Germany, France, have a good deal of experience with government-owned banks, while the United States has found itself in an unfamiliar region, so it is not surprising that there is hostility between these countries to the idea that governments can manage banks effectively (Andrianova et al., 2012).

study (La porta et al., 2002) presented two theories justifying the need for state participation of shares in companies, the first stipulating the need for government participation in order to finance socially desired projects, the start of financial and economic development in countries suffering from the underdevelopment of their institutions, and the second indicates that in countries with poor or underdeveloped financial performance, the government allows to provide and benefit from jobs.

Study (Oudat et al., 2021) sought to verify the relationship between the ownership structure and the financial performance of commercial banks, and found that there is a positive impact of government and family ownership on financial performance as measured by return on property rights

study (Akin and Ozsoy, 2021) showed that the profitability of state-owned Islamic banks is slightly higher than that of private Islamic banks, and a chronology analysis of this study shows that state-owned Islamic banks performed at least as well as private banks. The results of this study, by knowing the relationship between the ownership structure and the financial performance of Islamic banks, indicated that joint efforts between family and state investors are beneficial to the bank's performance.

A study (Jarbou et al., 2018) examined the impact of the ownership structure and characteristics of the Bank on the performance of Jordanian commercial banks as measured by return on investment, and return on property rights, the results of which found a positive impact of foreign ownership and state ownership on the performance of banks.

A study (Tihanyi, et al, 2019) found that state ownership has a negative impact on consistent financial performance, institutional investors hold seats on the board of directors and encourage banks to adopt relatively low-risk investments and thus allow their huge financial resources to invest more.

The study (Queiri et al., 2021) aimed at finding out the relationship between the characteristics of the Board of Directors and the ownership structure on

the performance of companies on the Muscat Stock Exchange, and the results of this study indicated, the opposite effect of government ownership on the performance of the company.

Study (Pillai et al., 2018) examined the impact of internal corporate governance mechanisms on the performance of companies in the GCC countries, through 349 listed financial and non-financial companies, from 2005 to 2012, and the results of this study showed that governance variables such as government contributions have a significant positive impact on fiscal policies in most GCC countries.

Study (AL-saidi and AL-Shammari, 2015) aimed at finding out the relationship between the structure of ownership and the performance of Kuwaiti companies, and the results of this study found that when evaluating the type of shareholders, categories of government and family ownership positively affected the performance of the company.

From the above and the presentation of previous studies, the researcher found that some studies agreed that there is a positive relationship between state ownership and financial performance (Al-saidi and Al-shammri, 2015; Jarbou et al., 2018; Zouari and Taktak, 2014). Other studies have agreed that there is a negative relationship between government ownership and performance (Tihanyi et al., 2019; Queiri et al., 2021).

H5: There is a significant relationship between state ownership and financial performance in Egyptian banks.

### 3.METHODOLOGY

The measurement of independent variables consisting of (ownership structure) and dependent variables consisting of (financial performance) and controlling variables (bank size, debt ratio) and **table 1: shows how to measure these variables:**

Independent variables	Variable code	Measurement method
Ownership concentration	PROPF	It is measured by the total shares owned by shareholders, which is 5% or more (Saidat et al., 2019)
Managerial ownership	ADOWN	It represents the managers' ownership at time t for firm I (Akber et al. , 2019).
Institutional Ownership	INOWN	Proportion of the ordinary shares held by institutional investors that own at least 5% of

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<b>Independent variables</b>	<b>Variable code</b>	<b>Measurement method</b>
		the firm shares to the total shares outstanding of the firm (Alfariah et al., 2012).
foreign ownership	FROWN	The percentage of the shares owned by foreigners in the bank (Almaqtari et al., 2020)
Government ownership	GVOWN	It is measured by the percentage of the shares owned by the state (Groggaard et al., 2019)
dependent variables	Variable code	Measurement method
Economic value added	EVA	Net operating profit after tax (NOPAT) - capital cost (Austin, 2005). NOPAT= EBIT×(1-T). EBIT= Profit before tax and interest. T=tax rate.
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).

### **3.1 Sample of study**

The research community consists of banks listed on the Egyptian Stock Exchange from 2016: 2019 which are 13 banks listed between the public and private sectors with a total of 52 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.

### 3.2 Data acquisition sources

In obtaining all the data necessary to complete the study, the researcher relied entirely on Misr Information Publishing Company, which is a joint venture between The Egyptian Exchange Stock and Nasdaq. It is considered one of the accredited parties in distributing information for companies listed on the Egyptian Stock Exchange for more than 20 years.

### 3.3 Data analysis methods

The researcher tested the research hypotheses using the multiple regression method, where three multiple regression models were built to test the relationship between the set of independent variables related to the properties of the property structure and their relationship with three dependent variables: economic value added, market value added, and Tobin Q. Since the study includes data for 13 banks and four years as a study period and to reach the best results, all data were processed through the program (Eviews.11) through the longitudinal data packages (Panel Data), due to its great importance, as it takes into account the effect of time change and the effect of change in cross-sectional views alike. This data is divided into balanced longitudinal data (Balanced Panel Data) and unbalanced longitudinal data (Unbalanced Panel Data) when the observations are for the same time periods and cross-sectional observations for different periods (Nizari, and Al-Taher, 2016). In the research, the balanced longitudinal data was relied upon.

### 3.4 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:

First: Analyzing the relationship between the characteristics of the ownership structure and the economic value added

$$\ln FP_{it} = \beta_0 + \beta_1 \ln FP_{it-1} + \beta_2 \text{PROPF}_{it} + \beta_3 \text{ADOWN}_{it} + \beta_4 \text{INOWN}_{it} + \beta_5 \text{FROWN}_{it} + \beta_6 \text{GVOWN}_{it} + \beta_7 \text{BNSIZE}_{it} + \beta_8 \text{DEBTR}_{it} + \epsilon_{it} \quad (1)$$

Second: Analyzing the relationship between the characteristics of the ownership structure and the market value added

$$\ln FP_{it} = \beta_0 + \beta_1 \ln FP_{it-1} + \beta_2 \text{PROPF}_{it} + \beta_3 \text{ADOWN}_{it} + \beta_4 \text{INOWN}_{it} + \beta_5 \text{FROWN}_{it} + \beta_6 \text{GVOWN}_{it} + \beta_7 \text{BNSIZE}_{it} + \beta_8 \text{DEBTR}_{it} + \epsilon_{it} \quad (2)$$

Third: Analyzing the relationship between the characteristics of the ownership structure and the Tobin's Q

$$\ln FP_{it} = \beta_0 + \beta_1 \ln FP_{it-1} + \beta_2 \text{PROPF}_{it} + \beta_3 \text{ADOWN}_{it} + \beta_4 \text{INOWN}_{it} + \beta_5 \text{FROWN}_{it} + \beta_6 \text{GVOWN}_{it} + \beta_7 \text{BNSIZE}_{it} + \beta_8 \text{DEBTR}_{it} + \epsilon_{it} \quad (3)$$

Where (t) expresses the same time period used, and ( $\beta_0$ ) represents the constant part, while ( $\ln FP_{it}$ ) expresses the dependent variable (MVA, EVA, Tobin's Q) which is the financial performance of the banks, and the transactions from ( $\beta_2$ ) to ( $\beta_6$ ) refer to the transactions. The independent variables represented in (PROPF) concentration of ownership, (ADOWN) administrative ownership, (INOWN) institutional ownership, (FROWN) foreign ownership, (GVOWN) government ownership, as for the coefficients ( $\beta_7$ ), ( $\beta_8$ )

represents the coefficients of the two controlling variables, which are (BNSIZE) the size of the bank, (DEBTR) the debt ratio, and finally ( $\epsilon_{it}$ ) indicates the random error.

## **4. DESCRIPTIVE ANALYSIS**

It is an initial stage of data processing, which contributes to summarizing the large number of variables used into simple measures that are easy to read and compare. The descriptive analysis includes the statistical description and the correlation matrix.

### **4.1 Statistical Description of the data**

To know the nature and characteristics of the study model variables, appropriate descriptive statistics will be used here, such as the arithmetic mean, the median, which is one of the measures of central tendency, the standard deviation, which is one of the measures of dispersion, and the minimum and maximum, in addition to the test of the normal distribution as shown in the following table No. (2)

**Table 2: Descriptive statistics for variables, 2016 - 2019**

	Obs.	Mean	Median	Std. Dev.	Min	Max	Normality test
<b>Dependent Variable:(1)</b>							
EVA	65	683.00	37.725	1580	0.1172	8380.0	[508.64]***
MVA	65	5940.0	676	21300	-15500	119000	[622.48]***
TQ	65	50.991	1.0376	86.85	0.9130	308.59	[40.336]***
<b>Independent Variable:</b>							
<b>Property structure</b>							
PROPF	65	0.7156	0.7561	0.258	0.0650	1	[12.378]***
ADOWN	65	0.0403	0.0002	0.092	0.00001	0.3897	[230.94]***
FROWN	65	0.5329	0.5235	0.224	0.0974	0.9713	[0.8385]
GVOWN	65	0.2768	0.2535	0.151	0.00003	0.6011	[1.8785]
INOWN	65	0.1357	0.1239	0.075	0	0.2549	[1.7745]
<b>Control Variables:</b>							
BNSIZE	65	21.298	22.221	3.312	16.949	26.318	[8.1897]**
DEBTR	65	0.9151	0.9207	0.025	0.8570	0.9536	[4.3002]

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

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 (ownership structure)

The natural distribution test shows that all property structure variables follow normal distribution except for variable ownership concentration, administrative ownership, which includes that the ownership structure is also homogeneous among sample banks.

From the average and intermediate it is clear that the ownership structure of the sample banks is dominated by foreign ownership with an average of 53.3%, followed by government ownership with an average of 27.7%, then institutional ownership with an average of 13.6%, and finally administrative ownership with an average of 0.02%, as evidenced by the high level of concentration of ownership of these banks as the broker shareholders who own 5% or more of the shares of these banks exceeds 75% of the size of the bank .

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

The following table (3) shows the analysis of the zero-degree correlation between the variables of study, and the correlation coefficient ranges from zero to one (0-100%), where the value of the coefficient reflects the strength of the correlation relationship, while the signal reflects the direction of the correlation relationship whether it is direct or inverse relationship. According to statistical standards, correlations below 50% represent weak correlations, while correlations ranging from (50%-70%) represent moderate correlations, while any correlation exceeding 70% is considered strong correlation. Based on these criteria, it can be observed that the correlations between the variables of the study model are weak or almost very weak.

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 ownership structure on the financial performance using three variables.

The correlation of ownership structure to financial performance:

The correlation of the ownership structure with added economic value, added market value, and tobin's Q scale was very weak and statistically non-dal, as it did not exceed the 16% barrier, with a single exception, which is a negative and statistically significant correlation at the level of 1% concentration of ownership on the Tobin's Q scale equivalent to 35.1%.

The correlation of independent raiders to each other:

For correlations between independent variables, they ranged from weak to medium-strength, and according to Anderson, 1990, correlation coefficients greater than 0.7 may indicate that the model may be exposed to the problem of linear duplication, and accordingly has not been Find any possibility of the problem of( multicollinearity) between the variables of the study model

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except for a single association between government and foreign ownership which is equivalent to (83.6%), which requires caution when actually applying to make sure that neutralization This problem and the results are not affected by it, and since the correlations between variables are very weak (and in some cases almost non-existent), regression analysis signals cannot be expected .

**Table 3: Correlation matrix between property structures, control variables and dependent variables**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
In EVA (1)	1									
In MVA (2)	-0.5565 [-5.31]***	1								
In TQ (3)	-0.1783 [-1.44]	0.0111 [0.088]	1							
PROPF (4)	0.1635 [1.315]	0.0075 [0.059]	-0.3514 [-2.98]***	1						
ADOWN (5)	-0.1332 [-1.07]	0.0204 [0.162]	-0.1017 [-0.82]	-0.2702 [-2.23]**	1					
FROWN (6)	0.0552 [0.439]	-0.0032 [-0.03]	0.0694 [0.552]	0.2821 [2.334]**	-0.4269 [-3.75]***	1				
GVOWN (7)	0.0043 [0.034]	0.0107 [0.085]	-0.0178 [-0.14]	-0.0089 [-0.07]	-0.0429 [-0.34]	-0.8359 [-12.1]***	1			
INOWN (8)	0.0429 [0.341]	-0.0318 [-0.25]	-0.0212 [-0.17]	-0.4022 [-3.49]***	0.0796 [0.634]	-0.6775 [-7.31]***	0.4649 [4.168]***	1		
BNSIZE (9)	0.9887 [65.42]***	-0.5739 [-5.56]***	-0.1867 [-1.51]	-0.1749 [1.410]	-0.1622 [-1.30]	0.0754 [0.600]	-0.0013 [-0.01]	0.0341 [0.271]	1	
DEBTR (10)	-0.0158 [-0.13]	-0.0954 [-0.76]	-0.1024 [-0.82]	-0.1344 [-1.08]	-0.0593 [-0.47]	0.0298 [0.237]	-0.0519 [-0.41]	0.1362 [1.091]	0.0718 [0.572]	1

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

## 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 relationship**

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 Zr) and table 4 explains the interpretation of the indicators the different effect size based on Cohen (1988) and Hattie (2009):

**Table 4: interpretation for different effect sizes**

Effect Size		$\eta^2$	Interpretation	
Cohen's d	r*		Cohen (1988) Hattie (2009)	
< 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		

Effect Size			Interpretation	
Cohen's d	r*	$\eta^2$	Cohen (1988) Hattie (2009)	
0.8	0.37	0.140	Large Effect	
0.9	0.41	0.168		
$\geq 1.0$	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

Analysis of the relationship between the characteristics of the ownership structure on the financial performance:

This part deals with estimating the relationship between the characteristics of the board of directors at the level of the financial performance of the banks listed on the stock exchange, through the use of three regression models; The first is with Economic Value Added (EVA), the second is with Market Value Added (MVA), and the third is with Tobin's Q.

**Table 5: Property structure and financial performance: Econometric results Dependent variable: ln EVA & ln MVA & ln TQ**

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

	ln EVA Reg (1)	ln MVA Reg (2)	ln TQ Reg (3)
Dependent variable(-1)	-0.4520 [-63.96]***	-0.3195 [-4.018]***	-0.1074 [-1.011]
PROPF	7.3033 [ 9.452]***	0.9005 [ 3.091]***	0.0533 [ 3.741]***
ADOWN	-22.043 [-4.607]***	-14.277 [-5.641]***	0.0812 [ 0.193]
INOWN	10.479 [ 3.016]***	-8.5564 [-6.163]***	-0.4637 [-1.099]
FROWN	-15.482 [-3.021]***	-16.465 [-8.742]***	-0.7583 [-1.722]*
GVOWN	-25.018 [-3.851]***	-19.424 [-9.809]***	11.299 [ 25.45]***
GVOWN_squared			-21.821 [-17.84]***
DEBTR	19.795 [ 18.12]***	-19.307 [-9.088]***	-0.1944 [-8.807]***

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	<b>ln EVA</b>	<b>ln MVA</b>	<b>ln TQ</b>
	<b>Reg (1)</b>	<b>Reg (2)</b>	<b>Reg (3)</b>
Constant	16.454 [ 2.756]***	62.298 [ 16.29]***	1.7935 [ 3.309]***
<b>Key Regression Statistics</b>			
Method	OLS	OLS	1Way FEM
Adjusted R-squared	91.8%	98.7%	99.9%
Durbin-Watson stat.	2.3050	2.4607	2.1165
Fisher test (F-stat..)	(58.412)***	(151.69)***	(5081.7)***
Post-hoc Stat. Power	88.5%	88.5%	88.5%
<b>Effects Specification Statistics</b>			
Robust test	(0.6633)	(0.3522)	(54.275)***
Residual variance test	(1.2453)	(0.1652)	(5.5612)***
Breusch-Pagan test	(5.5163)	(2.3378)	(4.9066)**
Hausman test	---	---	(90.753)***
Time test	(0.6549)	(0.1114)	(6.2419)

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

This model is estimated in the case of the economic value added and market value variables using the methodology of the small boxes collected, while the same model will be estimated but in the case of the Tobin's Q scale using the methodology of fixed effects one-way, and we note that the bank size variable has been removed from the model based on the criteria for choosing between models, which show that the model without the bank size variable is better than the same model with the size of the bank, because this variable when included in the model leads to a breakdown in the statistical significance of property structure variables.

**As for the first regression:**

regarding the impact of the ownership structure on economic value added (EVA) it is clear that all elements of ownership affect EVA at the 1% indication level, we find a positive impact of institutional ownership (INOWN) on the added economic value versus the negative impact of the rest of the ownership elements, increasing all elements of ownership listed in the model by 1% will increase the added economic value by (10,479) for institutional ownership, compared to a decrease of (25,018) for government ownership, (22, 043) for administrative ownership, (15,482) For foreign ownership. The impact of propf on economic value added is positive, as a 1% reduction in bank ownership dispersion leads to an average increase in

the added economic value of 7.3033, and the impact of debt on EVA has also been positive.

Moving on to the second regression: the impact of the ownership structure on market value Add(MVA), the matching of results is evident except for the shift of the positive impact of both institutional ownership (INOWN) and the debt ratio (DEBTR) to negative on MVA, thus all elements of the listed ownership structure have become negative on MVA and the only positively influential thing is the concentration of ownership.

As for the third regression: on the impact of the ownership structure on the Tobin's Q scale, we note the continued positive impact of profit and negative foreign ownership (FROWN) on the Tobin's Q scale, while administrative ownership (ADOWN) and institutional ownership (INOWN) have had no impact on the Tobin's Q scale. As for government ownership (GVOWN), its relationship with the Tobin's Q scale is non-linear (quadrant relationship), which takes the form of an inverted u letter, as confirmed by the Sasabuchi-lind-Mehlum test in table 8, and it is clear from the table that the great value (The tipping point) for this variable is equivalent to 0.26730, i.e. banks with a government ownership ratio of less than 26.7% have a positive impact on their Tobin's Q scale, while banks with more than 26.7% government ownership are its impact is negative on Tobin's Q scale. The table also shows that the positive part is slightly less inclined 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 R<sup>2</sup> 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 6: Sasabuchi–Lind–Mehlum test for an inverse U-shaped relationship**

		<u>Reg(3)</u> <u>GVOWN</u>
$x_i$	$\hat{\beta} =$	11.299 [ 25.45]***
$x_i^2$	$\hat{\gamma} =$	-21.821 [-17.84]***
	Interval	$x_{i(\min)} =$ 0.00003 $x_{h(\max)} =$ 0.6011
	Slope at $x_i$	$\hat{\beta} +$ $2\hat{\gamma}x_i =$ 24.319 [ 2.494]**
	Slope at $x_h$	$\hat{\beta} +$ $2\hat{\gamma}x_h =$ -30.373 [-2.421]**
	Sasabuchi test (t- value)	[ 3.420]***
	Extremum Point	$-\beta / (2\hat{\gamma})$ 0.26730 Extremum inside interval

## 7. ESTIMATING PRACTICAL IMPORTANCE

The magnitude of the impact provides a quantitative measure of the size of the correlation between variables, thus providing an assessment of the strength of the results not provided by the tests with statistical significance alone, in other words explaining the practical significance of the relationship in actual reality, i.e. whether the relationship has a small, medium or large practical importance in the administrative environment of the study sample, and therefore the size of the impact brings us additional information for the decision to conclude to accept or reject the hypothesis of nothingness.

## 7.1 Estimate the practical importance of the model

Table 9 presents the practical indication, i.e. the magnitude of the impact based on the natural correlation index, because of the impact of the ownership structure on the financial performance of banks, from which the following is evident:

With regard to economic value added and market value added: all elements of the ownership structure have great practical importance on added economic value and added market value, although the most important elements of the ownership structure were practical, which focused ownership on economic value added, foreign ownership relative to market value added, and therefore these results emphasize the feasibility of intervention based on the results of this study to modify the ownership structure, and at the very least work to increase the concentration of ownership and reduce the proportion of foreign ownership.

### For Tobin's Q scale:

Here we find the importance of a huge process of government ownership for Tobin's Q, followed by the concentration of ownership, while the rest of the ownership structure ranges from medium, weak or practically insignificant.

**Table 7: Practical significance for Property structure: Effect Size**

Reg	PROPF	ADOWN	INOWN	FROWN	GVOWN	
In	Effect Size (Cohen's	-1.4568	0.9537	-0.9553	-1.2178	
EVA	d)					
	Effect Size (r)	-0.5888	0.4304	-0.4310	-0.5201	
	Confidence interval					
	(%95)					
	Lower	0.7321	-0.8529	0.1082	-0.6290	-0.7451
	Upper	0.9061	-0.3469	0.6494	-0.1462	-0.2567
	t-stat. (Effect Size)	[4.607]	[3.016]	[3.021]	[3.851]	
	Interpretation	Large	Large	Large Effect	Large	
		Effect	Effect		Effect	
In	Effect Size (Cohen's	-1.8302	-1.9996	-2.8363	-3.1825	

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<b>Reg</b>	<b>PROPF</b>	<b>ADOWN</b>	<b>INOWN</b>	<b>FROWN</b>	<b>GVOWN</b>
<b>MVA d)</b>					
Effect Size (r)		-0.6751	-0.7070	-0.8173	-0.8467
Confidence interval (%95)					
Lower	0.1184	-1.0355	-1.1152	-1.5166	-1.6854
Upper	0.6667	-0.4604	-0.5072	-0.6785	-0.7269
t-stat. (Effect Size)		[5.641]	[6.163]	[8.742]	[9.809]
Interpretation		Large Effect	Large Effect	Large Effect	Large Effect
<b>ln TQ d)</b>					
Effect Size (Cohen's)		0.0603	-0.3433	-0.5379	7.9492
Effect Size (r)		0.0301	-0.1692	-0.2597	0.9698
Confidence interval (%95)					
Lower	0.1823	-0.2085	-0.3675	-0.4474	2.1164
Upper	0.6989	0.3275	0.1382	-0.0441	0.9836
t-stat. (Effect Size)		[0.193]	[1.099]	[1.722]	[25.45]
Interpretation		No Effect	Small Effect	Intermediate Effect	Large Effect

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

## **8. RESEARCH RESULTS**

The current study examined how the ownership structure of banks listed on the Egyptian Stock Exchange affected financial performance as shown by economic value added, market value added, and Tobin's Q. The study came to the following conclusions:

A statistically significant association exists between ownership structure and economic value added (EVA) in banks listed on the Egyptian Stock Exchange, according to the results of testing the first main hypothesis.

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

1. explained the result of the first sub-hypothesis; There is a positive effect of the concentration of ownership on the economic value added (EVA) in banks listed on the Egyptian Stock Exchange, and this result is consistent with the study (Ozili and Uadiale, 2017; Santoso and Santasyacitta, 2020; Hu and Ezumida, 2008). They see that concentration of ownership is an effective leverage for the firm because greater ownership can reduce the agency problem.
2. explained the result of the second sub-hypothesis; There is a negative effect of managerial ownership on the economic value added (EVA) in banks listed on the Egyptian Stock Exchange, and this result is consistent with the study (Gaffar, 2019; Bebchuk et al., 2010).
3. explained the result of the third sub-hypothesis; There is a negative effect of foreign ownership on the economic value added (EVA) in banks listed on the Egyptian Stock Exchange, and this result is consistent with the study (Tanui et al., 2021; Alqudah et al., 2019). Where they see that foreign investors put great pressure on the administration to direct their behavior towards serving these investors, and thus this leads to the emergence of the agency problem among them. Or perhaps this explains the increase in the percentage of foreign ownership in banks and their large losses or weak gains during the years that the research targeted.
4. explained the result of the fourth sub-hypothesis; There is a negative effect of government ownership on the economic value added (EVA) in banks listed on the Egyptian Stock Exchange, and this result is consistent with the study (Tihanyi et al., 2019).
5. The result of the fifth sub-hypothesis showed: There is a positive effect of institutional ownership on the economic value added (EVA) in banks listed on the Egyptian Stock Exchange. This result is consistent with the study (Alfariah et al., 2012; Yahaya and Lawal, 2018; Khamis et al., 2015). They see institutional investors as an important corporate governance mechanism that improves performance through their ability to monitor and control company managers.

Second: the result of the second main hypothesis; There is a statistically significant relationship between ownership structure and market value added (MVA) in banks listed on the Egyptian Stock Exchange.

From this main hypothesis, a group of the following sub-hypotheses are derived:

1. Explain the result of the first sub-hypothesis; There is a positive effect of the concentration of ownership on the added market value (MVA) in the banks listed on the Egyptian Stock Exchange, and this result is consistent with the study (Vural and Simoes, 2021). They see that the concentration of ownership leads to more effectiveness and enhances oversight and governance.
2. explained the result of the second sub-hypothesis; There is a negative effect of managerial ownership on the added market value (MVA) in banks listed on the Egyptian Stock Exchange. This result is consistent with the study of (Alhaji and Sani, 2018), where they see that company managers can sometimes manipulate the reports or financial statement of the company in order to obtain private gain.
3. explained the result of the third sub-hypothesis; There is a negative impact of foreign ownership on the market value added (MVA) in banks listed on the Egyptian Stock Exchange. This result is consistent with the study (Nzau and Musa, 2022). Where they see that foreign investors may not be able to make strategic decisions that would affect the performance of companies, this may explain the increase in the percentage of foreign ownership in banks and their large losses or weak gains during the years that the research targeted.
4. explained the result of the fourth sub-hypothesis; There is a negative effect of government ownership on the market value added (MVA) in banks listed on the Egyptian Stock Exchange, and this result is consistent with the study (Najid and Abdulrahman, 2011; Queiri et al., 2021). Where they see that state-owned companies tend to be politically motivated rather than commercial, which leads to poor financial performance.
5. explained the result of the fifth sub-hypothesis; There is a negative effect of institutional ownership on the market value added (MVA) in banks listed on the Egyptian Stock Exchange, and this result is consistent with the study (Shan and Gong, 2016). Where they see that the existence of a diversity of institutional ownership means the presence of investments

from different companies, which leads to a difference in views between these companies, which affects the performance.

Third: the result of the third main hypothesis; There is a statistically significant relationship between ownership structure and Tobin's Q in 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; Having a positive effect of ownership concentration on Tobin's Q.
2. explained the result of the second sub-hypothesis; Having a negative impact of foreign ownership on Tobin's Q.
3. explained the result of the third sub-hypothesis; No significant effect of managerial ownership on Tobin's Q.
4. explained the result of the fourth sub-hypothesis; No significant effect of institutional ownership on Tobin's Q.
5. explained the result of the fifth sub-hypothesis; The existence of a non-linear relationship (quadratic relationship) for government ownership which takes the form of an inverted U on Tobin's Q.

## **9. RECOMMENDATIONS AND FUTURE STUDIES**

- 1.The current study recommends that Egyptian banks should adopt good corporate governance practices.
- 2.The study recommends conducting more studies on other governance mechanisms that were not included in the current research, as the findings of the researcher may not apply to another period of time.
- 3.The need for an independent entity to follow up the level of application of the rules and mechanisms of governance in Egyptian banks on an ongoing basis, and to make this information available to enhance the level of disclosure and transparency.
- 4.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.

5. The current study recommends not to limit the concentration of ownership in the hands of a limited number of major shareholders (holders of 5% or more of the bank's shares).
6. The government should enact laws on corporate ownership and government ownership to serve as a control mechanism, and to enhance the long-term performance of companies.
7. Conducting more studies while developing the sample size to include more banks, as the current research was limited to banks listed on the Egyptian Stock Exchange only.

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## أثر هيكل الملكية على الأداء المالى فى البنوك المدرجة بالبورصة المصرية

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### ملخص البحث باللغة العربية

تهدف هذه الدراسة الى معرفة أثر هيكل الملكية على الاداء المالى فى البنوك المدرجة بالبورصة المصرية، وعدددهم 13 بنكا وذلك فى الفترة من 2016 الى 2019، وتم تحديد خصائص هيكل الملكية فى (تركيز الملكية، الملكية الادارية، الملكية الأجنبية، الملكية الحكومية، الملكية المؤسسية) وأعدمت الباحثة على المقاييس الحديثة فى قياس الأداء المالى وهى: القيمة الاقتصادية المضافة EVA، القيمة السوقية المضافة MVA، Tobin's Q، وقد توصلت هذه الدراسة الى مجموعة من النتائج ويمكن تلخيصها فيما يلى: أتفاق تأثير الأداء المالى فى الفترة السابقة، وتركز الملكية، والملكية الادارية، والملكية الأجنبية، والملكية الحكومية بالنسبة لمتغيرات الأداء المالى الثلاثة.

فى المقابل نجد أختلاف تأثير الملكية المؤسسية، ونسبة المديونية بين متغيرات الاداء المالى الثلاثة، إستنادا الى إختلاف تأثير هذه المتغيرات ما بين القيمة الأقتصادية المضافة والقيمة السوقية المضافة، والذى يرجع الى الأرتباط العكسى فى الأصل بين القيمة الاقتصادية المضافة والقيمة السوقية المضافة.

الكلمات الدالة: هيكل الملكية، الأداء المالى، البنوك المصرية.

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