INTERNATIONAL OWNERSHIP AND FIRM PERFORMANCE IN ARAB ECONOMIES

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Abstract

This paper aims at filling existing research by examining the impact of corporate governance and ownership structure on firm performance using cross-sectional data from companies in the MENA region for the years 2009-2013. The results indicate that higher ownership concentration is associated with higher returns. Furthermore, firms with higher international ownership share tend to perform better than those with only local private and/or state ownership. The results suggest some prevalent features with respect to ownership and performance of firms in the MENA region. Due to the volatile social and business environment, these firms operate in, they may be particularly dependent on effective ownership structures and support which may be provided by international, institutional, and large shareholders.

Keywords: MENA, FDI, Firm Profitability, Ownership, Globalization

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1. INTRODUCTION

Issues of economic development and the interaction of multinational enterprise (MNE) presence and formation and success of local firms in developing countries have dominated the research agenda at various policy levels. One major element of successful development in the Middle East and Africa is the formation of a viable local industry and in particular small and medium-sized enterprises (SMEs) (Rocha, Farazi, Khouri, & Pearce, 2011; Abor & Quartey, 2010; Brixovia, 2010; Quartey, 2003). Another major element is the development of export-capability into international markets of developed and emerging economies (Mareike, Wohlmuth, Knedlik, Pitamber, & Gutowski, 2004; Zaiem, 2012). The presence of multinational enterprises (MNEs) and their interaction with local SMEs may play a major role here (Larue de Tournemine, Kern, & Bissiriou, 2009). MNEs may transfer technology to local SMEs, create export

opportunities due to vertical integration, or due to the building of supplier relations (Karlsson, Johansson, & Stough 2012; Kim & Zhang, 2008; Lutz, Talavera, & Park, 2008; Hsu, 2002).[1]

Furthermore, international and institutional investors as well as large shareholders can be seen as potential controllers of equity agency problems as their increased shareholdings can give them a stronger incentive to monitor local managerial behavior and firm performance. Corporate governance and in particular ownership structure can be an effective tool to control the opportunistic behaviour of management (Fauzi & Locke, 2012; Syriopoulos & Tsatsaronis, 2012; Grygorenko & Lutz, 2007).

So far only a few studies have attempted to examine this relationship for Middle Eastern and

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[1] On the other hand, MNEs may crowd out local economic activity and thereby hinder local development of SMEs and of a related viable export sector; see Abor and Quartey (2010), Weidenbaum (2000).

African economies and there remain large gaps in our knowledge concerning the relationship between ownership structures and local firm performance. This paper contributes to filling this existing research gap by investigating firms in the MENA region. We examine the impact of corporate governance and ownership structure on firm performance using cross-sectional data from companies in the MENA region for the years 2009 to 2013.

The remainder of the paper is structured as follows. Section 2 introduces the economic and institutional background and the hypotheses to be investigated. Section 3 describes the research methodology. Section 4 presents the general modeling and summarizes the results. Section 5 concludes.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Corporate governance is the complex system by which corporations are managed, directed, administered, or controlled. Corporations are complicated organizations and analysing their governance systems is a challenging task. Many theorists have been working towards an understanding of the essentials of corporate governance structures.

Corporate governance is intended to develop ownership structures and corporate governance structures for companies in order to make sure that managers behave ethically and make the right decisions that benefit shareholders. Jensen and Meckling (1976) propose agency theory, which suggests that in a lot of organizations there is a separation between ownership which are the principal and management which are the agents, this separation of ownership and management may lead to agency problems, including excessive consumption and under-investment decisions. Fama and Jensen (1983) suggest that boards reduce agency problems when the board separates management from control aspects of the decision making process (Fauzi & Locke, 2012; Lee, 2009).

The board of directors plays an important role in maintaining effective corporate governance, particularly in publicly held corporations in which agency problems may arise from the separation of ownership and control. The management body in a firm is responsible for suggesting and implementing major policies; however, shareholders do not always agree with these policies, which can lead to agency problems between management and shareholders. The board of directors is considered one of several ways that can reduce agency conflicts within the firm. Capital structure, insider ownership, and block ownership are also effective in controlling agency problems (Fauzi & Locke, 2012; Syriopoulos & Tsatsaronis, 2012).

Moreover, in an effective and productive work environment, boards become very important for the smooth functioning of organizations. Boards are expected to perform different functions. For example, monitoring of management in order to decrease agency costs, hiring and firing of management, providing and giving access to resources, and finally, providing the firm with strategic directions. Boards also seek to protect

shareholders' interest in a competitive environment while maintaining managerial accountability to provide a great and effective firm performance. Most empirical studies find that board composition is affected not only by those corporate governance mechanisms but also by other variables, including firm size and firm performance. Finally, a good corporate governance framework can benefit the firm with easier financing, lower costs of capital, improved stakeholder favor, and overall better company performance (Fauzi & Locke, 2012; Syriopoulos & Tsatsaronis, 2012).

Corporate governance is divided into two contrasting approaches: shareholder approach and stakeholder approach. Such a division is based on the purpose of the firm and its structure of governance arrangements described, explained, and justified by the two approaches. According to the shareholder approach, corporations should be controlled to maximize shareholders' wealth and the shareholders should be allocated decision rights. Thus, the managers are supposed to serve the shareholders. The managers should take into account the interests of the shareholders when making decisions about the firm's major policy, organization, and management. The stakeholder approach views the shareholder approach posits that shareholders should control the firm because they are residual claimants and their interests should be served because they are risk bearers. The major challenge to the 'shareholder sovereignty' is the stakeholder approach, which suggests that managers should take into account their responsibilities to stakeholders not just shareholders when making decisions. These two approaches can be regarded as competing explanations of the operations of a firm (Lee, 2009; Pan, Lin, & Chen, 2013).

According to the agency theory, in the shareholders approach, the ownership structure is considered one of the most important corporate governance mechanisms that affect a firm's performance. From a theoretical point of view, agency problems may affect the value of firms through the expected cash flow accruing to investors or the cost of capital. First, agency problems are decreased when good corporate governance is offered which also makes the investors optimistic about future cash flows. Second, good corporate governance lowers the cost of capital to the extent that it reduces shareholders' monitoring and audit costs (Kim & Yoon, 2007; Lee, 2009).

Corporate governance has been a dominant policy issue and a much-debated topic of academic research. In addition to theoretical interest, issues of corporate governance have practical appeal; it has been shown in various contexts that better corporate governance is associated with higher firm financial performance. Corporate governance can be viewed as a mechanism that ensures external investors receive proper returns on their investments. Effective corporate governance provides assurance on the safety of the invested funds and the returns on investment The corporate governance framework should ensure that timely and accurate disclosure is made of all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the

company (Mohamed, Oyelere, & Al Jifri, 2009; Lee, 2009; Bijalwan & Madan, 2013).

A corporate governance structure combines controls, policies, and guidelines that drive the organization toward its objectives while also satisfying stakeholders' needs. A corporate governance structure is often a combination of various mechanisms. The foremost sets of controls for a corporation come from its internal mechanisms. These controls monitor the progress and activities of the organization and take corrective actions when the business goes off track. Maintaining the corporation's larger internal control fabric, they serve the internal objectives of the corporation and its internal stakeholders, including employees, managers, and owners. However, external mechanisms are controlled by those outside an organization and serve the objectives of entities such as regulators, governments, trade unions, and financial institutions.

Recent researches focus on the determinants of corporate governance on firm performance; in particular, board structure, CEO characteristics, and ownership structure have been identified as key components for a firm's governance practices. Firms who have higher managerial ownership, less executive compensation, and more independent directors will have stronger governance and better firm performance (Pan, Lin, & Chen, 2013).

2.1. Ownership concentration

Ownership concentration has been suggested as an effective way to reduce the agency problem. Ownership concentration gives large shareholders concentrated control rights and the incentives to monitor management, thereby convincing managers to maximize shareholders' wealth and enhance performance (Lee, 2009; Alimehmeti & Paletta, 2012; Huang & Boateng, 2013; Mohamed & Basuony, 2015). Lee (2009) argues that there is a significant linear and humped shaped relationship between ownership concentration and firm performance. However, Huang and Boateng (2013), Alimehmeti and Paletta (2012) found a positive relationship between ownership concentration and firm performance. Therefore we hypothesize that:

Hypothesis 1 (H1): There is a significant relationship between ownership concentration and book value performance.

Hypothesis 1a (H1a): There is a significant relationship between ownership concentration and ROA.

Hypothesis 1b (H1b): There is a significant relationship between ownership concentration and ROE.

Hypothesis 2 (H2): There is a significant relationship between ownership concentration and market value performance.

Hypothesis 2a (H2a): There is a significant relationship between ownership concentration and Tobin's Q.

Hypothesis 2b (H2b): There is a significant relationship between ownership concentration and SR.

2.2. Insider ownership

Insiders refer to employees, directors, and managers who enjoy information advantage about the firm over the market. Insider ownership may also perform a monitoring role for the firm. (Pan, Lin, &

Chen, 2013). Insider ownership has an important impact on corporate financial performance. Insider ownership can improve company performance because working owners are not willing to avert resources away from firm value maximization. However, an optimal level of insider ownership is determined by firm size, industry, investor protection level, and performance of the firm (Wellalage & Locke, 2012; Pan, Lin, & Chen, 2013). Pan, Lin, and Chen (2013) found a positive relationship between insider ownership and firm performance, also Wellalage and Locke (2012) found a positive relationship between insider ownership and firm performance, therefore, and we hypothesize that:

Hypothesis 3 (H3): There is a significant relationship between insider ownership and book value performance.

Hypothesis 3a (H3a): There is a significant relationship between insider ownership and ROA.

Hypothesis 3b (H3b): There is a significant relationship between insider ownership and ROE.

Hypothesis 4 (H4): There is a significant relationship between insider ownership and market value performance.

Hypothesis 4a (H4a): There is a significant relationship between insider ownership and Tobin's Q.

Hypothesis 4b (H4b): There is a significant relationship between insider ownership and SR.

2.3. Foreign ownership

Foreign investment literature has mentioned that firms, in which there is a higher share of foreign ownership will perform better than their domestic ownerships. Foreign investors demand higher standards of corporate governance that's why firms benefit from a high level of foreign ownership (Lee, 2009). An increase in the number of foreign ownership in a firm will increase the firm performance because foreign ownership plays a monitoring role in the corporate governance mechanism of the firm. Foreign ownership has a positive effect on firm performance because foreign investors can achieve better financial, technological resources and experience than the domestic investors and can transfer these attributes to the firms (Phung & Le, 2013; Huang & Shiu,2009). Phung and Le (2013) found a negative relationship between firm performance and foreign ownership. Huang and Shiu (2009) have found a positive relationship between foreign ownership and firm performance therefore we hypothesis that:

Hypothesis 5 (H5): There is a significant relationship between foreign ownership and book value performance.

Hypothesis 5a (H5a): There is a significant relationship between foreign ownership and ROA.

Hypothesis 5b (H5b): There is a significant relationship between foreign ownership and ROE.

Hypothesis 6 (H6): There is a significant relationship between foreign ownership and market value performance.

Hypothesis 6a (H6a): There is a significant relationship between foreign ownership and Tobin's Q.

Hypothesis 6b (H6b): There is a significant relationship between foreign ownership and SR.

2.4. Institutional ownership

In order to push management towards policies that will benefit shareholders, institutional investors must have the resource and ability to properly monitor management decisions and the size of ownership stakes. Firms can hire institutional investors to monitor corporate managers; however institutional investors do not get any incentives for monitoring thus institutional investors have no direct financial stake in the firm they invest in (Lee, 2009; Pan, Lin, & Chen, 2013). Institutional investors can act for their own interests, not for the interest of the shareholders. Institutional investors may have shareholding in multiple firms which means that they may not be good monitors of the management, which may lead to having high returns and risky projects (Lee, 2009). Lee (2009) found a negative relationship between institutional ownership and firm performance; however, Pan, Lin, and Chen (2013), Hartzell and Straks (2003) found a positive relationship between institutional ownership and firm performance. Therefore, we hypothesize that:

Hypothesis 7 (H7): There is a significant relationship between institutional ownership and book value performance.

Hypothesis 7a (H7a): There is a significant relationship between institutional ownership and ROA.

Hypothesis 7b (H7b): There is a significant relationship between institutional ownership and ROE.

Hypothesis 8 (H8): There is a significant relationship between institutional ownership and market value performance.

Hypothesis 8a (H8a): There is a significant relationship between institutional ownership and Tobin's Q.

Hypothesis 8b (H8b): There is a significant relationship between institutional ownership and SR.

2.5. Board size

According to agency theory, it is argued that a large board is more likely to be alert for agency problems that's because a huge number of people will be monitoring management actions. According to the resource dependence theory, it is argued that large boards bring a greater opportunity for more links and hence access to resources. However, Jensen (1986) also suggests that smaller boards enhance communication, cohesiveness, and coordination, which make monitoring more effective (Fauzi & Locke, 2012; Mashayekhi & Bazaz, 2008; Basuony & Mohamed, 2014). Other scholars found a positive relationship between board size and firm performance (Mertzanis, Basuony, & Mohamed, 2019; Fauzi & Locke, 2012) therefore we hypothesize that:

Hypothesis 9 (H9): There is a significant relationship between board size and book value performance.

Hypothesis 9a (H9a): There is a significant relationship between board size and ROA.

Hypothesis 9b (H9b): There is a significant relationship between board size and ROE.

Hypothesis 10 (H10): There is a significant relationship between board size and market value performance.

Hypothesis 10a (H10a): There is a significant relationship between board size and Tobin's Q.

Hypothesis 10b (H10b): There is a significant relationship between board size and SR.

2.6. Independent executive directors

Independent directors are non-executive or non-employee directors, who may perhaps play a more effective role in monitoring management to meet shareholders' expectations. Some studies reached a result that having a large number of outside independent directors may lower the risk that the mangers will manipulate the finances and earnings management, so a greater number of outside directors have a positive relationship with company performance (Pearce & Zahra, 1992; Chiang & Lin, 2011). In addition, agency theory claimed that greater board independence allows good monitoring of self-interest pursuits as a result it minimizes opportunities for fraud and agency costs (Basuony, Mohamed, & Al-Baidhani, 2014). Ferrer and Banderlipe (2012), Mashayekhi and Bazaz (2008) claim that as the outside directors do not hold any managerial roles in the firm and corporate boards do not meet frequently, as a result of this less cohesiveness takes place affecting management's interest and values. Pan, Lin, and Chen (2013) argue that there is a positive relationship between independent directors and firm performance; also Chiang and Lin's (2011) results show a positive relationship between independent directors and firm performance. Mashayekhi and Bazaz's (2008) results show a negative relationship between board independence and firm performance. Therefore we hypothesize that:

Hypothesis 11 (H11): There is a significant relationship between Independent board directors and book value performance.

Hypothesis 11a (H11a): There is a significant relationship between Independent board directors and ROA.

Hypothesis 11b (H11b): There is a significant relationship between Independent board directors and ROE.

Hypothesis 12 (H12): There is a significant relationship between Independent board directors and market value performance.

Hypothesis 12a (H12a): There is a significant relationship between Independent board directors and Tobin's Q.

Hypothesis 12b (H12b): There is a significant relationship between Independent board directors and SR.

2.7. Board committees

Most of the firms have audit committees and remuneration in order to check the audit of financial statements and to set up remuneration for executive officers and directors. These committees are important as they ensure that the financial procedure is well and the directors are compensated, in order to prevent agency problems. These studies are helpful in order to improve our understanding of the relationship between committees, agency problems, and firm performance (Fauzi & Locke, 2012). Firms could improve their reporting quality by properly structuring their audit committees, leading to reducing their cost of capital. In order to have an effective nomination committee. The nomination committee should ensure the appointment of non-executive directors whose

interests are aligned with those of the shareholders and reduce any agency problems (Fauzi & Locke, 2012; Felo, Krishnamurthy, & Solieri, 2003). Fauzi and Locke (2012) found a positive relationship between a board of committees and firm performance however, therefore we hypothesize that:

Hypothesis 13 (H13): There is a significant relationship between Board committee and book value performance.

Hypothesis 13a (H13a): There is a significant relationship between Board committee and ROA.

Hypothesis 13b (H13b): There is a significant relationship between Board committee and ROE.

Hypothesis 14 (H14): There is a significant relationship between Board committee and market value performance.

Hypothesis 14a (H14a): There is a significant relationship between Board committee and Tobin's Q.

Hypothesis 14b (H14b): There is a significant relationship between Board committee and SR.

2.8. CEO duality

The two outstanding theories concerning the relationship between CEO duality and company performance inside the structure of the board of directors are the agency theory and stewardship theory. Stewardship theory defines the manger as a steward who gains a sense of achievement by being high performing and taking actions that are beneficial to the shareholders' profits. According to the agency theory, some researchers have found that CEO duality can lead to a lower level of supervision of the general manager by the board, therefore creating a less desirable situation for company performance (Chiang & Lin, 2011; Syriopoulos & Tsatsaronis, 2012). Researchers claimed that when the CEO is also the chairperson that means gaining complete authority, this can lead to reducing the potential conflict between management and then the board is reduced, leading to a higher performance level. To summarize, there have been mixed findings on the relationship between CEO duality and company performance (Chiang & Lin, 2011). Chiang and Lin (2011) found a negative relationship between CEO duality and firm performance, therefore we hypothesize that:

Hypothesis 15 (H15): There is a significant relationship between CEO duality and book value performance.

Hypothesis 15a (H15a): There is a significant relationship between CEO duality and ROA.

Hypothesis 15b (H15b): There is a significant relationship between CEO duality and ROE.

Hypothesis 16 (H16): There is a significant relationship between CEO duality and market value performance.

Hypothesis 16a (H16a): There is a significant relationship between CEO duality and Tobin's Q.

Hypothesis 16b (H16b): There is a significant relationship between CEO duality and SR.

3. RESEARCH METHODOLOGY

The sample is collected from local stock market data and includes manufacturing and services companies operating in Egypt, Tunisia, Morocco, Lebanon, Jordan, and six GCC countries for the years 2009 until 2013. Manufacturing companies are divided into six sectors (energy, material, industry, consumer discretionary, consumer staples). Service companies are divided into six sectors (consumer discretionary, consumer staples, health care, Information technology, telecommunication services, utilities), companies that did not have financial reports are excluded from the sample. Table 1 summarizes the sample selection process.

Table 1. Sample by country

Countries	All listed companies	Unavailable data	Total	%
Bahrain	3	-	3	1.5 %
Egypt	14	-	14	7.0 %
Jordan	7	-	7	3.5 %
Kuwait	18	-	18	9.1 %
Lebanon	1	-	1	0.5 %
Morocco	7	(2)	5	2.5 %
Oman	15	(3)	12	6.1 %
Qatar	14	-	14	7.1 %
Saudi Arabia	100	(1)	99	49.7 %
Tunisia	16	(6)	10	5.1 %
United Arab Emirates	16	-	16	8.0 %
Total	211	(12)	199	100 %

Table 1 shows 211 firms from 11 countries based on the market capitalization of the firms that have been registered in the stock markets of these 11 countries; 3 firms from Bahrain, 14 firms from Egypt, 7 firms from Jordan, 18 firms from Kuwait, 1 firm from Lebanon, 7 firms from Morocco, 15 firms from Oman, 14 firms from Qatar, 100 firms from Saudi Arabia, 16 firms from Tunisia, and finally 16 firms from United Arab of Emirates. Nine firms were excluded as they do not have audited financial reports. The total of the firms that are used in the sample is 199 firms after excluding 2 from Morocco, 3 from Oman, 1 from Saudi Arabia, 6 from Tunisia. Finally, the firms in Saudi Arabia have the highest percentage (47%) for the sample of this study based on market capitalization.

3.1. Measurement of variables

The following dependent variables are used for measuring the firm performance: ROA, ROE, Tobin's Q, and stock return. Independent variables used for corporate governance mechanisms are ownership concentration, insider ownership, institutional ownership, foreign ownership, CEO duality, board size, independent boards, and audit committee. Control variables include firm size, leverage, and liquidity. These data collected from the Orbis database. Table 2 shows the definition and measurement of these variables.

Table 2. Definition of variables

Variables symbols	Definition	Measurements
Dependent variables		
ROA	Return on assets	Net income/total assets
ROE	Return on equity	Net income/total equity
Tobin's Q	Tobin's Q	(MV (CS) + BV (PS) + BV (LTD) + BV (INV) + BV (CL) – BV (CA))/BV (TA)
SR	Stock return	Average of the monthly change in stock prices * 12
Independent variables		
OwnCon	Ownership concentration	If ownership concentration exists = 1; otherwise = 0
OwnConperc	Ownership concentration	Adding up all shareholding of 5% or more
InsidOwn	Insider ownership	If insider ownership exists = 1; otherwise = 0
InsidOwnper	Insider ownership	Percentage of shares held by the board members
InstOwn	Institutional ownership	If institutional ownership exists = 1; otherwise = 0
InstOwnper	Institutional ownership	Percentage of shares held by institutional investors (banks, pension fund insurance companies and mutual funds)
FrgnOwn	Foreign ownership	If foreign ownership exists = 1; otherwise = 0
FrgnOwnper	Foreign ownership	% of shares by for. inv.
CEODuality	CEO duality	If the CEO & Chairman are the same person = 0; otherwise = 1
BrdSize	Board size	Total number of board members
BrdIndp	Independent board	Number of non-executive members on the board
Audit committee	Audit committee	If audit committee exists = 1; otherwise = 0
Control variables		
FirmSize	Firm size	Natural log of total sales
Leverage	Leverage	Long term debt/total assets
Liquidity	Liquidity	Current assets/current liability

3.2. Econometric modeling

Given the panel data available, we can use the following generalized regression model to investigate the economic hypotheses presented:

$$y_{i,t} = \alpha + \mathrm{B}F_i + \Gamma G_{i,t} + \Delta M_t + \varepsilon_{i,t} + \eta_i \qquad (1)$$

where the dependent variable $y_{i,t}$ is a profit or sales level indicator (e.g. ROE or ROA) of a company *i* in period *t*; F_i is a vector of determinants specific to firm i but invariant over time (such as country or industry); $G_{i,t}$ is a vector of determinants that may vary between firms and also over time (e.g., sales); M_t is a vector of period-specific determinants outside of a particular firm (typically captured by year); $\varepsilon_{i,t}$ is an idiosyncratic error term that may vary between firms and also over time and is independently distributed with $E(\varepsilon_{i,t}) = 0$; and η_i represents unobserved heterogeneity across firms, i.e., a company-specific random effect that is independently distributed.

This general specification allows for either ordinary least-squares (OLS), random-effects (RE), or fixed-effects (FE) modeling, where the random or fixed effects are firm-specific components. The more general approach is to allow for random firm-specific effects; the case where these effects are fixed, that is determinate constants instead of random variables, is a special sub-case. Model variants reported below were estimated with OLS or RE panel models and with lagged explanatory variables. All models were also run with controls for years, countries, and industries (where appropriate).

The data available contains several firm-specific, time-invariant variables that can be assumed to capture a significant part of present fixed effects (e.g., country, industry indicators). Hence a random-effects specification seems to be a priori more appropriate.

4. RESULTS AND ANALYSIS

Four models are used in order to test the hypotheses stated above. These models use ROA, ROE, Tobin's Q, and stock return, respectively, as dependent variables. They are first estimated using cross-sectional OLS; subsequently, these models are also estimated using random-effects (RE) models. Tables 3 and 4 below summarize the results; this is followed by detailed discussions.

Model 1 is used in order to test the effect of corporate governance mechanisms on firm performance using return on assets ROA. This model takes the form:

$$ROA = \alpha + \beta_1 leverage + \beta_2 liquidity + \beta_3 FirmSize + \beta_4 BrdSize + \beta_5 BrdIndp + \beta_6 OwnCon +$$
$$+\beta_7 OwnConper + \beta_8 InsidOwn + \beta_9 InsidOwnper + \beta_{10} InstOwn + \beta_{11} InstOwnper + \beta_{12} FrgnOwn + \qquad (2)$$
$$+\beta_{13} FrgnOwnper + \beta_{14} CEODuality + \beta_{15} Industry + \varepsilon$$

Model 1 examines the relationships between, leverage, liquidity, firm size, board size, independent board, ownership concentration, insider ownership, institutional ownership, foreign ownership, CEO duality and industry and firm performance measured as ROA. The model is highly significant (F = 14.379, p = 0.000) and an adjusted R-squared of 0.178 explains about 18 percent of the variation in return on assets.

Leverage appears to have a negative and statistically significant effect on ROA. This result is consistent with previous studies (Jensen, 1986; Myers, 1984). Liquidity appears to have a positive and statistically significant effect on firm performance (ROA). This result is consistent with Lee's (2009).

Firm size appears to have a positive and statistically significant effect on ROA; revealing that large firms appear to have intrinsic advantages as compared to smaller firms. These advantages may include wide recognition as well as easier access to capital. This result is consistent with previous studies (Black, Jang, & Kim, 2006; Tian & Zeitun, 2007).

Ownership concentration percentage appears to have a positive and statistically significant effect on ROA. Ownership concentration is suggested to be an effective way to mitigate the agency problems, as ownership concentration gives large shareholders concentrated control rights and the incentive to monitor management thereby, compelling managers to maximize shareholders' wealth and enhance performance. This result is in line with the study of Huang and Boateng (2013). On the other hand, other scholars have a negative association between ownership concentration and firm performance which is not consistent with the results of this study (Basuony, Mohamed, & Ahmed, 2017; Belkhir, 2005).

Insider ownership and insider ownership percentage share appear to have positive and statistically significant effects on firm performance (ROA). These results support the agency theory that higher insider ownership should reduce costs and hence increase firm performance. These results are consistent with previous studies (Pan, Lin, & Chen, 2013; Wellalage & Locke, 2012; Basuony, Mohamed, Hussain, & Marie, 2016).

Foreign ownership appears to have a negative and statistically significant effect on firm performance (ROA). When foreign ownership reaches a certain level, foreign investors become controlling shareholders, and this may destroy firm value because foreign controlling owners may use firm operations solely to their own benefit, e.g. by asset stripping. This result is consistent with Phung and Le (2013).

Table 3. OLS models

Model	OLS 1	OLS 2	OLS 3	OLS 4
Dependent variable	ROA	ROE	Tobin's Q	SR
Leverage	-.154***	-.196***	2.127**	-.114**
Liquidity	.003***	.001	-.040	.003
FirmSize	.004***	.013***	-.337***	.003
BrdSize	.001	.001	.211***	-.011**
BrdIndp	-.017	-.021	-1.308*	.045
OwnCon	.006	.009	-1.574***	.066
OwnConper	.053***	.066**	1.580*	-.081
InsidOwn	.016**	.007	-.014	.073**
InsidOwnper	.047***	.081***	-1.908**	-.147**
InstOwn	.011	.010	-1.561***	.020
InstOwnper	.014	.033	.206	.044
FrgnOwn	-.015*	-.007	.113	-.037
FrgnOwnper	.020	-.002	3.456***	-.029
CEODuality	.007	-.017	.590	.038
Observations	995	995	995	995
Groups (firms)	199	199	199	199
F-statistic	14.379	9.465	4.729	2.119
Prob > F	0.000	0.000	.000	0.006
R-squared	.191	.135	.072	.034
R-squared adjusted	.178	.121	.057	.018
Max VIF	3.703	3.703	3.703	3.703

*Notes: Variables as listed in Table 2. All models estimated with ordinary least squares. All equations include a constant and industry effects. *** denotes significant at the 1%, ** at the 5%, * at the 10% level.*

Model 2 is used in order to test the effect of corporate governance mechanisms on return on equity ROE. Besides using a different independent variable, its structure is identical to that of Model 1.

Leverage appears to have a negative and statistically significant effect on ROE. Firm size appears to have an effect on a positive and statistically significant effect on firm performance (ROE). Insider ownership and insider ownership percentage share appear to have positive and statistically significant effects on firm performance (ROE). Ownership concentration percentage appears to have a positive and statistically significant effect on ROA.

Model 3 examines the effect of corporate governance mechanisms on Tobin's Q. Besides using a different independent variable, its structure is identical to that of the previous two models. Leverage appears to have a positive and statistically significant effect on Tobin's Q. This result is consistent with McConnell and Servaes' (1995).

Board size appears to have a positive and statistically significant effect on Tobin's Q. Board size supports agency theory and resource dependence, as larger board size creates greater firm value and hence supports the testable hypotheses. The positive coefficient of the board size suggests that large boards are effective mechanisms for monitoring manager's performance and achieving long term strategic goals in such firms. This result is consistent with Fauzi and Locke (2012).

Independent board of directors appears to have a negative and statistically significant effect on Tobin's Q. This negative relationship may be caused by a very high block holders ownership concentration, which can interfere with effective corporate governance of the firm and as a consequence, the independent board of directors may not play a pivotal role in effective governance of the firm. This result is consistent with Mashayekhi and Bazaz's (2008).

The ownership concentration percentage share appears to have a positive and statistically significant effect on Tobin's Q. However, ownership concentration appears to have a negative and statistically significant effect on Tobin's Q. This may indicate that ownership concentration per se is bad. This might be caused by the nature of ownership in some firms in Middle Eastern and North African countries where the higher the ownership level the more potential there is for agency problems. And excessive ownership concentration in the firms may be detrimental to firm performance.

Insider ownership percentage appears to have a negative and statistically significant effect on Tobin's Q. As some points of higher insider ownership may be detrimental to the firm's performance.

Institutional ownership appears to have a negative and statistically significant effect on Tobin's Q. Institutional investors may act in their own interest and not in the interest of the shareholders. Principal-agent problems may happen between shareholders and institutional investors. Institutional investors may have shares in multiple firms that may not be good monitors of management; that, in turn, may lead to the adoption of risky high-return projects leading to lower firm performance. This result is consistent with Lee's (2009).

Foreign ownership percentages appear to have a positive and statistically significant effect on Tobin's Q. As foreign ownership has a positive effect on firm performance because foreign investors may provide better financing and resources, and may transfer technology to local firms. This result is consistent with Huang and Shui's (2009).

Finally, Model 4 examines the effect of corporate governance mechanisms on stock return. Besides using a different independent variable, this model is identical to the previous three models. Leverage appears to have a negative and statistically significant effect on firm performance (stock returns).

Board size appears to have a negative and statistically significant effect on stock returns. As if board size is large, board members may find efficient communication more difficult and also a large board of directors may lack genuine interactions and debate, thus increase the CEO's power.

Insider ownership appears to have a positive and statistically significant effect on stock returns. Insider ownership percentage appears to have a negative and statistically significant effect on stock returns. As some points of higher insider ownership may be detrimental to a firm's performance.

Next, we reestimate all models using a random-effects model (RE). Table 4 below summarizes the results; this is followed by a discussion of their significance. Model 1 examines the effect of ownership structures and board structures on firm performance measured by ROA. The random-effects model is highly significant as indicated by the R-squared; this is partly due to the use of controls and a lagged dependent variable. Noteworthy is in this estimation that both the share of foreign ownership as well as ownership concentration appear to have significant positive effects on firm performance. This confirms the results of our OLS estimations presented above.

Model 2 examines the effect of ownership structures and board structures on firm performance measured by ROE. Ownership concentration, inside ownership, and the share of foreign ownership appear to have significant positive effects on firm performance. The share of institutional ownership seems to have a negative effect. This confirms the results of our OLS estimations presented above.

According to Model 3, the share of institutional ownership seems to have a positive effect on Tobin's Q. This contradicts our earlier results. Furthermore, Models 2, 3, and 4 indicate that the share of inside ownership has a negative influence on performance indicators.

Table 4. RE models

Model	RE 1	RE 2	RE 3	RE 4
Dependent variable	ROA	ROE	Tobin's Q	SR
Leverage	-.046***	-.687***	1.115*	.012
Liquidity	.001***	.002	-0.049***	.000
FirmSize	.002	.049***	-0.328***	-.008
BrdSize	.001	-.019**	-0.010	-.008
BrdIndp	.002	.019	-0.669	.034
OwnCon	.016**	.104*	-0.217	.068
OwnConper	.008	.180*	-0.157	-.091
InsidOwn	.007	.159**	-0.335	-.014
InsidOwnper	.005	-.435***	-1.262*	-.134*
InstOwn	-.001	.013	-0.472	.037
InstOwnper	-.001	-.216*	1.498**	.076
FrgnOwn	.000	-.084	0.334	.050
FrgnOwnper	.031*	.331**	0.498	-.123
CEODuality	-.010	-.076	0.165	-.040
Observations	796	796	796	796
Groups (firms)	199	199	199	199
Wald Chi	1247	76	1165	92
P > Chi²	.000	.000	.000	.000
R-squared within	.003	.011	.080	.105
R-squared between	.920	.252	.893	.170
R-squared overall	.620	.090	.776	.108

*Notes: Variables as listed in Table 2. All models estimated with random effects. All equations include a constant, lagged dependent variable, and controls for industry, country, and year. *** denotes significant at the 1%, ** at the 5%, * at the 11% level.*

5. CONCLUSION

The results presented above may suggest some prevalent features with respect to the ownership and performance of firms in the MENA region. Due to the volatile social and business environment, these firms operate in, they may be particularly dependent on effective ownership structures and support. In line with previous literature, we assume that this support may be provided by international and institutional investors as well as large shareholders. International and institutional investors as well as large shareholders can be seen as potential controllers of equity agency problems as their increased shareholdings can give them a stronger incentive to monitor local managerial behaviour and

firm performance. International owners, in particular, may be providers of equity and debt financing, technology transfers to local firms, global export opportunities, and global supply chain relationships.

Our results indicate that a higher foreign ownership share is positively associated with higher firm performance measured by ROA, ROE, and Tobin's Q (OLS estimations only). Furthermore, we find that ownership concentration and insider ownership are positively associated with firm performance measured by ROA, ROE (RE estimations only), and stock returns (OLS estimations only).

These findings are consistent with the story outlined above and, in turn, lead to questions about how exactly that international support is provided and how it interacts with other performance factors of Middle Eastern and African firms. Answering these questions will be the subject of future research. Insider ownership is positively associated with firm performance measured by ROA, ROE (RE estimations only), and stock returns (OLS estimations only). However, an increasing share of inside ownership appears to have a negative influence on Tobin's Q and stock returns, while the effects on ROA and ROE are unclear. Results are also unclear with respect to the influence of institutional ownership.

The limitations of this study due to the small sample of firms investigated. Further research might therefore also include examining a larger number of Middle Eastern and African firms. This will allow for an examination of the interaction between different ownership aspects of firm performance.

Corporate governance and ownership structure, in particular diversified ownership including foreign MNE owners, play a major role in promoting growth and development by local firms and industries in developing countries. International owners may provide equity and debt financing, transfer technology to local firms, create export opportunities due to vertical integration or due to the building of supplier relations. Furthermore, international and institutional investors as well as large shareholders can be seen as potential controllers of equity agency problems as their increased shareholdings can give them a stronger incentive to monitor local managerial behaviour and firm performance. For regulators and governors, Corporate governance in particular ownership structure can be an effective tool to control the opportunistic behaviours of management. So far only a few studies have attempted to examine this relationship for Middle Eastern and African economies and there remain large gaps in our knowledge concerning the relationship between ownership structures and local firm performance.

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APPENDIX. DESCRIPTIVE STATISTICS

Variables	N	Minimum	Maximum	Mean	Standard deviation
ROA	990	-.38010	.53985	.0750525	.08713351
ROE	990	-.98568	.73179	.1228853	.15056462
Tobin's Q	990	.00946	6.31464	2.2268472	4.69086248
SR	990	-1.21937	1.95874	.1473492	.34109594
Leverage	990	.00000	.96301	.1783569	.18652246
Liquidity	990	.06450	6.66852	2.4967222	3.37537889
FirmSize	990	15.60259	25.82562	2.0282359	1.90182542
Audit committee	990	1	1	1.00	.000
BrdSize	990	4	17	8.48	2.383
BrdIndp	990	.00000	1.00000	.5132783	.22138663
OwnCon	990	0	1	.85	.353
OwnConper	990	.00000	1.00000	.4032553	.29036315
InsidOwn	990	0	1	.72	.452
InsidOwnper	990	.00000	.95000	.1271168	.19704502
InstOwn	990	0	1	.71	.456
InstOwnper	990	.00000	1.00000	.3115760	.29669144
FrgnOwn	990	0	1	.21	.405
FrgnOwnper	990	.00000	.93930	.0549809	.16618937
CEODuality	990	0	1	.97	.172
Sector	990	1	9	3.39	2.200
Industry	990	1	2	1.42	.493
Country	990	1	11	7.65	2.664