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DOES OWNERSHIP MATTER IN PUBLICLY LISTED TOURISM FIRMS? EVIDENCE FROM JORDAN

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Abstract

This paper aims to provide new evidence on the relationship between ownership structure and firm performance. Unlike the previous empirical studies in the area of firm performance, we examine this relationship within a unique setting of publicly listed tourism firms. Our contribution is extended by investigating this relationship in Jordan as an emerging market and a famous tourist destination in the region. This is an interesting setting since ownership is more concentrated in the investigated firms. Our results show that institutional investors are self-opportunistic and negatively affect firm performance. In addition, we report a negative relationship between foreign ownership and firm performance. Furthermore, we detect that mutual funds have a positive impact on firm performance. Finally, the findings of this paper provide interesting empirical implications to academics and policy makers.

1. Introduction

There is an increasing interest in the academic literature to examine the impact of ownership structure, as a corporate governance mechanism, on firm performance. Most of these studies are focused on non-financial firms (more specifically manufacturing firms) in developed markets such as the US or the UK. There is, however, limited evidence of this relationship in emerging markets. For example, Dyck and Zingales (2004) suggest that "the private benefits of control" is highly related to developing markets with more concentrated ownership. Lemmon and Lins (2003), using an East Asian sample, find that crises motivate insiders to take over "outside minority investors". In addition, Al-Najjar (2011) detects that institutional ownership has an impact on firms' financial policies (such as capital structure and dividend policy) in the Jordanian context. Chen and YU (2012) find that there is a non-linear relationship between managerial ownership and corporate diversification. However, there is no study that has investigated this issue in tourism related firms; we aim to bridge this gap in the literature.

From international perspectives, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) provide empirical evidence that firms operating in countries with low legal protection and shareholder rights are subject to severe agency conflicts. McConnell and Servaes (1990) detect a positive relationship between institutional ownership and firm value. Lowenstein (1991) as well as Chaganti and Damanpour (1991) suggest that institutional ownership is associated with firms' performance. On the other hand, Pound (1988) and Shleifer and Vishny's (1986) argue that different shareholders have diverse agendas. This argument supports the findings of Jensen and Meckling (1976) that different ownerships can impact

firm performance in different ways. Using data from Germany, Oesterle, Richta, and Fisch (2013) detect a non-linear relationship between large shareholders and the internationalisation of the firm.

This study examines the effect of ownership structure on the performance of Jordanian tourism publicly listed firms. In particular, we investigate the role of institutional ownership, foreign ownership, and mutual fund ownership on firm performance. Our aim is to examine the theoretical framework of agency theory within a weak governance structure. We contribute to the extant literature in different ways. First, unlike previous studies, we consider the effect of institutional ownership in tourism listed firms in Jordan, as a famous tourist destination in the Middle East. Despite the sufficient evidence of firm performance in tourism firms, there is no major study that investigates the role of ownership structure on tourism firm performance (see among others, Al-Najjar, 2014; Chen, 2010). We expect that this setting will be of interest since it is a specialised sector and hence the ownership structure will be more concentrated in such firms[1]. Secondly, we investigate if there is any effect of foreign ownership on firm performance in the publicly listed Jordanian tourism firms. Thirdly, the study analyses the impact of mutual fund ownership (as expert investors) on tourism firm performance. Finally, we control for the impact of the financial crisis in our sample. This is an important aspect since our sample contains listed firms in an emerging market.

The remaining of this study is organised as follows; Section 2 highlights the tourism sector in Jordan; Section 3 shows the literature review, theoretical framework and hypotheses development; Section 4 discusses the data and methodology; Section 5 reports the findings;

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[1] We compared the investigated ownership structure in our sample with a sample of manufacturing firms in Jordan. The average institutional ownership in our sample is significantly higher than the average of the controlled sample (.32) and lower for the government ownership (.021) and the foreign ownership (.08).

Section 6 includes further analysis of the institutional ownership effect; and Sections 7 concludes.

2. The tourism Sector in Jordan

According to The Jordan Tourism Board, the tourism sector is one of the biggest contributors to the Jordanian economy, generating around $3.461 billion in 2010. This sector has managed to attract both domestic and international investments, leading to more job supply and providing the economy with the required hard currency. It is also reported that this sector represents 26% of the current account in the Balance of Payment. This ranks the sector in the third place after commodity exports and expatriate remittances. The tourism sector also represents 26% of the total service balance receipts as well as 13% of the GDP (Jordan Tourism Board Report, 2010).

The Travel and Tourism Competitiveness Report (2013) indicates that Jordan is placed sixth in the Middle East and North Africa (MENA) region. In addition to this, Jordan has moved 4 places up in the world rankings of travel and tourism competitiveness from 64 in 2011 (out of 140 countries) to 60 in 2012. This shows a fair development in the tourism sector and indicates that Jordan is seen to be in the top half of the world rankings. Moreover, it is indicated that Jordan is ranked 14 for prioritisation of travel and tourism and ranked 35 in the travel and tourism regulatory framework (Travel and Tourism Competitiveness Report, 2013).

Jordan is famous as a tourist destination since it has a rich history and has many historical places. For example, Petra is one of the new Seven Wonders of the World and a UNESCO world heritage site. In addition, Qasr Amra and Umm ArRassas are UNESCO world heritage

sites. The lowest point on earth is the Jordan Valley, which is another important tourist attraction site as it includes the Dead Sea.

Accordingly, it is important to shed light on the publicly listed tourism firms in Jordan and investigate the role of ownership structure in this context given the relatively weak governance environment there. For example, in our sample only a very few firms appointed independent directors on their boards. Hence, ownership structure might play an important role in firm performance.

To recapitulate, even though the tourism sector in Jordan is so important, there is no major study to investigate the performance of publicly listed tourism firms. The aim of this study is to bridge this gap in the literature and to provide evidence on the relationship between ownership structure and firm performance in this context. Such relationship is under-researched in both developed and developing countries. The importance of the Jordanian context is based on the view that major shareholders, such as institutional investors (including banks and mutual funds) as well as foreign investors can be seen as the key players in the market and affect directly firm financial performance.

3. **Literature review, theoretical framework and hypotheses development**

3.1 Literature review

Several studies have focused on how ownership structure affects firm performance. This includes the role of blockholders such as institutional ownership and foreign ownership. It is argued that corporate blockholders provide firms with "*fresh capital*" that can be used to enhance growth. This capital, however, has a cost of losing control to the blockholders. This is because such blockholders will be interested in how the resources of the targeted firms are

allocated (Connelly, Hoskisson, Tihanyi, & Certo, 2010). From this view point, different studies have found a negative relationship between blockholders and firm performance (see for example, Rosenstein & Rush, 1990; Bogert, 1996). Demsetz (1983), however, supports a positive effect of ownership on firm performance, this is in line with the important monitoring role such blockholders have. McConnell and Servaes (1990), among others, also support the positive monitoring role of blockholders. Thus, it is argued that despite the ample evidence about the relationship between ownership and firm performance, the results are far from being conclusive (see for example, Agrawal and Knoeber, 1996; **de Miguel et al**., 2004; **Thomsen et al.,** 2006).

Sánchez-Ballesta and García-Meca (2007) used meta-analysis based on 33 previous studies and report that there is no support of a positive linear relationship between blockholders and firm performance and hence no supporting evidence is found for the monitoring role of these investors. Similarly, Demsetz and Villalonga (2001) also find that there is no relationship between ownership structure and firm performance.

As regards foreign ownership, Görg and Greenaway (2004) argue that the outcome of having foreign ownership is one of the most challenging issues in international business strategy. There are different studies that support a positive role of such investors in corporate performance (see for example, Wei, Xie, & Zhang, 2005). This is due to their effective monitoring role to direct managers to act in a consistent manner with firm value maximisation.

Mutual funds ownership, as a specialised institutional investor, has been empirically investigated in the previous literature. These studies have reported that such investors can be seen as free from agency conflicts and hence have a positive impact on firm performance (see among others, Yuan, Xiao, and Zuo, 2008; Connet, Marcus, Saunders, &Tehranian, 2007).

As regards tourism sector, we find lack of evidence on the relationship between ownership structure and firm performance. Al-Najjar (2014) asserts that corporate governance has a significant impact on firm performance. In particular the study reports the important role of board size and independence on firm performance without investigating ownership structure. In addition, Chen (2010) shows the importance of tourism growth in the hotel industry and argues that firm performance is related to "*business cycle expansion*".

From the above discussion, we can conclude that (as far as we know) there is no evidence for the role of ownership structure and firm performance in the tourism related firms. Thus, our study aims to bridge this gap in the literature.

3.2 Theoretical Framework

The majority of the previous related studies have adopted the agency perspectives or the monitoring standpoint in investigating the relationship between ownership structure and firm performance (see among others Shleifer and Vishny, 1986**; Morck et al., 1988**; **Classens et al., 2002**).

The agency theory is based on the separation between management and ownership that leads to the "principal- agent" relation. Such conflicts are related to the dissimilarity of risk attitudes between agents (managers) and owners (shareholders). Also, managers observe the

agency relationship as a short term relation, while shareholders look at it from a long term perspectives (Lambert, 2001; Al-Najjar, 2014).

The theoretical framework for he ownership structure studies follows the positivist approach of the agency theory. Here, the relationship between principals and agents can be identified and the conflict is recognisable. Thus, ownership structure, as a corporate governance tool, can help in minimising the impact of this conflict (Jensen, 1986).

The role of large shareholders in mitigating agency problems is well documented in the previous studies. For example, Ozkan (2006) argues that institutional investors have a key role in monitoring firms as they manage and control significant amounts of funds. In the same vein, Jensen (1986), Pound (1988) and Tong and Ning (2004) suggest that institutional owners can effectively monitor firms and can alleviate agency costs. This is what is known as the monitoring hypothesis (Sánchez-Ballesta and García-Meca, 2007).

From another perspective, agency theory suggests that high concentration of ownership might result in ineffective decisions. For this viewpoint, there is a strategic alignment effect for such owners that will lead to a negative entrenchment effect within high blockholder ownership (see for example, Claessens el al., 2002; Sánchez-Ballesta and García-Meca,2007).

The other standing point in the literature is the signalling theory, which is based on the asymmetric information between insiders and outsiders. Large shareholders such as institutional investors might act as a transmitting information tool to other shareholders (Chidambaran & John, 2000; Gillian & Starks, 2002). Institutional investors can substitute firms need to signal good performance, for example, Short, Zhang, and Keasey (2002) suggest that such investors minimise the need to use dividends to signal good performance.

Agency theory that is based on asymmetric information is not a new framework in the tourism context. For example, Guilding, Warken, Ardill, and Fredline (2005) have employed this approach in their sample of tourism firms. Accordingly, our main framework in this study follows Guilding et al. (2005) and provides new evidence on the role of ownership structure in firm performance within this context. Qu, Ennew, and Sinclair (2005), using a survey analysis, investigate the relationship between ownership structure and market orientation in China using hotel and travel firms, as their sample. Our study complements Qu et al.'s, (2005) work by examining the role of ownership structure in the tourism context by employing advanced quantitative analysis.

To summarise, there are different theoretical frameworks to investigate the role of ownership structure as a corporate governance tool as well as there are different explanations for such role within the same context. This might be one of the reasons behind the different findings in the empirical studies.

3.3 Hypotheses development

This section provides a discussion of our hypotheses; we start with our two main hypotheses related to institutional ownership and foreign ownership. Then, we introduce a hypothesis related to a special type of institutional investors (mutual funds), as an extra hypothesis to gain more understanding about the ownership structure in Jordan.

Institutional ownership: As mentioned before, there are different studies that investigate the role of institutional ownership, McConnell and Servaes (1990), for example, detect a positive association between institutional ownership and firm performance. It is generally argued that the higher the level of institutional ownership will lead to better firm performance and value.

However, from Chinese perspectives, Wei et al. (2005) detect that both institutional ownership and state ownership are negatively related to firm performance.

In order to develop our hypothesis as regards institutional ownership, we adopt the framework developed by Pound (1988). It is proposed that there are three hypothetical arguments for the role of institutional ownership. The first hypothesis is *the efficient monitoring hypothesis*, which indicates that institutional investors have the right background to monitor efficiently firms at a minimum cost. This will lead to a positive relationship between institutional investors and firm performance. *The conflict of interest hypothesis*, however, suggests that there is only a pure investment relationship between institutional investors and the firm. Hence, to keep this investment relationship, institutional investors will be reluctant to voice against the management on their decisions. This is clearly a conflict of interest situation that will inversely affect firm performance. The final proposition is *the strategic alignment hypothesis*, here, the argument is based on the mutual advantage of the cooperation between institutional investors and managers. This type of cooperation might reduce any beneficial effects on firm performance that could be developed from monitoring firms by institutional investors. Thus, a negative relationship is expected between institutional ownership and firm performance based on *the strategic alignment hypothesis.*

Since we are investigating this issue in publicly listed tourism firms in Jordan that has somehow a weak governance protection, we argue that institutional investors will be more self-opportunistic and aim for their benefits and hence *the conflict of interest hypothesis and the strategic alignment hypothesis* will be more suitable in this context. This is also in line with Heard and Sherman's (1987) argument that dual activities in business and investment relations will create a conflict of interest for such institutions. In addition, our sample has

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more concentrated ownership (0.46) if compared to a controlled sample of manufacturing firms (around 0.32). Hence, with more concentration of such ownership the chances are high that these institutions will be self-opportunistic. In other words, these institutional investors might maximise their utility and deprive the income share for minority shareholders (see among others, Kuznetsov & Muravyev, 2001). Accordingly, we posit that:

H1: There is a negative relationship between institutional ownership and firm performance.

Foreign Ownership: To gain more understanding about the ownership structure, this study incorporates foreign ownership in the empirical models. Dahlquist and Robertson (2001) investigate the role of foreign ownership and suggest that foreign investors can be seen as a substitute for institutional owners. Hence, foreign ownership can complement the role of domestic institutional ownership in monitoring firms. It is also argued that having foreign directors among the board will help in increasing the productivity of the firm. Doidge, Karolyi, and Stulz (2004) argue that foreign ownership can provide a positive informational impact on firm performance. In the same vein, Oxelheim and Randøy (2003) find a positive effect of foreign ownership in the Swedish context.

We do not expect these shareholders to represent a majority ownership in our sample or even in the different industrial sectors in the Amman Stock Exchange, this is due to the emerging nature of the Stock Exchange. However, having such investors among the shareholders can provide the required pressure on management to improve firm performance as well as if a tourism firm has a significant foreign share ownership this might provide a good signal for the international connections required by such companies. Accordingly, our hypothesis is:

H2: There is a positive relationship between foreign ownership and firm performance.

Mutual Funds: In order to further investigate the effect of institutional investors in the tourism-related firms in our sample, we examine the effect of mutual fund ownership on firm performance. These investors are professional investment institutions and their main aim is to maximise their profit. Thus, they will direct firms' management if needed to improve their performance. Accordingly, we argue that these institutions will have less conflict of interest and will be more active in enhancing firm performance.

Yuan et al. (2008) suggest that there is a positive relationship between mutual fund ownership and firm performance. This is because mutual funds do not have any relationship with the companies they invest in (portfolio companies) and hence their monitoring role can be described as "*less pressure sensitive*". Therefore, to a large extent mutual funds can be described as "*free from conflict of interest*" (Yuan et al., 2008; Connet et al., 2007). In addition to this, mutual fund managers are in a constant pressure to obtain good returns for their portfolios and thus mutual funds should have the right motives to monitor firms and to take the required actions to protect their investments (see among others, Yuan et al., 2008). Accordingly, we hypothesise that:

H3: There is a positive relationship between mutual fund ownership and firm performance.

To test these three hypotheses, we introduce two regression models. The first is related to institutional ownership and foreign ownership. In the second stage, we investigate the effect of mutual funds as our main independent variable to test our third hypothesis (for more discussion please see Section 4).

4. Data, methodology and variables

4.1 Data and descriptive statistics

We employ a sample of publicly listed tourism firms in Jordan for the period spanning from 2005 to 2012. These firms are related to hotels, entertainment facilities and transportation linked to tourism. Our population is all firms listed under tourism and transportation sector in the Amman Stock Exchange and provide the required financial information for the analysis period. Our sample represents 120 firm-year observations for 15 publicly listed firms. The population of tourism and transportation (general sector) includes 25 firms (13 Hotels and 12 companies in the transportation sector). The 15 publicly listed tourism firms are those specialised in tourism and 'transport and tourism' purposes. Hence, our sample represents 60% of the population.

We hand-collect the financial data and ownership information from the annual reports to make sure of the data reliability and validity. Information about the annual reports is also available in the Amman Stock Exchange website. We then match this information with the available financial data in DataStream to make sure all the firm specific variables have the same reported values.

Table 1 shows the descriptive statistics, the average institutional ownership is around 46%, indicating a high percentage of institutional ownership in the investigated firms. We detect a low average for foreign ownership; some of these firms do not even have such ownership. This reflects that foreign investors have a low share in firm ownership in our sample. This low representation of foreign investors can be due to the emerging nature of the stock exchange. Hence, we argue that institutional investors are the major investors in publicly

listed tourism firms and that the foreign investors are expected to be less involved in providing any monitoring services. As regards mutual funds, the average ownership is around 3% with a maximum of 60%, which might indicate the importance of such institutions. On average, our sample has a weak financial performance with around 5% profitability. In addition, these firms rely heavily on debt with an average debt to equity ratio of 57%.

PLEASE INSERT TABLE 1 HERE

In Table 2 we report the correlations among the independent variables, there are no high bivariate correlations among the variables and hence multicolinearity is not of a concern in our models. We report a positive significant correlation between firm size and leverage. This result is expected since large firms would have more access to external funding opportunities (see among others, Rajan & Zingales, 1995). Another interesting finding is that there is a positive significant correlation between firm size and foreign ownership, indicating that the foreign investors are more interested in large firms. It is worth noting that the Variance Inflation Factor (VIF) is around 1 for all the variables, which confirms that multicolinearity is not a problem in our models.

PLEASE INSERT TABLE 2 HERE

4.2 Methodology

We have two empirical stages to test our hypotheses. In the first stage we investigate our two main hypotheses, by employing panel data models. We have 120 firm-year observations for 15 tourism publicly listed firms. Thus, the study will use panel date modelling to investigate our hypotheses. We extend and modify the empirical modelling in previous empirical studies

such as Wei et al. (2005), Cornett et al. (2010), Chen (2010) and Al-Najjar (2014) and employ the following model to examine our hypotheses:

$$Performance_{it} = \beta_0 + \beta_1\,INST_{it} + \beta_2\,FOR_{it} + \psi\text{ firm-factors} + \text{Financial crisis dummies} + \varepsilon_{it}$$

Where performance is represented by two accounting based measures: return on assets and return on equity (see among others, Chen, 2010; Al-Najjar, 2014). INST is the institutional ownership measured by the percentage shares owned by institutions, FOR is the percentage of shares owned by foreign investors. Firm factors are: firm size, leverage and growth opportunities (market to book ratio). Financial crisis dummies are dummy variables representing the years of the financial crisis (2008-2012). The financial crises have received much attention in the literature and different studies have been conducted to empirically explore this effect. We expect the financial crisis period to have a negative impact on our sample as these firms will be directly affected by the reduction of the number of foreign tourists. In order to control for this effect in our models, we follow different studies that include the year effects for the financial crisis period in their models (see for example, Al-Najjar, 2014; Dell'Ariccia, Detragiache, & Rajan, 2008[2]).

An important issue when investigating the ownership structure is the endogeneity problem between ownership structure and firm performance. We run the Hausman test and the evidence was statistically weak for any possible endogeneity problem in the reported models. For extra robustness check we report the Instrumental Variable (IV) models using the 2SLS (Two Stage Least Squares) method in Table 5.

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[2]Dell'Ariccia et al. (2008, p. 90) state that "*if industries more dependent on external finance are hurt more severely after a banking crisis, then it is likely that banking crises have an independent negative effect on real economic activity*". Hence, if the real economic activity is down, this will have a direct impact on the tourism sector from both foreign and domestic tourists' perspectives.

The second empirical stage aims to test our third hypothesis, we use the following panel regression model:

Performance$_{it}$ = β_0 + β_1 MUF$_{it}$ + ψ firm-factors+ Financial crisis dummies+ ε_{it}

Where MUF$_{it}$ is the percentage shares owned by mutual funds and the other variables are previously defined. The main variable of interest, here, is MUF which we expect to be positive and statistically significant.

It is worth noting that to correct for any heteroscedasticity and autocorrelation problems the robust standard errors are used in all the models. In addition, for our IV panel models we used 1 year lag for the endogenous variables as instruments. To check the validity of these instruments the Sargan test is employed.

4.3 Variables

The independent variables of concern, here, are institutional ownership, foreign ownership and mutual funds. As mentioned before, these variables are widely used in literature (see among others, McConnell & Servaes, 1990; Eng & Mak, 2003). We measure institutional ownership by the percentage shares owned by institutional investors to the total outstanding shares; Foreign Ownership is the percentage of shares owned by foreign investors; Mutual funds ownership is measured by the percentage of shares owned by mutual funds.

With respect to *Firm-Specific Variables*, this study controls for *firm Size, growth opportunities, and leverage*; following Chen (2010) and Al-Najjar (2014), the study includes size and leverage as two important control variables. It is documented that large firms are more diversified and hence their values are likely to rise (this is because such firms have diverse capabilities and are more able to achieve economies of scale). In addition to this,

large firms can benefit from utilising their investment opportunities and improve their performance. Hence, firm size and growth opportunities are expected to be positively related to firm performance. Baek, Kang, and Park (2004) find a positive relationship between firm size and firm value. A similar result is reported by Chen (2010).

Financial leverage reflects if creditors can mitigate agency conflicts (Lins, 2003; McConnell & Servaes, 1995). It is suggested that debt helps in enhancing firm performance (see, Chen Chung, Hsu, & Wu, 2010). On the other hand, leverage might indicate several financial problems and a high debt ratio can be seen as a signal for default problems or even bankruptcy. The pecking order theory expects a negative relationship between firm performance and financial leverage (Myers, 1984).

Therefore, we argue that for our sample of publicly listed tourism firms, firm size and growth opportunities are positively related to firm performance, while leverage has a negative impact on performance. This is consistent with Chen (2010) who investigates the financial performance of hotels and argues that large firms with lower debt ratios have better performance.

5. Results

In this Section our regression findings are discussed. The study implies both panel data and pooled data models. The fixed effects model is not reported because the Hausman test is insignificant in all the models, indicating that the null hypothesis should be accepted and hence the specifications of the random effects are more appropriate than the fixed effects estimator.

We start with the first two main hypotheses. Table 3 provides the first set of regression models. Our dependent variable, here, is the return on equity. Models 1 and 2 represent the pooled models while Models 3 and 4 report the random effects model. In Models 1 and 3 the financial crisis dummies are included. We detect that there is a strong evidence of a negative significant relationship between institutional ownership and firm performance, and hence in our sample of publicly listed tourism firms, institutional investors have a conflict of interest as well as could have some strategic alignment with firm management. This finding is in line with our hypothesis (*H1) and* the *conflict of interest hypothesis* as well as *the strategic alignment hypothesis*. In addition, a negative relationship is reported between foreign ownership and firm performance in Models 1 and 2, this is contradicts our hypothesis (*H2*). This might be due to the lower stack such shareholders have in our investigated firms and thus such investors do not involve in monitoring activities. In the random effects models, the foreign ownership is insignificant, even though the statistical finding, here, is different than what is reported in the pooled models yet the empirical implication of the insignificant finding is in line with our explanation of the weak role of such investors in our sample. Thus, we provide evidence, in our sample that foreign investors holding a minimum stake in a firm tend not to act as a monitoring device, leading to a negative impact on firm performance.

With respect to our firm specific factors, as expected, we detect a positive impact of both firm size and growth opportunities on firm performance. This indicates that for our sample of tourism listed firms, large companies with more growth opportunities outperform their smaller counterparts (Chen, 2010, Al-Najjar, 2014). In addition, leverage is negatively related to firm performance (Myers, 1984; Chen, 2010).

The financial crisis period has a negative impact on firm performance in 2011. This provides some evidence that our sample has been affected negatively by the financial crisis in that year. In addition to this, it is worth noting that this period witnesses the "Arab Spring" which might have a significant impact on the tourism sector in this region.

The explanatory power of the reported models is (52%; 49%) in the pooled models (66%; 63%) in the random effects models, indicating a good explanatory power in the reported models. The Lagrange Multiplier test is significant in all models, favouring the panel models.

Our main conclusion of the results reported in Table 3 is that institutional ownership has a negative effect on the selected firms (operating in the tourism sector). This supports the evidence that these institutions might have a conflict of interest and hence will not act as a good monitoring device. Similarly, foreign ownership will not provide monitoring services (when they own minority shares) and thus will not improve firm performance.

PLEASE INSERT TABLE 3 HERE

Table 4 reports the results of the return on assets model. Similar to Table 3, there are four models. Models 1 and 2 represent the pooled models while Models 3 and 4 report the random effects models. To control for the financial crisis period, the corresponding year dummies are included in Models 1 and 3.

PLEASE INSERT TABLE 4 HERE

The results of Table 4 show some evidence of a negative relationship between institutional ownership and firm performance. This result is statistically significant in Model 2. Hence, there is some evidence to support *H1*. This result is consistent with our previous findings, reported in Table 3 and the weak role of institutional investors as a monitoring tool. Foreign

ownership is negative and statistically significant in Models 1 and 2. This finding provides support for *H2* and the weak monitoring role of these investors. Thus, our results are in line with the findings of Table 3.

Our firm specific factors are statistically significant with the expected signs. Firm size and growth opportunities are positive and statistically significant, confirming the previous findings. In addition, financial leverage is negative and significant. The results are consistent with the findings of Chen (2010). The year dummy for 2011 is negative and statistically significant in Model 3. This is in line with the reported negative significant effect for year 2011 in Table 3.

The explanatory power of the pooled models is (41%; 39%) and (39%; 33%) for the random effects models, indicating relatively good explanatory power. Similar to Table 3, the Lagrange Multiplier is significant in all models

Hence, our results in Table 4 confirm the weak role of institutional ownership and foreign ownership as monitoring tools and in turn on firm performance in the selected sample of Jordanian publicly listed tourism firms. In addition, we detect that in our sample, large firms with more growth opportunities have better performance if compared to smaller sized companies. Finally, high debt level can be seen as an index for having problems in paying back firms' obligations and thus leverage negatively affects firm performance. This result is also consistent with the pecking order theory.

As a further robustness check, we take into account the endogeneity issue between ownership structure and firm performance. It should be mentioned that the Hausman test for endogeneity was not providing strong evidence that such a problem exists in all of the reported models.

We provide in Table 5 the IV random effects models with 2SLS technique. The dependent variable for Models 1 and 2 is return on equity and for Models 3 and 4 is return on assets.

PLEASE INSERT TABLE 5 HERE

The results of Table 5 show a negative sign of institutional ownership in all the reported models, supporting *H1*. This result is in line with the previous findings. The foreign ownership variable is negative but insignificant in all the reported models. Even though this statistical result contradicts with *H2*, yet its empirical implication is in line with the weak role of foreign investors in acting as a monitoring device to alleviate agency conflicts.

As regards firm specific factors, the results in Table 5 are consistent with the previous findings. Year 2009, as a financial crisis period, has a negative impact on firm performance. Hence, there is some evidence that our sample of tourism firms has been affected by the financial crisis period (also, as mentioned before this period encounters the Arab Spring in surrounding countries). Similar to the previous findings the Lagrange multiplier is significant in all the reported models. Finally, it is important to note that the Sargan test is not significant in the reported models, indicating that our instruments (lagged ownership structure variables and lagged leverage) are valid.

Since we are interested in the presence of foreign investors in our sample as well as the role of institutional investors, the study includes an interaction term that reflects the combined (interaction) effect of these investors. We report our findings in Table 6, which show that institutional ownership has the expected significant sign in Models 1 and 2, while foreign ownership follows the expected sign in Models 3 and 4. These results are in line with our previous findings. As regards the interaction effect, the results are not statistically significant

and hence we report no combined effect of such investors. Empirically, this indicates that foreign ownership is not providing any pressure on institutional investors to act as an active monitoring tool. The other results are consistent with the previous findings.

PLEASE INSERT TABLE 6 HERE

Thus, our results in this Section are robust and show the role of ownership structure on firm performance in our sample of tourism publicly listed firms. In addition, we report some evidence of a negative impact of the financial crisis period in tourism firm performance.

6. Further analysis of the institutional ownership effect

The results in the previous Section show that institutional ownership is not a key governance tool to mitigate agency conflicts in our sample. This provides evidence for the strategic alignment and the inefficient monitoring role of these investors. In order to further investigate this issue, we look into a specialised type of institutional investors, mutual funds.

Table 7 reports these models, in which the dependent variable for Models 1 and 2 is return on equity and for Models 3 and 4 is return on assets. These models are the random effects models. Models 1 and 3 consider the impact of the financial crisis. The standard errors are robust to control for any heteroscedasticity and autocorrelation problems.

PLEASE INSERT TABLE 7 HERE

The results of the reported models show a positive significant sign for mutual fund ownership in Models 2 and 3. This result supports the effective monitoring role for such investors, in our sample. Thus, it is in line with our hypothesis (*H3*) and consistent with *the efficient monitoring hypothesis* proposed by Pound (1988). Equally, this can be explained by the less

concentration of these investors in our sample (on average 0.03) and hence they can be seen as a good monitoring device.

In respect to firm specific factors, we report the same expected signs which are consistent with the previous findings in Tables 3, 4, and 5. Namely, size and growth opportunities are positively related to firm performance and leverage is negatively related to firm performance (see for example, Chen, 2010). The financial crisis period has a negative significant impact for the year 2011. This is also consistent with our previous reported findings.

Finally, we investigate the nonlinear relationship between the ownership structure variables and firm performance by adding the squared values of these variables in our main equation. The results of the squared values are statistically insignificant and the other findings are similar to those reported in the previous tables. For parsimony, we do not report these models. Hence, there is a linear relationship between ownership structure and firm performance, in our sample.

Accordingly, we argue that institutional investors might have different roles in firm performance depending on the type of these institutions. More specialised investment institutions can act as a good monitoring tool and will have a less conflict of interest.

7. Discussion and overall conclusion

This paper aims to shed a new light on the relationship between ownership structure and firm performance. Unlike the previous literature in the area of firm performance, we investigate this relationship in a unique setting of publicly listed tourism firms. Our contribution is extended by investigating this relationship in Jordan, as an emerging market. We have

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selected Jordan, as a country of analysis, since it is considered as one of the main attraction sites in the Middle East.

Given the weak governance environment and the high concentration of ownership (especially for institutional investors) in Jordan, we posit that institutional investors have a conflict of interest and hence will not be an effective monitoring device. To test our hypotheses, we employ panel and pooled models for 120 firm-year observations, representing 15 Jordanian listed tourism firms.

Our results provide evidence that institutional investors have a negative impact on firm performance and hence this result supports *the conflict of interest hypothesis and the strategic alignment hypothesis*. In addition, foreign ownership has a negative effect on firm performance, supporting the view such investors are not active in monitoring firms. These results are robust when we control for any endogeneity problem between ownership structure variables and firm performance. Moreover, we find some evidence that our sample has been negatively affected by the financial crisis period. The study also investigates the role of foreign ownership and reports some evidence of its impact on firm performance.

To gain more understanding of the relationship between institutional investors and firm performance, we look into more specialised institutions, namely, mutual funds. We expect these institutions to have a positive impact on firm performance since they are more expert in investment decisions and hence will have a more effective monitoring role. Our results support this positive relation.

To recapitulate, we find supporting evidence that ownership structure has an impact on tourism firm performance. Institutional owners are found to suffer from conflict of interest

and hence have an inactive role in monitoring firms. However, when we investigate the role of mutual funds, we find that these specialised institutions have a positive impact on firm performance. Thus, different types of institutional investors might have different effects on firm performance in our sample.

This study contributes to the tourism literature in different ways. First, we provide new evidence on the relationship between ownership structure (institutions, foreigners and mutual funds) and firm performance. This relation has not been examined before in such context. Second, the study analyses different types of institutional ownership and reports that the relationship might change depending on the type of such institutions. Thirdly, we empirically investigate the impact of the financial crisis period in our sample; this period encounters also the Arab Spring in some of the surrounding countries. Finally, we investigate, in more details, the Jordanian tourism context which has not been examined before.

Similar to any other research investigating tourism sector, this study has some limitations. The sample size is small including 15 firms (120 firm-year observations). This sample, however, represents 60% of the public listed firms in the tourism and travel sectors. In addition, other internal corporate governance tools are not included, such as independent directors. We have searched for such information and found that most of the selected firms do not employ such directors.

Finally, this study has several implications for the Jordanian policy makers and academics. First, better rules and regulations for corporate governance should be enforced. This would improve the monitoring role of institutional owners and to be a more efficient governance device. Second, policy makers in Jordan need to provide a better investment environment for foreign investors to be able to invest in the Stock Exchange. Third, managers of tourism

related firms should be aware of the risks associated with the financial crisis periods and how this might affect these tourism firms and hence more hedging techniques should be developed. Fourth, tourism related firms should develop more investment opportunities. This is because our results show a positive impact of growth opportunities on firm performance. Finally, this study can be seen as an attempt to investigate the relationship between ownership structure and firm performance in the tourism sector, further studies are required to increase our understanding of this relationship in different ownership structure settings as well as using a cross country analysis.

References

Al-Najjar B. (2014). Corporate governance, tourism growth and firm performance: Evidence from publicly listed tourism firms in five Middle Eastern countries. *Tourism Management*,42, 342-351

Al-Najjar, B. (2011). The interrelationship between capital structure and dividend policy: Empirical evidence from Jordanian data. *International Review of Applied Economics*. 25(2), 209-224.

Baek, J-S., Kang, J-K., Park, & K.S. (2004). Corporate governance and firm value: Evidence from the Korean financial crisis. *Journal of Financial Economics*, 71, 265-313.

Bai, C., Liu, Q., Lu, J., Song, F. M., & Zhang, J. (2004). Corporate governance and market valuation in China. *Journal of Comparative Economics*, 32(4), 599–616.

Benfratello, L., & Sembenelli, A. (2006). Foreign Ownership and Productivity: Is the Direction of Causality So Obvious? *International Journal of Industrial Organization*, 24(4), 733–751

Bogert, J. D. (1996). Explaining variance in the performance of long-term corporate blockholders. *Strategic Management Journal*, 17, 243–9.

Chaganti, R. & F. Damanpour (1991). Institutional ownership, capital structure and firm performance. *Strategic Management Journal,* 12, 479-491.

Chen, G., Firth, M., Gao, D. N., & Rui, O. M. (2006). Ownership structure, corporate governance and fraud: Evidence from China. *Journal of Corporate Finance*, 12(3), 424–448.

Chen C., & Yu C. (2012). Managerial ownership, diversification, and firm performance: Evidence from an emerging market. *International Business Review*, 21 (3), 518-534.

Chen, M. H. (2010). The Economy, Tourism Growth and Corporate Performance in the Taiwanese Hotel Industry. *Tourism Management,* 31(5), 665–75.

Chen, W-P., Chung, H., Hsu, T-L., & Wu, S. (2010). External financing needs, corporate governance, and firm value. *Corporate Governance: An International Review*, 18(3), 234-249.

Chidambaran, N.K., & John, K. (2000).Managerial compensation, voluntary disclosure, and large shareholder monitoring, unpublished paper, New York University, New York, NY

Connelly, B. L., Hoskisson, R. E., Tihanyi, L., & Certo, S. T. (2010). Ownership as a form of corporate governance. *Journal of Management Studies*, 47, 1561–89.

Cornett, M.M., Marcus, A.J., Saunders, A., & Tehranian, H. (2007). The impact of institutional ownership on corporate operating performance. *Journal of Banking and Finance*, 31, 1771–1794.

Cornett, M.M., Guo, L., Khaksari, S., & Tehranian, H. (2010). The impact of state ownership on performance differences in privately-owned versus state-owned banks: an international comparison. *Journal of Financial Intermediation*, 19 (1), 74–94.

Dahlquist, Magnus, & Goran Robertsson. (2001). Direct foreign ownership, institutional investors, and firm characteristics, *Journal of Financial Economics*,59, 413-440.

Dell'Ariccia, G., E. Detragiache, & R. Rajan. (2008). The Real Effect of Banking Crises, *Journal of Financial Intermediation*, 17 (1), 89-112.

Demsetz, H. and Villalonga, B. (2001). Ownership Structure and Corporate Performance, *Journal of Corporate Finance*, 7 (3), 209–233

Doidge, Craig, Karolyi, G.Andrew & René. Stulz (2004). Why are foreign firms listed in the U.S. worth more? *Journal of Financial Economics*, 71 (2), 205-238.

Dyck, A., & L. Zingales. (2004). Private benefits of control: An international comparison. *Journal of Finance*, 59, 537–600.

Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of Accounting and Public Policy, 22*(4), 325-345.

Gillan, S., & Starks, L. (2002). Institutional investors, corporate ownership and corporate governance, discussion paper no. 2002/9, WIDER, Helsinki.

Görg, H., & Greenaway, D. (2004). Much Ado About Nothing? Do Domestic Firms Really Benefit from Foreign Investment? *World Bank Research Observer*, 19 (2), 171-197.

Guilding, C., Ardill, A., Fredline, E., & Warnken, J. (2005). An agency theory perspective on the owner / manager relationship in tourism-based condominiums. *Tourism Management*, 26, 409-420.

Gunasekarage, A., Hess, K., & Hu, A. (2007).The Influence of the Degree of State Ownership and the Ownership Concentration on the Performance of Listed Chinese Companies. *Research in International Business and Finance* , 21(3), 379-395.

Heard, J. E. & H. D. Shepherd (1987) Conflicts of interest in proxy voting system. Investor Responsibility Research Center, Washington DC.

Jensen, M. (1986). Agency cost free cash flow, corporate finance, and takeovers, *American Economic Review*, 76, 323-9.

Jensen, M., &Meckling,W.(1976).The theory of the firm: Managerial behaviour, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305– 360.

Jordan Tourism Board   Report (2010), Tourism and the Economy, available from: http://www.jitoa.org/Business-Center/reports-statistics

Kuznetsov, P., & Muravyev, A.(2001). Ownership structure and firm performance in Rusia: The case of Blue Chips of the stock market. Working Paper No. 01/10, Economics Education and Research Consortium.

La Porta, R., Lopez-de-Silanes, F., Shleifer, & A., Vishny, R.W. (1998). Law and finance. *Journal of Political Economy*, 106,1113– 1155.

Lemmon, Michael, & Karl Lins. (2003) Ownership Structure, Corporate Governance, and Firm Value: Evidence from the East Asian Financial Crisis, *Journal of Finance*, 58, 1445-1468.

Lins, K. (2003). Equity Ownership and Firm Value in Emerging Markets. *Journal of Financial and Quantitative Analysi*s, 38, 159–184.

Lowenstein, L. (1991). Why managers should (and should not) have respect for their shareholders. *Journal of Corporation Law,* 17, 1-27.

Mak, Y. T., & Li, Y. (2001). Determinants of Corporate Ownership and Board Structure: Evidence from Singapore. *Journal of Corporate Finance, 7*(3), 235-256.

Megginson, W. L. & Netter, J. M. (2001). From state to market: a survey of empirical studies on privatization. *Journal of Economic Literature*, 39, 321–89.

McConnell, J. J., & H. Servaes. (1990). Additional evidence on equity ownership and corporate value. *Journal of Financial Economics*, 27, 595–612.

Myers SC. (1984). The capital structure puzzle, *Journal of Finance*. 39(3), 575–592.

Oesterle M.,, Richta H., & Fisch J. (2013).The influence of ownership structure on internationalization. *International Business Review, 22* (1), 187-201.

Oxelheim, Lars, & Trond Randøy (2003).The impact of foreign board membership on firm value, *Journal of Banking and Finance*, 27, 2369-2392.

Ozkan, N. (2006).Do corporate governance mechanisms influence CEO compensation? An empirical investigation of UK companies. *Journal of Multinational Financial Management*, 17, 349-64.

Pound, J. (1988). Proxy contests and the efficiency of shareholder oversight. *Journal of Financial Economics*, 20, 237-66.

Qi D., Wu W., & Zhang H. (2000). Shareholding structure and corporate performance of partially privatized firms: Evidence from listed Chinese companies. *Pacific-Basin Finance Journal*, 8, 587–610

Qu, R., Ennew, C. & Sinclair, M.T. (2005), The impact of regulation and ownership structure on market orientation in the tourism industry in China, *Tourism Management*,26,6, 939-50.

Rajan, R.G. & Zingales, L. (1995). What Do We Know about Capital Structure? Some Evidence from International Data, *Journal of Finance*, 50(5), 1421-60.

Rosenstein, S. & Rush, D. F. (1990). The stock return performance of corporations that are partially owned by other corporations. *Journal of Financial Research*, 13, 39–51.

Shleifer, A., & Vishny R. (1986). Large shareholders and corporate control, *Journal of Political Economy* , 94, 461-488.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *Journal of Finance*, 52(2),737–783.

Short, H., Zhang, H. and Keasey, K. (2002). The link between dividend policy and institutional ownership, Journal of Corporate Finance, 8 (2), 105-22.

The Travel and Tourism Competitiveness Report (2013), World Economic Forum, available from http://www3.weforum.org/docs/WEF_TT_Competitiveness_Report_2013.pdf

Tian, L., & Estrin, S. (2008). Retained state shareholding in Chinese PLCs: Does government ownership always reduce corporate value? *Journal of Comparative Economics*, 36(1), 74–89.

Tong, S. & Ning, Y. (2004). Does capital structure affect institutional investor choices? *The Journal of Investing,*134, 53-66.

Wei Z., Xie F., & Zhang S. (2005). Ownership Structure and Firm Value in China's Privatized Firms: 1991–2001. *Journal of Financial and Quantitative Analysis,* 40, 87-108.

Yuan, R., Xiao, J. Z., & Zou, H., (2008). Mutual funds' ownership and firm performance: Evidence from China. *Journal of banking and finance,*32, 1552-1565.

Table 1 Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
ROE	0.052	0.183	-0.934	0.475
ROA	0.53	0.98	-0.25	0.40
INST	0.463105	0.221824	0.030133	0.999993
FOR	0.009065	0.019215	0	0.077617
MUF	0.02551	0.097792	0	0.606813
LEVERAGE	0.580985	0.829572	0.000533	5.08605
SIZE	17.16854	1.006244	14.2196	19.7689
GROWTH OPP	1.541345	0.998618	0.251052	8.16529

Note: ROE is return on equity measured by net income divided by owners' equity; ROA is return on assets measured by net income divided by total assets; INST is the percentage shares owned by institutional investors; FOR is percentage of shares owned by foreign ownership. LEVERAGE is total debt to equity ratio; SIZE is firm size measured by the natural logarithm of total assets; and GROWTH OPP is the market to book ratio.

Table 2 Correlation Matrix

	INST	FOR	MUF	LEVERAGE	SIZE	Growth OPP
INST	1					
FOR	-0.0149	1				
MUF	-0.238	-0.0808	1			
LEVERAGE	-0.0061	-0.0122	-0.1004	1		
SIZE	0.022	0.3153***	-0.0473	0.4567	1	
Growth OPP	0.0651	-0.1888**	-0.0517	-0.0172	-0.1282	1

Note: INST is the percentage shares owned by institutional investors; FOR is the percentage shares owned by foreign investors; MUF is percentage shares owned by mutual funds; SIZE is firm size measured by the natural logarithm of total assets; LEVERAGE is total debt to equity ratio; GROWTH OPP is the market to book ratio; ***,* *significant at 1% and 5%, respectively.

Table 3 Regression Analysis ROE

	Model 1		Model 2		Model 3		Model 4	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
INST	-0.084*	0.052	-0.085*	0.052	-0.116**	0.060	-0.121**	0.061
FOR	-0.851*	0.486	-0.823*	0.477	-0.744	1.285	-0.869	1.225
LEVERAGE	-0.151***	0.029	-0.158***	0.033	-0.241***	0.023	-0.245***	0.021
SIZE	0.070***	0.017	0.071***	0.018	0.091***	0.026	0.095***	0.025
GROWTH OPP	0.060***	0.021	0.063***	0.022	0.046***	0.014	0.051***	0.014
2008	0.019	0.036			0.035	0.029		
2009	0.034	0.042			0.042	0.029		
2010	0.000	0.038			0.002	0.029		
2011	-0.090*	0.048			-0.055*	0.032		
2012	-0.011	0.036			0.012	0.030		
Constant	-1.096***	0.272	-1.134***	0.284	-1.380	0.456	-1.460***	0.430
R^2	0.520		0.490		0.660		0.630	
LM					62.160***		53.940***	

Note: INST is the percentage shares owned by institutional investors;   FOR is the percentage shares owned by foreign investors ; LEVERAGE is total debt to equity ratio; SIZE is firm size measured by the natural logarithm of total assets; and GROWTH OPP is the market to book ratio; LM is the Lagrange Multiplier test; ***,**,* significant at 1%, 5% and 10%, respectively.

Table 4 Regression Analysis ROA

Roa	Model 1		Model 2		Model 3		Model 4	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
INST	-0.040	0.027	-0.042*	0.020	-0.025	0.028	-0.026	0.029
FOR	-0.531*	0.298	-0.546**	0.286	-1.009	0.699	-0.939	0.677
LEVERAGE	-0.066***	0.010	-0.067***	0.010	-0.061***	0.011	-0.068***	0.010
SIZE	0.035***	0.010	0.036***	0.010	0.028*	0.015	0.029**	0.014
GROWTH OPP	0.039***	0.017	0.039**	0.016	0.014**	0.007	0.016**	0.007
2008	0.021	0.023			0.015	0.013		
2009	0.018	0.027			0.010	0.013		
2010	0.002	0.029			-0.007	0.013		
2011	-0.012	0.022			-0.026*	0.014		
2012	-0.009	0.025			-0.003	0.013		
Constant	-0.550	0.150	-0.554***	0.148	-0.399	0.263	-0.415*	0.247
R^2	0.410		0.390		0.390		0.330	
LM					172.450		165.770	

Note: INST is the percentage shares owned by institutional investors; FOR is the percentage shares owned by foreign investors; LEVERAGE is total debt to equity ratio; SIZE is firm size measured by the natural logarithm of total assets; and GROWTH OPP is the market to book ratio; LM is the Lagrange Multiplier test; ***,**,* significant at 1%, 5% and 10%, respectively.

Table 5 IV Models

	ROE				ROA			
	Model 1		Model 2		Model 3		Model 4	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
INST	-0.190**	0.080	-0.180**	0.080	-0.063*	0.039	-0.061*	0.030
FOR	-1.049	1.693	-1.358	1.586	-0.855	1.044	-0.898	0.992
LEVERAGE	-0.245***	0.024	-0.247***	0.023	-0.060***	0.012	-0.066***	0.011
SIZE	0.099***	0.029	0.102***	0.028	0.034***	0.017	0.035**	0.016
GROWTH OPP	0.049***	0.015	0.054***	0.015	0.017**	0.008	0.018**	0.008
2008	0.051	0.033			0.021	0.015		
2009	0.056*	0.032			0.015	0.015		
2010	0.016	0.033			-0.003	0.015		
2011	-0.039	0.035			-0.021	0.016		
2012	0.030	0.033			0.004	0.015		
Constant	-1.500	0.503	-1.546***	0.481	-0.490	0.292	-0.499*	0.280
R^2	0.680		0.640		0.380		0.310	
Sargan Test	0.04		0.015		0.048		0.013	

Note: INST is the percentage shares owned by institutional investors; FOR is the percentage shares owned by foreign investors; LEVERAGE is total debt to equity ratio; SIZE is firm size measured by the natural logarithm of total assets; and GROWTH OPP is the market to book ratio; These models are IV random effects models; Sargan test is based on the time seriescross sectional models; ***,**,* significant at 1%, 5% and 10%, respectively.

Table 6 the interaction effect of institutional ownership and foreign ownership

	ROE				ROA			
	Model 1		Model 2		Model 3		Model 4	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
INST	-0.098**	0.053	-0.089*	0.050	-0.021	0.028	-0.015	0.025
FOR	-0.572	1.278	-0.664	1.122	-1.011*	0.618	-0.916*	0.546
INTER	-0.041	0.055	-0.074	0.051	-0.008	0.024	-0.026	0.023
LEVERAGE	-0.245***	0.041	-0.245***	0.044	-0.061***	0.009	-0.067***	0.009
SIZE	0.090***	0.033	0.097***	0.031	0.028	0.019	0.030*	0.017
GROWTH OPP	0.047***	0.015	0.052***	0.015	0.014*	0.008	0.017**	0.008
2008	0.036	0.026			0.015	0.010		
2009	0.042	0.030			0.010	0.013		
2010	0.005	0.031			-0.006	0.019		
2011	-0.048	0.035			-0.025*	0.015		
2012	0.017	0.023			-0.002	0.009		
Constant	-1.375**	0.577	-1.486***	0.531	-0.390	0.333	-0.426	0.297
R^2	0.670		0.630		0.390		0.330	
LM	59.600***		53.100***		168.570***		163.320***	

Note: INST is the percentage shares owned by institutional investors; FOR is the percentage shares owned by foreign investors ; INTER is the interaction effect of institutional ownership and the existence of foreign investors (dummy variable that takes 1 if there is foreign ownership and zero otherwise) LEVERAGE is total debt to equity ratio; SIZE is firm size measured by the natural logarithm of total assets; and GROWTH OPP is the market to book ratio; LM is the Lagrange Multiplier test; ***,**,* significant at 1%, 5% and 10%, respectively.

Table 7 Regression Analysis Mutual Funds

	ROE				ROA			
	Model 1		Model 2		Model 3		Model 4	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Variable	0.116	0.090	0.065*	0.039	0.054*	0.031	0.030	0.025
MUF	-0.442**	0.185	-0.491**	0.200	-0.191**	0.069	-0.224***	0.072
SIZE	0.052	0.035	0.049	0.033	0.029*	0.018	0.028*	0.016
LEVERAGE	0.039**	0.018	0.047**	0.020	0.015**	0.008	0.017**	0.008
GROWTH Opp.	0.009	0.032			0.013	0.012		
2008	0.029	0.035			0.010	0.014		
2009	-0.002	0.035			-0.006	0.018		
2010	-0.129**	0.056			-0.038**	0.015		
2011	-0.005	0.026			-0.001	0.010		
2012	-0.769	0.608	-0.734	0.579	-0.409	0.309	-0.396	0.288
Constant	0.280		0.270		0.160		0.250	
LM	19.960		14.290		149.160		140.190	

Note: MUF is the percentage shares owned by mutual funds; LEVERAGE is total debt to equity ratio; SIZE is firm size measured by the natural logarithm of total assets; and GROWTH OPP is the market to book ratio; LM is the Lagrange Multiplier test; ***,**,* significant at 1%, 5% and 10%, respectively.