EDITORIAL

Dear readers!

The recent issue of the journal Corporate Ownership and Control pays attention to issues of corporate ownership and control and board practices. Company performance, managerial compensation, corporate social responsibility, national peculiarities of corporate governance in Malaysia are also under the scope of researches. More detailed issues are given below.

Andre Carvalhal, Mariana Sampaio and *Vicente Ferreira* state that there are a few studies about executive remuneration in the Brazilian market, and most of them are qualitative. Their research is original in Brazil, bringing a great contribution to the literature of corporate governance. Their results indicate that companies with bad governance tend to pay greater remuneration to their executives. *T. Diana L. van Aduard de Macedo-Soares, Barbara Braga Lyra da Silva* present the results of research that sought to assess the adequateness of the strategy of L'Oréal Latin America, considering the opportunities and threats of the cosmetics industry, of the firm's alliances and given the global competitive strategy of the L'Oréal Group. *Ling-Ling Chang, Fujen Daniel Hsiao* in their study show that decisions to purchase directors & officers liability insurance (D&O insurance) may influence the decision making process of BOD and high-level management, and it may even impact the likelihood of management turnover. *Yongqiang Li, Abdi Hassan, Esse Abdirashid, Bruno Zeller, Miaoli Du* empirically examine the impact of investor protection on financial performance of Islamic banks based on an unbalanced panel data collected from 91 Islamic banks and financial institutions worldwide across 1991-2010. Econometric techniques are adopted to specify the models. *Mehdi Alinezhad Sarokolaei, Fatemeh Afshar Zeidabadi, Akbar Rahimipoor, Sanaz Salehi Abarghoee* will try to propose their new criterion entitled: "Fuzzy corporate governance criterion" and its fundamental concepts based on fuzzy logical theory. Transparency and disclosure, ownership structure, board of directors' structure and owners' equity are among key variables in corporate governance which have been unified in fuzzy model in their research to gain an acceptable criterion for assessing corporate governance. *Federico Rotondo* empirically examines the degree of maturity of corporate governance of Italian airport companies, after about twenty years from the beginning of the reform aimed at the privatization of the industry. Two indexes have been developed to capture two corporate governance features such as decision-making power concentration and alignment to best practices.

Hsiang-tsai Chiang, Li-jen He, Chih-Hung Lai try to explore the supervising effect of active and passive institutional investors on company's earnings management in Taiwan, and whether the supervising effect differs between family and non family-controlled companies or not. *Julián Benavides Franco, Samuel Mongrut Montalván, Mónica González Velasco* in their paper study the relationship between ownership concentration, family ownership, management, and market and accounting performance for 59 industrial firms listed in the Lima Stock Exchange during the period of 1999 to 2005.

Mohammad Talha, Abdullah Sallehhuddin, Md Shukor Masoud, Al-Mansor Abu Said examine the impact of Theory of Planned Behavior components – attitude, subjective norms and perceived control behavior on perceived socially responsible investment (SRI) behavior among fund managers of unit trust fund companies with intention to engage in SRI as a mediating variable. *Yap Voon Choong, Chan KokThim, John Stanley Murugesu* study the effect of firm-level corporate governance variables on foreign equity ownership (FEO) in Malaysia. Based on a sample of listed firms on Bursa Malaysia and employing multiple regression analysis, their study finds that a number of corporate governance mechanisms significantly improve the ability of companies to attract foreign equity ownership.

We hope that you will enjoy reading the journal and in future we will receive new papers, outlining the most important issues and best practices of corporate governance!

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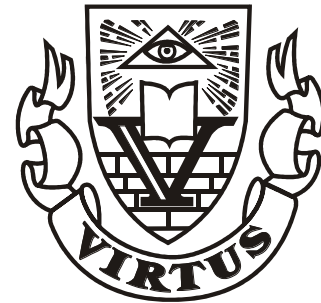
SECTION 1. ACADEMIC INVESTIGATIONS AND CONCEPTS

Andre Carvalhal, Mariana Sampaio, Vicente Ferreira

Executive remuneration has gained importance both in the academic and corporate fields, especially with the outcome of the scandals involving executives from large North-American corporations in the 2000's. In the international literature, there are many studies about executive remuneration and how it relates to agency theory and corporate governance. However, there are a few studies about executive remuneration in the Brazilian market, and most of them are qualitative. One of the great problems of research in this area is the difficulty in obtaining data about executive remuneration in Brazil. These data, when available, are very aggregated and not very clear. The objective of this paper is to analyze the determinants of executive remuneration in Brazil, and the relation between executive remuneration and corporate governance. This research is original in Brazil, bringing a great contribution to the literature of corporate governance. Our results indicate that companies with bad governance tend to pay greater remuneration to their executives. Moreover, companies paying greater remuneration perform worse in the future. In other words, paying more to executives does not result in better profitability in the future.

T. Diana L. van Aduard de Macedo-Soares, Barbara Braga Lyra da Silva

The cosmetics industry, especially in Latin America, was hardly affected by the recent global recession. As consumer goods that do not require significant investments and offer well-being to their users, cosmetics tend to remain on consumers' shopping lists, even during recessions. However, the increasingly competitive global scenario drives firms to sustain their efficiency by way of strategic alliances, so as to better meet their customers' requirements. Even leading multinationals, such as L'Oréal, face challenges to maintain their competitiveness and have to reassess regularly their strategies. This article presents the results of research that sought to assess the adequateness of the strategy of L'Oréal Latin America, considering the opportunities and threats of the cosmetics industry, of the firm's alliances and given the global competitive strategy of the L'Oréal Group. The results confirmed what had been verified in other sectors: global alliances create more opportunities than threats, and, in many cases, global relational opportunities, i.e. pertinent to global alliances, mitigate global non-relational threats. Latin America is a potential market for the strategic objective of L'Oréal to conquer one billion consumers and its transnational strategy ensures coherence of its products launched in this geographic region with its targeted consumer requirements. Its strategic alliances contribute to responding better to market demands and ensure a better exposure of the products launched. The study thus adds value to research on strategic management from a global relational perspective, by complementing findings of similar investigations into other sectors. From a business

administration viewpoint, the case of L'Oréal offers insights on how strategic alliances can help sustain competitive advantage in firms that compete globally.

Ling-Ling Chang, Fujen Daniel Hsiao

Accounting scandals in recent years have exposed that a high risk in business operations and caught the public attention. Thus, the Taiwanese government has strengthened the necessary regulations to protect shareholders' rights, emphasizing breach of trust by managers and irresponsibility by board of directors (BOD). Situations such as class action lawsuits filed by investors against firms for deficiency in disclosures revealed that firms could purchase directors & officers liability insurance (D&O insurance)to reduce and diversify the potential risks that result in severe harms by management and board decisions. Our study also shows that decisions to purchase D&O insurance may influence the decision making process of BOD and high-level management, and it may even impact the likelihood of management turnover.

The purpose of the study is to examine the main determinants that would influence the firm's decision on whether to purchase D&O insurance. From empirical evidence, we find the purchase of D&O insurance is more likely when firms are greater in BOD independence, higher BOD average compensation, with greater high level management turnover, larger in size, and in the electronics industry. On the other hand, firms are less likely to purchase D&O insurance when there are higher frequencies in change of external auditors, greater deviation of ultimate controlling shareholders cash flow rights and equity control rights, and when firms are with greater in BOD directors serving as firm managers. However, no relationship is found for firms' D&O insurance purchase relates to information disclosure transparency, and duality of CEO and BOD chairman.

Yongqiang Li, Abdi Hassan, Esse Abdirashid, Bruno Zeller, Miaoli Du

The last decade witnessed dramatic growth of the Islamic banking and finance sector, which had largely been credited to its adoption of the profit and loss sharing principles. However, in practice, the Islamic banks mostly reply on debt-like financing methods such as mark-up and leasing finance instead. Consequently, the investors are exposed to default risks. This study empirically examines the impact of investor protection on financial performance of Islamic banks based on an unbalanced panel data collected from 91 Islamic banks and financial institutions worldwide across 1991-2010. Econometric techniques are adopted to specify the models. Results show that stronger investor protection results in better financial performance in the Islamic banking and financial institutions. The paper concludes with acknowledging the limitations and discussion of future research directions.

Mehdi Alinezhad Sarokolaei, Fatemeh Afshar Zeidabadi, Akbar Rahimipoor, Sanaz Salehi Abarghoee

Corporate governance has changed into a very crucial investment decision making element for investors. The amount of investors' investment increases as much as the observing of corporate governance principles increase. Thus, companies' ranking regarding corporate governance can present valuable information for users. Corporate governance criterion is a criterion through which the amount of observing the principles of corporate governance by the companies is shown. The existence of this criterion besides company rankings can be effective for investors, auditors and the public to judge about these companies. So in this paper we will try to propose our new criterion entitled: "Fuzzy corporate governance criterion" and its fundamental concepts based on fuzzy logical theory. The methodology based on fuzzy logical theory has improved and developed inexact and vague estimates of traditional assessment methods. This methodology has presented a new type of corporate governance (CG) criterion called Fuzzy corporate governance (FCG). Transparency and disclosure, ownership

structure, board of directors' structure and owners' equity are among key variables in corporate governance which have been unified in fuzzy model in this research to gain an acceptable criterion for assessing corporate governance.

Federico Rotondo

This paper empirically examines the degree of maturity of corporate governance of Italian airport companies, after about twenty years from the beginning of the reform aimed at the privatization of the industry. Two corporate governance issues are investigated: i) the development of different corporate governance models by different categories of airports; ii) the relationship between corporate governance models and the technical and financial performance of Italian airport companies. For this reason two indexes have been developed to capture two corporate governance features such as decision-making power concentration and alignment to best practices. Then the correlation of corporate governance indexes with the efficiency, measured by using data envelopment analysis (DEA) methodology, is tested on a significant sample of Italian airports.

SECTION 2. CORPORATE OWNERSHIP

Hsiang-tsai Chiang, Li-jen He, Chih-Hung Lai

The characteristics of institutional investors are that they hold massive funds and possess investment expertise; therefore, these investors are expected to have an influence on corporate governance. This study explores the supervising effect of active and passive institutional investors on company's earnings management in Taiwan, and whether the supervising effect differs between family and non family-controlled companies or not.
The empirical results show that institutional investors are significantly related to earnings management in both family and non family-controlled companies. Moreover, active investors have more impact on earnings management than passive ones in family-controlled companies. Institutional investors, especially active investors, have been shown to have significant governance effect; therefore, companies are encouraged to attract institutional investors to enhance corporate governance.

Julián Benavides Franco, Samuel Mongrut Montalván, Mónica González Velasco

This paper studies the relationship between ownership concentration, family ownership, management, and market and accounting performance for 59 industrial firms listed in the Lima Stock Exchange during the period of 1999 to 2005. An inverted U-shaped relationship was found between ownership concentration and market performance in both family and non family firms, pointing out an entrenchment effect or excessive risk aversion of the controlling group. This effect is worsened for family firms. The presence of family members as CEOs, Chairmen and Board Members is also negative for a firm's performance and family ownership was found to increase the leverage of a firm.

SECTION 3. CORPORATE GOVERNANCE IN MALAYSIA

Mohammad Talha, Abdullah Sallehhuddin, Md Shukor Masoud, Al-Mansor Abu Said

This study aims to examine the impact of Theory of Planned Behavior components – attitude, subjective norms and perceived control behavior on perceived socially responsible investment (SRI) behavior among fund managers of unit trust fund companies with intention to engage in SRI as a mediating variable. This cross sectional study employs questionnaire to collect the opinion from respondents. Three hundred and twenty questionnaires have been distributed but only 84 have been returned by the fund managers, with a response rate of 26.25 per cent. A scan of such questionnaires further revealed that only 73 could be taken up for analysis. Thus, the usable rate is 22.81 percent. Structural Equation Modeling (SEM) that has been used in the study has revealed that the model has a good fit for the model (above minimum requirements for goodness of fit criteria) which indicates the appropriateness of instrument and measurement. The analysis shows that subjective norms have significant and positive direct effect on perceived SRI behavior. In addition, subjective norms also have a significant and positive indirect effect on perceived SRI behavior through intention to engage in SRI. Attitude has a positive and significant direct impact on intention, while it does not have a significant direct effect on perceived SRI behavior. Besides, the study has evidenced significant direct effect of intention on perceived SRI behavior. However, the study has not found any evidence to support the association of perceived control behavior with intention and perceived SRI behavior. The major limitation of this existing study is a lower response rate; nevertheless it provides good understanding on the interaction of attitude, subjective norms, perceived control behavior, intention and behavior in the context of socially responsible investment in emerging economies like Malaysia.

Yap Voon Choong, Chan KokThim, John Stanley Murugesu

This study examines the effect of firm-level corporate governance variables on foreign equity ownership (FEO) in Malaysia. Foreign equity ownership can be an important source of capital for companies to fund their expansion and growth. To attract FEO, good corporate governance practices are vital because these practices are used to reduce or mitigate agency cost. Based on a sample of listed firms on Bursa Malaysia and employing multiple regression analysis, the study finds that a number of corporate governance mechanisms significantly improve the ability of companies to attract foreign equity ownership, especially, Insider Ownership, Government Ownership, Firm Size, Dividend Yield and Tobin's Q. The results of the study indicate that firm-level efforts for better corporate governance sends positive signals and confidence to foreign investors.

**SECTION 1
ACADEMIC
INVESTIGATIONS
& CONCEPTS**

CORPORATE GOVERNANCE AND EXECUTIVE REMUNERATION IN BRAZIL

Andre Carvalhal*, Mariana Sampaio**, Vicente Ferreira***

Abstract

Executive remuneration has gained importance both in the academic and corporate fields, especially with the outcome of the scandals involving executives from large North-American corporations in the 2000's. In the international literature, there are many studies about executive remuneration and how it relates to agency theory and corporate governance. However, there are a few studies about executive remuneration in the Brazilian market, and most of them are qualitative. One of the great problems of research in this area is the difficulty in obtaining data about executive remuneration in Brazil. These data, when available, are very aggregated and not very clear. The objective of this paper is to analyze the determinants of executive remuneration in Brazil, and the relation between executive remuneration and corporate governance. This research is original in Brazil, bringing a great contribution to the literature of corporate governance. Our results indicate that companies with bad governance tend to pay greater remuneration to their executives. Moreover, companies paying greater remuneration perform worse in the future. In other words, paying more to executives does not result in better profitability in the future.

Keywords: Corporate Governance, Executive Compensation, Brazil

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1. Introduction

Corporate governance has gained importance in both the academic and the corporate world recently. In Brazil, the increase of foreign investments in the capital markets, and growth in the number of IPOs in recent years were key factors for the adoption of best corporate governance practices. The adoption of more rigid governance practices can be observed through initiatives such as the successful creation of

the Novo Mercado by the Brazilian stock exchange (BM&FBovespa).

In the international literature, there are many studies on executive compensation and governance practices in different countries and their relationship with the value and performance of firms. However, very little has been published on the relationship between corporate governance and executive compensation in Brazil. In general, Brazilian studies on executive compensation are qualitative research.

The discussion of executive compensation can be viewed as an agency problem arising from a system in which corporate executives are hired, monitored and rewarded by the board, rather than by the owners of the company. According to Jensen and Murphy (1990), the agency theory predicts that executive compensation policy should be designed in order to generate the right incentives to maximize the welfare of shareholders.

The executive compensation affects not only the costs of a company but also its performance. Compensation can be used as an instrument to create incentives for executives to work for the best result of the company. But often that is not what it is observed in Brazilian companies.

One of the great difficulties of research in this area in Brazil is the difficulty of obtaining executive compensation data. The information, when disclosed, is unclear and very aggregated (with no split between the remuneration of board members and executive directors). Moreover, few companies disclose what portion of remuneration is fixed and what is variable.

This paper analyzes the determinants of executive compensation in Brazil. More specifically, the main objective is to examine the relation between executive compensation and quality of corporate governance practices. Some of the questions the study seeks to answer are: (a) what are the determinants of executive compensation? (b) do firms with good governance pay higher salaries to their executives? (c) does the composition of the board of directors influence executive compensation? (d) do firms that pay higher salaries to their executives have superior performance? This research is original in Brazil, bringing a great contribution to the literature of corporate governance.

Our results indicate that, controlling for various firm characteristics, firms with poor governance practices tend to pay higher salaries to their executives. In addition, companies that pay higher executive compensation have poorer future performance, that is, paying more for executives do not translate into better future profitability in Brazil.

2. Literature Review

Discussions concerning the evolution of corporate governance and executive compensation have been particularly intense in recent decades. The executive compensation has become an object of debate in academia. In the literature, we find many studies that analyze executive compensation in different perspectives, ranging from accounting issues to economic and financial issues related to strategy and organizational behavior.

The debate over executive compensation has intensified after the corporate scandals in the U.S., which led to profound changes in legislation. One of the hallmarks of these changes was the publication of the Sarbanes-Oxley Act, signed in July 2002, which arose in response to the distrust of investors after the financial scandals and accounting abuses uncovered in recent years.

According to Hill (2006), this series of corporate scandals was responsible for questioning the efficiency of executive compensation schemes based on the results of companies as a way of aligning the interests of shareholders and executives. A well-designed compensation system should align the interests between the board, executive management, shareholders and minimize agency problems.

Most studies of executive compensation are concentrated in developed countries. This may be related to the fact that there is greater availability of information in these countries. Initial studies related executive compensation to firm performance.

Murphy (1999) argues that much of the controversy related to the excessive compensation of executives reflects the notion that top executives of a company determine their salaries. In fact, in many companies, the final word on remuneration is made by external board members, who are aware of conflicts of interest that exist in this process. But, according to the authors, there is no doubt that senior executives exert some influence over the level and structure of their remuneration.

Berle and Means (1932) were the first to argue that the CEO can control or influence the board to get levels "excessive" pay. Many studies have examined the relationship between corporate governance and executive compensation. Later, some authors began to study executive compensation as a possible agency problem and how it relates to aspects of corporate governance (Murphy (1999)). Jensen and Murphy (1990) argue that compensation and stock ownership are the effective ways of aligning the interests of executives and shareholders. Jensen et al. (2004) argue that executive compensation can act as a powerful tool in reducing agency conflicts, but if poorly managed, can generate agency costs and destroy firm value.

A large body of empirical work on executive compensation has examined the relationship between CEO pay, firm size and profitability (Garen, 1994). Jensen and Murphy (1990) analyzed 50 years of relationship between company performance and compensation of CEOs and concluded that this relationship was weak and had been declining over time. In this study, they also found that the level of CEO pay was not high enough to attract the best executives.

There are many studies on the relation between executive remuneration and firm profitability (Jensen and Murphy (1990), Garen (1994), Core, Holthausen and Larcker (1999), Kato and Long (2005), Firth et al. (2006)). Most studies find that companies with poor governance practices tend to pay more to its executive officers, and that executive compensation is negatively related to firm value and performance.

As mentioned earlier, in Brazil, there are few relevant studies involving executive compensation, because, until 2009, the Brazilian Securities and Exchange Commission (CVM) required that companies disclose only the total amount of executive compensation. Quantitative studies on executive compensation in Brazil are limited to analyzing only a small sample of Brazilian companies with ADRs.

Funchal (2005) examined the determinants of executive compensation in Latin American companies that have ADRs. They find that the company's performance and corporate governance do not influence executive compensation. Moreover, firm size is positively related to executive compensation.

Camargo and Helal (2007) analyzed the influence of corporate governance on performance and compensation of executives of Brazilian companies with ADRs. The authors concluded that three components of corporate governance (number of internal board members, age, and tenor of board members) influence executive compensation.

3. Data and Methodology

Our sample covers a total of 199 Brazilian companies listed on BM&FBovespa with financial and corporate data available. We note that our sample is much higher than that of previous studies on executive compensation in Brazil, which generally examine only firms with ADRs.

We analyzed the period from 2003 to 2007 to check if there was any significant change in corporate governance and executive compensation since the launch of Novo Mercado by BM&FBovespa. Corporate data on executive

compensation and corporate governance practices are collected from CVM. The economic and financial information of companies come from Economática.

The quality of corporate governance is measured by the characteristics of the board of directors and by the corporate governance index (CGI), developed by Leal and Carvalhal da Silva (2007). The CGI is a questionnaire with 24 questions measuring the quality of governance in four dimensions: transparency, board, ownership and control structure and shareholder rights. The great advantage of CGI is that it can be answered objectively through public data, which allows evaluating the governance practices of a large number of companies without biased qualitative interviews or questionnaires.

We run panel regressions of executive compensation as a function of firm characteristics such as corporate governance and financial variables. The panel technique allows us to analyze the relationship between executive compensation and governance in both cross-section (among 199 companies) and temporal (2003-2007) dimensions.

We estimate four models to assess the relationship between executive compensation and governance. These models, in fact, become 12, because we run regressions with 3 different dependent variables. The difference between the models is basically the choice of governance variables used. The first model includes the CGI, which attempts to measure governance practices as a whole. The second model uses the four sub-indices of CGI, to verify whether the remuneration is linked to specific practices of governance (transparency, board, control and ownership structure and shareholder rights). In the third model, we tested the CGI, as the first model, but with the inclusion of three dummy variables that identify the origin of the controlling shareholder. The fourth model includes only variables related to the board of directors.

As mentioned, these regressions are 4 models with 3 different dependent variables: total executive compensation, average individual executive compensation and average executive compensation by sales.

We assess several methods of panel models (common, fixed and random effects) through the Hausmann test. Test results (not reported) show that models estimated by fixed effects are more appropriate. The models are estimated according to the following equations. It is noteworthy that all models are adjusted for autocorrelation and heteroskedasticity.

$$REM_{i,t} = \gamma_0 + \gamma_1 CGI_{i,t} + \gamma_2 SALE_{i,t} + \gamma_3 P/B_{i,t} + \gamma_4 ROA_{i,t} + \gamma_5 RET_{i,t} + \gamma_6 DEVROA_{i,t} + \gamma_7 DESRET_{i,t} + u_{i,t}$$

$$REM_{i,t} = \gamma_0 + \gamma_1 SI1_{i,t} + \gamma_2 SI2_{i,t} + \gamma_3 SI3_{i,t} + \gamma_4 SI4_{i,t} + \gamma_5 SALE_{i,t} + \gamma_6 P/B_{i,t} + \gamma_7 ROA_{i,t} +$$
$$\gamma_8 RET_{i,t} + \gamma_9 DEVROA_{i,t} + \gamma_{10} DEVRET_{i,t} + u_{i,t}$$

$$REM_{i,t} = \gamma_0 + \gamma_1 CGI_{i,t} + \gamma_2 FOR_{i,t} + \gamma_3 GOV_{i,t} + \gamma_4 INST_{i,t} + \gamma_5 SALE_{i,t} + \gamma_6 P/B_{i,t} + \gamma_7 ROA_{i,t} +$$
$$\gamma_8 RET_{i,t} + \gamma_9 DEVROA_{i,t} + \gamma_{10} DEVRET_{i,t} + u_{i,t}$$

$$REM_{i,t} = \gamma_0 + \gamma_1 CEO_{i,t} + \gamma_2 NUMEXE_{i,t} + \gamma_3 INTDIR_{i,t} + \gamma_4 EXTDIR_{i,t} + \gamma_5 VOT_{i,t} +$$
$$\gamma_6 TOT_{i,t} + \gamma_7 SALE_{i,t} + \gamma_8 P/B_{i,t} + \gamma_9 ROA_{i,t} + \gamma_{10} RET_{i,t} + \gamma_{11} DEVROA_{i,t} + \gamma_{12} DEVRET_{i,t} + u_{i,t}$$

where REM is the executive remuneration (total remuneration, average individual remuneration and average remuneration by sales) of firm *i* in year *t*, CGI is the corporate governance index by Leal and Carvalhal da Silva (2007), SI1 is the CGI sub-index related to transparency, SI2 is the CGI sub-index related to the board of directors, SI3 is the CGI sub-index related to ownership structure, SI4 is the CGI sub-index related to shareholder rights, INST is a dummy variable that indicates if the largest shareholder is an institutional investor, GOV is a dummy variable that indicates whether the largest shareholder is the Government, FOR is a dummy variable that indicates whether the largest shareholder is a foreigner, CEO is a dummy variable indicating whether the CEO sits on the board of directors, NUMEXE is the number of directors and officers, INTDIR is the percentage of internal directors on the board, EXTDIR is the percentage of directors elected by minority shareholders, VOT is the percentage of voting shares held by the controlling shareholder, TOT is the percentage of total shares held by the controlling shareholder, SALE is the logarithm of company sales, P/B is the price-to-book ratio, ROA is the return on assets (operating profit divided by total assets), DEVROA is the standard deviation of ROA over the past five years, RET is the return on company shares over the past 12 months, and DEVRET is the standard deviation of RET in the last 5 years.

Next, we analyze whether firms that pay higher wages have better future performance. We run panel models where the dependent variable is ROA in *t* +1, *t* +2 and *t* +3 (1, 2 and 3 years in the future) and the independent variable is the compensation on *t*. We test with 3 types of remuneration (total, average individual and average by sales). The models are adjusted for autocorrelation and heteroskedasticity.

$$ROA_{i,t+1} = \gamma_0 + \gamma_1 REM_{i,t} + \gamma_2 CGI_{i,t} + \gamma_3 SALE_{i,t} + \gamma_4 P/B_{i,t} + \gamma_5 ROA_{i,t} + u_{i,t}$$
$$ROA_{i,t+2} = \gamma_0 + \gamma_1 REM_{i,t} + \gamma_2 CGI_{i,t} + \gamma_3 SALE_{i,t} + \gamma_4 P/B_{i,t} + \gamma_5 ROA_{i,t} + u_{i,t}$$
$$ROA_{i,t+3} = \gamma_0 + \gamma_1 REM_{i,t} + \gamma_2 CGI_{i,t} + \gamma_3 SALE_{i,t} + \gamma_4 P/B_{i,t} + \gamma_5 ROA_{i,t} + u_{i,t}$$

4. Results

Table 1 shows the descriptive statistics of the variables used in this study. On average, the total executive remuneration is R$ 7.23 million per year, which equates to an average remuneration per executive of $460,000 and a remuneration per sales of 2.24%. These figures include the remuneration of both board members and executive officers.

Table 1. Descriptive Statistics

Descriptive statistics of the variables used in this study from 2003 to 2007. The definition of each variable is shown in Section 3.

Variable	Mean	Median	Std Dev	Min	Max
REM (R$ million)	7.23	3.60	14.89	0.01	170.00
REM/NUMEXE (R$ million)	0.46	0.33	0.50	0.00	3.31
REM/SALE (%)	2.24	0.20	1.80	0.00	20.43
CGI	4.93	5.00	1.76	0.00	8.75
SI1	6.25	7.50	2.57	0.00	10.00
SI2	5.45	6.00	2.47	0.00	10.00
SI3	3.29	3.96	2.55	0.00	8.57
SI4	4.56	4.00	2.38	0.00	10.00
CEO	0.35	0.00	0.48	0.00	1.00
NUMEXE	13.67	12.00	7.47	5.00	80.00
INTDIR	0.15	0.14	0.14	0.00	0.67
EXTDIR	0.19	0.10	0.27	0.00	1.00
VOT (%)	59.31	57.35	26.01	5.50	100.00
TOT (%)	41.06	36.00	23.31	5.00	100.00

FOR	0.18	0.00	0.39	0.00	1.00
GOV	0.11	0.00	0.31	0.00	1.00
INST	0.09	0.00	0.28	0.00	1.00
SALE	7.87	2.71	17.24	0.09	205.40
P/B	2.18	1.50	2.67	0.10	26.50
ROA (%)	5.82	5.00	8.08	-50.00	45.60
RET (%)	50.12	33.01	89.11	-95.00	1.036.36
DEVROA (%)	4.64	3.56	4.92	0.10	53.50
DEVRET (%)	44.45	38.20	37.17	12.50	555.80

In general, Brazilian companies have median corporate governance practices (average CGI of 4.93), with a large variation among companies (CGI ranges from 0.00 to 8.75). The analysis of CGI sub-indices reveals that, in general, the practices of transparency and board are better than those of ownership structure and shareholder rights.

On average, 35% of CEOs are board members, 15% of the board is composed by insiders, 19% of the board is elected by minority shareholders, and the largest shareholder owns 59.31% of the votes and 41.06% of cash flow. These results are consistent with the Brazilian literature (Leal and Carvalhal da Silva (2007)). We also note that, on average, 18% of companies are controlled by foreign investors, 11% are controlled by the Government, and 9% are controlled by institutional investors.

Then we sort the companies according to the three dependent variables: total compensation, average individual remuneration and average remuneration by sales. Once ordered, the sample was divided into two subgroups: firms with lower remuneration and firms with higher remuneration. Then we calculate the average of the variables to see if there is significant difference between the half of the companies that pay higher remuneration and the half of the companies that pay less remuneration.

Table 2 shows the results. It may be noted that large companies tend to pay higher remuneration (both total and average individual). However, in the case of remuneration per sales, we note that large firms pay lower remuneration.

Table 2. Executive Remuneration and Firm Characteristics

Average value of variables after classifying the companies according to total remuneration, individual remuneration, and remuneration per sales. The sample is divided into 2 groups (companies with lower and higher remuneration) and we perform a difference-in-means test to assess whether there is statistical difference between both groups. ***, **, and * indicate difference statistically significant at 1%, 5% and 10%, respectively.

Variable	Total Remuneration		Average Individual Remuneration		Remuneration per Sales	
	Firms with Low Pay	Firms with High Pay	Firms with Low Pay	Firms with High Pay	Firms with Low Pay	Firms with High Pay
REM	0.67	20.53***	0.72	20.34***	2,86	15,50***
REM/NUMEXE	0.07	1.04***	0.06	1.11***	0,21	0,74***
REM/SALE	2.14	0.34**	1.21	0.38**	0,02	2,44***
CGI	4.48	5.63***	4.58	5.31***	5,55	4,77***
SI1	5.31	7.28***	5.46	7.07***	7,41	6,05***
SI2	4.78	6.47***	4.92	6.09***	6,33	5,61**
SI3	3.41	3.46	3.51	3.11	3,21	2,69
SI4	4.43	4.93**	4.50	4.58	4,82	4,50
CEO	0.42	0.32**	0.41	0.35	0,32	0,30
NUMEXE	11.28	19.26***	11.95	16.24***	15,25	16,59
INTDIR	0.17	0.12***	0.16	0.14	0,14	0,15
EXTDIR	0.21	0.19	0.22	0.17	0,09	0,23***
VOT	58.02	52.75	57.36	54.90	59,94	62,72
TOT	41.39	38.07	41.46	38.99	41,91	36,68
FOR	0.14	0.23**	0.12	0.2n3***	0,24	0,09***
GOV	0.09	0.08	0.11	0.03***	0,17	0,06**
INST	0.16	0.02***	0.17	0.02***	0,06	0,07
SALE	5.10	13.49***	5.95	9.49***	20,77	2,86***
P/B	1.76	3.28***	1.90	3.32**	2,03	2,49
ROA	3.52	7.38***	3.82	7.83***	4,87	5,61
RET	63.26	51.66	50.36	49.41	40,37	82,52***
DEVROA	5.72	4.55	5.80	4.91	3,59	7,03***
DEVRET	65.65	37.83***	66.70	38.36***	41,43	57,45*

Firms with better governance practices (higher CGI) have higher total compensation and higher average individual compensation. However, we find that firms with poor governance practices pay a higher percentage of its revenues in the form of executive remuneration.

Since company size and corporate governance are positively related in Brazil (Leal and Carvalhal da Silva (2007)), it is necessary to examine the remuneration on a relative basis. The results in Table 2 indicate that poor governance practices are associated with higher remuneration. This behavior also occurs in the CGI sub-indices, particularly in transparency and board of directors.

Firms that pay higher remuneration also have higher ROA. However, this higher profitability is not statistically significant when we look at remuneration per sales. Moreover, there is a positive relationship between value (P/B), total compensation and average individual

compensation. But this relation is not significant when we analyze the compensation per sales.

Regarding the shareholder origin, foreign-owned companies tend to pay higher total and individual compensation and lower compensation per sales. Companies controlled by institutional investors pay lower total and individual earnings. SOEs are the ones who pay less remuneration (both absolutely and relatively).

Table 3 reports the regression results of the four models specified for total executive compensation. All models have high explanatory power (all adjusted R^2 are larger than 0.9). The coefficient of the CGI is negative and statistically significant at 1% in both models I and III. The results indicate that, controlling for various firm's characteristics, companies with poor governance practices tend to pay higher total compensation to their executives.

Table 3. Total Remuneration and Corporate Governance

Fixed-effects panel models where the dependent variable is the total remuneration. The definition of each variable is shown in Section 3. The p-values, adjusted for auto-correlation and heteroscedasticity, are shown in parentheses. ***, **, and * indicate statistically significance at 1%, 5% and 10%, respectively.

Variable	I	II	III	IV
CGI	-0.01*** (0.00)		-0.02*** (0.00)	
SI1		0.02*** (0.00)		
SI2		-0.01*** (0.00)		
SI3		0.01*** (0.00)		
SI4		-0.02*** (0.00)		
CEO				0.10*** (0.00)
NUMEXE				0.01*** (0.00)
INTDIR				0.00 (0.36)
EXTDIR				-0.01*** (0.00)
VOT				0.01*** (0.00)
TOT				-0.01*** (0.00)
FOR			-0.27*** (0.00)	
GOV			-0.12*** (0.00)	
INST			-1.10*** (0.00)	
SALE	0.01*** (0.00)	0.02*** (0.00)	0.01*** (0.00)	0.04*** (0.00)
P/B	0.01*** (0.00)	0.01*** (0.01)	0.01*** (0.00)	0.01 (0.15)
ROA	0.01*** (0.00)	0.01*** (0.00)	0.04*** (0.00)	0.00** (0.03)
RET	-0.01*** (0.00)	-0.02*** (0.00)	-0.03*** (0.00)	0.01 (0.13)
DEVROA	0.00** (0.02)	0.00 (0.53)	0.00*** (0.00)	0.00** (0.04)
DEVRET	0.00*** (0.00)	0.00* (0.32)	0.00*** (0.00)	0.00*** (0.00)
R^2 adj	0.93	0.93	0.96	0.94

However, not all governance practices have a negative relationship with total compensation. Model II indicates that the sub-indices related to board and shareholder rights are negatively related to total compensation, but transparency and ownership structure have a positive relationship with total compensation. Model III also indicates that family businesses tend to pay higher total compensation compared to companies controlled by foreigners, Governments and institutional investors.

The results of model IV indicate other relationships between governance and total compensation. It may be noted that the total compensation increases when: a) the CEO serves on the board of directors; b) there are many directors and officers, and c) the voting shares of the controlling shareholder is high. Although positive, there is no significant relationship between total compensation and percentage of internal directors.

Moreover, model IV indicates that the total compensation decreases when: a) there is a high percentage of directors elected by minority shareholders, and b) the controlling shareholder's stake in the company's is high. The coefficients of variables SALE, P/B and ROA are positive and statistically significant at 1%. This result indicates that larger, more profitable and well evaluated companies pay higher total compensation.

Overall, the results of the four models show the agency conflict related to executive compensation, indicating that firms with worse governance practices tend to pay higher total compensation to their executives.

After we run the panel models for total compensation, we run the same models for average individual compensation. The results are reported in Table 4 and are quite similar to those in Table 3. The results indicate that firms with poor governance practices pay higher average individual remuneration to their executives.

Table 4. Average Individual Remuneration and Corporate Governance

Fixed-effects panel models where the dependent variable is the average individual remuneration. The definition of each variable is shown in Section 3. The p-values, adjusted for auto-correlation and heteroscedasticity, are shown in parentheses. ***, **, and * indicate statistically significance at 1%, 5% and 10%, respectively.

Variable	I	II	III	IV
CGI	-0.01* (0.10)		-0.01*** (0.00)	
SI1		0.02*** (0.00)		
SI2		-0.01*** (0.00)		
SI3		0.01*** (0.00)		
SI4		-0.02*** (0.00)		
CEO				0.07*** (0.00)
NUMEXE				-0.06*** (0.00)
INTDIR				0.00** (0.02)
EXTDIR				-0.01*** (0.00)
VOT				0.01*** (0.00)
TOT				-0.01*** (0.00)
FOR			-0.18*** (0.00)	
GOV			-0.46*** (0.00)	
INST			-1.13*** (0.00)	
SALE	0.01*** (0.00)	0.06** (0.03)	0.02*** (0.00)	0.01*** (0.00)
P/B	0.02*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
ROA	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.00* (0.09)
RET	-0.05*** (0.00)	-0.06*** (0.00)	-0.01* (0.10)	-0.00* (0.09)
DEVROA	0.00* (0.10)	0.00 (0.88)	0.00*** (0.00)	0.00 (0.12)
DEVRET	0.00*** (0.00)	0.00* (0.07)	0.00*** (0.00)	0.00*** (0.00)
R^2 adj	0.92	0.92	0.95	0.93

There are two differences compared to previous results. First, the number of executives, which is positively related to total compensation, has a negative relationship with average individual compensation. Therefore, the greater the number of directors and executive officers, the highest total compensation, but the lowest average individual compensation.

Second, there is a statistically positive relationship between average individual compensation and percentage of inside directors. In the case of total compensation, the relationship is positive but has no statistical significance. Therefore, one can conclude that the greater the number of internal directors, the higher the average individual compensation, suggesting a problem of agency in determining executive compensation.

Finally, we run the models for the average remuneration per sales. In general, the results are identical to those obtained for total compensation and average individual compensation, indicating that firms with poor governance practices pay higher relative remuneration to their executives.

Table 5. Average Remuneration per Sales and Corporate Governance

Fixed-effects panel models where the dependent variable is the average remuneration per sales. The definition of each variable is shown in Section 3. The p-values, adjusted for auto-correlation and heteroscedasticity, are shown in parentheses. ***, **, and * indicate statistically significance at 1%, 5% and 10%, respectively.

Variable	I	II	III	IV
CGI	-0.03*** (0.01)		-0.01*** (0.00)	
SI1		0.01** (0.02)		
SI2		-0.01** (0.04)		
SI3		0.02*** (0.03)		
SI4		-0.02*** (0.00)		
CEO				0.03** (0.04)
NUMEXE				0.00 (0.48)
INTDIR				0.00 (0.28)
EXTDIR				-0.01** (0.05)
VOT				0.01** (0.05)
TOT				-0.01* (0.08)
FOR			-0.11** (0.02)	
GOV			-0.04* (0.07)	
INST			-0.72* (0.06)	
SALE	-0.80*** (0.00)	-0.78*** (0.01)	-0.49* (0.10)	-0.38* (0.10)
P/B	0.02*** (0.00)	0.02*** (0.00)	0.01** (0.03)	0.01* (0.10)
ROA	0.00* (0.09)	0.01* (0.08)	0.01** (0.03)	0.00* (0.09)
RET	-0.02* (0.06)	-0.26* (0.07)	-0.11* (0.10)	-0.00* (0.09)
DEVROA	0.04 (0.20)	0.04 (0.18)	0.01 (0.88)	0.02 (0.45)
DEVRET	-0.01* (0.06)	-0.01* (0.08)	0.00* (0.09)	-0.01* (0.06)
R^2 adj	0.98	0.98	0.98	0.98

There is a reversal in the direction of the relationship between sales and remuneration. The coefficient of SALE is positive for total and average individual compensation, but is negative to compensation per sales. This result is consistent with that of Table 2, which shows that the bigger the company, the lower remuneration relative to sales.

After showing that firms with worse governance practices tend to pay higher

compensation to their executives, we turn to analyze whether firms that pay higher remuneration have better future performance.

Table 6 shows the results of panel models using future ROA as dependent variables. The results indicate that companies that pay higher remuneration (total and per sales) have poorer future performance, ie the fact of paying more for executives does not translate into better future profitability.

Table 6. Executive Remuneration and Future Performance

Fixed-effects panel models where the dependent variable is the ROA in the following 1, 2 and 3 years. The definition of each variable is shown in Section 3. The p-values, adjusted for auto-correlation and heteroscedasticity, are shown in parentheses. ***, **, and * indicate statistically significance at 1%, 5% and 10%, respectively.

Variable	ROA 1 year			ROA 2 years			ROA 3 years		
	I	II	III	I	II	III	I	II	III
REM	-0.99** (0.04)			-0.78*** (0.00)			-1.09*** (0.01)		
REM/NUMEXE		-0.03 (0.93)			-0.14 (0.28)			-5.23 (0.24)	
REM/SALE			-1.26*** (0.00)			-1.11*** (0.00)			-1.28*** (0.00)
CGI	-0.15 (0.33)	-0.17 (0.54)	0.12 (0.35)	0.10* (0.10)	0.16* (0.10)	0.14* (0.09)	0.13 (0.25)	0.19 (0.17)	0.15* (0.08)
SALE	-1.53** (0.05)	-1.60 (0.36)	-0.87 (0.28)	-0.82*** (0.01)	-1.02* (0.10)	-0.91** (0.02)	0.99 (0.15)	0.33 (0.76)	0.63 (0.29)
P/B	0.03 (0.79)	0.01 (0.99)	0.06 (0.59)	0.01 (0.93)	-0.01 (0.83)	0.00 (0.96)	-0.07** (0.02)	-0.12*** (0.00)	-0.08*** (0.00)
ROA	0.09** (0.04)	0.08 (0.33)	0.09** (0.04)	-0.02 (0.16)	-0.02 (0.34)	-0.01 (0.28)	-0.12*** (0.01)	-0.16*** (0.00)	-0.10*** (0.00)
R^2 adj	0.64	0.64	0.68	0.82	0.82	0.82	0.91	0.90	0.91

These results are consistent with international literature (Core, Holthausen and Larcker (1999)), who finds a negative relationship between executive compensation and accounting and financial results. The explanation comes from agency theory. Companies with poor governance have major agency problems; executives at firms with greater agency problems receive greater compensation; and firms with higher agency conflicts have worse performance.

5. Conclusions

This paper analyzes the determinants of executive compensation in Brazil. More specifically, we examine whether there is a relationship between executive compensation and quality of corporate governance practices.

Our results indicate that firms with poor governance practices tend to pay higher salaries to their executives. We note that companies with better governance practices have higher total compensation and higher individual compensation. However, when analyzing the relative compensation per sales, we find that firms with poor governance practices pay a higher percentage of its revenues as executive remuneration.

In addition, companies that pay higher remuneration have poorer future performance, ie the fact of paying more for executives does not necessarily translate in better future performance in Brazil. Overall, we show that companies with poor governance pay higher compensation to their executives and have worse performance.

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ASSESSING THE STRATEGY OF FIRMS THAT COMPETE GLOBALLY IN ALLIANCES IN THE COSMETICS INDUSTRY: THE CASE OF L'ORÉAL IN LATIN AMERICA

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Abstract

The cosmetics industry, especially in Latin America, was hardly affected by the recent global recession. As consumer goods that do not require significant investments and offer well-being to their users, cosmetics tend to remain on consumers' shopping lists, even during recessions. However, the increasingly competitive global scenario drives firms to sustain their efficiency by way of strategic alliances, so as to better meet their customers' requirements. Even leading multinationals, such as L'Oréal, face challenges to maintain their competitiveness and have to reassess regularly their strategies. This article presents the results of research that sought to assess the adequateness of the strategy of L'Oréal Latin America, considering the opportunities and threats of the cosmetics industry, of the firm's alliances and given the global competitive strategy of the L'Oréal Group. The results confirmed what had been verified in other sectors: global alliances create more opportunities than threats, and, in many cases, global relational opportunities, i.e. pertinent to global alliances, mitigate global non-relational threats. Latin America is a potential market for the strategic objective of L'Oréal to conquer one billion consumers and its transnational strategy ensures coherence of its products launched in this geographic region with its targeted consumer requirements. Its strategic alliances contribute to responding better to market demands and ensure a better exposure of the products launched. The study thus adds value to research on strategic management from a global relational perspective, by complementing findings of similar investigations into other sectors. From a business administration viewpoint, the case of L'Oréal offers insights on how strategic alliances can help sustain competitive advantage in firms that compete globally.

Keywords: Strategic Alliances, Global Strategy, Cosmetics Industry

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Introduction

The cosmetics industry in Latin America was hardly affected by the global economic recessions of the past few years. Cosmetics sales tend to remain stable even during times of crisis. An article in Valor Econômico (2010), Brazil's leading financial newspaper, revealed that the beauty industry grew 15% in Brazil in 2009, showing that this market had remained practically immune to the 2008 economic crisis. Worldwide, results were weaker but still positive. As consumer goods that do not require significant investments and provide their users with well-being, cosmetics tend to remain on consumers' shopping lists even during recessions. However, the increasingly competitive scenario in various sectors has made evident the volatility of the consumer market's needs, driving firms to sustain their flexibility and efficiency by forging strategic alliances so as to better meet their customers' requirements. Even leading multinationals in this sector, such as L'Oréal face challenges to maintain their competitiveness and have to regularly reassess their strategies.

The aim of the present article is to share the results of a study that analyzed the adequateness of L'Oréal Latin America's strategy, considering the opportunities and threats faced by the cosmetics industry, of the firm's alliances and the L'Oréal Group's global competitive strategy. As well as seeking to draw lessons for L'Oréal itself and other firms in the sector from the adoption of a global

relational perspective, i.e. pertinent to global relationships such as alliances and the networks formed by these, the research attempted to contribute to strategic management theory regarding firms that compete globally in alliances.

L'Oréal is an important case because, despite its world leadership position in the cosmetics sector and presence in 130 countries, sustaining this advantage in an increasingly competitive global environment is not an easy task. This explains why it is always seeking out new markets either to undertake complementary activities or reinforce its global presence (Valor Econômico, 2010). This study concentrated on L'Oréal Latin America because of the region's specific challenges such as the demand for products that are more in tune with local cultures. In addition, the L'Oréal Group's strategic objective is to conquer one billion new consumers, especially among the middle classes of emerging markets (Cosmetics Business, 2011).

It should be noted that the L'Oréal Group's activities are divided into four divisions: Consumer Products Division dealing with general use cosmetics that are sold in pharmacies, supermarkets and department stores (examples of brands: L'Oréal Paris, Garnier, Colorama and Maybelline New York); Professional Products Division with professional capillary products sold exclusively in hair salon chains (examples of brands: Kérastase, L'Oréal Professionnel, Matrix and Redken); Luxury Products Division, with premium products like perfumes, skin creams and make-up, sold in perfumeries, specialized stores and through e-commerce (examples of brands: Lancôme, Biotherm and perfumes like Ralph Lauren and Giorgio Armani); and the Active Cosmetics Division, with dermocosmetics sold in pharmacies that are strongly associated with dermatologists' medical prescriptions (examples of brands: Vichy, La Roche-Posay and Innéov). The Group also commercializes The Body Shop products and Galderma dermatological products separately from the four product divisions.

RESEARCH METHODS AND THEORETICAL FRAMEWORK

The present research was essentially exploratory due to the small number of studies of strategic alliances in the cosmetics sector. It was decided to adopt the case-study method as the most appropriate in light of the research's two-fold objective of performing an in-depth analysis of a contemporary phenomenon in its real context and of contributing to the relevant theory (Yin, 2010). The main criticism leveled at this method – that it does not allow a statistical generalization of the case-study data to other cases - did not apply, as this was not the research's objective. The data was collected by means of documental investigation, a survey of the perceptions of L'Oréal Latin America executives (using a structured questionnaire) and interviews. It was then interpreted in accordance with the principle of data and method triangulation so as to assure the consistency of results and limit any possible biases.

The adequateness of L'Oréal Latin America's strategy was assessed with the support of Macedo-Soares' (2011) Global SNA - Strategic Network Analysis – Framework which was adapted to the objective of focusing at the level of the cosmetics industry. This framework includes a set of tools that permits a systemic, integrative and dynamic analysis of the strategic fit of firms that compete globally in alliances and other linkages (e.g. mergers and acquisitions). It considers all factors that are strategically significant in the case of this type of firm: in other words, not only organizational, structural and macro-environmental factors, but also relational and global ones. It is comprised of three components: i) methodology – series of steps for carrying out the strategic analysis; ii) reference lists of factors and their constructs in order to develop tools for collecting relevant data and interpret it; iii) a conceptual model to map the ego-net of the focal firm, constituted by the firm at issue and its main alliances and other linkages within its value-net. Brandenburger & Nalebuff (1996) define the latter as a network that includes all strategic actors – partners and non-partners – in the firm's competitive arena, and its interdependencies, that contribute to the creation and capture of value that is significant for the focal firm's competitive advantage.

The next part of this article presents the main results of the research following the steps of the Global SNA methodology. It begins by characterizing the firm's strategy, using Mintzberg's (1988) typology, which distinguishes between differentiation (through price, image/brand, support, quality or design/packaging) and non-differentiation. Based on Bartlett & Ghoshal (1998) and Harzing (2000), strategy is classified into three types :– i) Global – the offering of standardized products/services in the world's key markets, through integrated operations that follow global directives established by the parent company ii) Multi-domestic – the development of products/services to meet the needs of domestic markets; iii) Transnational – seeking both global efficiency and local responsiveness to the specific demands of markets in which they operate (Hitt, Ireland , Hoskisson., 2009). In keeping with Koza, Tallman and Attay (2011), the firm is assessed also in terms of being a Global Multi-business firm. The latter is similar to the Transnational one but in which certain firms incorporate different added value activities, divided into distinct businesses, and therefore should be considered multi-business.

Note that the theoretical references for carrying out the other steps of the Global SNA methodology are presented together with the research's results.

RESULTS

Characterization of strategy

According to 84% of the respondents to the survey questionnaire, the L'Oréal Group pursues a strategy of differentiation by image or brand. Indeed, the name L'Oréal stands out in the world cosmetics market. However, one should highlight that many brands do not use the Group's name and many people ignore their association with the Group, such as, for example, the Garnier, Lâncome and La Roche-Posay brands.

Most (73%) respondents also stated that the Group's strategy was Transnational. In recent years, L'Oréal has been setting up hubs that concentrate product development, marketing and launch conception teams in different geographical regions, in order to optimize each region's operations by better meeting the specific needs of its local markets. The hub concept is presently a reality at L'Oréal Latin America, whose headquarters are in Brazil, the region's most important country. L'Oréal's hub in Brazil has the Group's fourth most important laboratory outside Europe , i.e, after the United States, Japan and China (Exame, 2009). The L'Oréal Group's research and innovation officer made an important statement as to how the company intends to obtain one billion new consumers.: "Our capacity to innovate for new markets is based on a deep knowledge of the habits and preference criteria of Chinese, Indian and Brazilian consumers…In order to achieve this we have created an International Consumer Studies and Insights Department. In addition, we have created specific expertise platforms – the *Research & Innovation Hubs* - that join all research activities" (interview published in *L'Oréal Rapport Annuel* 2010).

Even though only a small number of respondents to the questionnaire (15.4%) characterized L'Oréal as a Global Multibusiness Firm, the research classified the company in this category because, according to the follow-up interviews, it treats its product divisions like multi-businesses, thus permitting greater strategic diversification and differentiated global businesses.

The next section describes the results of the application of the second step of the Global SNA methodology adapted to the objectives of the research at issue in this article. It should be highlighted that the factors referred to in the second and third steps of this methodology are of the global traditional, i.e. global non-relational kind.

Strategic implications of macro-environmental factors

Using Austin' (1990) constructs with some adaptations, the research identified the most important macro-environmental factors in the sector and analyzed their strategic implications for L'Oréal, as described below:

- Political factors: instability of trade policies governing imports of different industrialized products between Argentina and various Latin American countries currently represents a real threat for L'Oréal (e.g. of aerosol deodorants from Argentina). Another policy factor that represents a threat for L'Oréal is constituted by sanitary registration requirements for some kinds of products because of the tedious bureaucracy involved. In the case of Brazil, for example, the National Sanitary Inspection Agency, requires all anti-age skin products and deodorants to be registered. In Mexico, the Cofepris (Federal Commision for Protection against Sanitary Risks) requires anti-dandruff shampoos to be registered because it classifies them as non-cosmetic medecine.

- Economic factors: cosmetic product sales tend to remain stable even during economic recessions. This represents a real opportunity during recessions and a potential one when economic conditions are stable.

- Socio-cultural factors: the fact that the cosmetics market makes it possible to establish a close relationship with consumers, represents a real opportunity to launch products that are positively associated with the social and cultural reality of their target audience. However, they can also constitute a real threat if this positive association is not considered in the design of new products.

- Demographic factors: as most of the L'Oréal Group's sales revenue derives from less than 15% of the world's consuming population, there is a potential opportunity for conquering new consumers.

- Environmental factors: the world cosmetics industry is starting to make use of natural ingredients in its formulas as long as they come from sustainable sources. Thus, environmental factors were identified as an opportunity for firms to stand out in this market. It should be mentioned that the L'Oréal Group is already exploiting this opportunity and its sustainable attitude has been recognized on various occasions - deemed one of the world's most sustainable companies by the "Global 100" survey and listed on the Dow Jones Sustainability Index (L'Oréal, 2010). The next section presents some results of the strategic analysis of the company, in accordance with the third step of the Global SNA methodology.

Strategic implications of the main global actors

Based on Porter's (1980) typology of strategic actors/roles and his list of factors that determine the latter's "force" in the competitive arena, as well as the complementor construct proposed by Brandenburger & Nalebuff (1996), the research identified the main strategic implications in terms of opportunities and threats constituted by the sector's most significant global actors as they play their strategic roles in L'Oréal's global value net, as described below.

In the consumer products category, final customers, due to their price sensitivity, were identified as a real threat to L'Oréal given that its products, even in this category, tend to be more expensive on account of their quality and brand identity. However, this threat was considered to open up an opportunity related to consumers who increasingly want products that offer many different benefits. Another potential consumer-associated threat was constituted by the low cost of changing to other cosmetics products. Despite their loyalty to company products, consumers could be attracted to competitors' new launches or advertising. Moreover, in the era of blogs, Facebook, Twitter and others, a L'Oréal Group product can be criticized online at any time, justifiably or not. On the other hand, this contemporary digital reality also constitutes a real opportunity. The Group already has various websites for its different brands and in some cases Facebook profiles, seeking to interact with actual and potential consumers through different media.

As regards suppliers, the L'Oréal Group is highly demanding when analyzing potential suppliers who are only qualified after audits performed to ensure their quality. The time taken to qualify suppliers may have a negative effect on the company's ability to react to competitors' actions. Also, the high degree of dependence on suppliers was seen as a potential threat because it increases supplier bargaining power. Situations where L'Oréal is not one of a specific supplier's most important customers represent a significant potential threat because, when demand is exceptionally high, the biggest customers tend to be prioritized. On the other hand, the fact that different product divisions buy from the same suppliers was viewed as an opportunity as it increases the company's weight in suppliers' order books while contributing to L'Oréal's centrality in its relationship with these suppliers.

As regards competitors, at the global level, the L'Oréal Group is constantly competing with multinational groups like Unilever (owner, amongst others, of the Seda, Dove and Rexona brands), Procter & Gamble (Pantene, Olay, Wella, Gillete and others) and LVMH (Louis Vuitton Möet

Hennessy, owner of the luxury brands Dior, Kenzo, Givenchy and others), that represent a constant real threat due to their size and worldwide recognition. Additionally, local cosmetics firms in various Latin American countries have adopted an initial strategy of conquering consumers in low income markets, but are already showing that they are capable of also competing with premium products. Examples of local cosmetics firms in Brazil are Niely, Embelleze and the Hypermarcas Group (with the Monange, Risqué and Biocolor brands, amongst others). In Mexico an example of a local competitor is Genomma Labs, owner, amongst others, of the Tio Nacho, Asepxia and Teatrical brands. Another negative strategic implication of this fierce rivalry in the consumer cosmetics segment is constituted by the popular door-to-door sales model which, in Latin America, is exploited mainly by Natura and Avon. At the same time, this competitor diversity was considered a real opportunity because of L'Oréal's capability of differentiating its products by using innovative formulas, attractive packaging or advertising that is creative and resonates with target audiences.

In the consumer cosmetics industry, mainly in the case of shampoos and conditioners, new entrants were identified as a real threat for L'Oréal because of the low barrier to entry and the large number of new entrants.

As to substitutes, beauty salons were classified as possible buyers of some cosmetic products such as nail varnishes and hair treatment products, in the consumer products segment, constituting a real threat to L'Oréal's Consumer Products Division, as they may reduce sales of certain products in pharmacies and supermarkets.

Finally, in the case of complementors, the research identified a real opportunity for the development of new cosmetic products, by joining the competencies of different industries. Examples of complementors identified were dermatologists. Sales of dermocosmetic products in Brazil are strongly influenced by dermatologists's medical prescriptions and these professionals, for their part, guarantee the loyalty of their customers by indicating effective products. Another example of complementors for the commercialization of L'Oréal products are fashion brands like Giorgio Armani, Ralph Lauren and Diesel. These brands' recognition in the fashion market has the effect of complementing the L'Oréal Group's expertise in the production of perfumes, which enhances the sales potential of perfumes produced by the Group under the name of fashion brands.

In the next section, the research begins to present the results pertinent to the steps of the Global SNA methodology in which the analysis was conducted from a relational perspective.

Strategic alliances and the L'Oréal Group's ego-net

According to the employees of L'Oréal Latin America, the L'Oréal Group's main partners were its suppliers and customers, and to some extent its complementors. Although government entities were also mentioned as being partners, alliances or other linkages with these were not explicitly mentioned..

Among the factors that motivated the establishment of alliances by the L'Oréal Group, the most cited were sharing of resources and complementary competencies, reduction in the costs of entry to new markets/ segments, economies of scale, access to information capital provided by new relationships and learning with partners.

Based on the replies to the questionnaire and interviewee opinions regarding the characteristics of alliances and other linkages/ties, the research mapped L'Oréal Group's ego-net, as shown in Figure 1.

Figure 1. Ego-Net of the L'Oréal Group
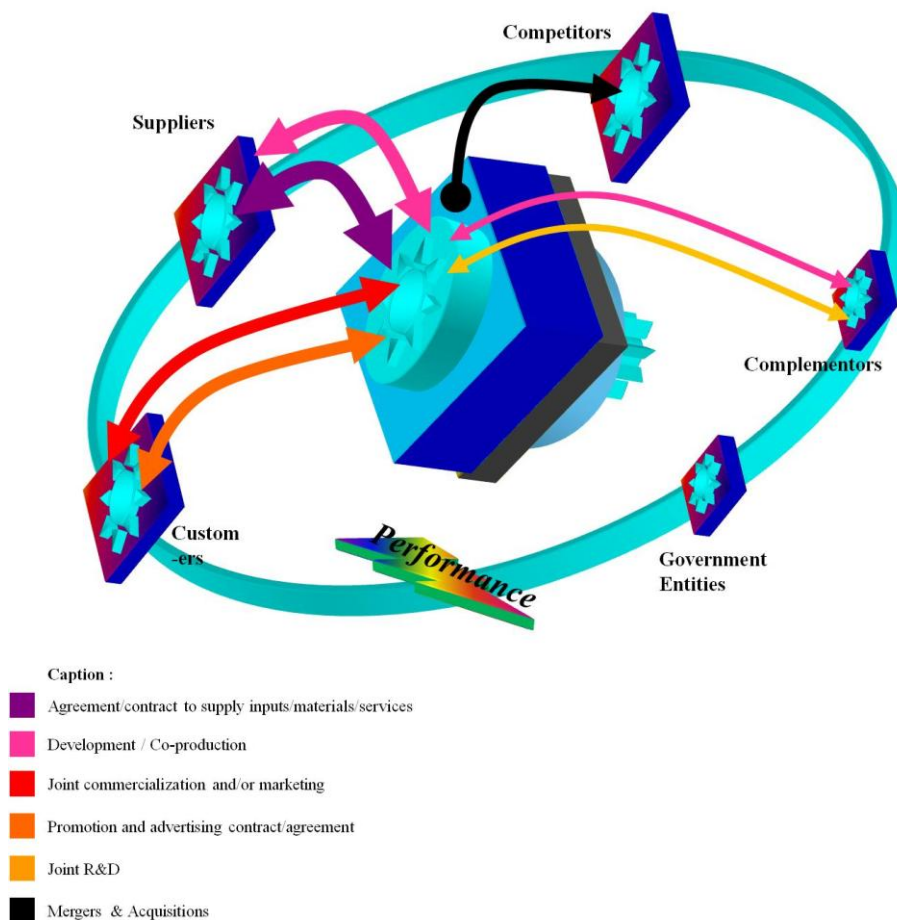
It should be highlighted that Figure 1 depicts only the main types of alliances and other linkages/ties with each actor. As in the case of the Global SNA model, arrow colors and formats, as well as the thickness of lines, reflect alliance characteristics (one-way arrow – opportunistic tie; two-way arrow - collaborative; lesser or greater thickness indicates lesser or greater tie strength). The size of the blocks representing the actors is proportional to their strategic importance for the L'Oréal Group. The actors with the strongest and most independent alliances in relation to the L'Oréal Group are its suppliers, especially those alliances involving the supply of inputs and services. Joint development and co-productions are also important examples of alliances with suppliers. L'Oréal also engages in joint product development and co-productions with complementors but these linkages are much weaker than those with suppliers. Joint R&D projects also constitute an important element of L'Oréal's relations with its complementors. Customers are strategic partners of the L'Oréal Group mainly in joint commercialization and marketing projects and in promotion and advertising. Although the research identified other types of alliances/linkages between the L'Oréal Group and its customers, it was decided to represent only the most significant ones. The linkages with competitors represented in the figure correspond to acquisitions made by the L'Oréal

Group over the years, as most of them involved competing firms. As the ego-net is represented in the model within the firm's value-net, the figure also includes government entities, even though their linkages with the L'Oréal Group cannot be characterized as strategic alliances.

Strategic implications of the L'Oréal Group's alliances

The identification of the relational characteristics of the L'Oréal Group's global ego-net and the analysis of their strategic implications at the cosmetics industry level, in terms of opportunities or threats, were carried out with the help of the Global SNA Framework's reference lists pertinent to relational factors. In keeping with Galaskiewicz and Zaheer (2000), these lists contemplated key alliance/linkage network dimensions — network structure, global network members and network linkage/tie modality. Gulati, Nohria and Zaheer (2000), that based themselves on their own empirical investigations as well as other scholars, provided additional characteristics for these three dimensions and showed how they have strategic implications, creating opportunities and threats at industry level. Besides the above mentioned authors, several others contributed significantly to these reference lists, notably, Bartlett & Ghoshal, (1998), Garcia-Canal et al. (2002), Garcia-Canal & Sanchez Lorda (2007), Goerzen (2005), Johanson & Vahle (2003, 2009), Kale, Singh and Perlmutter (2000), Knoke (2001), Lavie (2007), Lavie & Rosenkopf (2006), Oscan & Eisenhardt (2009), Prahalad & Doz (1987), Uzzi (1997) and Vapola; Paukku; Gabrielsson (2010).

Tables 1, 2, and 3 present the results of this analysis that corresponded to one more step in the Global SNA methodology.

Table 1. Structure of L'Oréal's network of alliances with customer and suppliers

Dimension	Constructs	Values (Result)	Industry Level	
			Opportunities	**Threats**
Alliance Network Structure	**Density**	- **High** with customers and suppliers. - **Average** with complementors.	- Ease of access to informational and technological resources of important global partners.	- Risk of sharing confidential information with common suppliers and customers.
	Scope	- **Wide-ranging and global** with customers and suppliers. - **Wide-ranging and local** with complementors	- Opportunities for global partnerships that tend to enhance the importance and strength of the partnership for both global actors. - Agility in the replication of work in other geographical areas.	
	Position and Centrality in the Network	- **Central** with customers and supplier. - **Intermediate** with complementors.	- High centrality permits more access to key information and resources.	- Intense competition in the industry because the centrality of competitors is also known.

The research revealed that the structure of the L'Oréal Group's network of alliances with customers and suppliers is different from its alliances with complementors. In the former case, the evidence from the survey was of high density, wide and global scope and of L'Oréal centrality, thus constituting more opportunities than threats (see Table 1). In the case of alliances with complementors, on the other hand, the survey's results indicated average alliance density, wide but local scope and L'Oréal occupying an intermediate position in the network. On the whole, the research revealed that as yet few complementors participated in alliances with the L'Oréal Group.

The analysis of the members of the L'Oréal Group's global network also evidenced a predominance of opportunities for L'Oréal and the industry as a whole, based on the exchange of information and knowledge between strong and globally experienced partners (see Table 2). The threat identified in this sphere refers to the risk that the focal firm's stringent requirements for establishing alliances may hamper their realization.

Table 2. Members of L'Oréal's Global Network

Dimension	Constructs	Values (Result)	Industry Level	
			Opportunities	**Threats**
Global Network Members	**Identity/ Status of global firm**	- **Strong** and **successful** (world leader in cosmetics).	- Tendency for good overall industry performance.	- Risk of excessive demands by the focal firm in partnerships, due to its industry leadership position.
	Identity / Status of partner	- **Rich** in distinct resources; **global** customers and suppliers and **local** complementors.	- Opportunity for access to distinctive resources from partners with global experience.	
	Ease of access to and volume of partner resources	- **Abundant and average** with customers. '- **Abundant** and **easy** with suppliers. - **Satisfactory and easy** with complementors.	- Opportunity for the development of more enduring relations and innovations.	
	Complementarity of global partner resources	- **High complementarity** with customers, suppliers and complementors	- Positive exchanges for both sides of the partnership.	

Table 3. Modality of the L'Oréal Group's Global Network Linkages/Ties

Dimension	Constructs	Values (Result)	Industry Level	
			Opportunities	**Threats**
Network Linkage/Tie Modality	**Strength of Connections**	- Strong	- Opportunity for greater industry productivity.	- Risk of locking firms into unproductive relationships.
	Nature of Ties	- **Collaborative.**	- Opportunities for positive long-term actions that benefit not only partner firms but also the industry and the external environment.	
		- **Explorative** with customers and complementors. - **Exploitative** with suppliers.	- Explorative partnerships explore new opportunities and create an environment that favors innovation.	- Exploitative partnerships can hinder or impede innovations.

In the analysis of the linkage/tie modality the research also identified significant opportunities, revealed by L'Oréal's strong and collaborative connections with its main partners which tend to create opportunities for long-term and productive actions for the cosmetics industry.

As to the nature of ties according to Lavie & Rosenkopf 's (2006) characterization of alliances in terms of being explorative or exploitative, most L'Oréal Group alliances with customers and complementors were found to be explorative in that they aimed at generating knowledge by developing new competencies jointly with new partners and in which partners had attributes that differed from those of previous ones, thus promoting joint discoveries and creating a favorable environment for innovation. On the other hand, most alliances with suppliers were considered exploitative in that they were designed to lever knowledge with recurrent partners and in which partners had attributes that were similar to those of previous ones. This characterization corresponded to the results of the questionnaire in which most

respondents classified L'Oreal's alliances with its suppliers as exploitative. The latter could have been viewed as a threat by reducing the possibility of generating innovations by way of the alliance. However, the research discovered that, in practice, some innovations were in fact produced in the context of the L'Oréal Group's relations with its suppliers.

The next section presents results regarding L'Oréal's performance, a critical factor for the analysis of L'Oréal Latin America's strategy and thus the object of yet another step in the Global SNA methodology.

The performance of the L'Oréal Group

The L'Oréal Group's 2010 annual report showed that the company maintained its world cosmetics leadership position of 2010 with consolidated annual sales revenues of approximately 19.5 billion Euros, 11.5% greater than revenues generated in 2009. An analysis of the 2010 results from a geographical region perspective shows that Latin

America accounted for 8.4% of Group cosmetic product sales (1.518 billion Euros), a 17.5% growth over 2009, the highest of all the Group's geographical regions and greater than the growth of the overall market during this same period. From a Product Division perspective, the Consumer Product Division - CPD recorded a 5% growth in sales in relation to global Consumer Product growth between 2009 and 2010. However, when focusing the analysis on CPD sales in new markets (Latin America, Asia, the Pacific region, Eastern Europe, Africa and the Middle East), the growth rate was 10.7%. Note that three of the L'Oréal Consumer Products Division's six strongest countries are emerging countries: Brazil, China and Russia.

The next part of this article first of all performs a general assessment of L'Oréal Latin America's strategic fit and then compares the results that are relevant for global relational analysis with those revealed by non-relational analysis (so-called global traditional analysis –steps 2 and 3 – i.e. a global analysis that does not take relationships such as alliances into account).

DISCUSSION

Assessment of the adequateness of L'Oréal Latin America's strategy

Latin America constitutes an attractive potential market that can contribute to L'Oréal Group's strategic objective of conquering a billion new consumers and its transnational strategy enables it to launch products in this geographical region that are increasingly coherent with the specific requirements of the regional target audience. The research evidenced, moreover, that the strategic alliances with customers and suppliers were aligned with this strategy by enabling the company to react more effectively to the market's specific demands and achieve a better exposure of the products launched for the target audience. It also revealed that the L'Oréal Group's global presence contributes to the formation of more solid alliances with global actors that are seeking to expand their operations, and also to the identification of synergies between different markets around the world.

In sum, the results of the research strongly suggested that L'Oréal Latin America's strategy was adequate to the global context in which the L'Oréal Group operated, considering the strategic implications of its alliances, the actors that comprised this context and the macroeconomic factors that characterized it.

The global relational perspective was fundamental for achieving this strategic assessment. It also illustrated the importance of the Global SNA Framework, which encompasses both traditional and relational global dimensions, for strategic

analyses of firms that compete globally in alliances and other strategically significant linkages. In the next section, the research seeks to evidence this point.

Comparison of analyses from global traditional and global relational perspectives

The following section analyzes the strategic implications shown in Table 4 from both the global traditional and the global relational perspectives and infers the resulting implications if the results of both were considered.

The real threats numbered 1 and 2 in the traditional analysis refer essentially to policy issues inherent to the production and commercialization of cosmetics products in different countries of the world that could be mitigated by alliances with government entities such as, for example, commercial treaties between countries. As the research was unable to identify concrete cases of this type of alliance, it maintained the real threat identified in the traditional analysis as the final implication, though considering that there was a potential relational opportunity.

Threats 3 and 4, on the other hand, refer to socio-cultural factors related to consumers and the large amount of information they currently obtain through digital media. The real opportunity identified for mitigating these threats is constituted by the potential for establishing close contacts with customers in the digital media, a growing trend in the world consumer goods market. The research verified that the L'Oréal Group has websites for its various brands and has been investing in Facebook pages with promotional actions for connected consumers. Some brands organize meetings with bloggers and journalists to divulge product launches

Threats 5 and 6 are related to consumer price sensitivity, especially in the case of consumer products, and to the low cost involved in changing cosmetic products. These threats are being neutralized by the development of products at the company's Latin America hub. As well as enabling products to be developed specifically for the region's consumers with a lower price tag, the hub facilitates the organization of regional industry and the formation of alliances mainly with suppliers, thus constituting a real relational opportunity. The Latin America Procurement team possesses an overall view of the region's different countries' needs and is in contact with other regions' procurement teams, thus enabling alliances to be expanded in order to obtain supplies from countries in other geographical regions. Drawing on the concepts developed by Johanson & Vahle (2003, 2009), the business relations engendered by development hubs offer potential for learning and

trust building and the development of new relationships that can open the way to new markets.

Table 4. Comparison of results using global relational and global traditional analysis

	Global Traditional Analysis	Global Relational Analysis	Resulting Implication
1	**Real Threat:** Product imports depend on stable foreign trade policies on the part of exporting and importing countries.	**Potential Opportunity:** Alliances with government entities that may facilitate bureaucratic processes.	**Real Threat**
2	**Real Threat:** Time needed for sanitary registration of cosmetics products may delay product launches.		
3	**Real Threat:** When socio-cultural factors are not taken into account in the development of new products.	**Real Opportunity:** Establishment of alliances with opinion-forming customers or groups (e.g. bloggers who evaluate cosmetics products) in order to understand target audiences better.	**Real Opportunity**
4	**Potential Threat:** High level of consumer information which is increasing due to digital media.		
5	**Real Threat:** Consumer price sensitivity.	**Real Opportunity:** Development of products with lower price tags by establishing regional development hubs and global partnerships.	**Real Opportunity**
6	**Potential Threat:** Consumers' low cost of changing to other products.		
7	**Potential Threat:** Lack of agility in the selection of suppliers due to the L'Oréal Group's stringent qualification requirements.	**Real Opportunity:** Establishment of long-term alliances with suppliers to ensure the product quality and safety and socially responsible behavior required by L'Oréal.	**Real Opportunity**
8	**Real Threat:** High degree of dependence on certain suppliers.	**Real Opportunity:** Diversification of alliances with suppliers and the possibility of being supplied by other geographical regions.	**Real Opportunity**
9	**Real Threat:** Market diversification through door-to-door sales which is not exploited by L'Oréal.	**Potential Opportunity:** Establishment of alliances to exploit the door-to-door market.	**Potential Opportunity**
10	**Real Threat:** Fierce competition in the industry at global and local levels.	**Real Opportunity:** Hub for the development of products aimed at specific treating opportunities for new regional and global alliances.	**Real Opportunity**
11	**Real Threat:** Low barriers to entry in terms of industry costs and complexity.		
12	**Potential opportunity:** Most of the L'Oréal Group's sales revenues are obtained from less than 15% of the world's consuming population/from the less than 15% of the world's population that consumes its products+B10		
13	**Potential Opportunity:** Possibility for exploiting competency complementarities with other industries for the development of innovative products.	**Potential Opportunity:** Establishment of new alliances with diverse industries, such as the food or service industries, in order to increase the number of new launches.	**Potential Opportunity**

Potential threat 7 refers to the lack of agility in the definition of suppliers due to the L'Oréal Group's stringent requirements for validating a supply contract, a Group security measure to avoid other threats arising from relationships with suppliers, constituted, for example, by issues related to business social responsibility. The real opportunity identified by the research that neutralizes this threat lies in establishing long-term alliances with suppliers to ensure compliance with L'Oréal Group requirements. This opportunity, however, can turn into a real threat 8, because of L'Oréal's dependence on specific suppliers. On the other hand, this threat can be mitigated by the real opportunity constituted by supplier diversification, not just in the sense of seeking different partner firms but also firms that operate in different geographical areas.

Real threat number 9 comes from the modality of door-to-door sales in the cosmetics sector, which is widely used in Latin America and is not exploited by L'Oréal. An evident potential opportunity would be provided by L'Oréal's entry into this market which could be engineered by forming alliances with specialized direct sale associations. When this research was concluded the company still expressed its lack of interest in exploiting this niche. Even so, the research considered that the final implication could be a potential opportunity.

Threats 10 and 11 brought about by fierce competition in the cosmetics industry and low barriers to entry, were considered in the light of potential opportunity 12 (low number of L'Oréal Group consumers as a proportion of the world population), given the real opportunity of

conquering new markets. The development hubs of the Latin America Zone and other geographical regions are designed to meet the needs of specific markets, aiming their product launches at local target audiences, besides creating opportunities for stronger alliances with suppliers and customers due to the fact that they group the needs of the region's different countries. Thus, they are considered to be capable of neutralizing the threats posed by increasing competition and the industry's low barriers to entry and as drivers of the potential opportunity of conquering additional consumers. Thus, in the case of items 10, 11 and 12 the resulting implication was considered to be a real opportunity.

Finally, the research identified potential opportunities (13) to develop innovative products and increase the rate of new product launches by exploiting competency complementarity between the L'Oréal Group and its complementors, especially through strategic alliances with these complementors in diverse industries, such as the food or service industry.

Conclusion

Even though the research showed that L'Oréal Latin America's strategy was adequate in terms of its global context, in the light of the strategic implications of its alliances and other linkages at the cosmetics industry level, there appears to be room for taking better advantage of some potential opportunities identified but still not exploited by the L'Oréal Group.

This is especially so in the case of alliances with government entities and complementors. Potential opportunities identified by the research for alliances with government entities referred mainly to the reduction of bureaucratic difficulties inherent to the activities of global companies, such as those involving imports of products or components. As to alliances with complementors, greater emphasis should be given by the company to developing more of this type of alliance that, as we saw, is especially useful for promoting innovation.

Indeed, it is very important for the L'Oréal Group to become more aware of the potential opportunities offered by the formation of strategic alliances. Though L'Oréal is currently able to sustain its position, the market's increasing dynamism poses a series of challenges for all competitors in this sector that strategic alliances may help confront, especially when they contribute to being innovative.

One of the most important results of this research at L'Oréal was to verify a fact evidenced in other sectors (e.g. telecommunications, see Macedo-Soares & Mendonça, 2010): global alliances create more opportunities than threats, and in many cases, relational global opportunities, that is, pertinent to global alliances and other significant linkages, serve to mitigate and even neutralize non-relational global threats. Another important result was to provide new information by illustrating this fact with examples that are specific to a company in the cosmetics sector that competes globally in alliances.

Thus, one may conclude that the research presented in this article fulfilled in greater part its two-fold aim of i) providing lessons for firms in the cosmetics industry by means of an analysis of the adequateness of the company's strategy and ii) contributing to investigations into strategic management, from a relational perspective, in the case of companies that compete globally.

The application of the Global SNA Framework to the case of L'Oréal Latin America, in light of the L'Oréal Group's global strategy, illustrated how the inclusion of the global relational perspective in the strategic analysis process provides relevant insights that ensure more complete strategic analysis and, consequently, also more accurate strategic decision-making in the case of a global firm involved in alliances. Thus, the research confirmed how important it is for these firms to consider this perspective in their strategic management. The article also made a theoretical contribution by verifying the usefulness of the tools and constructs developed to undertake such a more complete strategic analysis.

It is recommended that new studies be conducted of global firms that take part in alliances in this and other sectors, replicating the application of the analytical framework used, in order not only to refine and consolidate it further, but also to provide additional relevant lessons for managers of firms faced with the challenge of competing in an increasingly complex global context.

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THE DETERMINANTS OF THE PURCHASE OF D&O INSURANCE IN TAIWANESE FIRMS: CORPORATE GOVERNANCE AND MANAGEMENT TURNOVER PERSPECTIVES

Ling-Ling Chang*, Fujen Daniel Hsiao**

Abstract

Accounting scandals in recent years have exposed that a high risk in business operations and caught the public attention. Thus, the Taiwanese government has strengthened the necessary regulations to protect shareholders' rights, emphasizing breach of trust by managers and irresponsibility by board of directors (BOD). Situations such as class action lawsuits filed by investors against firms for deficiency in disclosures revealed that firms could purchase directors & officers liability insurance (D&O insurance)to reduce and diversify the potential risks that result in severe harms by management and board decisions. Our study also shows that decisions to purchase D&O insurance may influence the decision making process of BOD and high-level management, and it may even impact the likelihood of management turnover.

The purpose of the study is to examine the main determinants that would influence the firm's decision on whether to purchase D&O insurance. From empirical evidence, we find the purchase of D&O insurance is more likely when firms are greater in BOD independence, higher BOD average compensation, with greater high level management turnover, larger in size, and in the electronics industry. On the other hand, firms are less likely to purchase D&O insurance when there are higher frequencies in change of external auditors, greater deviation of ultimate controlling shareholders cash flow rights and equity control rights, and when firms are with greater in BOD directors serving as firm managers. However, no relationship is found for firms' D&O insurance purchase relates to information disclosure transparency, and duality of CEO and BOD chairman.

Keywords: Directors and Officers Liability Insurance (D&O Insurance), Corporate Governance, Management Turnover

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Section I: Introduction

Corporate governance of public listed firms has been a prominent issue in several countries – most notably the United States - during the last decade. Countries with emerging markets are also experiencing challenges to the managing environment of their firms. As a result of the Asian Financial Crisis (1997-1998) the Taiwanese government has begun to promulgate stronger corporate governance oversight. The responsibility of corporate board of directors (BOD) was targeted in the 2001 "Corporate Law Amendment," and in 2002, the "Corporate Governance Best Practice Principles for TWSE/GTSM Listed Companies" and "Securities Investor and Future Trader Protection Act" were implemented. Furthermore,

Taiwan's "Securities and Futures Investor Protection Center" was formed and has been assisting investors with legal subrogation of about $20 billion Taiwanese dollars (more than $666 million USD)[1] through June 2008(Lin, 2008). In particular, several accounting scandals emerged in Taiwan around 2004, and many cases of provisional seizure occurred involving managers and BOD members. It was common for board members and/or officers to resign or be dismissed in order to avoid potential loss and risk, both personally and corporately. As a result, it became more common

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[1]It is similar to the accounting scandal case under SEC Rule 10b-5, which shareholders can file lawsuits against firms when managers have made a false statement of a material fact or omitted such a fact.

THE IMPACT OF INVESTOR PROTECTION ON FINANCIAL PERFORMANCE OF ISLAMIC BANKS: AN EMPIRICAL ANALYSIS

Yongqiang Li*, Abdi Hassan, Esse Abdirashid, Bruno Zeller, Miaoli Du

Abstract

The last decade witnessed dramatic growth of the Islamic banking and finance sector, which had largely been credited to its adoption of the profit and loss sharing principles. However, in practice, the Islamic banks mostly reply on debt-like financing methods such as mark-up and leasing finance instead. Consequently, the investors are exposed to default risks. This study empirically examines the impact of investor protection on financial performance of Islamic banks based on an unbalanced panel data collected from 91 Islamic banks and financial institutions worldwide across 1991-2010. Econometric techniques are adopted to specify the models. Results show that stronger investor protection results in better financial performance in the Islamic banking and financial institutions. The paper concludes with acknowledging the limitations and discussion of future research directions.

Keywords: Investor protection, Islamic banks, financial performance, panel data analysis

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1. Introduction

Despite the rapid growth of the Islamic banks in the past decades, rigid empirical test between investor protection and financial institution's performance is long overdue. Many attempts are focused on deciding the determinants of financial performance; little attention has been particularly given to the impact of investor protection (Alexakis and Tsikouras 2009; Haque 2010).

Given the gap identified above, the following research questions is proposed

What is the impact of investor protection on financial performance of the Islamic financial institutions and banks?

The paper will contribute to the literature in two aspects: (1) advanced econometric techniques, i.e. combination of cluster analysis, general method of moments (GMM) and error correction options, are used to produce robust results; (2) results of five models are compared to identify consistent evidence to the research questions.

The rest of the paper proceeds as follows, Section Two reviews relevant literature on performance determination, pertinent to investor protection; Section Three describes the data, sample, variables and methodology; Section Four summarises the results, followed by discussions.

2. Literature review

2.1 Investor protection

The empirical literature on Islamic banks mainly focused on rapid growth and regulatory issues but little have been tested on investors' protection. Recent research on corporate governance has shown that there is no separate governance in Islamic banks and most of the central banks in Muslim states applied current system to govern in Islamic Banks. However, Malaysian central banks have established separate legal system to regulate for Islamic banks.

Investors' protection turns to be crucial to investors because, in many states pre-emption of minority stakeholders and large creditors by the controlling shareholders are not acceptable. Rafeal La Porta et. al (Investors Protection – World bank 1999). The main shareholders in Islamic banks are the sovereign states and Sharia board safe guard the interest of investors' for any expropriation by these shareholders. The relationship between the bank and investor based on Mudarabaha contract whereby share the risk and reward, however, the return on their investment depends on the performance of the managers and non interference of state which is influential shareholder.

The legal approach to corporate governance in Islamic banks holds the key issue of protecting the investors' from outside parties, whether the main shareholders or creditors not to undermine the interest on investors and more dependent on the law and the Sharia board. The minority shares which

are investment account holders in Islamic banks demand the rights to be treated in the same as influential shareholders in dividend policies.

The empirical evidence on this paper found that the rights of minority shareholders are protected. We tested ROA and ROE and the endogenous variables – investor's protection measured by dividend pay-out and net interest revenue and showed positive results. Further research needs to be tested how the banks can signal future profitability by paying dividends. [Jesen and Meckling 1976] addressed agency problems between corporate and minority shareholders. Furthermore, at this stage no empirical evidence tested in Islamic agency problem between corporate and minority shareholders, and thus, require further research to find out any gap in the literature.

2.2 Practices of Islamic banks

Islamic banking derives its contract methods from Islamic trade operations, where capital owners provide funds and entrepreneurs contributing only their work and management skills (Khan and Bhatti 2008). the main characteristic that distinguishes Islamic banking from non-Islamic banking is that the former does not offer interest bearing deposit accounts(Archer and Karim 2009), and instead offers profit sharing based investment accounts through the Mudarabah contract model. The profit sharing investment accounts are considered to be a substitute for the deposits of non-Islamic banks. These deposits, unlike other kinds of deposits, are not designed for high net-worth business people (Grais and Pellegrini 2006) but for small business people who are seeking low risk investment. Nevertheless, Islamic banks do mix investment accounts (bilateral Mudarabah) with current accounts and shareholder funds (Grais and Pellegrini 2006).

PSIA transactions

Islamic banks provide financial intermediation services (as do non-Islamic banks) and mobilise resources between the savers and deficit holders (Iqbal and Llewellyn 2002).

Figure 1. Profit and Loss Sharing Scheme in Islamic Banks (Source: the authors)
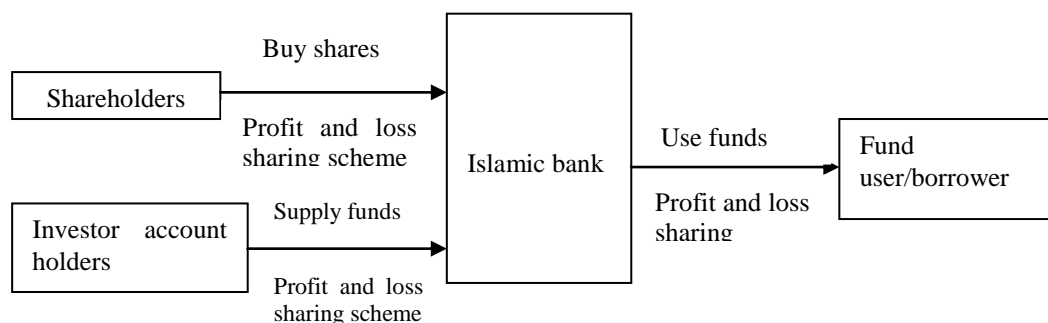
Figure 1 is a simplified diagram that explains the structure of the Mudarabah contract. Under this structure, the Islamic bank accepts deposits through Mudarabah contract as an intermediary, where the depositor enters into a profit sharing partnership or agency contract with the bank as a *Mudarib* (partner/agent). Also, as noted previously, the Islamic bank (as a principal fund-provider) can enter into a partnership or agency contract with an entrepreneur who only contributes the management skills (El-Hawary; Grais and Iqbal 2007). Thus, the capital is provided by the fund supplier, who operates as a sleeping partner, and work is provided by the entrepreneur (Archer and Karim 2009).

Deposits in Islamic banks are divided into current accounts and investment accounts (Grais and Pellegrini 2006; Archer and Karim 2009). For current accounts (CAs), the depositors do not have any purpose other than safekeeping their money in the bank (El-Hawary, Grais and Iqbal 2007). The deposits in current accounts are considered to be a debt, and therefore Islamic banks guarantee to pay these back in full to the depositors. Nevertheless, Islamic banks can use the current account deposits for their own purpose and take the responsibility for any risk and loss (Grais and Pellegrini 2006).

Investment accounts can be divided into restricted investment accounts (RIAs) and unrestricted investment accounts (UIAs). The Islamic bank only invests RIAs in projects that they have been specifically instructed to invest in by the depositors. Thus, these are similar to conventional mutual funds, although unlike mutual funds they are not managed by a legal entity that is separate from the Islamic bank (Archer and Karim 2009). In contrast, UIAs allow the Islamic bank freedom to invest deposits in any investment vehicle that is not prohibited by Islamic law. Islamic banks treat the

RIAs as an off balance-sheet item and normally report these on the footnotes of the financial position statements; UIAs, on the other hand, are reported on the balance sheet of the bank as an asset (Archer and Karim 2009). As a principal fund supplier, the Islamic bank provides deposits to a fund user without restricting the investment to a specific class of assets, geographical location, industry, or time (Archer and Abdel-Karim 2009; El-Hawary, Grais and Iqbal 2007; El-Gamal 2005).

As noted previously, the Islamic banking system does not guarantee either the capital or return of the invested amount to the investment account holders (Grais and Abdel-Karim 2006). Consequently, the future income flow of the investment is uncertain, and will depend on the profitability of the business venture (Archer and Karim 2009; El-Gamal 2005).

As the risk of the business venture is transferred to the depositors, this has meant that many investors are reluctant to provide funds to Islamic banks for investment under the Mudarabah contract (Zaher and Hassan 2001; El-Gamal 2005). Furthermore, Islamic banks have become reluctant to lend the funds of depositors to other entrepreneurs, as the latter share the profit but not the risk (Zaher and Hassan 2001).

This problem has led the majority of Islamic banks to abandon the profit and loss sharing based Mudarabah financing model, and instead to rely on debt-like financing instruments such as the mark-up approach of Murabaha and the leasing finance of Ijaraha (Djojosugito 2008). Nevertheless, Islamic banks that still use Mudarabah financing model for raising capital employ conventional techniques, such as the use of profit equalization reserves (PER). Under this strategy, Islamic banks keep savings which can be deducted from the profits of shareholders, to smooth the returns paid to PSIA holders or cover their periodic losses (Grais and Pellegrini 2006; Archer and Karim 2009; Alexakis and Tsikouras 2009).

In addition, Islamic banks can voluntarily reduce their own profits (as a Mudarib) to increase the returns of the PSIA holders (Archer and Karim, 2009). Islamic banks have adopted this earnings management and accounting manipulation strategy to compete with non-Islamic banks and use this to provide their customers with similar rates of return to those paid by non-Islamic banks (Archer and Karim 2009; El-Gamal 2006). Therefore, this practice guarantees returns in a way that is similar to non-Islamic banks and dissimilar to the profit and loss sharing principles of the Shariah (Grais and Pellegrini 2006; El-Gamal 2006).

2.3. Corporate governance issues in Islamic banks

In the past, control and management of firms were inseparable, as businesses were small and normally owned and managed by a single person. However, as firms have become larger and more complex, a distinction between management and ownership has become necessary (Santiago-Castro and Brown 2009). This separation of the management and the ownership has led to a conflict of interests and agency problems between the owners and managers (Dey 2009). Corporate governance provides a set of regulations for the supervision of operation of companies such as banks to ensure that they are efficiently operable. This allows the firm to generate economic value for the shareholders, depositors, and other stakeholders (Santiago-Castro and Brown 2009).

Non-Islamic banks are subject to external and internal auditing systems, with proper reporting and accounting standards (Alexakis and Tsikouras 2009). The Basel Committee was established to strengthen the supervisory and regulatory practices of banks, and introduced a minimum capital weighing requirement for these banks, to reduce the risk of default. As a result, banks are required to set aside capital reserve for risky long-term loans (Archer and Karim 2009; Alexakis and Tsikouras 2009). Similarly, Islamic banks are subject to both external and internal corporate governance principles (Safieddine 2009), and managers of Islamic banks are required to apply both the conventional corporate governance and Shariah law principles. In effect, breaching one of these is seen as a breach of the agency contract (Khan and Bhatti 2008).

Figure 2 is a simplified diagram that explains the corporate governance of Mudarabah contract. As can be seen from the diagram, Islamic banks have two boards of directors: a Shariah supervisory board (SSB) as well as a more traditional board of directors. The SSB is an independent body of Islamic scholars who specialise in Islamic jurisprudence and Islamic commercial law (Grais and Pellegrini 2006). The task of the SSB is to ensure that the operations and contracts of the Islamic banks are Shariah compliant. SSB members are elected by the shareholders, based on the recommendations of the board of directors (Grais and Pellegrini 2006). The SSB usually publish their opinion in annual reports, outlining the level of Shariah compliance by the financial transactions and in the operations of the Islamic banks (Grais and Pellegrini 2006; Alexakis and Tsikouras 2009). Furthermore, the SSB ensure that the profits and losses allocated to the investors are in compliance with the Shariah principles (Alexakis and Tsikouras 2009).

Figure 2. The corporate governance problem in the Islamic Banking sector (Source: the authors)
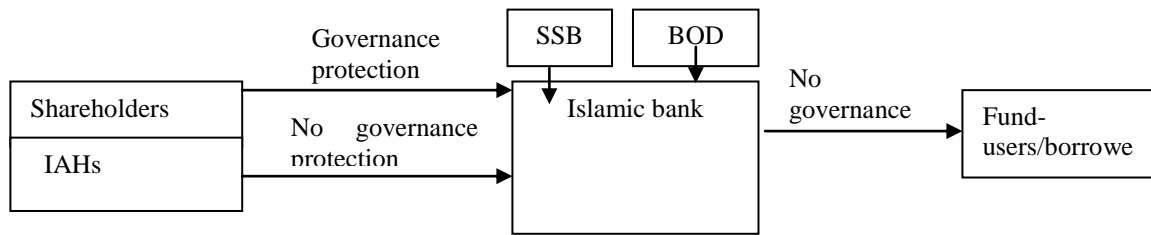
2.4 Uniqueness of agency problems in Islamic banking

The agency theory in Islamic banking is unique, since the ownership structure and the nature of Islamic banking operations is different from that of non-Islamic banks (Hasan 2008). The shareholders and investment account holders are the principal investors in an Islamic bank, however, PSIA holders entrust their deposits to an agent (the management of Islamic bank) that is appointed by shareholders and only answerable to them (Ismail, Abdul Gafar, and Toharin 2009). Investment account holders are not considered equity-holders or debt-holders who are entitle to governance rights or the protection of the credit holders. Therefore, the investment accounts holders will fall into the category of quasi-equity holders (Zuhair 2008; Safieddine 2009; Archer and Abdel-Karim 2009; Alexakis and Tsikouras 2009).

The Mudarabah contract is normally made *ex-ante* and the agent (whether it is a bank or an entrepreneur) can hide information about the project from the investment account holders (Llewellyn and Iqbal 2002) and at the same time would not allow them to obtain access to the information of the business venture throughout.

Conflicting economic interests of fund users with that of the capital providers may give the first group incentives to advance their own interests at the expense of the latter group (Zaher and Hassan 2001; El-Gamal 2005; Safieddine 2009). For instance, managers of the Islamic banks may underreport the earnings or overstate the losses of the investment account holders, as the PSIAs are not allowed to exercise governance control rights over their investment under Mudarabah contract (El-Gamal 2005; Safieddine 2009; El-Gamal 2005; Djojosugito 2008).

In the non-Islamic banking system, deposits from the investment account holders (IAHs) are protected by a deposit insurance policy, which requires these banks to keep reserve ratios and capital adequacy to minimise the risk of loss. Therefore, IAHs are considered creditors and first claimants of the bank's assets in the event of the bankruptcy (Archer and Karim 2009).

Islamic banks use same contractual structure (the Mudarabah contract) for both their retail banking activities and investment activities, because of its flexibility to manage and to avoid transparency (Archer and Karim 2009). Islamic banks benefit from using one contractual contract as the risk of the business is borne by the investment account holders who are not entitled to governance rights (Safieddine 2009; El-Gamal 2005; Akacem, Mohammed, Gillian and Lynde 2002 Rosly and Zaini 2008).

The problems of adverse selection and moral hazards in the investment accounts caused by the Mudarabah contract (Ahmed 2008; Hasan 2008; Safieddine 2009), create unique agency problems in the Islamic banking system. To address this, a Corporate governance system that aligns the interests of the PSIAs, Islamic banks, and entrepreneurs is required (El-Gamal 2005; Chapra and Ahmed 2002; Safieddine 2009). And a empirical test of the relationship between investor protection and firm financial performance is yet to be undertaken covering as many banks as possible, which is assumed by this research.

3. Data and methodology

3.1 Data and sample

The data is directly obtained from Bankscope. We manually abstracted 91 Islamic banks/financial institutions in 31 countries across 1991-2010. Given the availability of data, a unbalanced panel data set, including 628 observations of 15 variables.

3.2 Variables

3.2.1 Dependent variables

ROA and ROE, the performance measures, are used as the dependent variables. ROA and ROE are widely used in the literature to measure the operation related performance. The definitions of

endogenous variables are largely drawn from Hassan and Bashir (2002).

3.2.2. Endogenous variables

Endogenous variables in focus, measuring investor protection, include Dividend pay-out and Inc Net of Dist/Avg[6] Equity. Dividend pay-out is a measure of the profits after tax redistributed to shareholders in US million $. In general the higher the dividend pay-out the better but not if it is at the cost of restricting reinvestment in the bank and its ability to grow its business. Inc Net of Dist/Avg Equity is the return on equity after deducting the dividend from the return and this ratio shows by what percentage the equity has increased from internally generated funds, in other words, the higher the better.

3.2.3 Control variables

Control variables include Total Assets, Equity to Total Assets, Other Operating Income/Avg Equity, Cost to Income Ratio, Recurring Earning Power, Liquid Assets/Tot Dep & Bor, Net Int Rev/Avg Assets, Interbank Ratio, and Equity/Liabilities.

Total Assets is the total assets of each bank in a given year in US million $. Equity to Total Assets is the ratio which measures the ability of the bank to withstand losses. A declining trend in this ratio may signal increased risk exposure and possibly capital adequacy problem.

Other Operating Income/Avg Equity indicates to what extent fees and other income represent a great percentage of earnings of the bank. As long as this is not volatile trading income it can be seen as a lower risk form of income. The higher this ratio, the better.

Cost to Income Ratio measures the overheads or costs of running the bank, the major element of which is normally salaries, as percentage of income generated before provisions. It is a measure of efficiency although if the lending margins in a particular country are very high then the ratio will improve as a result.

Recurring Earning Power is a measure of profits after tax adding back provisions for bad debts as a percentage of Total Assets. This ratio is a return on asset performance measurement without deducting provisions.

Liquid Assets/Tot Dep & Bor is a deposit run off ratio and looks at what percentage of deposit and borrow could be met if they were withdrawn suddenly. The higher this percentage, the more liquid the bank is and less vulnerable to a classic run on the bank.

Net Int[7] Rev/Avg Assets indicates that the item is averaged using the net income expressed as a percentage of the total balance sheet.

Interbank Ratio equals the money lent to other banks divided by money borrowed from other banks. If this ratio is greater than 100, it indicates the bank is net placer rather than a borrower of funds in the market place, hence more liquid.

Equity/Liabilities ratio indicates the equity funding and capital adequacy.

3.2.4 Instrument variables

Instrument variables used here include Net Int Rev/Avg Assets, Interbank Ratio, and Equity/Liabilities. Definition and measure are mentioned in Section 3.2.3.

3.3 Methodology

The relationship between financial performance and its determinants can be expressed mathematically as follows

$$y_{i,t} = f(x_{i,t}) + u_{i,t} \quad (1)$$

where $y_{i,t}$ is a vector of dependent variables, consisted by ROI and ROE, $x_{i,t}$ is a vector of endogenous variables, including Total Assets, Equity to Total Assets, Dividend pay-out, Inc Net of Dist/Avg Equity, Other Operating Income/Avg Equity, Cost to Income Ratio, Recurring Earning Power, Liquid Assets/Tot Dep & Bor, Net Int Rev/Avg Assets, Interbank Ratio, and Equity/Liabilities; $u_{i,t}$ is the error term. Index i denotes panels, or Bankid here; t denotes year.

Eq. (1) – (3) are specified using five approaches (Stock and Watson 2008), namely Ordinary Least Squares (OLS) analysis using cross-sectional data, controlling year and clustering banks, putting it mathematically

$$y_{i,t} = \alpha_i + \beta x_{i,t} + u_{i,t} \quad (2)$$

where α_i is the intercept; β is a vector of coefficients to be estimated; $u_{i,t}$ is the error term.

Fixed effect model using panel data

$$y_{i,t} = \beta x_{i,t} + \lambda_t + \xi_i + u_{i,t} \quad (3)$$

where λ_t is the time (year); ξ_i is fixeded effect and is the bank fixeded effect; $u_{i,t}$ is the error term.

Random effect model using panel data

$$y_{i,t} = \alpha + \beta x_{i,t} + u_{i,t} \quad (4)$$

where α is the average ROI/ROE for the entire population.

Instrumental variable (IV) modelling using panel data, the instruments are Net Int Rev/Avg Assets, Interbank Ratio, Equity /Liabilities.

$$y_{i,t} = \alpha + \beta_1 x_{i,t} + \beta_2 w_{i,t} + u_{i,t} \quad (5)$$

where β_1 is the vector of coefficients to be estimated for endogenous variables; $w_{i,t}$ is the vector of instruments.

IV model using GMM as the estimator and additional options are exercised to obtain fixed

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[6] Avg. stands for the arithmetic mean of the value at year t and year t-1.

[7] Stands for income.

effects and robust results. Eq. (5) has also been adopted in this model, except that Generalized Methods of Moments (GMM) is used as the estimator.

In order to yield robust results, all the models are applied cluster analysis to minimise the heterogeneity among banks in different countries. In addition, robust option has been selected to correct heterogeneity.

The STATA 11.2 software is used to empirically specify the above models. Recently release XTIVREG2 package is couple GMM and fixed effect together for IV models using panel data.

4. Results and discussion

4.1 Descriptive statistics

This section only highlights some descriptive statistics of the variables included in the analysis. As shown in Table 2, eight out of fifteen variables have missing values. It is telling to observe that most of the ratios have negative values, which signals flags for the operation of the businesses.

Table 2. Descriptive statistics

Variable	No. of Obs.	Mean	Std. Dev.	Min	Max
Year	628	2005.314	3.416164	1991	2010
Bank ID	628	47.00637	25.86032	1	91
ROA	628	1.271083	4.268083	-45.31	53.09
ROE	628	10.97068	16.92806	-118.28	69.92
Total Assets	628	677855.1	1.03E+07	8.24	1.92E+08
Equity to Total Assets	628	16.73054	20.22036	-31.3	99.6
Inc Net of Dist/Avg Equity	317	8.356845	13.85171	-76.03	79.25
Other Operating Income/Avg Equity	621	2.371578	2.984578	-8.57	28.19
Cost to Income Ratio	598	58.8801	57.83412	-141.09	950
Recurring Earning Power	628	2.635462	5.389725	-19.39	53.09
Liquid Assets/Tot Dep & Bor	456	42.16689	59.52575	0.03	585.08
Dividend pay-out	314	41.11564	55.30688	-450	579.71
Net Int Rev/Avg Assets	619	3.061066	5.534779	-20.77	74.78
Interbank Ratio	397	163.6523	191.9982	0	941.25
Equity/Liabilities	615	33.90844	96.03311	-23.85	926.5

The spearman correlation coefficients are calculated for each variable pairs (Table 2). Both ROA and ROE are significantly positively correlated with Dividend pay-out, and the Net Interest Revenue and Average Assets ratio, though the coefficients are relatively small.

Table 3. Spearman correlation coefficient

	ROA	ROE	Total Assets	Equity to Total Assets	Inc Net of Dist/Avg Equity	Other Operating Inc/Avg Equity	Cost to Income Ratio	Recurring Earning Power	Liquid Assets/Tot Dep & Bor	Dividend pay-out	Net Int Rev/Avg Assets	Interbank Ratio	Equity/Liabilities
ROA	1												
ROE	0.5872*	1											
Total Assets	0.0007	0.0426	1										
Equity to Total Assets	0.0829*	-0.1438*	-0.0351	1									
Inc Net of Dist/Avg Equity	0.4589*	0.6535*	-0.0618	-0.0686	1								
Other Operating Income/Avg Equity	0.3307*	0.1558*	0.1579*	0.1685*	0.3006*	1							
Cost to Income Ratio	-0.4828*	-0.4765*	-0.007	0.1460*	-0.5873*	0.0167	1						
Recurring Earning Power	0.5225*	0.2879*	-0.0114	0.0853*	0.6488*	0.2424*	-0.3704*	1					

Liquid Assets/Tot Dep & Bor	0.0217	-0.0889	0.0581	0.6570*	0.0098	0.1303*	0.1344*	-0.0444	1			
Dividend pay-out	0.1345*	0.1387*	-0.0431	-0.092	-0.1517*	0.0503	-0.043	-0.0228	0.012	1		
Net Int Rev/Avg Assets	0.3494*	0.1825*	-0.1080*	0.0399	0.2583*	-0.0527	-0.054	0.3902*	-0.0375	0.0934	1	
Interbank Ratio	0.0626	-0.03	-0.0598	0.2716*	-0.0617	0.2053*	0.1878*	-0.1258*	0.3639*	0.0307	0.008	1
Equity/Liabilities	-0.1694*	0.1602*	-0.019	0.8428*	-0.0714	-0.0329	0.2960*	-0.0349	0.7237*	-0.0729	0.0225	0.2716*	1

Legend: * p<0.05

4.2. Model results

The data from the sample of 91 Islamic banks and financial institutions worldwide across 1991-2010 are used to empirically test the impact of investor protection on financial performance. Specifically, dependent variables - financial performance are measured by ROA and ROE; whilst the endogenous variables – investor protection are measured by dividend payout and Net Interest Revenue and Average Assets ratio. Five models are estimated, including Ordinary Least Squares Regression (OLS) based on cross-sectional data, which treats each data point as an observation; fixed and random effect model based on panel data; instrument variable model and instrument variable model using General Method of Moments (GMM) estimator. Other variables are used as control variables or instrument variables. The results for ROA and ROE are reported in Table 4 and Table 5 respectively.

Table 4. Model results (ROA)

ROA	OLS	Fixed effect	Random effect	IV	IV_GMM
Dividend pay-out	0.0141***	0.0127***	0.0132***	0.0297***	0.0241**
Total Assets	4.0e-07*	-1.20E-07	2.60E-07	1.8e-06*	1.10E-06
Equity to Total Assets	-0.211	-0.149	-0.197	0.0666*	0.0589**
Inc Net of Dist/Avg Equity	0.0937***	0.0801***	0.0901***	0.104***	0.106***
Other Operating Income/Avg Equity	0.116	0.84***	0.276	0.926***	0.862***
Cost to Income Ratio	-0.00928***	-0.00733*	-0.00937***	-0.0011	-0.00314
Recurring Earning Power	-0.219***	-0.199***	-0.195***	-0.181***	-0.201***
Liquid Assets/Tot Dep & Bor	-0.00209	-0.006	-0.00575	-0.0104*	-0.00756
Net Int Rev/Avg Assets	0.348**	0.299*	0.391**		
Interbank Ratio	0.00026	1.60E-05	-0.00016	instrument variables	
Equity/Liabilities	0.292*	0.173	0.247*		
constant	-1.21*	-1.18*	-1.07*		
R^2	0.842	0.898		0.773	0.821
Number of observations	200	197	200	197	197
Clustered by bank	Yes	Yes	Yes	Yes	Yes

Legend: * p<0.05; ** p<0.01; *** p<0.001

Table 5. Model results (ROE)

ROE	OLS	Fixed effect	Random effect	IV	IV_GMM
Dividend pay-out	0.16***	0.149***	0.156***	0.269***	0.267***
Total Assets	2.00E-07	-2.50E-06	-8.30E-08	7.00E-06	6.40E-06
Equity to Total Assets	-0.147	-0.634	-0.423	-0.399	-0.416*
Inc Net of Dist/Avg Equity	1.05***	0.96***	1.03***	1.13***	1.14***
Other Operating Income/Avg Equity	1.14	4.51***	1.35	5.03***	4.99***
Cost to Income Ratio	0.00654	0.015	0.00571	0.0608*	0.0593*
Recurring Earning Power	-1.61***	-1.57***	-1.57***	-1.44***	-1.45***
Liquid Assets/Tot Dep & Bor	-0.0039	0.0286	-0.00415	-0.0264	-0.0256
Net Int Rev/Avg Assets	2.23***	1.93*	2.35***		
Interbank Ratio	-0.00148	-0.0026	-0.00268	Instrument variable	
Equity/Liabilities	0.191	0.242	0.338		
constant	-4.31*	-3.92	-3.53*		
R^2	0.907	0.912		0.805	0.809
Number of observations	200	200	200	197	197
Clustered by bank	Yes	Yes	Yes	Yes	Yes

Legend: * $p<0.05$; ** $p<0.01$; *** $p<0.001$

4.3 Model selection

4.3.1 Model comparison

Though OLS produces higher R^2, panel data based models are preferred as they are able to capture both the 'between' and 'within' panel effects. Thus OLS can be used as a baseline model for comparison purpose. The hausman test shows that random effect models are better than fixed effect models in specifying the models respectively in Table 4-5.

There is no consensus so far on how to compare the performance of the Random effect model and IV model. However, it is widely acknowledged that traditional models, including fixed- and random effect models suffer from three problems, namely omitted variable bias, measurement error and selection bias. The remedy to these problems is to use Instrument Variable (IV) modelling. Comparatively, IV models with GMM estimator produces more robust results at the cost of efficiency.

Thus we select the IV-GMM model as the most appropriate model. Hence the discussion will be around the results of IV-GMM model.

4.3.2 IV tests[8]

There are two main additional tests for IV models, one is to test whether the instrument variable is an instrument; the other is to test whether the model is under-identified, weak- identified, or over-identified.

A valid instrument must satisfy two conditions, one is instrument relevance, and the other is instrument exogeneity. The former condition is proven to be valid from the Pearson correlation coefficients test listed in Table 3. The later condition is examined in STATA (using 'orthog' option) and proven to be valid too. First stage F values[9] all shown to be significant, meaning that there is no weak instrument problem in all the specifications (Stock and Watson 2009).

The under-identification test here adopts the Kleibergen-Paap rk LM statistic, which is automatically report in STATA 11.2 if 'xtivreg2' package is used. All the results reject the null hypothesis that each of the models is under-identified.

The weak-identification test adopts the Cragg-Donald Wald F statistic and the results rejected the null hypothesis that the model is weak-identified.

The over-identification test adopts Hansen J-Statistics and all the results were not able to reject the null hypothesis at 5% significant level, meaning that the model is not over-identified.

Thus, both the IV and IV-GMM model passed all the IV related tests.

4.3.3 Other robustness tests

STATA is able to solve the multicollinearity problem by deleting variables automatically, thus

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[8] All the test results are available upon request.

[9] It can be retrieved by commanding STATA to report the first stage results.

multicollinearity is not a concern here. Heteroskedasticity has been corrected by using cluster techniques and robust options. Auto-correlation has been corrected by using the general least squares (GLS) procedure.

In addition, the estimation of each coefficient in IV-GMM model is nearly consistent in all models. Though stationary test has not been attempted, it is not a concern as the majority of the banks only have complete data for 3-4 years, which is short-term.

4.4 Results and discussion

As IV-GMM model is proven to be the most appropriate model, the analysis below is all based on the IV-GMM models.

Ceteris paribus, the coefficient of dividend pay-out on ROA is 0.0241 and statistically significant at 1% significance level, implying that the dividend pay-out of financial institutions and banks, on average, has a positive impact on the ROA. 1 million US\$ increase in dividend pay-out will lead to 0.0241 increase in the absolute value of the ROA.

Ceteris paribus, the coefficient of income net of distribution over average equity ratio on ROA is 0.106 and statistically significant at 0.1% significance level, implying that the income net of distribution over average equity of financial institutions and banks, on average, has a positive impact on the ROA. 1 absolute value increase in income net of distribution over average equity will lead to 0.106 absolute value increase in ROA.

Ceteris paribus, the coefficient of dividend pay-out on ROE is 0.267 and statistically significant at 0.1% significance level, implying that the dividend pay-out of financial institutions and banks, on average, has a positive impact on the ROE. 1 million US\$ increase in dividend pay-out will lead to 0.267 increase in the absolute value of the ROE.

Ceteris paribus, the coefficient of income net of distribution over average equity ratio on ROE is 1.14 and statistically significant at 0.1% significance level, implying that the income net of distribution over average equity ratio of financial institutions and banks, on average, has a positive impact on the ROE. 1 absolute value increase in income net of distribution over average equity ratio will lead to 1.14 increases in the absolute value of the ROE.

Comparatively, the income net of distribution over average equity ratio exerts a larger impact on financial performance than the dividend pay-out.

5. Conclusion, limitations and future research

To sum up, from the empirical results shown in Section 4, sufficient evidence yields the answer to

our research question that investor protection has a positive impact on the financial performance. The policy implication is improving investor protection, in the means of increasing dividend pay-out and/or increase Inc Net of Dist/Avg Equity ratio, within a particular range which is yet to be identified.

The paper is subjected to four limitations, (1) the analysis fails to consider cross-country heterogeneity; though controlled by panel techniques, it still suffers from omitted variable bias; (2) analysis based on unbalanced panel data suffer from efficiency problem, which may need further corrections to generate efficient estimation results; (3) dividend pay-out and inc net of dist/avg. equity, the only two variables used to measure investor protection, may not be able to capture the whole story of investor protection amongst the diversified sample; and (4) performance measured by ROI and ROE only is not sufficient.

Future research can focus more on the following aspects: (1) performance and investor protection should be measured by a holistic approach (i.e. the investor protection index) and be expanded to multiple dimensions, i.e. efficiency and productivity; (2) the optimal level of investor protection should be pursued further to leverage between the improvement of short-term performance and sustainable development, abiding with the Shariah principles.

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Appendix

Table 1. Variable definition

Variable	Definition and measure
Year	financial year
Bank ID	a unique identifier assigned to each bank
ROA	return on average asset
ROE	return on average equity
Total Assets	total assets of each bank in a given year in US million $
Equity to Tatal Assets	book value of equities over total assets
Dividend pay-out	after tax profits paid to shareholders in US million $
Inc Net of Dist/Avg Equity	return minus distribution over average equity
Other Operating Income/Avg Equity	other operating income over average equity
Cost to Income Ratio	cost over income
Recurring Earning Power	return on assets without deducting provisions
Liquid Assets/Tot Dep & Bor	liquid assets over assets available for borrowers and depositors
Net Int Rev/Avg Assets	net interest revenue over average assets
Interbank Ratio	the money lent to other banks divided by money borrowed from other banks
Equity/Liabilities	equity over liabilities

ASSESSING CORPORATE GOVERNANCE IN LACK OF ASSURANCE CONDITIONS BY USING FUZZY LOGICS

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Sanaz Salehi Abarghoee****

Abstract

Corporate governance has changed into a very crucial investment decision making element for investors. The amount of investors' investment increases as much as the observing of corporate governance principles increase. Thus, companies' ranking regarding corporate governance can present valuable information for users. Corporate governance criterion is a criterion through which the amount of observing the principles of corporate governance by the companies is shown. The existence of this criterion besides company rankings can be effective for investors, auditors and the public to judge about these companies. So in this paper we will try to propose our new criterion entitled: "Fuzzy corporate governance criterion" and its fundamental concepts based on fuzzy logical theory. The methodology based on fuzzy logical theory has improved and developed inexact and vague estimates of traditional assessment methods. This methodology has presented a new type of corporate governance (CG) criterion called Fuzzy corporate governance (FCG). Transparency and disclosure, ownership structure, board of directors' structure and owners' equity are among key variables in corporate governance which have been unified in fuzzy model in this research to gain an acceptable criterion for assessing corporate governance.

Keywords: Corporate Governance, Fuzzy Logic, Transparency and Disclosure, Board of Directors' Structure, Ownership Structure, Owners' Equity

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Introduction

Financial scandals in some big and famous corporations in the world in recent century such as those in Anron and Worldcom reduced public reliability towards the data and financial reports published by the companies [4]. To resolve the problems above, corporate governance concept is one of the most important concepts posed in the recent 2 decades. Corporate governance reduces agency risk by increasing supervision over the activities of the managers and is accompanied by risk reduction resulted from financial crisis. Thus, assessing the companies regarding corporate governance provides useful and valuable information for beneficiaries. The result of this assessment is a list of the best and the worst companies. The terms, "the best" or "the worst", may create ambiguity in ranking the companies. Fuzzy logic was presented to avoid ambiguities in

dealing with words and statements which are inaccurate and ambiguous and give considerable additional information in assessing the reports and help to reduce the limitations of traditional assessment methods. Thus, in this research we used 4 important characteristics of joint leadership systems such as board of directors' structure, transparency and disclosure, ownership structure, and stockholders' equity to devise a suitable corporate governance criterion through fuzzy tools.

Corporate governance:

Corporate governance is set of control tools that use rules, regulations, structures, cultures and systems to achieve the goals of accountability, transparency, justice and the rights of beneficiaries [8]. Anyway, the principles of corporate governance system are deemed to be more important than the definition for corporate governance itself. We can mention the

following items from among attempts done to determine the principles of corporate governance:

Devising a basis for the effective framework of corporate governance, stockholders' equity and major functions of ownership, the role of beneficiaries in corporate governance, emphasis on ethical standards and responsiveness, observing the fairness in financial reporting, the fair system for performance rewarding and adjustment of the authorities with responsibilities, risk management, disclosure and transparency, board of directors' structure [5]. Each of the principles mentioned above can be thought of as a basis for ranking companies regarding corporate governance. Although the suppliers of the recent rankings can not expect to reach a consensus in ranking structure based on corporate governance, some similarities can be detected in these rankings. The point which all parties agree about is that the ranking should be based on transparency and disclosure, board of directors' structure, ownership structure, and stockholders' equity, although their approaches in collection, grading and weighing the information are different [3].

Transparency and disclosure:

Transparency and disclosure of the data in a company is one of the key items in controlling and effective support of stockholders and they have a great role in company's leadership system. Transparency can be introduced by the concepts such as: Correctness , Adjustment , Appropriateness , Completeness , Resolution , Timing , and Convenience [7].

Board of directors' structure:

Board of directors is among the internal mechanisms of corporate governance which greatly affects the company's performance and observing the rights of beneficiaries in an entity. Board of directors is responsible for supervising the managerial performance and achieving a suitable yield for stockholders, observing the rules and avoiding the presence of benefits' controversies besides strategic leadership of the company.

Ownership structure:

Ownership structure in the companies can be effective in creating and developing the model for corporate governance. The stockholders' composition and ownership concentration amount are two principle aspects of companies' ownership structures[6]. Institutional investors reduce agency

problems resulted from the isolation of ownership and management and can have a fundamental role in improving corporate governance system. Mangers' ownership can accord the benefits of managers and stockholders and reduce agency problems for both parties. Ownership concentration also is one of the resolutions which can reduce agency problems. In companies where ownership is widely spread, stockholders have a weak effect on company management and this will result in creating more agency problems.

Stockholders' rights:

Stockholders are important players in corporate governance. Because they supply the capital for the companies and retaining their reliance is highly important. In ranking the company based on the stockholders' rights, the boundary in which company's legislation has been designed to preserve stockholders' benefits, efforts to include stockholders in the meetings, the power to vote and the benefits of each beneficiary, the range in which stockholders' equity are supported by the company, and the amount of stockholders' power functions are measured [3].

Fuzzy set theory and controlling (assessing) fuzzy logic:

Fuzzy set theory was first posed in 1965 by professor Lotfizadeh to quantify the amount of lack of absoluteness and inaccurateness. The main goal in fuzzy set theory was to express lack of absoluteness in knowledge by quantifying inaccurate data. In fact, fuzzy sets were presented to deal with inaccurate words and statements. Membership function μ (x), includes real numbers of [0, 1] which shows that the membership degree belongs to a fuzzy set. The bigger amount of a member's degree (nearer to 1), shows the high intensity of the member in the set. If a membership degree equals zero or one, it means non-membership and complete membership, respectively. Fuzzy numbers are convex and normal fuzzy sets with membership function of μ (x) which show normalness and convexity. Fuzzy numbers can be triangular, trapeze and bell shaped. Fuzzy numbers used in this research are triangular fuzzy numbers. Triangular fuzzy numbers (TFN) are a special type of fuzzy numbers which are defined by a triangle a1, a2, a3 which is shown in figure (a). These parameters show the least, the most probable, and the highest possible value, respectively.

Figure (a). Triangular fuzzy numbers (TFN)
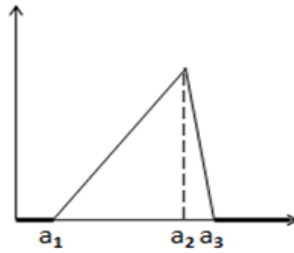
Membership function for a triangular number is determined as follows:

1. $\mu_A(x) = 0$ when $x < a_1$
2. $\mu_A(x) = (x - a_1) / (a_2 - a_1)$ when $a_1 \le x \le a_2$
3. $\mu_A(x) = (a_1 - x) / (a_3 - a_2)$ when $a_2 \le x \le a_3$
4. $\mu_A(x) = 0$ when $x > a_3$

Fuzzy logical models use fuzzy sets to study and describe the complicated and inaccurate phenomena and use logical operations for conclusion. Fuzzy sets (especially fuzzy numbers) and fuzzy logic which is used in controlling form a set of knowledge called fuzzy logical controlling (FLC) which are very effective in dealing with controlling problems in an indefinite and inaccurate environment and where we do need much accuracy and the goal of controlling entails accessible variables for measurement or estimation[1]. The block figure for controlling processes is shown in the figure below.

Block figure of Fuzzy Logical Controlling process
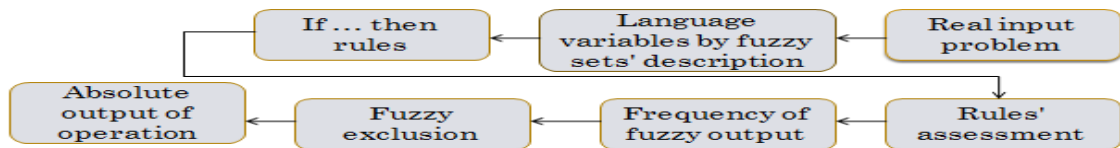
The process of FLC is used step by step on corporate governance ranking.

Fuzzy Logic in designing Corporate Governance (CG):

Companies are assessed based on the quality of financial data, stock ownership and activities by board of directors, etc. The result is a list of the best and the worst companies. Thus the terms "the best" and "the worst" may cause ambiguities in ranking the companies and determining badness or goodness exactly. Fortunately fuzzy logic can give us additional data in a broad range to assess the reports and help us to reduce the limitations of using the traditional assessing methods. So, Including FL in corporate governance can approve different degrees of corporate governance through the planning of fuzzy model and present a new criterion called Fuzzy Corporate Governance (FCG).

Fuzzy logical controlling issues have inputs and outputs which are considered as language variables.

In this research transparency and disclosure, board of directors' structure, ownership structure and stockholders' rights are input language variables and the rank of corporate governance is output language variable of the system of fuzzy corporate governance. ρ stands for transparency and disclosure, θ stands for board of directors' structure, ß stands for ownership structure, f stands for stockholders' rights, and η stands for corporate governance ranking. Here the triangular numbers are used to represent input and output parameters of the system. Each variable should be expressed in different shapes and levels in order to relate to the fuzzy set. For example, for variable ρ different levels (language terms) presented are very low, low, medium, high, and very high. Language term for the variables θ, ß, f and η are also represented in figure (D) along with the related triangular number.

Figure (D)
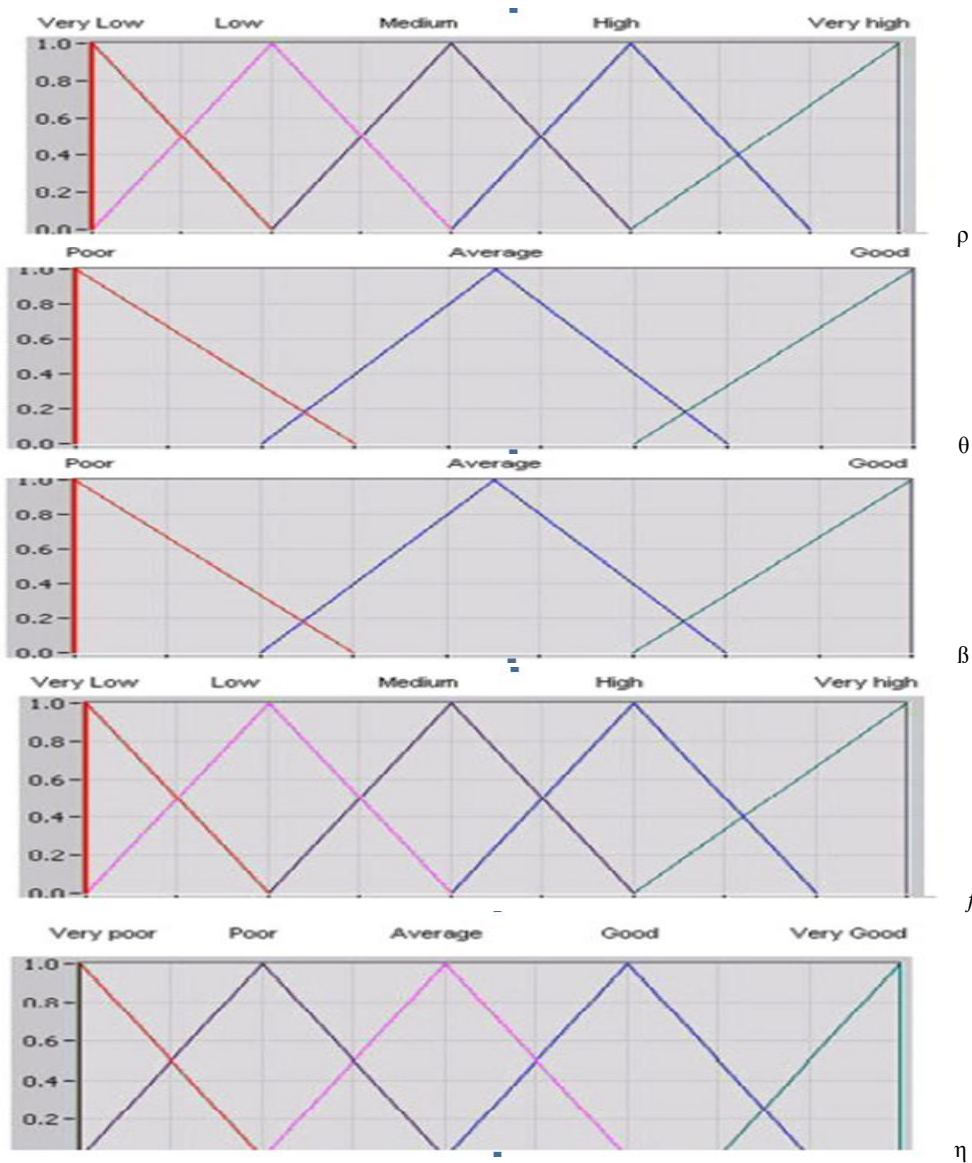
Then conditional rules are devised by the skillful scholars. For example, a conditional rule is expressed as follows: if ρ is low, and θ is poor, and ß is poor, and f is low, then η is very poor.

After determining language terms for each of the variables, their fuzzy number definitions will be mounted on the figure and then if … then rules will be entered and after that input variables will be entered into fuzzy system. Inputs should be entered into fuzzy systems as numbers. In other words, first we should prepare a checklist of the 4 characteristics of corporate governance (board of directors' structure, transparency and disclosure, ownership structure, stockholders' rights). These criteria are driven from Stock Exchange corporate leadership system's regulatory booklet. Observing each of these criteria by a company is considered to have one credit for the characteristic under investigation. For example, if the characteristics common between chief director and the head of

board of directors is considered to be a criterion to determine the ranking for board of directors' structure would be 1, if the chief director is not head of board of directors, otherwise it would be 0. Finally a rank based on a marks criterion of 10 would be assigned for ρ, θ, ß, f and η. Input variables are implemented in fuzzy model and after assessment the frequency rules and fuzzy elimination of corporate governance ranking will form the system output. Fuzzy software can foster fuzzy implementation, inference and fuzzy elimination process.

Conclusions

Having good corporate governance is essential in launching an exact and permanent framework for an efficient capital market, increasing the investors' reliance and absorption of capital flow in industries. Thus, creating organizations which can calculate

corporate governance is necessary because the existence of such a criterion can be effective for investors, auditors, policy makers and the public people besides ranking the companies [2]. In this paper, we discussed about how fuzzy logic can be a suitable tool in ranking corporate governance and creating a suitable corporate governance criterion. Four important variables of corporate governance as: Transparency and disclosure, ownership structure, board of directors' structure and owners' equity were unified in this paper to achieve an acceptable ranking of corporate governance in the fuzzy model of this research. Fuzzy logical ranking process needs a concise system to achieve the best rank (number) for input variables, although this may be time consuming at first. After the system is created, governance rank will be identified through fuzzy system automatically. Locating the companies in low rankings of governance is an alarm for the management in those companies to pay more attentions to corporate governance issues [3]. Also if a company has a low ranking in a certain variable, it should be able to suggest an enhancement program.

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CORPORATE GOVERNANCE AND PERFORMANCE: EMPIRICAL EVIDENCE FROM ITALIAN AIRPORT INDUSTRY

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Abstract

This paper empirically examines the degree of maturity of corporate governance of Italian airport companies, after about twenty years from the beginning of the reform aimed at the privatization of the industry. Two corporate governance issues are investigated: i) the development of different corporate governance models by different categories of airports; ii) the relationship between corporate governance models and the technical and financial performance of Italian airport companies. For this reason two indexes have been developed to capture two corporate governance features such as decision-making power concentration and alignment to best practices. Then the correlation of corporate governance indexes with the efficiency, measured by using data envelopment analysis (DEA) methodology, is tested on a significant sample of Italian airports.

Keywords: Corporate Governance, Efficiency, Italian Airport Industry, Data Envelopment Analysis

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1. Introduction

In the last thirty years airports have shifted from simple providers of transport facilities to complex economic activities fully exposed to competition, with a primary importance for national and local development (Fleury, 1999).

The constant evolution of airports to multi-business firms capable of attracting massive volumes of investments and stimulating a strong demand of jobs, goods and services went hand in hand with the gradual liberalization of the air transport industry. The first step to free market competition went back to the *Airline Deregulation Act* (ADA) promulgated in the United States of America in 1978, and the process continued almost ten years after in Europe with the set of laws enacted from the Council of the European Union in 1987, 1989 and 1992 (Valdani and Jarach, 1997).

Today airports, as well as other firms involved in deregulation processes, need to adopt a managerial logic and to develop the right managerial tools to cope with the challenges imposed by the global market. At the same time, in several European countries some difficulties still remain which make it hard for these multi-product firms to adopt the right business model to succeed in the market. One of these is the typical concentration of ownership which traditionally follows the deregulation processes. Another important issue is associated with the hard-to-

remove historical public presence which can affect both the governance structure and the strategic management of the companies. This fact, often indicated among the main obstacles for the recovering of efficiency of the industry, requires the implementation of actions aiming at favouring a careful and balanced relationship between public and private powers.

This paper explores the degree of maturity of the corporate governance systems reached by the Italian airports considering their delay in carrying out the reform aimed at the gradual liberalization of the industry which started in the early Nineties (Sebastiani, 2004). In Italy, the long state property in the industry makes the air transport system a privileged field of study. Notwithstanding the progressive pressures towards privatization, in fact, the State-entrepreneur in Italy seems to be firmly present in the airport industry too (Cafferata, 2010).

After about twenty years it is first useful to understand if airports belonging to different categories such as those which are part of groups, those with private majority shareholders, those which are listed on the stock exchange and also those characterized by different traffic volumes have developed different corporate governance models. Secondly the study permits us to verify the crucial relationship between corporate governance and financial and operational performance of Italian airports. In this paper two corporate governance issues are examined: i) the development of different

corporate governance models by different categories of airports; ii) the relationship between corporate governance models and the technical and financial performance of Italian airport companies.

In particular, the analysis aims to evaluate the existence and the intensity of the link between two corporate governance features, such as the decision-making power concentration and the adherence to the best practices established by codes of conduct and literature, and the level of efficiency of airports. For this purpose, two indexes considering both internal and external mechanisms on corporate governance are developed. Internal mechanisms refer to the balance among the main groups of players inside the corporation, while external ones refer to the formal legal and regulatory obligations designed to address the entry, operations and exists of the firm (Babatunde and Olaniran, 2009). This will also permit to bridge the gap between theory and practice and to evaluate the diffusion of corporate governance best practices.

The above mentioned link represents one of the most debated and vexed questions in the field of management, since theory assumes that better corporate governance models should lead to more balanced and effective decision-making processes and thus to better performance (Cadbury, 1999; Melis, 2000), but empirical proof is still weak and contradictory (Hermes, 2005; Lai and Stachezzini, 2006; Gupta, 2009). The delimitation of the research field to the Italian airport industry, if it restrains from generalizing the results, on the other hand it permits itself to overcome the one-size-fit-all approach in measuring corporate governance. This concept refers to the pretension to identify a unique framework to interpret very different contexts and strategic purposes (Arcot and Bruno, 2006).

2. Measuring corporate governance

In the last two decades, most academic research on corporate governance has been dominated by the agency theory approach (Ross, 1973; Fama, 1980; Dühnfort *et al.*, 2008). The necessity of balancing the power inside firms, in this view, is primarily associated with the objective of reducing the agency costs, caused by the information asymmetry and by the differing interests between a principal and the agent of the principal. The agent commits himself to supply a service for the principal in exchange of a compensation, and both players try to maximize their own utility (Macharzina, 1995). In this sense, firms, as suggested by the contractual theory, can be seen as nexus of contracts, formal and informal, through which the use of resources and determined activities are put in charge of an agent to reach the goals set by the principal (Fama and Jensen, 1993). Control mechanisms are needed to reduce the agency problems arising from the

separation between ownership (the investors) and control (the management), because managers should act in the interest of the owners (Jensen and Meckling, 1976), but in such a complex environment is not possible to reach the goal by contracts, which are incomplete (Coase, 1937; Alchian and Demsetz, 1972). The effectiveness of shareholders' control on management, in this sense, seems to be strictly related to the capability of corporate structure to streamline managerial action to ownership's objectives. This attempt is extremely expensive for both parties, so the overall goal is to minimize the agency costs, which can be summarized in monitoring costs, bonding costs and residual loss (Meinhövel, 1999).

In recent years, nevertheless, the contingency theory has strongly influenced corporate governance literature. This approach moves from the basic idea that every firm operates in a unique context, so it should develop the best corporate governance model in relation to its specific internal features and external influences (Huse, 2007; Daily *et al.*, 2003; Viganò *et al.*, 2011; Krivogorsky and Grudnitski, 2010). Also, a lot of studies showed that external factors such as geographical position, tax system, industrial development and cultural background strongly affect ownership structure and in turn firm's performance (Pedersen and Thompson, 1997).

Nonetheless, many authors have investigated the potential link between corporate governance and corporate performance (Thomsen and Pedersen 2000; Frick and Lehmann, 2004). As noticed by Babatunde and Olaniran, the measure of performance matters for analysis of corporate governance studies (Babatunde and Olaniran, 2009). A lot of studies have tried to quantify governance effectiveness using scores and seeking a correlation with firm value, profits, sales growth or capital expenditure as financial performance indicators (Bhagat and Black, 1999, 2002; Gompers *et al.*, 2003; Dulewicz and Herbert, 2003; G.M.I., 2004; Brown and Caylor, 2006). Criticisms of this approach deal with the difficulty of identifying a plurality of explanatory standards for governance, with very few of them having real significance (Sonnenfeld, 2004).

A large part of the studies investigated corporate governance effectiveness focusing on its structural features such as the ownership concentration, the board composition, the separation between the chief executive officer (CEO) and the chairman and the independence of the directors (Alonso-Bonis and de Andrés-Alonso, 2007; Zeitun, 2009). La Porta et al. (1999) found that ownership and control concentration in the hands of large shareholders can serve as mechanisms for resolving collective action problems among shareholders. In literature, there are diverging studies about the effects of the

relationship between ownership concentration and performance, someone including the hypothesis that ownership concentration may improve performance (Stiglitz, 1985; Jensen, 1986; Shleifer and Vishny, 1986), someone else stating that ownership concentration may be an obstacle to exploiting growth opportunities as well as discouraging innovation and management autonomy (Hill and Snell, 1988; Burkart *et al.*, 1997).

However, Krivogorsky and Grudnitski (2010), in their study carried out on eight European countries, highlighted the effect of country-specific institutional constructs on the relationship between ownership concentration and performance. In this sense the positive association between state ownership and listed firm performance in the Chinese context, shown by Le and Buck (2011), can be interpreted. Considering the field of study of the Italian airport industry, it is worth a mention the existence of many levels of ownership in a company shown by Barca and Becht in the Continental Europe. In fact, cross-ownership, rings and high level of voting concentration in the shareholdings structure make more difficult to identify controlling investors, the perimeters of companies control and the voting leverages in majority voting (Barca and Becht, 2001; Chapelle, 2005).

Di Pietra et al. (2008) presented evidence that corporate governance quality measured by the fraction of directors that serve on more corporate boards, named "busy" directors, positively influences the market value of Italian companies, while they did not appreciate any significant relationship between the board size and the market value. Results about this relationship, however, are contradictory. Mak and Kusandi (2004) reported a negative relationship between board size and firm valuation, in line with the results of previous studies that showed that directors in larger boards may be more reluctant to initiate changes due to expected delays and disagreements (Shaw, 1981), or that the effectiveness of larger boards' activity may be hindered by the poor coordination (Gladstein, 1984) and the lack of motivation (Jewell and Reitz, 1981). Nevertheless, focusing on a sample of smaller firms with a history of poor operating performance, Larmou and Vafeas (2010) identified a setting in which larger board size appeared to be positively related to shareholder value. Furthermore, Davidson III and Rowe developed a theory of intertemporal endogeneity of board composition and financial performance. This means that besides exerting influence on financial performance, board composition is also impacted by board composition (Davidson III and Rowe, 2004).

Other studies, on the contrary, tried to fill the gap due to the underestimation of the working and quality standards of firms' employees and bodies in measuring corporate governance. Structural indicators, in fact, cannot easily explain managerial behaviour and organizational performance (Larcker *et al.*, 2004). In this sense Lorsch and MacIver (1989) found that managers' activity, especially in decision-making, benefitted from the board's daily operation. Everyday activity, in fact, is supposed to give more firm-specific information. In line with process-oriented research aimed at understanding the sources of "value-creating board" (Huse, 2007), Pugliese and Wenstøp (2007) showed that board working style and board quality attributes were more important sources of board effectiveness than board composition.

A lot of studies investigated the roles of the main figures of firm's boards, and in particular the effect of the separation between the chairman and the CEO. Fama and Jensen (1983) suggest that CEO duality violates the principle of separation of decision-management and decision-control and hinders the board's ability to perform its monitoring functions. However, also in this case results are not homogeneous. Even though Rechner and Dalton (1991) found that firms in which the two positions are separated perform better on a number of accounting measures, and Core et al. (1999) found that boards are less effective when the CEO is board chair and when the board is relatively big, some other research presents opposite results. Baliga et al. (1996), for instance, showed that there are no discernable differences in performance that can be attributed to a firm's leadership structure, and in the same way Brickley et al. (1997), as well as other authors (Chen *et al.*, 2008), showed that CEO duality is not associated with inferior performance. Coles et al. (2001) even found that firms that do not separate the positions of CEO and chair of the board have better accounting performance.

In their study on the role of the board chair as distinct to that of the CEO, McNulty et al. (2011) mixed structural and working aspects. In fact, linking board composition, board process and the exercise of influence, they revealed differences amongst chairs in how they run the board and in the influence they exert on board-related tasks.

An important issue emerged in measuring corporate governance in reference to the consideration of the diversity amongst firms. The influence of the context, in fact, often makes the attempt to use the same framework following the "one-size-fits-all" approach in vain (Arcot and Bruno, 2006). For this reason Faleye (2007) argues that requiring all firms to separate CEO and chairman duties may be counterproductive because whether CEO duality benefits or hurts the firm is contingent on firm and CEO characteristics. As regards the CEO compensation, it is interesting to consider the analysis carried out by Àlverez Pérez and Neira Fontela (2005) in the Spanish firms,

about the diffusion of the stock option plans, following the approach of the theory of agency.

The uncertainty of the link between CEO and Chairman is posed again with reference to the relationship between the independence of the directors and firm performance. While Rosenstein and Wyatt (1990) found the existence of such a relationship, Bhagat and Black (2002) provided evidence suggesting that there is not a strong relationship in the long-term, and Coles et al. (2001) found that firms that select higher proportions of independent directors perform worse on markets.

In measuring corporate governance features, we also considered the study of De Jong et al. (2006), that presented evidence that general meetings often do not provide any significant influence on management, and the study of Cortesi et al. (2009), that investigated the main limits and the areas of improvement in the working of company internal control system.

However, in air transport management literature, little has been done on corporate governance, and the most studies are mainly focused on the airline industry. Kole and Lehn (1999) studied the adaptation of the governance structure to the deregulation process in U.S.A., and found a more gradual adaptation for the airlines having a more concentrated ownership structure, smaller boards and more equity-based pay. Carney and Dostaler (2006) investigated corporate governance models focusing on ownership and control relationship, and found that low-cost carriers best fit the pattern of entrepreneurial governance, characterized by a more direct control of management decisions. Alves and Barbot (2007), on the other hand, quantified governance to verify the link with airline business models. They found that low-cost carriers solve their potential agency cost problems differently from full-service carriers, as they organise their boards in order to achieve lower costs and a faster decision-making process.

Many more analyses have been carried out on the measurement of the multi-faceted airport performance (Rotondo, 2006). Humphreys and Francis (2002), first of all, made a review of the nature of the performance measurement techniques used by airports. Then a number of empirical investigations on airport financial and technical performance were carried out in the Italian context (Barros and Dieke, 2007; Curi *et al.*, 2010) or elsewhere (Barros, 2008; Oum, 2009), mainly through the use of data envelopment analysis (DEA) or variable factor productivity (VFP). Relying on a well-established methodology this paper aims at taking a step forward by shedding light on the unexplored issue of the link between corporate governance systems and airport performance.

3. Italian airport institutional setting

Though nearly 20 years have passed since regulation reform of the airport industry started, the Italian institutional setting can be defined as perennially "stuck in transition" from a partial management agreement between the State and the firms, characterized by public presence, to a total management agreement. So some of the gaps which motivated the change still persist, such as the lack of competitive pressure, private funds and efficiency. The slowness of the reform, in fact, has caused the stratification of a lot of heterogeneous situations with reference to both the regulation levels, that of the right of entry into the market of airport management and that of the right to use the airport facilities and to provide services.

The Law n. 537/1993 first drove towards privatization providing the formation of companies to manage airports in order to attract new funds and modernize infrastructures. The following Law n. 351/1995 made the process more gradual, repealing the obligation of public majority share in the company. Nevertheless, today the passage to total management agreement disciplined in D.M. 521/97 still has not been completed and in the industry some provisional management agreements remain. Other than the eight airports which benefited from special law before 1993, not all the airports have obtained the total management concession and then have signed the contract with the State. A lot of companies continue to manage airports in accordance with a partial management concession model, sometimes in a precarious way. The distinction between "regular" or "precarious" partial management concessions is based on the presence of an official agreement between the airport company and the State.

While total management agreement allows the company to manage the whole airport for a maximum time of 40 years thus incentivizing direct investments, in the partial management agreement, that lasts for 20 years, the State continues to manage the air-side infrastructures. In the precarious cases the State also collects the aeronautical revenues.

The confusion of the regulation about entering into the market has had a direct effect on the right to use facilities, and especially on the setting of aeronautical fares (Sebastiani, 2009). The C.I.P.E. Deliberation n. 86/2000 had introduced the "dual till" principle in setting the fares of airport services, which obliged the airports to correlate the remuneration of aviation activities to costs and left the remuneration of non-aviation ones free for the regulation period of 5 years ([1]). However, the following Law n. 248/2005 changed the rule in the "single till" principle, that is the duty to impute at least 50% of commercial earnings to decrease the aeronautical charges. The new principle also had a

retroactive effect. Finally, with the art. 17, comma 34-bis of the Decree 78/2009, the Italian airports with more than 10 million annual passengers have been permitted to introduce long term fare systems in line with European standards as a dispensation to the previous rule.

In the meantime the European Community Directive 2009/12/CE, from March 2011 requires the airports with more than 5 million annual passengers to set their fares by consulting users and applying to an independent authority in case of disagreement. Up until now the mentioned fare rules have been scarcely enforced and fares did not changed from 2001 to 2008, causing airport discontent for the substantially lower level of the fares compared to the European average (Assaeroporti, 2006).

The Italian airport industry, therefore, is very non-homogeneous since it is characterized by a variable configuration in management agreements and consequently in ownerships, where the presence of public administration is still strong. Furthermore, only four companies are listed on a stock exchange and five companies manage a group of airports directly or indirectly by shareholding control.

There are also remarkable differences in traffic volume, considering that in the last five years just two airports greatly exceeded the limit of 10 million annual passengers and five moved from 5 to 10 million passengers per year. Fourteen airports, instead, moved between 1 and 5 million passengers. Finally the Italian system can be defined as widespread because it has about 100 airports on the national territory with 47 and 45 of them, respectively, opened to scheduled flights and adhering to the national trade-union. It is also very concentrated, as shown by the fact that the traffic volume of the 21 airports with more than 1 million average passengers represents nearly 96% of the total from 2005 to 2009.

4. Methodology

The sample consists of 20 companies managing a total of 27 Italian airports, including all the 21 airports with more than 1 million units in passengers and work-load units (WLU) in the five-year period 2005-2009, the four airports they control as a holding company and two out of the other four airports with a traffic volume comprised between 1,000,000 and 500,000 units. The sample airports, whose features are expressed in table 1, account, respectively, for 97.74% and 96.81% of the whole industry's passengers and WLU. The work-load unit, elaborated by the Transport Study Group of the Polytechnic of Central London, is a measure adopted at the international level that helps to overcome some of the limits which affect the measures of passengers and cargo. A single WLU,

in fact, expresses a passenger with baggage or, alternatively, 100-kilogram cargo, thus permitting to uniform the traffic volume of airports characterized by different aeronautical activities.

In order to capture the characteristics of corporate governance systems two indexes have been developed, the first one as a proxy for the concentration of decision-making power (DPC Index) and the second one as a proxy for the adherence to the best practices (BP Index) prescribed in international reports and codes of conduct (Cadbury Report, 1992; Principles of Corporate Governance, 1994; Greenbury Report, 1995; Hampel Report, 1998; Preda Code, 1999; Smith Guidance, 2003; Higgs Report, 2003; Combined Code, 2010). These documents, together with corporate governance literature, guided the selection of variables which compose the indexes.

Data was collected during the period from September 2010 to June 2011 by analysing institutional documents of the companies such as Statutes and Corporate governance reports taken from websites or given directly by the airports' legal, administrative and control offices. Each company's top-management was also asked to fill in a structured questionnaire in order to identify the main features of the corporate governance system.

Financial and operational performance of the sample airports, instead, was measured making use of the well established data envelopment analysis (DEA), a linear programming method based on the usual hypotheses of the neoclassical analysis of the production function, which permitted us to calculate the relative efficiency of the companies considered as a homogenous set of decision-making units (DMU). Finally we performed a simple correlation analysis between each of the corporate governance indexes and the level of efficiency of airports.

It is not the first time DEA is used, though in a different way, to verify the link between corporate governance and firm profitability (Lehmann *et al.*, 2007). In this study we chose to estimate an input-oriented DEA-CCR Index (Charnes *et al.*, 1978), which is probably the most widely used model. It assumes constant return-to-scale relationships between inputs and outputs and considers the first ones endogenous and the second ones exogenous. The companies, namely, aim to minimize the costs of their activity in order to reach the efficiency frontier, keeping output constant. Standard measure is not an a priori calculation, but it is determined automatically inside the sample, because the model selects the benchmark among the units involved. It seemed in line with our research's scope, because the same benchmark logic was used to calculate a number of provisions which constitute the two governance indexes. Other strengths of DEA are that it is a very simple and powerful managerial tool which can handle multiple inputs and outputs,

each of them with very different units. On the other side, its main limitations lie in the low ability to indicate "absolute" efficiency and in the impossibility to test hypotheses on a statistical basis. Another well-known limit of this method is that the only chance to move away from the frontier is to be "inefficient".

Table 1. Characteristics of the sample

N°	Airport company/Group	Airports	Traffic volume (millions)	Concession Agreement	Majority shareholders	Listed on Stock Exchange
1	So.Ge.A.Al.	Alghero	1<pax and WLU<5	T	Public	
2	Aeroporti di Puglia	Bari	1<pax and WLU<5	T	Public	
		Brindisi	0,5<pax and WLU<1	T		
		Foggia	pax and WLU<0,5	T		
		Taranto	pax and WLU<0,5	T		
3	S.A.C.B.O.	Bergamo	5<pax and WLU<10	T	Public	
4	S.A.B.	Bologna	1<pax and WLU<5	T	Public	
5	So.G.Aer.	Cagliari	1<pax and WLU<5	T	Public	
6	S.A.C.	Catania	5<pax and WLU<10	T	Public	
7	A.d.F.	Firenze	1<pax and WLU<5	T	Public	L
8	Aeroporto di Genova	Genova	1<pax and WLU<5	T	Public	
9	S.A.CAL.	Lamezia Terme	1<pax and WLU<5	T	Public	
10	S.E.A.	Milano Linate	5<pax and WLU<10	T	Public	L
		Milano Malpensa	pax and WLU>10	T		
11	Ge.S.A.C.	Napoli	5<pax and WLU<10	T	Private	
12	Ge.A.Sar.	Olbia	1<pax and WLU<5	T	Private	
13	Ges.A.P.	Palermo	1<pax and WLU<5	T	Public	
14	S.A.T.	Pisa	1<pax and WLU<5	T	Public	L
15	A.d.R.	Roma Ciampino	1<pax and WLU<5	T	Private	
		Roma Fiumicino	pax and WLU>10	T		
16	S.A.G.A.T.	Torino	1<pax and WLU<5	T	Public	
17	Air.Gest.	Trapani	0,5<pax and WLU<1	PP	Public	
18	S.A.Ve. Group	Venezia	5<pax and WLU<10	T	Private	L
		Treviso	1<pax and WLU<5	P		
19	Aeroporto F.V.G.	Trieste	0,5<pax and WLU<1	T	Public	
20	Aeroporti del Garda Group	Verona	1<pax and WLU<5	T	Public	
		Brescia	pax and WLU<0,5	P		

T: total concession; P: partial concession; PP: precarious partial concession; L: listed

From the temporal point of view, the analysis of airports' efficiency followed two successive steps. In the first phase, following Barros and Dieke (2007), three inputs and six outputs were selected to analyze airports' efficiency. Inputs were all financial measures like the cost of labour, the capital invested and the other operational costs. Outputs, instead, embraced both physical and financial variables. The physical ones include the number of planes, the number of passengers and the tons of cargo moved by airports, while the financial ones include the aeronautical revenues of airports, their handling revenues and the other non-aeronautical revenues.

Because of the high number of airport companies on the efficiency frontier we chose to

deepen the analysis in a second phase where, for estimation purposes, two inputs and three outputs were extracted (Simar and Wilson, 2008; Curi *et al.*, 2010). Referring to the inputs, a theoretical approach was followed. Considering their primary importance in the industry, cost of labour and the capital invested were chosen. Referring to the outputs, on the contrary, the correlation among each pair of them was calculated in order to avoid their mutual influence on final performance.

We found that a strong correlation, showed in italics in table 2, exists between the aeronautical revenues and, respectively, the number of planes and the number of passengers. At the same time a strong correlation between the number of planes and the number of passengers emerged. This suggested to us to select the aeronautical revenues and to reject the other two outputs.

Then we found a significant correlation between handling revenues and tons of cargo. The lower correlation between the handling revenues and the aeronautical revenues compared to the correlation between the tons of cargo and the aeronautical revenues suggested us to select the handling revenues as the second output. Finally, we selected the non-aeronautical revenues which showed correlation values with the other outputs on the average.

In short the three financial measures were isolated. This seemed to be in favour of a stronger homogeneity between inputs and outputs, and to be consistent with the scope of verifying the link between financial performance and corporate governance of the airport companies.

Table 2. Mutual linear correlation among outputs

	Number of planes	Number of passengers	Tons of cargo	Aeronautical revenues	Handling revenues	Non aeronautical revenues
Number of planes	—					
Number of passengers	*0,99436*	—				
Tons of cargo	0,85695	0,82269	—			
Aeronautical revenues	*0,99690*	*0,99141*	0,87948	—		
Handling revenues	0,74508	0,69151	*0,95167*	0,77031	—	
Non aeronautical revenues	0,88215	0,88129	0,68987	0,87958	0,54081	—

Some other devices were adopted to reinforce analysis. In order to mitigate the economic short-term effects, the average data related to the recent three-year period 2006/2008 was used. As the latest official financial data of the Italian airport industry dates back to 2006 (ENAC, 2008), when not available on company websites, data was collected from Assaeroporti's archives and Cerved databases or taken directly from airport companies.

In measuring performance with DEA, the data referred to airports belonging to groups were necessarily added. A simple concept of group was adopted, that is a whole of airports managed or controlled by the same company. Therefore each group is considered as a single decision-making unit.

The combination of indicators meets both DEA conventions that are a minimum number of observations greater than three times the number of inputs plus outputs [60≥3(2+3)] and a minimum number of units equal or larger than the product of inputs and outputs [20≥(2*3)] (Raab and Lichty, 2002; Boussofiane and Dyson, 1991).

4.1. The decision-making power concentration (DPC) Index

The DPC Index, in particular, accounts for the global concentration of decision-making power inside the company by considering structural aspects and responsibilities of the main bodies at the different levels of the organization. It is composed of 17 provisions divided into 5 areas with different percentage weight: ownership concentration, capital protection, shareholders' decision-making power, board of directors' decision-making power, company's bodies composition (see table 3 for details). In general, higher scores correspond to higher power concentration.

Area n. 1, "ownership concentration", weights for 25% on the total, and is measured by the company's capital composition. It is a 6-item scale which takes into account the majorities requested for the deliberation validity of the shareholders meetings, ordinary and extraordinary, exposed in the Italian Civil Code (Art. 2368). The highest score is related to the event that a single shareholder holds more than 66.6% of the total

shares of the company, while the lowest score is set to the companies where the first three shareholders together do not hold more than 50%.

Area n. 2, "capital protection", weights for 25% on the total, and is measured by five provisions that, if contemplated in the company statute or in a contract between shareholders, strengthen shareholders position, and especially majority shareholders' one. Provision n. 1 refers to the obligation to allocate a certain amount of shares to certain shareholders. Provisions n. 2, n. 3 and n. 4 concentrate on the presence in the statute of the typical protection forms represented by the option right in case of capital increase (provided by art. 2441 of the Civil Code), the pre-emption right in case of share sales, the approval clauses in case of new entries. Similarly, provision n. 5 verifies the presence of contractual agreement among shareholders about blocking share transfers.

Area n. 3, "shareholders' decision-making power", weights for 25% on the total, and is measured by six provisions. The first three concentrate on the shareholders decision-making function inside the meetings. Provision n. 1 analyses the power extent of the shareholders' meeting, because the statute could entrust shareholders with tasks other than those provided by the Art. 2364 of the Civil Code. Provisions n. 2 and n. 3 focus on the request of strengthened majorities, which implicate a larger comparison among shareholders and thus a lower power concentration.

Provisions n. 4 and n. 5 assess the shareholders' influence on the other bodies' composition, while provision n. 6 assesses the presence of contractual agreement about voting, which is supposed to increase power concentration.

Area n. 4, "board of directors' decision-making power", weights for 15% on the total, and is measured by three provisions. Provision n. 1 assumes that the lower the number of executive directors is, the higher the power concentration is. Following a comparative approach, the sample mean is chosen as a benchmark. Provision n. 2, instead, focuses on the request of strengthened majorities for the validity of the board deliberations, while provision n. 3 investigates the actual possibility for directors to delegate decisions.

Area n. 5, "company's bodies composition", weights for 10% on the total, and is measured by two provisions. The first one examines the number of directors while the second one the number of internal auditors. The principle here is that a number of members higher than the sample mean, assumed as a benchmark, encourages comparison and reduces power concentration inside the company.

The DPC Index, to be better compared to DEA Indexes, was normalized into a scale of values from 0 to 1.

Table 3. Description of variables of the Decision-making Power Concentration index (DPC Index)

N°	Areas (weight %)	N°	Provisions	Scores (Y = yes; N = no)
1	Ownership concentration (25%)	1	Company's capital composition	If $1>66,6\%$ = 1 If $50\%<1\le66,6\%$ = 0.8 If $1\le50\%$ and $2>66,6$ = 0.6 If $1\le50\%$ and $50\%<2\le66,6\%$ = 0.4 If $1\le50\%$ and $3>50\%$ = 0.2 If $3\le50\% = 0$
2	Capital protection (25%)	1	Obligation to certain shares possession by certain shareholders	Y = 1 / N = 0
		2	Option rights for certain shareholders	Y = 1 / N = 0
		3	Pre-emption rights for certain shareholders	Y = 1 / N = 0
		4	Approval clauses in case of new shareholders entry	Y = 1 / N = 0
		5	Signed shareholders' agreement about blocking	Y = 1 / N = 0
3	Shareholders' decision-making power (25%)	1	Other tasks assigned to shareholders' meeting	Y = 1 / N = 0
		2	Strengthened majority in ordinary meeting	Y = 0 / N = 1
		3	Strengthened majority in extraordinary meeting	Y = 0 / N = 1
		4	Direct appointment of directors by stated shareholders	Y = 1 / N = 0
		5	Direct appointment of auditors by stated shareholders	Y = 1 / N = 0
		6	Signed shareholders' agreement about voting	Y = 1 / N = 0
4	Board of directors' decision-making power (15%)	1	Number of executive directors	0/1 if $>/\le$ to the mean
		2	Strengthened majority for certain deliberations	Y = 0 / N = 1
		3	Ties in conferring delegations by directors	Y = 1 / N = 0
5	Company's bodies composition (10%)	1	Number of directors	0/1 if $>/\le$ to the mean
		2	Number of internal auditors	0/1 if $>/\le$ to the mean
	TOT	17		

4.2. The best practice (BP) Index

The BP Index, made up of 10 provisions, instead, measures the degree of adaptation of airport companies' governance systems to the best practices prescribed by international codes of conduct and reports (see table 4 for details). In general, higher scores correspond to better adherence to best practices.

The first provision questions if the company, whether listed or not on the stock exchange, chose to agree to codes of conduct or similar codes. Provision n. 2 evaluates the weight of non-executive directors, whose vigilance function is fundamental, especially when the interests of the executive directors diverge from the interests of shareholders (Cadbury Report, 1992; Principles of Corporate Governance, 1994; Preda Code, 1999; Higgs Report, 2003). Provision n. 3, in a similar way, measures the presence of independent directors among the non-executive directors. Independent directors neither keep economic affairs with the company nor sign shareholder agreement which can affect their independent judgement (Preda Code, 1999, art. 3, lett. a and b). In both the previous provisions the sample average is chosen as a benchmark.

Provision n. 4 verifies the separation between the role of the chairman and that of the chief executive officer, because "CEO duality" concentrates power on a single person and so it is supposed to be prejudicial to balanced decision-making (Cadbury Report, 1992; Hampel Report, 1998).

Provision n. 5 focuses on the use of the stock-option system to remunerate executive directors (Álverez Pérez and Neira Fontela, 2005). This method is capable of orientating directors' activity because it provides incentives to firms' market value maximization. However, it should be used cautiously (Cadbury Report, 1992; Greenbury Report, 1995; Hampel Report, 1998), and for this reason the limit of 1% of the company's capital possession was fixed.

Provision n. 6 questions if the company set a limit to the number of tasks undertaken by directors, following the principle that directors should be able to dedicate sufficient time to board work. The same principle is questioned in provision n. 9 about the effectiveness of internal auditors' activity (Bianchi Martini *et al.*, 2006). Stakeholders, in fact, must rely on professionals not involved in excessive tasks in other companies (Assonime, 2010).

Provision n. 7 deals with the number of committees appointed inside the board, mainly composed of non-executive and independent directors, in order to improve board's decision-making effectiveness and to guarantee the minorities' interests (Cadbury Report, 1992; Hampel Report, 1998; Preda Code, 1999; Smith Guidance, 2005). Also in this case the sample average is chosen as a benchmark. The purpose of balancing majority and minority rights is also related to the possibility of the minority to appoint internal auditors, an issue taken into account by provision n. 8. The introduction of the Board of auditors, in fact, was seen as a way to control majority shareholders' and executives' power by shareholders not involved in decision making. The presence of internal auditors appointed by different shareholders promotes competencies integration and favours common interest (Ambrosini, 1999; Fortuna, 2001; CNDC, 2003).

Finally, provision n. 10 verifies if the external auditing body, or bodies related to its activity, has been entrusted with other tasks. Multiple tasks assigned by the same company, in fact, reflects a lower independence (CNDC, 2005; Bianchi Martini *et al.*, 2006). Industry features, nevertheless, suggest not considering the cost accounting certification provided by the Law n. 248/2005 as a separate task.

BP Index too was normalized into a scale of values from 0 to 1 to be better compared to DEA Indexes.

Table 4. Description of variables of the Best Practice index (BP Index)

N°	Provisions	Scores (Y = yes; N = no)
1	If listed/non-listed did it agree to codes of conduct /similar codes?	Y = 1 / N = 0
2	Number of non-executive directors on number of executive directors	0/1 if ≤/> to the mean
3	Number of independent directors	0/1 if ≤/> to the mean
4	Does it exist a separation between Chairman and Chief Executive Officer?	Y = 1 / N = 0
5	Do the executive directors have a percentage of shares within the 1% of the capital?	Y = 1 / N = 0
6	Is there a limit to the number of tasks undertaken by directors?	Y = 1 / N = 0
7	Number of committees inside the board	0/1 if ≤/> to the mean
8	Are there internal auditors appointed by minority?	Y = 1 / N = 0
9	Is there a limit to the number of tasks undertaken by internal auditors?	Y = 1 / N = 0
10	Have been entrusted the external auditing body (or linked bodies) with other tasks?	N* = 1 / Y = 0

* Unless the external auditing body has been entrusted with cost accounting certification, ex Law n. 248/2005

5. Results and discussion

A number of points emerge from the calculation of the corporate governance indexes and then from their relationships with financial and technical performance of airport companies measured by the DEA indexes.

In reference to the first objective of the research, which was to verify the maturity degree of corporate governance models developed by different categories of airport companies, some interesting results are pointed out (see table 5). In general, the industry shows a middle level of concentration of decision-making power and a lower level of adoption of best practices. The main descriptive statistics also reveal, with reference to the DPC Index, a more homogeneous distribution of the units.

In particular, with reference to the difference in traffic volumes, expressed by the work-load units, a similar level of decision-making power concentration was found among the airport classes. On the contrary, the adoption of best practices tends to decrease from the airports which move the larger amount of WLU to those which move the smaller ones.

With reference to the second category, that of the airports being part of a group, a value of decision-making power concentration slightly higher than the average and a value of best practices adoption significantly higher than the average were found. This fact reveals that the complex management issues faced by the companies which control systems of airports resolve on one hand in the development of corporate governance systems more adherent to the codes of conduct provisions, but on the other hand in more intense protection of majority shareholders role and privileges. The decision-making process of such airport companies, for this reason, seems to be less participated in and balanced.

The following two categories, that of the airports with private majority shareholders and that of the airports listed on a stock exchange, present similar results about corporate governance features. Both categories, in fact, show a decision-making power concentration a little lower and a best practice adoption remarkably higher than the sample average. The BP Index value for the listed companies, in particular, is the highest by far. All the companies listed on a stock exchange, interestingly, have values equal to or greater than the median. This result was expected because although the code of conduct adoption is just voluntary and not mandatory, the principles of fairness and transparency exert a stronger influence on listed companies.

Moreover, also 80% of the companies which manage groups and 75% of the companies with private majority shareholders have values equal to or greater than the median for BP Index. This fact reveals a stronger attention focused on the best practices than the rest of the companies.

Following a benchmarking approach among the different categories, airports with private majority shareholders and airports listed on a stock exchange show the higher maturity degree of corporate governance systems.

Table 5. Corporate governance maturity degree for different categories of airport companies

N°	Categories	DPC Index	BP Index
1	Traffic volume (millions)		
	a) WLU>10	0,50833	0,40000
	b) 5<WLU<10	0,41042	0,40000
	c) 1<WLU<5	0,50139	0,36667
	d) 0,5<WLU<1	0,48333	0,15000
2	Groups	0,49500	0,46000
3	Private majority shareholders	0,46250	0,50000
4	Listed on Stock Exchange	0,45833	0,67500
	Mean	0,48208	0,35500
	Median	0,52500	0,30000
	Standard deviation	0,09831	0,22821

In order to answer the second question of the research, that is to verify the link between the corporate governance and the performance of airports, the correlation between each of the two corporate governance indexes and the DEA indexes are calculated. Results, shown in table 6, clarify the nature and the direction of the links between such variables.

Before investigating these relationships, however, it is useful to comment on the technical and financial performance of the different categories of airports. Taking into account the more significant DEA Index 2, made up of two inputs

and three outputs, we found that all the companies with private majority shareholders are on the efficient frontier. They show, in other words, the best performance. Also 80% of the companies which manage groups show the best performance, while the percentage falls down to 50% for the listed companies.

While analysing the relationship between corporate governance features and firm performance on the one hand it confirms some of the tendencies supposed by theory and highlights probable cause-effect links, on the other hand it shows weak linear relationships between the terms.

First of all a slight negative correlation emerges between the concentration of decision-making power and the development of governance systems in line with international best practices. Consistently, while the DPC Index is negatively correlated with performance, the BP Index shows a positive relationship with DEA Indexes. Considering the DEA Index 2, however, the inverse relationship between power concentration and performance is stronger than the positive one between best practices adoption and performance. So it is at least confirmed the direction of the relationships supposed by literature. A stronger concentration of power should interfere with comparison inside firms and thus lead to worse decisions and lower performance. A stronger alignment to best practices should lead to a more balanced corporate governance system and thus to better performance. Power concentration, furthermore, seems to be a stronger driver of performance than best practices adoption.

Weak correlations could be partially explained by the limits of the DEA method in expressing firm performance. In fact in DEA only inefficient DMU are put in order. But some other interesting points emerge from the analysis. Since our indexes, as well as DEA, are just preliminary diagnostic tools, it is necessary to understand the reason and the implications connected to the results (Talluri, 2000). The difficulty in assigning a direct link supports literature contributions which highlight the importance of focusing on dynamic and organizational aspects rather than structural or normative ones as factors which determine performance.

Managerial culture, skills and tools, in fact, in spite of being sometimes difficult to measure, seem to be more effective in driving companies towards better results. All the same, their presence is not automatically guaranteed by a more intense negotiation activity inside or among company's bodies, as well as by a tighter adherence to provisions of codes of conduct.

Moreover, the weak link between the BP and DEA indexes reflects some characteristics of the Italian airport context. Strong public presence, few stock exchange quotations and limited average sizes of the companies basically denote low management complexity which can probably lead to immaturity of governance systems, revealed by a sort of "accomplishment approach" to the best practices. In this sense, the formal adoption of the best practices may explain its weak relationship with performance improvement.

Table 6. Correlations between corporate governance indexes and performance indexes

N°	Airport company/Group	DPC Index	BP Index	DEA Index 1 (6 outputs, 3 inputs)	DEA Index 2 (2 inputs, 3 ouputs)
1	So.Ge.A.Al.	0,48333	0,10000	0,73957	0,57621
2	Aeroporti di Puglia	0,48333	0,10000	1,00000	1,00000
3	S.A.C.B.O.	0,32500	0,30000	1,00000	1,00000
4	S.A.B.	0,40000	0,30000	0,95617	0,61694
5	So.G.Aer.	0,75833	0,20000	1,00000	0,58952
6	S.A.C.	0,43333	0,20000	1,00000	0,75619
7	A.d.F.	0,55833	0,70000	1,00000	0,75317
8	Aeroporto di Genova	0,40000	0,40000	1,00000	1,00000
9	S.A.CAL.	0,47500	0,20000	1,00000	1,00000
10	S.E.A.	0,53333	0,30000	1,00000	0,65567
11	Ge.S.A.C.	0,51667	0,20000	1,00000	1,00000
12	Ge.A.Sar.	0,48333	0,40000	1,00000	1,00000
13	Ges.A.P.	0,57500	0,30000	0,88940	0,76078
14	S.A.T.	0,37500	0,80000	1,00000	1,00000
15	A.d.R.	0,48333	0,50000	1,00000	1,00000
16	S.A.G.A.T.	0,41667	0,40000	1,00000	0,84148
17	Air.Gest.	0,52500	0,10000	1,00000	0,87265
18	S.A.Ve. Group	0,36667	0,90000	1,00000	1,00000

19	Aeroporto F.V.G.	0,44167	0,20000	1,00000	1,00000
20	Aeroporti del Garda Group	0,60833	0,50000	1,00000	1,00000
	Mean	0,48208	0,35500	0,97926	0,87113
	Median	0,52500	0,30000	1,00000	1,00000
	Standard deviation	0,09831	0,22821	0,06214	0,16225
	Correlation with BP Index	-0,26264			
	Correlation with DEA Index 1	-0,06034	0,27799		
	Correlation with DEA Index 2	-0,41041	0,28831		

6. Conclusions and perspectives

The empirical investigation found that, after about twenty years, the reform of the Italian airport industry resolved in a poor degree of maturity of the airport companies' corporate governance models. Because of the slowness and incompleteness of the liberalization process, corporate governance of the Italian airports is characterized by a medium level of concentration of decision-making power and a low degree of coherence with the best practices stated in the international codes of conduct or highlighted by literature.

In line with the approach of the contingency theory, specific internal features as well as external influences seem to be important drivers of corporate governance models in relation to different categories of airports. In particular, the analysis found that the adoption of best practices tends to decrease from the larger airports to the smaller ones. Furthermore, companies which control a number of airports present corporate governance models more concentrated but also more adherent to codes of conduct provisions.

Not surprisingly, the analysis showed the best results in the clusters quicker to take the reform's chance, those of airports with private majority shareholders and airports listed on a stock exchange. Liberalization seems to have had a good impact on them, as public presence is less intense in both the ownership structure and strategic management.

So the above mentioned categories present a lower decision-making power concentration and a higher best practices adoption than the sample average.

The study also confirms the existence of a negative relationship between the concentration of power and firm performance, as well as a positive, though less intense, relationship between alignment to best practices and firm performance. The weakness of the links, nevertheless, indicates the necessity to focus future analyses on more effective, sometimes intangible, drivers of performance, such as the diffusion of managerial culture, logic and tools inside the organization. These elements, in fact, do not seem to be necessarily connected to power concentration or best practices alignment.

The weak relationship between best practices adoption and firm performance, in particular, may indicate a sort of formal approach to good governance models, certainly connected to the development and the features of the Italian airport industry. Such an approach, clearly, does not easily turn into an improvement in efficiency.

Notes
(1) The C.I.P.E. is a government body which intervenes in economic and financial affairs.

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SECTION 2
CORPORATE OWNERSHIP

THE GOVERNANCE EFFECT OF INSTITUTIONAL STAKEHOLDERS ON FAMILY-CONTROLLED COMPANIES′ EARNINGS MANAGEMENT

Hsiang-tsai Chiang,* Li-jen He**, Chih-Hung Lai***

Abstract

The characteristics of institutional investors are that they hold massive funds and possess investment expertise; therefore, these investors are expected to have an influence on corporate governance. This study explores the supervising effect of active and passive institutional investors on company's earnings management in Taiwan, and whether the supervising effect differs between family and non family-controlled companies or not.

The empirical results show that institutional investors are significantly related to earnings management in both family and non family-controlled companies. Moreover, active investors have more impact on earnings management than passive ones in family-controlled companies. Institutional investors, especially active investors, have been shown to have significant governance effect; therefore, companies are encouraged to attract institutional investors to enhance corporate governance.

Keywords: Institutional Investors, Real Activities Earnings Management, Family-controlled Company

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INTRODUCTION

Accounting scandals broke out one after another in various enterprises, under the guise of related party transactions, and accounting fraud was perpetrated through benefit transactions between the parent and subsidiary companies of Enron and WorldCom in the United States. In Taiwan there were also instances of false accounts receivable, inflated revenue, and emptied cases among Emperor, New Disc Science Technology Co, Procomp Electronics, and Rebar Corp. The occurrence of these major cases exposed the lack of supervising mechanisms in enterprise management and resulted in heavy investor losses. In order to reduce the behavior of surplus manipulation of enterprises and to restore investor confidence and stable operations in the capital markets, the Organization for Economic Co-operation and Development (OECD), the World Bank, and other international organizations advocated supervising mechanisms to strengthen corporate governance effectively. Therefore, the

related issue of supervising mechanisms that could enhance the effectiveness of corporate governance gained momentum and received considerable attention in countries around the world, and became an important topic of academic research.

In the institutional framework of internal and external corporate governance put forward by the World Bank (1999), the main core of the internal mechanism became the responsibility of the board of directors, whose duty is to oversee management in order to reduce agency problems. But different from other countries, most companies in Taiwan are family run and therefore the equity is controlled by families. According to the studies of Claessen, Djankov, and Lang (2000), listed companies tend to have controlling shareholders, and the board of directors has a strong family flavor and generally the companies are family controlled. Yeh, Lee and Woidtke (2001) point out that families control 76% of listed companies in Taiwan, and families control 66.45% of boards; therefore there is the phenomenon of a high overlap between ownership and right of operation; and the job functions of the board of directors are suspect (Fama and Jensen, 1983). Therefore, considering the important role family businesses assume in corporate governance in Taiwan, external supervising mechanisms such as institutional investors, established regulations, and accounting and auditing standards become very important to reduce the process of earnings management that governed by directors, supervisors, and management.

In recent years, with the relaxation of official policy through the Taiwan Securities authorities' cancellation of the licensing system for "Foreign Institutional Investors," and changing it to "once registered permanent" helped make the ratio of institutional investors grow year by year in the securities market and they eventually became the main participants in the capital markets. Compared to retail, corporate investors hold huge funds and are rich in material resources and expertise. Therefore, their impact on the management of the investment company is better than that of retail. However, the empirical results of Ryan and Schneider (2002) suggest that legal supervision can effectively curb speculation of an enterprise; therefore, no matter whether it is in the market or the supervision of the company, the influence of corporate investors also becomes very important, and is the cause of the research motivation of institutional investors in this study.

Past studies in the literature on whether institutional investors have supervising capacity are not consistent. Some scholars believe the major reason for the inconsistency in the empirical results is caused by the improper use of the variable of institutional investors. Many past studies of institutional investors consider institutional investors as a single variable, but actually the

motivations of different types of institutional investors to monitor the company are not the same (Parthiban, Kochhar, and Levitas, 1998), if we consider them as a whole, and they may dilute the supervisory capacity of different types of investors. This study considers this factor from the perspectives of past scholars; we divide institutional investors into different groups according to their characteristics, and then further investigate the effect to curb the company's earnings management.

In this research, according to the classification method proposed by Almazam, Hartzell and Starks (2005), we divide institutional investors into "active" and "passive" categories, and consider the actual situation in our country, so this research examine whether active investors have a better monitoring effect than passive investors in Taiwan. Furthermore, we consider the feature of family controlled firms in Taiwan to establish whether active investors have a better monitoring effect than passive investors. The problem is the one this study wants to research. This research is the first study aimed at monitoring the effect of investors in Taiwan's family businesses, and further divides investors into two groups: active and passive investors. The results of this study can serve as a reference for company management when they plan ownership structure; stakeholders can also use this study to predict the monitoring effect on earnings management by the ownership structure of the company's active and passive investors.

The first part of the paper is motivation and background of the research issue, including literature review. Then we used linear regression model to test the hypotheses, and ends with discussions of the results and suggestions.

Literature Review

Earnings Management

Healy and Wahlen (1999) thought earnings management is management changing financial reports through the judgment and structure of transactions in the reports and misleading stakeholders about the company's business performance, or affecting contract results based on accounting numbers. Under the Generally Accepted Accounting Principles (GAAP), company managers have the discretion to process earnings management through discretionary accrual projects, and can then operate the profit on financial reports. Because discretionary accruals projects are not easily found by the reporting user compared to the change of accounting methods, it is more commonly used for the company's earnings management. In view of this, in past research on earnings management, most scholars have conducted related research by using accrual manipulation as a proxy variable for earnings management. Therefore, more and more

managers began to reduce the use of accrual projects and changed to implement earnings management through the manipulation of real activities (Graham, Harvey, and Ralgopal (2005); Roychowdhury (2006); Eldenburg, Gunny, Hee, and Soderstrom (2008).

Bruns and Merchant (1990) found these managers tended to implement earnings management through real activities manipulation but not accrual projects. The survey results of Graham, Harvey, and Rajgopal (2005) also indicate that 79.9% of business managers reach their earnings target by reducing R&D expenses, advertising costs, and maintenance expenditure, while 55.3% of managers delay new investment plans in order to reach their earnings target. Roychowdhury (2006), based on Dechow, Kothari, and Watts (1998), built an empirical model of real activities manipulation to verify that companies record less positive profit using real activities manipulation to avoid company losses. Because managers generally use real activities manipulation, this research uses real activities manipulation as a proxy variable for earnings management.

Relation between institutional investors' supervision and the degree of earnings management

The issue in past research concerning the supervisory ability of institutional investors was highlighted in the "efficiency supervision hypothesis" made by Pound (1988). This scholar thought institutional investors had more professional talent, knowledge, and resources than other investors. And they have a higher number of shares in individual enterprises than general retail. To reduce investment risk and protect their interests, they have more motivation to monitor management than general shareholders and require its investment of enterprise revealed more related information to estimate the operating performance and value of the company to reduce agency problems.

Graves and Waddock(1990) who investigated the role of institutional investors, find that if institutional investors have higher shareholding and are not satisfied with the company's performance, then they will tend to be involved in company control or make strategic alliances to handle the problem of corporate governance and strategy. We found that the original role of institutional investors is only concerned with the performance of the investment company but now changes to ownership, which has an important influence on corporate decision making. Many scholars have undertaken empirical research on institutional investors' ability to supervise in a multiparty-oriented context. Such as from the point view of earnings management (Bushee, 1998; Chung, Firth,

and Kim, 2002), voluntarily exposing the accuracy of information (Noe, 1990; Ajinkya, Bhojraj and Sengupta, 2005), company performance (McConnell and Servaes, 1990; Ward and Brown, 2009). These results indicate that institutional investors have supervising capability; it also means that when institutional investors have higher shareholding, there is less possibility of managers proceeding with earnings management by using discretionary accrual projects; company managers will announce information and forecast profit more specifically, with less error and not too optimistically. From the point of view of company performance, they can increase company performance. The literature listed above has the same research results as Agrawal and Mandelker (1990), this indicates that institutional investors play an important role in supervision and management of the company.

However, because institutional investors have to provide performance results to their customers every quarter, and because they face intense performance-ranking competition between the same businesses, they experience heavy pressure on short-term profit. This makes them more serious about the current performance of the investment company, which in turn exerts pressure on the company managers. Company managers bear the performance pressure from institutional investors; profit motivation itself, therefore, makes them more serious about short-term profit. This, in turn, drives them to reach their short-term performance targets by using accounting decisions and sacrificing the long-term value of the company (Jones, 1991; Laverty, 1996), and this relates differently to the increase in company value as a result of institutional investors' supervision. In the study of our country, scholars have pointed out that in Taiwan's stock market, institutional investors do not have supervision effect on managers' self-interest behavior. Instead, they play a speculators' role of short profit sightedness and have less motivation to monitor the company's managers, which is totally different from the "efficiency supervision hypothesis" made by Pound (1988).

Because institutional investors take a larger portion of shareholding and have richer resources than small shareholders, they will reduce their investment risk and have more motivation to monitor the company managers' behavior. Therefore, when investors have more shareholding in a company, there is less likelihood of the company proceeding with earnings management. Another point of view is that when a company performs poorly, institutional investors will put pressure on the company's managers through the investment holdings (Shleifer and Vishny, 1986; Holderness and Sheehan, 1988), and due to the company's earnings and share price performance, this will affect managers' salaries (Matsunaga and

Park , 2001), thus increasing the earnings management motivations of company managers (Jones, 1991; Laverty, 1996), According to Chung, Firth, and Kim (2002) and Koh (2007), the empirical results all indicate that when a company's institutional investors have a higher portion of shareholding they can exert more pressure on a company's manager to use discretionary accrual projects to proceed with earnings management, and this supports the first viewpoint. Zhong, Gribbin and Zheng (2007) supports the second viewpoint: the results indicate shareholdings of external large shareholders have a positive relation with discretionary accrual projects of the profit-reducing company. From the point of view of the literature above, we find the ratio of institutional investors' shareholdings will affect earnings management.

Relationship between Family Business and Earnings Management

Fan and Wong (2002) and Yeh, Ko, and Su (2003) point out that in listed companies in the Taiwan stock market, just like in most East Asian countries, the board of directors has a strong family flavor, and it is very common for family members be officers or on management level. Yeh, Ko, and Su (2003) analyzed the family holding characteristics in the Taiwan stock market, and found that of 208 listed companies 158 matched the definition of family holdings, a ratio of 76%. And their study found that family-owned groups control 78% of listed companies on the Taiwan Stock Exchange. In 57.6% of these family-controlled companies, the family owned more than half of the board seats. It can be seen that family business is an important characteristic in the Taiwan stock market; therefore, studies which target Taiwan-listed companies as a research object should consider this characteristic.

There are two ways of examining whether family businesses apply earnings management more than non-family businesses. The first is from the angle of the supervision mechanism and remuneration system; a family businesses compared to non-family businesses will not proceed with earnings management and lead to better earnings quality. Ali, Chen and Radhakrishnan (2007) supports this viewpoint; the reason is that family businesses do not have a serious problem in the separation of management rights and ownership; therefore, they can supervise management more directly. Furthermore, when the family business decides the salaries of its managers, it will not be totally according to accounting numbers, so the likelihood of manipulating accounting numbers will be lower. Furthermore, non-family businesses will have more serious agency problems of hidden behavior and hidden information than family businesses. To lower the agency problem, a non-family business may pay salaries according to an observed performance measure index (Healy and Palepu, 2001), and this could cause managers to have the motivation to manipulate accounting numbers.

Another angle considers the entrenchment effect and ownership structure. A family business may proceed with earnings management more than a non-family business and have poor earnings quality. Past literature (Shleifer and Vishny, 1997) has indicated that controlling shareholders or large shareholders will compromise the interests of minority shareholders because of personal incentives. Due to the existence of the entrenchment effect and the need to avoid external supervision by controlling or large shareholders, they will proceed with earnings management and damage earnings quality (Haw, Hu, Hwang and Wu, 2004).

In sum, there is no common conclusion as to whether a family business will be more possible to manipulate earnings or not. However, according to the empirical results of domestic literature, most support the viewpoint that, compared to a non-family business, a Taiwan family business will be more possible to manage their earnings. That is, the negative entrenchment effect is larger than the positive effect brought about by the supervision mechanism in Taiwan family business. Giannetti and Simonov's (2004) study points out that when a company's controlling shareholders have more incentive to deprive external investors, foreign investors will not be willing to invest in this company. La Porta, Lopez-de-Silanes and Shleifer (1999) and Claessens, Djankov, and Lang (2000) found that a company's controlling shareholders will increase the control rights of the company by using a pyramid structure, cross-shareholdings, and family control. This causes a deviation in the right to vote and cash flow rights which make it a greater incentive to negatively influence the interests of minority shareholders. Therefore, institutional investors should not invest in family-controlled companies. However, if institutional investors still choose to invest their money in a family business and not a non-family business, they will have greater incentive to monitor family companies. Accordingly, this study proposes the following hypotheses:

H1: Compared to a non-family business, institutional ownership of a family business has a significant relationship with the degree of real activities earnings management.

H1a: Compared to a non-family business, institutional ownership of a family business has a significant positive relationship with abnormal operating cash flows.

H1b: Compared to a non-family business, institutional ownership of a family business has

a significant negative relationship with abnormal production costs.

H1c Compared to a non-family business, institutional ownership of a family business has a significant positive relationship with abnormal discretionary spending.

Different types of supervision mechanisms of institutional investors

The above research related to institutional investors. Most of the research considers institutional investors as a single variable to discuss related issues, but in fact different types of institutional investors have different effects on companies to monitor, therefore, considered as a whole, they may be diluted on the statistical results. Bushee (1998) and Bushee and Noe (2000) divides institutional investors into two types: short-term traders (Transient) and those investing over a long holding period (Quasi-indexers). Koh (2007) also divided institutional investors into these two categories, then discussed the relative issue of earnings management. The empirical results indicate that investors with long-term holdings are limited by the manipulation of accrual items of companies that want to reach an earnings threshold. This also means that long-term investors are more concerned about a company's value than its short-term performance; therefore, they have huge motivation to monitor managers' behavior and the decisions they make. Brickley, Lease, and Smith (1988) proposes another classification of investors. They thinks the presence or lack of a relationship between institutional investors and a company's business might decide the effect of the degree of decision making and monitoring ability from institutional investors in the company. Therefore, they divided institutional investors into two categories: "pressure sensitive" and "pressure resistant." "Pressure sensitive" investors means they have more direct interest in a relation with a company. As these types of institutional investors are likely to be affected by a manager's behavior and decisions, they cannot monitor the company's managers effectively. However, the "pressure resistant" investors are investors not easy influenced by top managers' behavior. These include public pension funds, mutual funds, and charitable foundations. The reason is that they do not need to take any benefits from company managers, and therefore can be more actively involved in corporate governance and supervise the managers of the company. The empirical results are the same as that which the research hypothesizes, in that in supervising company managers, "pressure resistant" investors are more efficient than "pressure sensitive" investors. Borokhovich,

Brunarski and Parrino (2000) also supports the results of the study.

However, in recent studies (Almazam, Hartzell and Starks, 2005; Chen, Harford and LI, 2007; and Barabanov, and Ozocak, 2008), institutional investors have been divided into active and passive supervisors. Active supervisors include investment consultant companies and mutual funds because these types of investors do not have business dealings with the investment company and are more concerned with short-term performance; therefore, they are active investors, also called independent investors. Passive supervisors include trust departments of banks, insurance companies and funds because they have business dealings with investment companies and are more concerned with the long-term value of a company. These passive investors are also known as gray investors. Almazam, Hartzell and Starks (2005) in research on supervision from institutional investors to top managers also divided institutional investors into active and passive supervisors, and their empirical results found that "active" institutional investors have a significant effect on top managers' salaries, while "passive" institutional investors do not. Other similar classification literatures have made the same finding. From this viewpoint, we find that active investors play an important supervisory role in corporate governance compared to passive investment supervisors. In view of this, the study considers that different types of investors have different supervision ability, and according to Almazam, Hartzell and Starks (2005) classification of empirical results, we expect that among institutional investors who invest in family business, active supervised investors have a better supervision effect compared to passive supervised investors. Therefore, this research proposes Hypothesis II as follows:

H2：Compared to passive investors, the shareholding ratio of active investors in family business has a significant relationship with the degree of real activities earnings management.

H2a：Compared to passive investors, the shareholding ratio of active investors in family business has a significant positive relationship with abnormal operating cash flows.

H2b： Compared to passive investors, the shareholding ratio of active investors in family business has significant negative relationship with abnormal production costs.

H2c：Compared to passive investors, the shareholding ratio of active investors in family business has a significant positive relationship with abnormal discretionary spending.

Research Data and Empirical Model

Scope of the study and data sources

Considering the time at which Taiwan corporate governance began to attract attention, as well as the time at which the Government relaxed foreign investment in the Taiwan stock market, this study surveyed Taiwan listed companies from 2002 to 2008 as research objects. However, when this research calculates the variable of real activities manipulation, it requires the date of the current year and past two years, so the actual study period of this research is from 2000 to 2008.

The main data of this study come from each module database of the Taiwan Economic Journal (TEJ). However, in order to ensure the accuracy and integrity of the database, when we organize sample data, we use the listed companies' annual reports posted on the Market Observation Post System as secondary data.

Sample Selection

The original total number of samples for this study was 5,013; however, because of the special industrial nature of the financial and construction industries, we excluded these two industrial sectors from the research sample. Furthermore, if a sample company had lost data in a sample year, we also excluded it. After deleting the financial industry (258) and construction industry (259) during the study period each year and accounting for data loss (136), the final number of samples came to 4,360. The detailed distribution of the samples for each research year is listed in the table below.

Table 1. Distribution of Samples

	2002	2003	2004	2005	2006	2007	2008	Total
Sample Number	690	702	706	712	722	739	742	5013
Financial	(36)	(37)	(37)	(37)	(37)	(37)	(37)	(258)
Construction	(37)	(37)	(37)	(37)	(37)	(37)	(37)	(259)
Data loss	(17)	(19)	(18)	(17)	(14)	(24)	(27)	(136)
Final sample number	600	609	614	621	634	641	641	4360

Empirical Mode

First, this study processed the inspection of Hypothesis 1 by using Module I to explore the relationship between institutional investors' shareholdings and manipulating real activities. Then, it further divided institutional investors' shareholdings into two types: active and passive investors' shareholdings and processed the inspection of Hypothesis 2 by using Module II.

$$REM_t = \alpha + \beta_1 INT\_Total_t + \beta_2 SIZE_t + \beta_3 LEV_t + \beta_4 CFO_t \quad (I)$$

$$REM_t = \alpha + \beta_1 ACINT_t + \beta_2 INACINT_t + \beta_3 SIZE_t + \beta_4 LEV_t + \beta_5 CFO_t \quad (II)$$

Variable definition:

REM: Real activities of earnings management (TOTAL_REM) = abnormal operating cash flows (AB_CFO), abnormal production costs + (AB_PROD) + abnormal discretionary expenditures (AB_DISEXP)

ACINT: The holding ratio of active investors = Holding ratio at the end of the year of other investors in our country + Holding ratio at the end of the year of foreign investors.

INACINT: The holding ratio of passive investors = Holding ratio at the end of the year of financial institutions in our country + Holding ratio at the end of this year of trust funds in our country.

INT_Total: Holding ratio of overall investors = Holding ratio of active investors (ACINT) + Holding ratio of passive investors (INACINT) = Holding ratio at the end of the year of other investors in our country + Holding ratio at the end of the year of foreign investors + Holding ratio at the end of the year of financial institutions in our country + Holding ratio at the end of the year of trust funds in our country.

In terms of the dependent variables, according to Dechow, Kothari, and Watts (1998), this research proposes the real activity earnings management model, which uses real activities manipulation of abnormal operating cash flows, abnormal production costs, and abnormal discretionary expenditures as alternative variables for earnings management.

Real activities of earnings management (TOTAL_REM) = abnormal operating cash flows (AB_CFO), abnormal production costs + (AB_PROD) + abnormal discretionary expenditures (AB_DISEXP)
Abnormal operating cash flows (AB_CFO)
AB_CFO = actual CFO − Normal CFO
AB_CFO = Present Year Actual CFO − Normal CFO

Normal CFO analysis is conducted by using the regression equation derivation by Roychowdhury (2006) and uses the following regression equation to estimate:

$$\frac{CFO_t}{A_{t-1}} = \alpha_1 (\frac{1}{A_{t-1}}) + \beta_1 (\frac{S_t}{A_{t-1}}) + \beta_2 (\frac{\Delta S_t}{A_{t-1}}) + \varepsilon_t \quad (3)$$

Among them:

CFO_t ：Operating cash flow of year t

A_{t-1} ：Total assets of t-1 year

S_t ：Sales revenue of t year t

ΔS_t ：Sales revenue of t year minus sales revenue of t-1 year

Abnormal production costs (AB_PROD)

AB_PROD = Present Year Actual PROD － Normal PROD

Normal PROD analysis is also conducted by using the regression equation derivation by Roychowdhury (2006), and the following regression equation to estimate:

$$\frac{PROD_t}{A_{t-1}} = \alpha_0 (\frac{1}{A_{t-1}}) + \beta_1 (\frac{S_t}{A_{t-1}}) + \beta_2 (\frac{\Delta S_t}{A_{t-1}})$$
$$+ \beta_3 (\frac{\Delta S_{t-1}}{A_{t-1}}) + \varepsilon_t$$

Among them

$PROD_t$ ：Production cost of t year ，by using cost of goods sold (COGS)+inventory change number (ΔINV) to estimate

Therefore,, needs to estimate normal COGS and normal ΔINV , module as follow：

$$\frac{COGS_t}{A_{t-1}} = \alpha_1 (\frac{1}{A_{t-1}}) + \beta_1 (\frac{S_t}{A_{t-1}}) + \varepsilon_t$$

This means normal COGS is the linear function of present sales revenue.

$$\frac{\Delta INV_t}{A_{t-1}} = \alpha_1 (\frac{1}{A_{t-1}}) + \beta_1 (\frac{\Delta S_t}{A_{t-1}}) + \beta_2 (\frac{\Delta S_{t-1}}{A_{t-1}})$$
$$+ \varepsilon_t$$

This means normal ΔINV is the linear function of present changes in sales revenue and previous changes in sales revenue

Abnormal discretionary expenditures (AB_DISEXP)

AB- DISEXP = Present year actual DISEXP － Normal DISEXP

Normal DISEXP analysis is conducted by using the regression equation derivation by Roychowdhury (2006) and the following regression equation to estimate:

$$\frac{DISEXP_t}{A_{t-1}} = \alpha_0 (\frac{1}{A_{t-1}}) + \beta_1 (\frac{S_{t-1}}{A_{t-1}}) + \varepsilon_t$$

Among them:

$DISEXP_t$ ：Discretionary expenditures of t year，is Advertising costs + R&D costs + Selling and Administrative costs

For our argument, this study is based on the classification of Almazam, Hartzell and Starks (2005), and considers the actual situation in our country. It defines institutional investors including domestic financial institutions, trust funds, and corporate juridical persons − as passive investors. National government agencies, other legal entities, and foreign (overseas) legal persons are classified as "active investors." However, this research will exclude the holdings of corporate juridical persons when calculating the holdings ratio of passive investors. The main consideration is that most listed companies in Taiwan have the characteristics of cross holding of parent and subsidiary companies. So, the corporate juridical person is almost a relative enterprise of a group or family, and the purpose of cross holdings will first consider the profit of the whole group and family. Therefore, this research believes corporate juridical persons will not monitor the investment company and exclude it. When calculating the holdings ratio of active investors, we consider the investment characteristics of government agencies, such as the fact that sometimes an investment company serves to stabilize the stock market, but not because of that company's good operating performance. Furthermore, government institutions usually target the weighted stocks of companies or companies with small stock price volatility to invest in. Therefore, the supervising capacity of a government institution can only be researched in a few companies and cannot generally be used for all listed companies. Therefore, we excluded government institutions. The following formula measures the holding ratio of active and passive investors:

The holding ratio of active investors (ACINT) = Holding ratio at the end of the year of other investors in our country + Holding ratio at the end of the year of foreign investors.

The holding ratio of passive investors (INACINT) = Holding ratio at the end of the year of financial institutions in our country + Holding ratio at the end of this year of trust funds in our country.

Holding ratio of overall investors (INT_Total) = Holding ratio of active investors (ACINT) + Holding ratio of passive investors (INACINT) = Holding ratio at the end of the year of other investors in our country + Holding ratio at the end of the year of foreign investors + Holding ratio at

the end of the year of financial institutions in our country + Holding ratio at the end of the year of trust funds in our country.

For control variables, the study refers to existing literature and takes three variables: company size (SIZE), measure by natural logarithm of total assets at the end of the year (Watts and Zimmerman, 1986); debt ratio (LEV), measured by the ratio of total liabilities divided by total assets (Dechow, Sloan and Sweeney, 1996); cash flow of operating activities (CFO), measured by cash flow of operating activities divided by sales revenue at the beginning of the period (Dechow, Sloan and Sweeney, 1995). Moreover, since Taiwan's high-tech industry has always been a representation industry of listed companies, and past literature also points out that it will affect the degree of earnings management if it is checked by the Big Four accounting firms, this study uses the high-tech industry (HITEC) and whether it is checked by the Big Four accounting firms as a control variable.

ANALYSIS OF RESULTS

Descriptive Statistics

Before progressing to the empirical research, this study divided the total samples into family businesses and non-family businesses; this study also divided the descriptive statistics into two parts, which are listed in Table 1. For non-family businesses, the part of the dependent variable, the average number of abnormal operating cash flows is -0.0093; the average number of the abnormal production cost is 0.0052; the average number of abnormal discretionary spending is 0.0044. For the part of the independent variables, the average number of corporate total shareholding ratios is 0.1537; the average number of the holding ratio of active monitoring investors is 0.1093; and the average number of the holding ratio of passive monitoring investors is 0.0444. This indicates that the average holding ratio of non-family business investors is 15.37%, the holding ratio of active monitoring investors is 10.93%, and the holding ratio of passive monitoring investors is 4.44%. However, the description statistics of family businesses as introduced above will not be repeated here. Comparing the descriptive statistics of the two samples, we find that investors' total holding ratio of non-family businesses (0.1537>0.1145), the holding ratio of active monitoring investors (0.1093>0.0801), and the holding ratio of passive monitoring investors (0.0444>0.0344) are higher than those of family businesses. This reveals the phenomenon that institutional investors may not be willing to invest in family businesses.

Table II. Descriptive Statistics

Variable Name		Sample of Non-Family Business					Samples of Family Business			
	Item	Minimum	Maximum	Average	Standard Deviation	Item	Minimum	Maximum	Average	Standard Deviation
TOTAL_REM	1346	-.6966	.6394	.0019	.0854	2881	-.6477	.5904	-.0015	.0780
AB-CFO	1346	-.7110	.7716	-.0073	.1068	2881	-.9118	.7621	.0036	.0984
AB-PROD	1346	-.6551	.6767	.0061	.1131	2881	-1.1302	.6466	-.0038	.1090
AB-DISEXP	1346	-.2200	.7283	.0030	.0692	2881	-.2076	.5523	-.0013	.0588
ACINT	1346	.0000	.8191	.1435	.1610	2881	.0000	.9584	.0976	.1361
INACINT	1346	.0018	.7028	.1697	.1153	2881	.0000	.9999	.3137	.2080
INT_Total	1346	.0022	.8539	.3132	.1971	2881	.0000	.9999	.4113	.2330
Ln(size)	1346	12.8023	20.2904	15.8113	1.2763	2881	12.5849	20.0916	15.5654	1.2394
LEV	1346	.0187	.9859	.3867	.1647	2881	.0196	.9684	.3792	.1612
CFOt	1346	-16.4030	1.4059	.0826	.6007	2881	-4.5893	5.9605	.1243	.2623
HITEC	1346	.0000	1.0000	.6612	.4735	2881	.0000	1.0000	.4172	.4932
BIG4	1346	.0000	1.0000	.8655	.3413	2881	.0000	1.0000	.8497	.3574

Variable defined: TOTAL_REM: Total of abnormal real activities earnings management; AB-CFO: Abnormal Operating Cash Flow, actual operating cash flow minus estimated operating cash flow; AB_PROD: abnormal production cost, actual production cost minus estimated production costs ; AB_DISEXP: abnormal discretionary expenditures, actual discretionary expenditures minus estimated discretionary expenditures ; ACINT: Holding ratio of active monitoring investors, total holding ratio of other investors in our country and foreign investors(include foreign financial institutions and foreign investors) ; INACINT: holding ratio of passive monitoring investors, total holding ratio of domestic financial institutions and trust found ; INT_TOTAL: total holding ratio of investors, holding ratio of active investors + holding ratio of passive investors; SIZE: company size, take the natural logarithm of the total assets; LEV: the debt ratio, total liabilities ratio in total assets; CFO: operating cash flows divided by opening sales revenue; HITEC: dummy variables of high-tech industry, 1 for the high-tech industry, another is 0; BIG4: dummy various of if it is check by the big four accounting firms, 1 for the checked by big four accounting firms, another is 0.

Collinearity Analysis

In order to avoid the situation of a highly linear correlation in the argument causing an error in the empirical results, before the process of the regression estimation of this study, we used Peel forest correlation coefficients (Pearson Correlation) to analyze the correlation between variables.

Tables III and IV list the correlation coefficient between the independent variables of this study. We find only a high correlation between the investors' holding ratio and the active monitoring investors holding ratio (0.909 per cent). The other correlation coefficient between the independent variables is not very high. However, because the holding ratio of investors is constructed by active monitoring investors and passive monitoring investors, we know the correlation is high, and the regression model in this study does not test the two types of holding ratio together. Therefore, the two regression models in this study will not have a collinearity problem between variables.

Table III. Correlation Coefficient Table of Non-Family Sample

	TOTAL_REM	AB-CFO	AB-PROD	AB-DISEXP	ACINT	INACINT	INT_Total	Ln(size)	Debt	CFOt	HITEC	BIG4
TOTAL_REM	1	.618**	.066*	.173**	.058*	.056*	.080**	.070*	-.046	.181**	.025	.043
		.000	.016	.000	.033	.041	.003	.010	.089	.000	.356	.111
AB-CFO		1	-.586**	.177**	.204**	.078**	.212**	.044	-.286**	.316**	-.014	.099**
			.000	.000	.000	.004	.000	.103	.000	.000	.614	.000
AB-PROD			1	-.649**	-.132**	-.074**	-.151**	.043	.257**	-.180**	.073**	-.067*
				.000	.000	.006	.000	.119	.000	.000	.008	.014
AB-DISEXP				1	-.028	.070*	.018	-.052	-.036	.030	-.067*	.010
					.313	.011	.506	.057	.189	.273	.015	.724
ACINT					1	-.009	.811**	.548**	-.134**	.132**	.137**	.163**
						.735	.000	.000	.000	.000	.000	.000
INACINT						1	.577**	.051	.033	-.101**	-.158**	.084**
							.000	.061	.231	.000	.000	.002
INT_Total							1	.477**	-.090**	.049	.020	.182**
								.000	.001	.071	.471	.000
Ln(SIZE)								1	.018	.142**	.020	.146**
									.509	.000	.470	.000
LEV									1	-.156**	-.122**	-.144**
										.000	.000	.000
CFOt										1	.085**	.094**
											.002	.001
HITEC											1	.206**
												.000
BIG4												1

Variable defined: TOTAL_REM: Total of abnormal real activities earnings management; AB-CFO: Abnormal Operating Cash Flow, actual operating cash flow minus estimated operating cash flow; AB_PROD: abnormal production cost, actual production cost minus estimated production costs ; AB_DISEXP: abnormal discretionary expenditures, actual discretionary expenditures minus estimated discretionary expenditures ; ACINT: Holding ratio of active monitoring investors, total holding ratio of other investors in our country and foreign investors(include foreign financial institutions and foreign investors) ; INACINT: holding ratio of passive monitoring investors, total holding ratio of domestic financial institutions and trust found ; INT_TOTAL: total holding ratio of investors, holding ratio of active investors + holding ratio of passive investors; SIZE: company size, take the natural logarithm of the total assets; LEV: the debt ratio, total liabilities ratio in total assets; CFO: operating cash flows divided by opening sales revenue; HITEC: dummy variables of high-tech industry, 1 for the high-tech industry, another is 0; BIG4: dummy various of if it is check by the big four accounting firms, 1 for the checked by big four accounting firms, another is 0

When significance level is 0.01 (two-tailed), related to significant. When significance level is 0.05 (two-tailed), related to significant.

Table IV. Correlation Coefficient Table of Family Sample

	TOTAL_REM	AB_CFO	AB_PROD	AB_DISEXP	ACINT	INACINT	INT_Total	Ln(size)	Debt	CFOt	HITEC	BIG4
TOTAL_REM	1	.526**	.145**	.179**	.086**	.058**	.102**	.111**	-.010	.197**	-.034	.014
		.000	.000	.000	.000	.002	.000	.000	.607	.000	.064	.460
		2881	2881	2881	2881	2881	2881	2881	2881	2881	2881	2881
REM_CFO		1	-.637**	.204**	.142**	.074**	.150**	.023	-.278**	.375**	.047*	.087**
			.000	.000	.000	.000	.000	.227	.000	.000	.011	.000
			2881	2881	2881	2881	2881	2881	2881	2881	2881	2881
REM_PROD			1	-.596**	-.093**	.004	-.051**	.069**	.258**	-.215**	-.074**	-.087**
				.000	.000	.843	.006	.000	.000	.000	.000	.000
				2881	2881	2881	2881	2881	2881	2881	2881	2881
REM_DISEXP				1	.048**	-.055**	-.021	-.018	-.025	.032	.013	.034
					.010	.003	.270	.340	.177	.090	.485	.069
					2881	2881	2881	2881	2881	2881	2881	2881
ACINT					1	-.133**	.466**	.432**	-.147**	.124**	.028	.131**
						.000	.000	.000	.000	.000	.132	.000
						2881	2881	2881	2881	2881	2881	2881
INACINT						1	.815**	.193**	.095**	.100**	-.087**	.126**
							.000	.000	.000	.000	.000	.000
							2881	2881	2881	2881	2881	2881
INT_Total							1	.425**	-.001	.162**	-.062**	.189**
								.000	.939	.000	.001	.000
								2881	2881	2881	2881	2881
Ln(SIZE)								1	.120**	.094**	-.024	.116**
									.000	.000	.193	.000
									2881	2881	2881	2881
LEVt									1	-.190**	-.057**	-.046*
										.000	.002	.014
										2881	2881	2881
CFOt										1	.038*	.084**
											.042	.000
											2881	2881
HITEC											1	.200**
												.000
												2881
BIG4												1

Variable defined: TOTAL_REM: Total of abnormal real activities earnings management; AB-CFO: Abnormal Operating Cash Flow, actual operating cash flow minus estimated operating cash flow; AB_PROD: abnormal production cost, actual production cost minus estimated production costs ; AB_DISEXP: abnormal discretionary expenditures, actual discretionary expenditures minus estimated discretionary expenditures ; ACINT: Holding ratio of active monitoring investors, total holding ratio of other investors in our country and foreign investors(include foreign financial institutions and foreign investors) ; INACINT: holding ratio of passive monitoring investors, total holding ratio of domestic financial institutions and trust found ; INT_TOTAL: total holding ratio of investors, holding ratio of active investors + holding ratio of passive investors; SIZE: company size, take the natural logarithm of the total assets; LEV: the debt ratio, total liabilities ratio in total assets; CFO: operating cash flows divided by opening sales revenue; HITEC: dummy variables of high-tech industry, 1 for the high-tech industry, another is 0; BIG4: dummy various of if it is check by the big four accounting firms, 1 for the checked by big four accounting firms, another is 0

When significance level is 0.01 (two-tailed), related to significant. When significance level is 0.05 (two-tailed), related to significant.

Analysis of Result of Multiple Regressions

Result of institutional holding ratio's affect on earnings management

According to the linear regression empirical results of Table V and VI, when we use total actual earning management (TOTAL_REM) and abnormal production cost (AB_PROD) as dependent variables, whether in a family or non-family business, the institutional holding ratio is significantly related to earnings management, and using abnormal operating cash flow (AB_CFO) as a dependent variable, the institutional holding ratio is significantly related to earnings management. The empirical results are consistent, as the inference with the proxy variables of the institutional holding ratio and earnings management, that is institutional investors' holding ratio, has a significantly positive effect on total real activities earnings management, abnormal operating cash flow, and abnormal discretionary spending. This has a negative significant impact on abnormal production cost, which means that irrespective of whether the business is a family or non-family one, institutional investors have the monitoring ability to invest in the company and can inhibit corporate managers from using real activities manipulation for earnings management.

Table V

Model：$REM_t = \alpha + \beta_1 INT\_TOTAL_t + \beta_2 LnSIZE_t + \beta_3 LEV_t + \beta_4 CFO_t + \beta_5 HITEC_t + \beta_6 BIG4_t + \varepsilon$

Dependent variable Variable	TOTAL_REM	AB_CFO	AB_PROD	AB_DISEXP
Intercept	-.025	.144	-.245	.077
	(.433)	(.000)***	(.000)***	(.003)***
INT_TOTAL	.061	.222	-.195	.051
	(.048)**	(.000)***	(.000)***	(.103)
LnSIZE	.015	-.101	.157	-.082
	(.637)	(000)***	(.000)***	(.009)***
LEV	-.012	-.224	.221	-.030
	(.668)	(000)***	(.000)***	(.282)
CFO	.172	.288	-.166	.039
	(.000)***	(000)***	(.000)***	(.162)
HITEC	.005	-.074	.121	-.077
	(.849)	(003)***	(.000)***	(.006)***
BIG4	.011	.029	-.032	.020
	(.691)	(.250)	(.233)	(.476)
R^2	0.038	0.202	0.134	0.013
Adj. R^2	0.034	0.198	0.130	0.008

Variable defined: TOTAL_REM: Total of abnormal real activities earnings management; AB-CFO: Abnormal Operating Cash Flow, actual operating cash flow minus estimated operating cash flow; AB_PROD: abnormal production cost, actual production cost minus estimated production costs ; AB_DISEXP: abnormal discretionary expenditures, actual discretionary expenditures minus estimated discretionary expenditures ; ACINT: Holding ratio of active monitoring investors, total holding ratio of other investors in our country and foreign investors(include foreign financial institutions and foreign investors) ; INACINT: holding ratio of passive monitoring investors, total holding ratio of domestic financial institutions and trust found ; INT_TOTAL: total holding ratio of investors, holding ratio of active investors + holding ratio of passive investors; SIZE: company size, take the natural logarithm of the total assets; LEV: the debt ratio, total liabilities ratio in total assets; CFO: operating cash flows divided by opening sales revenue; HITEC: dummy variables of high-tech industry, 1 for the high-tech industry, another is 0; BIG4: dummy various of if it is check by the big four accounting firms, 1 for the checked by big four accounting firms, another is 0.

*indicate when α＝0.10 is significant；**indicate when α＝0.05 is significant；***indicate when α＝0.01 is significant。

Table VI. Estimate result of institutional investors holding ratio to earnings management in family business

Model：$REM_t = \alpha + \beta_1 INT\_TOTAL_t + \beta_2 LnSIZE_t + \beta_3 LEV_t + \beta_4 CFO_t + \beta_5 HITEC_t + \beta_6 BIG4_t + \varepsilon$

Dependent Variable	TOTAL_REM	AB_CFO	AB_PROD	AB_DISEXP
Intercept	-.086	.047	-.139	.006
	(.000)	(.031)**	(.000)***	(.681)
INT_TOTAL	.040	.107	-.053	-.028
	(.054)*	(.000)	(.008)***	(.190)
LnSIZE	.075	-.030	.087	-.011
	(.000)***	(.109)	(.000)***	(.591)
LEV	.015	-.211	.210	-.016
	(.432)	(000)***	(.000)***	(.399)
CFO	.188	.318	-.168	.031
	(.000)***	(000)***	(.000)***	(.109)
HITEC	-.034	.023	-.046	.002
	(.066)*	(.180)	(.011)**	(.935)
BIG4	-.011	.030	-.054	.037
	(.575)	(.087)*	(.003)***	(.059)*
R^2	.050	.197	0.107	0.003
Adj. R^2	.048	.195	0.105	0.001

Variable defined: TOTAL_REM: Total of abnormal real activities earnings management; AB-CFO: Abnormal Operating Cash Flow, actual operating cash flow minus estimated operating cash flow; AB_PROD: abnormal production cost, actual production cost minus estimated production costs ; AB_DISEXP: abnormal discretionary expenditures, actual discretionary expenditures minus estimated discretionary expenditures ; ACINT: Holding ratio of active monitoring investors, total holding ratio of other investors in our country and foreign investors(include foreign financial institutions and foreign investors) ; INACINT: holding ratio of passive monitoring investors, total holding ratio of domestic financial institutions and trust found ; INT_TOTAL: total holding ratio of investors, holding ratio of active investors + holding ratio of passive investors; SIZE: company size, take the natural logarithm of the total assets; LEV: the debt ratio, total liabilities ratio in total assets; CFO: operating cash flows divided by opening sales revenue; HITEC: dummy variables of high-tech industry, 1 for the high-tech industry, another is 0; BIG4: dummy various of if it is check by the big four accounting firms, 1 for the checked by big four accounting firms, another is 0.

*indicate when α＝0.10 is significant ；**indicate when α＝0.05 is significant ；***indicate when α＝0.01 is significant。

Result of the holding ratio of active institutional investors and passive institutional investors to earnings management

After testing Hypothesis I, this research divided institutional investors' holding ratio into two types: active institutional investors and passive institutional investors, further testing Hypothesis II: compared to passive institutional investors, active institutional investors' holding ratio of family business has a significant relationship with the degree of earnings management.

The linear regression empirical results of non-family businesses listed in Table VII, display a number in parentheses, which is the p value of the relative degree of argument and the dependent variable. The results indicate that the p value of active institutional investors' holding ratio to abnormal operating cash flow and abnormal production cost is 0.000, which is significantly related in the 1% confidence level. The p value of passive institutional investors' holding ratio to total real activities earnings management (TOTAL_REM) is 0.007; the p value of abnormal operating cash flow (AB-CFO) is 0.000; the p value of abnormal production cost (AB_PROD) is 0.000; and the p value of abnormal discretionary expenditures (AB_DISEXP) is 0.017. Active institutional investors are significantly related to four earnings management. From the empirical results, the monitoring effect of passive institutional investors in non-family business is positively significant, with total earnings management and three sub items of earnings management, compared to the active monitoring investors, who have a

significant effect on only two sub items of earnings management. Therefore, overall, passive institutional investors have better monitoring effect compared to active institutional investors in non-family businesses.

On the other hand, the results of family businesses is listed in Table VIII, which displays the p value of the relative degree of argument and dependent variable in parenthesis. The regression results indicate that the p value of active institutional investors' holding ratio to real activities earnings management (TOTAL_REM) is 0.046; the p value of abnormal operating cash flow (AB-CFO) is 0.000; the p value of abnormal production cost (AB_PROD) is 0.000; and the p value of abnormal discretionary expenditures (AB_DISEXP) is 0.026. Active institutional investors are significantly related to four earnings management. The p value of passive institutional investors to abnormal operating cash flow (AB-CFO) is 0.000, and the p value of abnormal discretionary expenditures (AB_DISEXP) is 0.015. The results of passive institutional investors indicate that only two items are significantly related to the dependent variable of earnings management. Due to the monitoring effect of active institutional investors in family businesses, they are significantly related to total earnings management, and three sub items of earnings management, compared to passive monitoring investors who have a significant effect on only two sub items of earnings management. Therefore, the results of this study indicate that active institutional investors have a better monitoring effect than passive institutional investors in family businesses.

Table VII. Estimate result of active institutional investors and passive institutional investors holding ratio to earnings management in non-family business

Model：$REM_t = \alpha + \beta_1 ACINT_t + \beta_2 INACINT_t + \beta_3 LnSIZE_t + \beta_4 LEV_t + \beta_5 CFO_t + \beta_6 HITEC_t + \beta_7 BIG4_t + \varepsilon$				
Dependent variable	TOTAL_REM	AB_CFO	AB_PROD	AB_DISEXP
Intercept	-.046	.161	-.267	.060
	(.166)	(.000)***	(.000)***	(.029)**
ACINT	.011	.205	-.188	.004
	(.739)	(.000)***	(.000)***	(.901)

INACINT	.074	.107	-.085	.066
	(.007)***	(.000)***	(.000)***	(.017)**
LnSIZE	.034	-.113	.172	-.064
	(.301)	(000)***	(.000)***	(.052)*
LEV	-.017	-.221	.217	-.035
	(.538)	(000)***	(.000)***	(.213)
CFO	.177	.285	-.162	.044
	(.000)***	(000)***	(.000)***	(.118)
HITEC	.016	-.081	.129	-.067
	(.571)	(002)***	(.000)***	(.019)**
BIG4	.008	.031	-.034	.017
	(.774)	(.222)	(.202)	(.543)
R^2	.041	.202	.135	.015
Adj. R^2	.036	.198	.131	.010

Variable defined: TOTAL_REM: Total of abnormal real activities earnings management; AB-CFO: Abnormal Operating Cash Flow, actual operating cash flow minus estimated operating cash flow; AB_PROD: abnormal production cost, actual production cost minus estimated production costs ; AB_DISEXP: abnormal discretionary expenditures, actual discretionary expenditures minus estimated discretionary expenditures ; ACINT: Holding ratio of active monitoring investors, total holding ratio of other investors in our country and foreign investors(include foreign financial institutions and foreign investors) ; INACINT: holding ratio of passive monitoring investors, total holding ratio of domestic financial institutions and trust found ; INT_TOTAL: total holding ratio of investors, holding ratio of active investors + holding ratio of passive investors; SIZE: company size, take the natural logarithm of the total assets; LEV: the debt ratio, total liabilities ratio in total assets; CFO: operating cash flows divided by opening sales revenue; HITEC: dummy variables of high-tech industry, 1 for the high-tech industry, another is 0; BIG4: dummy various of if it is check by the big four accounting firms, 1 for the checked by big four accounting firms, another is 0.
*indicate when α＝0.10 is significant；**indicate when α＝0.05 is significant；***indicate when α＝0.01 is significant。

Table VIII. Estimate result of active institutional investors and passive institutional investors holding ratio to earnings management in family business

Model：$REM_t = \alpha + \beta_1 ACINT_t + \beta_2 INACINT_t + \beta_3 LnSIZE_t + \beta_4 LEV_t + \beta_5 CFO_t + \beta_6 HITEC_t + \beta_7 BIG4_t + \varepsilon$				
Dependent variable	TOTAL_REM	AB_CFO	AB_PROD	AB_DISEXP
Intercept	-..079	.063	-.164	.022
	(.000)***	(.006)***	(.000)***	(.144)
ACINT	.043	.099	-.085	.049
	(.046)**	(.000)***	(.000)***	(.026)**
INACINT	.028	.082	-.027	-.049
	(.148)	(.000)***	(.148)	(.015)**
LnSIZE	.067	-.044	.108	-.036
	(.002)***	(.025)***	(.000)***	(.098)
LEV	.019	-.203	.198	-.002
	(.318)	(000)***	(.000)***	(.933)
CFO	.188	.317	-.168	.031
	(.000)***	(000)***	(.000)***	(.112)
HITEC	-.035	.021	-.043	-.002
	(.058)*	(.220)	(.017)	(.922)
BIG4	-.011	.029	-.053	.036
	(.563)	(.094)	(.004)***	(.067)*
R^2	.051	.198	.110	.008
Adj. R^2	.048	.196	.108	.005

Variable defined: TOTAL_REM: Total of abnormal real activities earnings management; AB-CFO: Abnormal Operating Cash Flow, actual operating cash flow minus estimated operating cash flow; AB_PROD: abnormal production cost, actual production cost minus estimated production costs ; AB_DISEXP: abnormal discretionary expenditures, actual discretionary expenditures minus estimated discretionary expenditures ; ACINT: Holding ratio of active monitoring investors, total holding ratio of other investors in our country and foreign investors(include foreign financial institutions and foreign investors) ; INACINT: holding ratio of passive monitoring investors, total holding ratio of domestic financial institutions and trust found ; INT_TOTAL: total holding ratio of investors, holding ratio of active investors + holding ratio of passive investors; SIZE: company size, take the natural logarithm of the total assets; LEV: the debt ratio, total liabilities ratio in total assets; CFO: operating cash flows divided by opening sales revenue; HITEC: dummy variables of high-tech industry, 1 for the high-tech industry, another is 0; BIG4: dummy various of if it is check by the big four accounting firms, 1 for the checked by big four accounting firms, another is 0.

*indicate when α＝0.10 is significant；**indicate when α＝0.05 is significant；***indicate when α＝0.01 is significant。

CONCLUSION

The relaxation of the law by securities authorities enabled institutional investors' holding ratio in the stock market to increase every year and helped them become major players in capital markets. Compared to retail, these investors have huge amounts of capital and human and material resources. Therefore, their role in company supervision has gradually gained the public's attention. They have also caught the attention of academics and scholars, who want to know whether the intervention of institutional investors results in better corporate governance. However, there is no unanimity in the research results about the intervention of institutional investors in corporate governance. This research thinks the key point is that the characteristics of institutional investors will provide different strengths of monitoring. Therefore, this research references the classification of Almazam, Hartzell and Starks (2005) and divides institutional investors into two different types, active and passive institutional investors. Our study also investigates the effect of these two types of institutional investors on earnings management and considers the characteristics of family businesses in Taiwan. The empirical result of this study are listed as follows:

The research results indicate that irrespective of whether the business is a family business or a non-family business, institutional investors have monitoring ability and can inhibit company management from manipulating real activities. Overall, passive institutional investors have better supervision compared to active institutional investors in non-family businesses. And active institutional investors have better supervision compared to passive institutional investors in family businesses. These results can offer companies the insight to further consider planning their ownership structure.

In summary, the empirical results of this research support that institutional investors can inhibit Taiwan companies from engaging in real earnings management. They also support the policy of the Taiwan securities authorities relaxing the laws relating to investment by "foreign professional investment institutions." In order to promote Taiwan, institutional investors need to play an important role in the supervision of corporate governance. Therefore, the results of this research can be directed to the competent authority to make relevant policies in the future.

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FAMILY TIES, DO THEY MATTER? FAMILY OWNERSHIP AND FIRM PERFORMANCE IN PERU

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Abstract

This paper studies the relationship between ownership concentration, family ownership, management, and market and accounting performance for 59 industrial firms listed in the Lima Stock Exchange during the period of 1999 to 2005. An inverted U-shaped relationship was found between ownership concentration and market performance in both family and non family firms, pointing out an entrenchment effect or excessive risk aversion of the controlling group. This effect is worsened for family firms. The presence of family members as CEOs, Chairmen and Board Members is also negative for a firm's performance and family ownership was found to increase the leverage of a firm.

Keywords: Family Firms, Ownership Concentration, Performance, Family Management, Peru

JEL Code: G32; G34

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1. Introduction

The agency theory provides a compelling explanation of how ownership affects firm performance. Under conditions of separation of ownership and control, more managerial ownership reduces managerial private benefits by inducing a shareholder-like behavior in the manager, which increases the firm value (Jensen and Meckling, 1976). However, an excess in managerial ownership (Stulz, 1988) can produce managerial entrenchment, which reduces firm value; the result is an inverted U-shaped curve of firm value as a function of ownership concentration. However, high ownership concentration seems to be a major firm characteristic in most countries (La Porta, Lopez-de-Silanes and Shleifer, 1999), including countries identified as emerging markets. Thus,the following research question arises: Is this a disadvantageous situation or are there other forces at work?

Different authors (Bebchuck, 1999; La Porta,Lopez-de-Silanes, Shleifer and Vishny, 2000) have hypothesized that this characteristic is the result of low investor protection, which has been endemic in countries considered emerging markets. In their groundbreaking research,LaPorta, Lopez-de-Silanes, Shleifer and Vishny(1998) find that, relative to Common Law countries, countries with Roman legal traditions (most developing countries

included) are characterized by low investor protection. Confronted by the danger of expropriation by managers, unwarranted punishment, or lack of protection by the law, shareholders should maintain controlling (majority) holdings in order to reduce the manager's independence and his/her capacity to extract private benefits. Indeed, in most cases managerial ownership is uncommon, except when the firm is controlled by a family and the manager is a family member.

However, with controlling shareholders tightening the manager's reigns, different problems can arise: 1. Similar to managerial entrenchment, controlling shareholder entrenchment can be expected; 2. With most of their wealth attached to the firm, excessive control by shareholders translates into risk aversion, which can reduce firm value (Demsetz and Lehn, 1985); 3. High levels of controlling shareholder ownership can also reduce managerial initiative (Burkart, Gromb and Panunzi, 1997); and 4. The controlling shareholders can take advantage of minority shareholders, extracting private benefits that reduce firm value (Bebchuck, 1999). Usually there is an inverted U-shaped curve of firm value between these forces working together and the benefits of ownership concentration, similar to the curve hypothesized by Stulz (1988); however, a larger inflection pointmight be expected, given the low level of

investor protection that boosts ownership concentration.

An interesting and additional factor in this equation is the nature of ownership: Are there any differences in firm performance when the controlling shareholders are families? Thus, the debate on family ownership continues. Press releases highlight the positive side of family ownership, for example, a report in *Business Week* (*Weber, Lavelle, Lowry, Zellnerand Barrett*, 2003) claims that family firm managers are willing to put aside their personal interests in order to make sure the legacy of the firmcarries on.

An article in *Forbes* (Swibel, 2004) points out the long-term orientation of family firms compared to non family firms. However, studies show that the effect of family ownership on firm performance is mixed, contrary to what press reports claim. Anderson and Reeb (2003) find that family firms perform better than non family firms; however, Villalonga and Amit (2006) point out a negative side of family ownership, particularly when family members, other than the founding CEO, are involved in management.

In a previous study, Holderness and Sheehan (1988) find that family firms have a lower Tobin's q than non family firms, so they create lower value. Widespread evidence indicates the importance of family ownership in most countries (La Porta, Lopez-de-Silanes and Shleifer, 1999; Claessens,Djankov and Lang, 2000; La Porta, Lopez-de-Silanes, Shleifer and Vishny, 2002); however, the impact of the presence of family firms outside the U.S. has not been thoroughly assessed. Some emerging market studies focus on the impact of ownership concentration, without distinguishing between family and non-family firms (Lins, 2004; Claessens, Fan and Lang, 2002; Benavides, 2005), perhaps due to the difficulty of disentangling family and managerial relationships in settings with less disclosure than that in the U.S.

The issue of ownership concentration is particularly important in Latin America because there quoted companies concentrate more than 60% of the ownership and control of the companies in the hands of the first three shareholders. In this study, the effect of family ownership on firm performance for industrial firms listed in the Lima Stock Exchange (LSE) is studied. By reviewing reports from the LSE (Vademecum Bursatil) and the database Economatica®, it was possible to measure ownership concentration and to classify firms as family firms or non family firms, this information was available from 1999 to 2005. Then, the factors of ownership concentration, ownership nature and family involvement were linked with accounting and market performance. The results support the effect hypothesized by Stulz (1988), that market performance increases with ownership concentration according to the alignment

effect, until additional and opposing forces, such us the entrenchment effect, excessive risk aversion or intervention, reduce performance. The effect is more acute when the firm is owned by a family.

The results of this study depart from previous findings where only positive effects of ownership concentration on performance were found: La Porta *et al*. (2002), using data from 27 wealthy economies, found weak evidence of positive effects of ownership concentration on performance; Claessens *et al*. (2002), working with East Asian economies, found positive effects. In the current study, it was found that family ownership has a negative impact on the accounting performance of a firm, affecting the firm's operating return on equity. In addition, when testing the effect of family involvement on management, a negative impact on accounting performance was also discovered. Moreover, the presence of family members in positions such as CEO, Chairman, and members of the Board of Directors of a firm reduces a firm's market performance in an important way.

Family ownership of a firm also appears to affect a firm's leverage. When owners are less willing to issue outside equity, two effects can arise: firms are too cash constrained to fund growth or firms require more debt in order to stay in business. The results of this study show that family firms have more leveraged than nonfamily firms and this leverage increases when ownership concentration increases. When the family involvement in management is higher (e.g., a family member as CEO or Chairman), then firms are more indebted.

The rest of the paper is structured as follows: section 2 describes the data, section 3 presents all the tests and shows the results for which we developed a theoretical explanation. Finally, section 4 concludes.

2. Sample Data

The data from this study comes from 59 Peruvian industrial firms (see Appendix 1), listed in the Lima Stock Exchange (LSE). Listed firms are regulated by and must report their information to the National Supervisory Commission of Companies and Securities (CONASEV). The sample data was compiled by examining LSE records(Vademecum Bursatil) and Economatica®, a financial database for Latin-American listed firms. The information of the Vademecum Bursatil was available for seven years from 1999 to 2005. The aforementioned sources of information were used to determine the construction of firm governance structures, such as board composition, chairman and CEO affiliation, and ownership.

2.1. Variables

The two kind of variables in this study, summarized in Table 1, are 1) financial variables and 2) governance variables. Financial variables include an indicator for firm size (LNVT),which is the log of sales (expressed in thousands of dollars); an indicator for leverage(LEV), which is the ratio of liabilities on total assets; and a measure for cash flow(EBITVTAS), which is the ratio of earnings before interest and taxes on sales. In addition, there are three alternative performance ratios within the group of financial variables: Market to book ratio (M/B); operating income on assets(REBITAT); and operating income on equity(REBITPAT).

Governance variables include the firm age (LNAGE), which is the log of years between the year of foundation and the year 2005; the ownership holdings (voting power) of the controlling shareholders(PRO), regardless of family ownership, (also squared, PRO2); for family firms, the percentage of family members in the board(PJDFAM); and for all firms, the excess of voting power over cash flow rights(EXCCONTROL),as the ratio of the percentage of voting power on cash flow rights for the controlling shareholder or group. There are also four dummy variables for governance: a dummy variable for firms in a family business group (GEMPFAM); a dummy for family firms (EMPFAM); a dummy for firms with a family member as President or CEO (CEOFAM); and a dummy for firms with a family member as Chairman of the Board (CHFAM).

A firm is classified as a family firm if more than 30 percent of ownership or board seats are in the hands of one family. In order to find out whether a particular member of the board belongs to the same family we compare their last names, if they were equal so they belong to the same family.

2.2. Descriptive Statistics

The average industrial firm in our sample is 44 years old and earns 68 million US dollars per year (see Table 2a). The average voting power in hands of controlling shareholders is 59%, and control rights exceed their cash flow rights by a ratio of 1.28. This excess of control rights is due to the fact that firms in Peru can issue ordinary and investment shares, usually with reduced voting power.

From our sample of 59 firms, 26 were classified as family firms according to our definition. Of these, 23 had a family Chairman and 10 had a family CEO for at least one year; however, almost 100% of these positions lasted for the entire seven-year period. We also classified 17 of the firms as being part of a family business group.

To the best of our knowledge there were not any changes in the ownership type during the sample period. During this period, different firms in the beer industry were acquired by Bavaria, a Colombian firm, but because none of these firms were previously defined as family firms, no changes in ownership type were made.

Correlations between the main variables in the study are presented in Table 2b. Interestingly, all correlations between the M/B ratio and family ownership or involvement are negative; this relationship is not present for the accounting measures of performance, perhaps, not surprisingly, due to the low correlation between M/B and the accounting measures of performance. The high correlation between EMPFAM and CHFAM is expected, given that 23 of the 26 family firms have a family Chairman. An expected negative correlation between excess of control rights, EXCCONTROL, and ownership concentration, PRO was found; given that the incentives to expropriate minority shareholders are reduced with higher ownership (La Porta *et al.*, 2002).

3. Tests and Results

3.1. Tests

Our unbalanced panel data models are regressed using feasible generalized least squares (GLS) corrected for a heteroskedastic error structure within panels. Our first set of tests regresses the different measures of performance on alternative mechanisms of control (MC):

$$\text{Performance}_{it} = \alpha_0 + \Sigma\alpha_j MC_{jit} + \Sigma\alpha_k \text{Controlvariables}_{kit} + \varepsilon_{it} \qquad (1)$$

Our aim is to explore the impact of two pervasive characteristics of the Peruvian traded firms on their performance: the excess of control rights on cash flow rights and the firm being a family or being part of a family group.

Our second set of regressions explores the effect of ownership concentration on the different performance measures. We were also interested in observing if there was any difference in performance between family ownership and other ownership. For that effect we created the interaction variables NFPRO and NFPRO2, which are equal to:

NFPRO=Dummy for nonfamily firm * PRO
NFPRO2=Dummy for nonfamily firm * PRO2

These variables capture the difference in impact on performance of ownership concentration between family and nonfamily firms. For family firms the coefficients of PRO and PRO2 measure the impact of ownership concentration. For non family firms the coefficients are PRO + NFPRO and PRO2 + NFPRO2. In these regressions we also include the excess of control variable,

EXCCONTROL, to account for the potential additional impact this variable has on performance. The structure of the regressions is:

Family firms:

$$Perf_{it} = \alpha_0 + \alpha_1 PRO_{it} + \alpha_2 PRO2_{it} + \Sigma\alpha_j Controlvariables_{jit} + \varepsilon_{it} \quad (2)$$

Non family firms:

$$Perf_{it} = \alpha_0 + \alpha_1(PRO+NFPRO)_{it} + \alpha_2(PRO2+NFPRO2)_{it} + \Sigma\alpha_j Controlvariables_{jit} + \varepsilon_{it} \quad (3)$$

We ran different combinations of these regressions and reported the tests with the stronger results.

Another set of tests is an inquiry of the impact of family involvement in management. Keeping the previous structure, we added three different variables, one per regression, so that the regression is as follows:

$$Perf_{it} = \alpha_0 + \alpha_1 Family\ involvement_{it} + \alpha_j PRO_{it} + \alpha_k Controlvariables_{it} + \varepsilon_{it} \quad (4)$$

The family involvement term accounts for either a family CEO, a family Chairman or the percentage of family members on the board and the other variable accounts for the ownership concentration (PRO).

Our final analysis is related to leverage. Here we wonder whether capital structure decisions are influenced by the nature of ownership, its concentration and family involvement in management. The regressions are as follows:

Family firms:

$$Leverage_{it} = \alpha_0 + \alpha_1 PRO_{it} + \Sigma\alpha_j Controlvariables_{jit} + \varepsilon_{it} \quad (5)$$

Non family firms:

$$Leverage_{it} = \alpha_0 + \alpha_1(PRO+NFPRO)_{it} + \Sigma\alpha_j Controlvariables_{jit} + \varepsilon_{it} \quad (6)$$

Additionally, we explore how family involvement affects decisions regarding debt levels:

$$Leverage_{it} = \alpha_0 + \alpha_1 Family\ involvement_{it} + \Sigma\alpha_j Controlvariables_{jit} + \varepsilon_{it} \quad (7)$$

3.2. Results

All of our regressions measure the impact of governance variables (mechanisms) on different measures of performance. We include the same control variables in each set of regressions. Two variables are worth to explain from the outset: *age* and *sales*. *Age* is important for two reasons: first of all, older firms are likely to have founder descendants at the helm of the firm. However, it seems that managerial abilities are not inherited; thus, to evaluate the effect of family involvement in firm performance we need to control for firm age. Secondly, older firms tend to be large, enjoying market power that can produce abnormal returns.

The results (see Table 3) show that the market values age positively, while current profitability has a negative relationship to age. This finding illustrates that the market appears to respect seniority, and while survivor firms may have lower current accounting returns, in the end what counts is to stay in business.

Regarding the variable *sales*, we found that the financial market is apparently not attracted to size, even if size means product market power. Although some sale coefficients are positive and significant in regressions of accounting performance, their size is economically too small to infer whether economies of scale or product market power are important determinants of performance.

3.2.1. Ownership Concentration

In Table 3 we explore the effects of ownership concentration on firm performance. To control for differential control and cash flow rights, we include the variable EXCCONTROL. The first regression reports our results for market valuation performance. The second and third regressions, again, report our results for accounting performance. We found that ownership concentration produces an inverted U-shaped effect on M/B. The result is consistent with the ambiguous effect of ownership concentration on firm value, as founded by Mork, Shleifer and Vishny (1988) and Stulz (1988)[10].

At low levels of ownership, higher stakes increase market valuation by aligning the interests of controlling shareholders with those of the rest of the shareholders; however, a further increment of ownership reduces market valuation because the controlling shareholders are less constrained by market forces and become entrenched. Our analysis includes an additional element because we differentiate the effect of ownership concentration when a family is in control.

Here we found that at high levels of family ownership a further increment in ownership hurts market performance more seriously than a similar increment for a non family firm. Two explanations seem plausible for these differential effects: 1) family firms become more risk averse than other types of ownership at high levels of ownership concentration or 2) family firms obtain more private benefits than their counterparts.

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[10] Our interpretation is consistent with a close involvement of controlling shareholders in management, which is characteristic of Latin American countries.

There is no evidence of an inverted U-shaped effect of ownership concentration for accounting performance. For return on assets (REBITAT) the effect is unambiguously negative, with no difference between family and non family firms. For return on equity(REBITPAT)the relationship between ownership and performance is positive, but family firms again do worse than non family firms: while an additional 1% of family ownership increases REBITAT by0.035%, the same increment for non family firms increases REBITAT by0.057%.

We consider that our research provides evidence of the negative side of family ownership for high levels of concentration. Indeed, family ownership matches non family ownership in just one regression, while in the other two cases the result is clearly against family ownership.

3.2.2. Family ownership and excess of control

Table 4 looks alternatively for the effect of excess of control, family ownership and family business group ownership. Panel A (first column) reports our results for the market performance measure M/B; panels B and C (second and third columns, respectively) do the same for the accounting performance measures.

Panel A shows that all alternative control mechanisms hurt market performance in an important way. A 1% increment of excess of control reduces market valuation 0.16%, while family firms or firms in family business groups have 21% and 20% respectively; this implies less market valuation for family firms than for non family firms. However, that effect does not translate to accounting performance. In fact, the impact of the three alternative governance mechanisms (excess of control, family ownership and family business group ownership) is positive, and significant in the case of excess of control for both accounting measures.

Together, the results provide evidence against the conventional view of families focusing only on the long term performance of the firm as long as market performance is a proxy for future cash flows. Our results support a vision of families maximizing current profitability, which is likely to be translated into higher dividend payouts.

While the level of tangible assets does not affect market performance, it does affect, negatively, accounting performance, especially the return on equity (Panel C); a 1% percent change in fixed assets divided by total assets (AFAT) is translated into -0.5% return on assets and -0.13% return on equity. The results are consistent with firms with higher levels of tangible assets competing in mature markets with lower returns.

The margin on sales is by far the more influential variable affecting performance: a 1% increment in this variable increases market valuation by 4%, the return on assets by 0.6%, and the return on equity by 1.1%.Clearly, investors agree that charging higher prices (a proxy for market power) or being more efficient translates into higher cash flows now and in the future.

The effect of leverage can be analyzed in two ways: 1) When the dependent variable includes book equity in the denominator (this is the case of panels A and C2) when the dependent variable is the return on assets. In the former case, an increase in leverage increases performance; as a result, an increment of 1% in leverage increases M/B in approximately the same magnitude, while the correspondent increment in the return on equity (REBITPAT) is 0.12%. In the later case, there is a negative relationship between leverage and return on assets; this is consistent with the pecking order theory (Myers, 1984) of more profitable firms having lower levels of debt to reduce the transaction and asymmetric information costs of issuing debt.

3.2.3. Family Management

In Table 5, we address the effectiveness of family management. We do not report ownership concentration and control variables, which have the same behavior as in Table 3 and were discussed previously[11]. The results support the previous conjecture that family ownership, now also expressed as family involvement in management, is generally bad for business. The highest damage of these dummy variables is caused by family CEOs, who reduce market valuation by0.33 units, closely followed by family Chairmen, who reduce market valuation by0.14 units.

If the average M/B is 1.33, a family CEO reduces market valuation by about 25%, implying heavy financial losses. The percentage of family members on the board of directors also produces a negative effect on performance: one extra family member on the board implies a change of 14.3% in the percentage of family members on the board, which translates into a reduction of 0.06 units in market valuation.

Although most of the coefficients for accounting returns are negative just in the more sensitive measure (return on equity), two of the coefficients become significant. Firstly, a family CEO reduces return on equity by 1.1%. Likewise, one more family member on the board, in average, reduces return on equity by 0.2%. While many family businesses will gladly support these accounting losses in exchange for tighter control,

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[11]The regressions also exclude the extra variables that analyzed the difference between family and non family ownership (NFPRO and NFPRO2).

our results indicate that more independent board members will improve financial results.

Although we tried to separate founder managers from founder descendant managers in the same way Villalonga and Amit (2006) did, we were unable to do so due to the lack of data; however, with the average firm being 44 years old, the negative effect of family management on performance is more than likely produced by founder descendants in the same way Villalonga and Amit (2006) report.

3.2.4. Leverage, Ownership and Family Management

Our final results, reported in Table 6, review the effect of ownership concentration on leverage and point out the effectiveness of family management. We find that family firms are more leveraged as ownership concentration increases; the opposite happens for non family firms.

When the CEO or the Chairman is a family member, leverage is higher, in excess of 5.8% for a family CEO and 9.6% for a family chairman. One interpretation for that difference in leverage is that families prefer to keep the ownership in their hands rather than open the firm to outside investors. When family involvement is measured by the percentage of family members on the board, the excess in leverage is lower, around 1%. The difference in leverage with a family CEO or Chairman may indicate that the incentive to reduce outside scrutiny is higher when family involvement is higher.

4. Conclusion

Most of our analyses support the hypothesis that controlling shareholders are entrenched in their firms in order to extract private benefits. Whether or not these benefits are larger than the costs of entrenchment is a difficult issue to disentangle. However, it is clear that external funding will be more difficult for such firms, as this imposes an additional cost that is even more difficult to evaluate, this time in terms of firm size. In the end, it is likely that the costs of family entrenchment will outweigh their benefits, as the corporate governance mechanisms improve. Moreover, large global firms compete directly against local family firms and this increase the pressure for growth, efficiency and better corporate governance and financial performance.

Many firms' owners in emerging markets, who happen to be families or business groups, acknowledge this restriction and are in the process of opening their firms to external capital, despite the fact that these family owners do like to seat strangers in their companies.

Furthermore, we have shown that family management imposes an additional cost on the firms, which suggests that professional outside management could bring benefits to these firms. Thus, it is possible to conclude that less ownership concentration reduces entrenchment by controlling shareholders or families (Maury and Pause, 2004) and minority shareholders can reduce private benefits of controlling shareholders by monitoring their actions.

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Appendix

Firms Included in the Study
All firms are listed in the Lima Stock Exchange; family firms are also identified

#	Name	FamilyFirm	#	Name	FamilyFirm
1	AgriBrandsPurina SA		32	Grupo Sinidicato Pesquero del Perú S.A	X
2	Alicorp SA	X	33	Hidrostal S.A	
3	ASEA Brown Boveri SA		34	INCA TOPS S.A	X
4	Austral Group		35	Indeco S.A	
5	Cementos Lima S.A	X	36	Industria Textil Piura S.A	
6	Cementos Pacasmayo S.A.A		37	Industrias del Envase S.A	
7	Agroindustrial Paramonga	X	38	industrias Electro Químicas S.A-IEQSA	X
8	Cerveceria San Juan S.A.A		39	Industrias Vencedor S.A	
9	CIA. Industrial Nuevo Mundo S.A	X	40	Intradevco Industrial	X
10	Compañía Cervecera del Sur del Peru S.A		41	IQF del Perú S.A	X
11	Compañía Goodyear del Peru S.A		42	Kraft Foods Perú S.A	
12	Compañía Industrial Textil Credisa.Trutex S.A.A		43	Lapices y Conexos S.A –Layconsa	X
13	Compañía Universal Textil S.A	X	44	Lima Caucho S.A	
14	Conductores Electricos Peruano S.A - Ceper		45	Malteria Lima S.A	
15	Consorcio Industrial de Arequipa S.A		46	Manufactura de Metales y Aluminio "Record" S.A	X
16	Construcciones Electromecánicas Delcrosa S.A		47	Metalúrgica Peruana S.A	
17	Corporación Aceros Arequipa S.A	X	48	Michell y CIA S.A	X
18	Corporación Cerámica S.A		49	Motores Diesel Andino S.A	
19	Corporación Jose R. Lindley S.A	X	50	Owens- Illinois Peru S.A	
20	Del Mar S.A		51	PraxairPeru S.A	
21	Derivados del Maiz S.A		52	Quimpac S.A	X
22	Embotelladora Latinoamericana S.A		53	Reactivos Nacionales S.A	
23	Empresa de la Sal S.A	X	54	Sociedad Industrial de Artículos de metal S.A.C.	X
24	Empresa Editora el Comercio S.A	X	55	Tabacalera Nacional S.A.A	
25	Empresa Siderúrgica del Peru S.A		56	Textil San Cristobal S.A	X
26	Exsa S.A	X	57	Ticino del Peru S.A	
27	Fábrica Nacional de Acumuladores Etna S.A	X	58	Union de Cervecerias Peruanas Backus y Johnston S.A.A.	
28	Fábrica Peruana Eternit S.A		59	Yura S.A	X
29	Filamentos Industriales S.A	X			
30	F.I.M.A S.A	X			
31	Gloria S.A	X			

Table 1. Definition of Variables

Financial	
LNVT	Log of sales
LEV	Ratio of liabilities on total assets
EBITVTAS	Ratio of operating income (EBIT) on sales
Performance	
M/B	(Number of ordinary shares * Market value of ord. shares + Number of investment shares * Market value of inv. Shares)/Book value of equity
REBITAT	Ratio of operating income (EBIT) on total assets
REBITPAT	Ratio of operating income (EBIT) on book equity
Governance	
LNAGE	Log of number of years between the foundation and 2005
PRO and PRO2	Percentage of shares owned by the controlling shareholder and its square
NFPRO and NFPRO2	0 if the firm is a family firm, PRO and PRO2 if the firm is a non family firm
PJDFAM	Percentage of family members in the firm's board
EXCCONTROL	Ratio of percentage of votes on percentage of ownership, for the controlling shareholder or group
GEMPFAM	Dummy, 1 if the firm is part of a family business group, 0 otherwise
EMPFAM	Dummy, 1 if the firm is a family firm, 0 otherwise
CEOFAM	Dummy, 1 if the firm's CEO is a family member, 0 otherwise
CHFAM	Dummy, 1 if the firm's Chairman is a family member, 0 otherwise

Table 2a. Descriptive Statistics of Sample Data

Variable	Obs	Mean	Std. Dev.	Min	Max
M/B	296	1.33	1.64	0.03	12.15
REBITAT	400	7.5%	7.6%	-15.9%	40.7%
REBITPAT	400	13.5%	22.2%	-260.3%	120.6%
AFAT	400	45.45%	18.07%	2.58%	87.20%
LEV	400	45.97%	20.00%	9.05%	127.20%
SALES	400	68,332	106,566	2,015	573,209
AGE	413	44.14	30.39	7	166
EBITVTAS	400	9.99%	10.41%	-28.40%	50.12%
PRO	367	59.18%	26.19%	7.49%	99.83%
EXCCONTROL	362	1.28	0.53	1.00	6.72
CEOFAM	413	18%	38%	0	1
CHFAM	413	39%	49%	0	1
PDJFAM	413	23%	32%	0	1
EMPFAM	413	44%	50%	0	1
GEMPFAM	413	29%	45%	0	1

Table 2b. Correlation between Variables

Correlations for the main variables are presented based on 274 observations.

	M/B	REBITAT	REBITPAT	AFAT	LEV	SALES	AGE	EBITVTAS	PRO	EXCCONTROL	CEOFAM	CHFAM	PDJFAM	EMPFAM
REBITAT	0.23													
REBITPAT	0.10	0.56												
AFAT	(0.09)	(0.17)	(0.15)											
LEV	0.11	(0.39)	(0.05)	0.21										
SALES	(0.00)	0.04	0.02	0.14	0.03									
AGE	0.07	0.03	0.02	(0.09)	(0.06)	0.20								
EBITVTAS	0.26	0.86	0.59	(0.00)	(0.24)	0.08	0.07							
PRO	0.14	0.08	0.18	(0.10)	(0.00)	(0.26)	(0.11)	0.08						
EXCCONTROL	(0.09)	0.08	0.00	(0.08)	(0.11)	(0.08)	0.20	(0.03)	(0.30)					
CEOFAM	(0.12)	0.05	0.03	(0.19)	0.01	(0.08)	(0.05)	(0.00)	0.09	0.14				
CHFAM	(0.09)	0.02	0.03	0.13	0.17	0.03	0.04	0.07	0.01	0.12	0.47			
PDJFAM	(0.10)	0.08	0.05	(0.04)	0.05	0.03	0.01	0.10	0.06	0.16	0.67	0.80		
EMPFAM	(0.11)	0.02	0.03	0.10	0.15	0.05	(0.02)	0.06	(0.03)	0.12	0.49	0.93	0.83	
GEMPFAM	(0.12)	(0.02)	0.02	0.10	0.17	0.17	0.04	0.01	(0.04)	0.00	0.01	0.64	0.59	0.71

Table 3. Ownership Concentration and Performance

The dependent variables are market performance and operating accounting performance. The table reports the results of GLS panel regressions corrected for a heteroskedastic error structure with no cross-sectional correlation. The panel consists of public Peruvian firms covering seven years (1999-2005). Variables are defined in Table 2. All regressions include unreported year dummies. The number of firm-year observations, the regression Log Likelihood and the Wald statistics are also reported. Z statistics are reported in parentheses. Asterisks are associated with p-values ($p < 0.1$:*, $p<0.05$:**, $p<0.01$:***).

	M/B		REBITAT		REBITPAT	
	Coef.					
	z					
PRO	4.703	***	-0.011	***	0.035	**
	(5.34)		(-2.81)		(2.44)	
PRO2	-4.907	***				
	(-5.49)					
NFPRO	-1.111	*			0.022	**
	(-1.86)				(2.42)	
NFPRO2	2.186	***				
	(2.67)					
EXCCONTROL	-0.023		0.011	***	0.014	**
	(-0.3)		(3.02)		(2.3)	
AFAT	0.121		-0.048	***	-0.147	***
	(0.4)		(-8.47)		(-7.08)	
EBITVTAS	3.388	***	0.634	***	1.173	***
	(6.39)		(45.11)		(29.33)	
LEV	1.407	***	-0.058	***	0.138	***
	(4.5)		(-9.22)		(7.06)	
LNVT	0.001		0.002	**	0.000	
	(0.01)		(2.5)		(-0.21)	
LNAGE	0.164	***	-0.003	**	-0.009	**
	(3.38)		(-2.48)		(-1.99)	
CONSTANT	-1.180	*	0.058	***	0.014	
	(-1.94)		(5.04)		(0.44)	
Observations	274		355		355	
Wald	167.4	***	2952.5	***	1085.6	***
LL	-317.1		832.7		499.1	

Table 4. Mechanisms of Governance and Performance

The dependent variables are market performance (Panel A, first column) and operating accounting performance (Panels B and C). The table reports the results of GLS panel regressions corrected for a heteroskedastic error structure with no cross-sectional correlation. The panel consists of public Peruvian firms covering seven years (1999-2005). Variables are defined in Table 2. All regressions include unreported year dummies. The number of firm-year observations, the regression Log Likelihood and the Wald statistics are also reported. Z statistics are reported in parentheses. Asterisks are associated with p-values (p< 0.1:*, p<0.05:**, p<0.01:***).

	M/B			REBITAT			REBITPAT		
	Coef. z								
EXCCONTROL	-0.165 *			0.013 ***			0.011 **		
	(-1.75)			(4.)			(2.24)		
EMPFAM		-0.219 ***			0.002			0.003	
		(-2.73)			(0.85)			(0.46)	
GEMPFAM			-0.206 **			0.004			0.004
			(-2.58)			(1.64)			(0.6)
AFAT	-0.036	0.094	0.172	-0.047 ***	-0.053 ***	-0.054 ***	-0.125 ***	-0.131 ***	-0.131 ***
	(-0.14)	(0.35)	(0.69)	(-7.77)	(-8.59)	(-8.66)	(-6.17)	(-6.71)	(-6.77)
EBITVTAS	4.389 ***	4.008 ***	4.087 ***	0.635 ***	0.595 ***	0.594 ***	1.164 ***	1.152 ***	1.153 ***
	(8.72)	(8.54)	(8.7)	(45.76)	(43.14)	(43.02)	(31.63)	(31.17)	(31.2)
LEV	0.867 ***	1.050 ***	0.936 ***	-0.059 ***	-0.055 ***	-0.055 ***	0.126 ***	0.129 ***	0.127 ***
	(3.21)	(3.62)	(3.36)	(-9.25)	(-7.98)	(-8.)	(6.41)	(6.66)	(6.68)
LNVT	-0.064 *	-0.070 ***	-0.032	0.001 *	0.000	0.000	0.001	0.002	0.002
	(-1.88)	(-2.62)	(-1.03)	(1.71)	(0.19)	(-0.26)	(0.59)	(0.97)	(0.8)
LNAGE	0.113 **	0.106 **	0.137 ***	-0.003 **	-0.001	-0.001	-0.007	0.002	0.002
	(2.4)	(2.59)	(3.22)	(-2.34)	(-0.84)	(-0.98)	(-1.58)	(0.37)	(0.35)
CONSTANT	0.906 *	0.915 ***	0.342	0.052 ***	0.076 ***	0.080 ***	0.026	0.007	0.010
	(1.84)	(2.65)	(0.87)	(4.93)	(7.86)	(7.74)	(0.92)	(0.24)	(0.36)
Observations	274	296	296	355	400	400	355	400	400
Wald	113.0 ***	127.5 ***	117.5 ***	2986.7 ***	2629.1 ***	2616.9 ***	1167.6 ***	1170.2 ***	1173.7 ***
LL	-330.2	-364.5	-362.1	833.0	903.0	904.3	512.1	554.3	553.8

Table 5. Family Management and Performance

The dependent variables are market performance and operating accounting performance. The table reports the results of GLS panel regressions corrected for a heteroskedastic error structure with no cross-sectional correlation. The panel consists of public Peruvian firms covering seven years (1999-2005). Variables are defined in Table 2. All regressions include unreported control variables (PRO (PRO2 for panel A), EXCCONTROL, AFAT, EBITVTS, LEV, LNVT, LNAGE) and year dummies. The number of firm-year observations, the regression Log Likelihood and the Wald statistics are also reported. Z statistics are reported in parentheses. Asterisks are associated with p-values (p< 0.1:*, p<0.05:**, p<0.01:***).

	Panel A. M/B			Panel B. REBITAT			Panel C. REBITPAT		
	Coef.			Coef.					
	z			z					
CEOFAM	-0.337 ***			-0.003			-0.011 *		
	(-3.25)			(-0.83)			(-1.71)		
CHFAM		-0.145 *			0.002			-0.008	
		(-1.94)			(1.09)			(-1.4)	
PJDFAM			-0.447 ***			-0.003			-0.02 **
			(-3.7)			(-0.71)			(-2.18)
Observations	274	274	274	355	355	355	355	355	355
Wald	135.2 ***	133.2 ***	158.1 ***	2828 ***	2685 ***	2575 ***	1263 ***	1109 ***	1101 ***
LL	-323	-325.2	-320.4	827	828.4	820.5	509.9	507.2	504.6

Table 6. Leverage and Ownership Concentration

The dependent variable is leverage. The table reports the results of GLS panel regressions corrected for a heteroskedastic error structure with no cross-sectional correlation. The panel consists of public Peruvian firms covering seven years (1999-2005). Variables are defined in Table 2. All regressions include unreported year dummies. The number of firm-year observations, the regression Log Likelihood and the Wald statistics are also reported. Z statistics are reported inparentheses. Asterisks are associated with p-values (p< 0.1:*, p<0.05:**, p<0.01:***).

Dependent Variable	LEVERAGE									
	Coef. (z)									
PRO	1.27E-01	***								
	(4.91)									
NFPRO	1.58E-01	***								
	(-7.43)									
CEOFAM			5.85E-02	***						
			(3.91)							
PJDFAM					1.05E-01	***				
					(6.12)					
CHFAM							9.69E-02	***		
							(7.9)			
EXCCONTROL									-1.18E-02	
									(-0.78)	
M/B	2.98E-02	***	3.61E-02	***	3.32E-02	***	3.24E-02	***	2.65E-02	***
	(5.19)		(7.0)		(6.65)		(6.27)		(4.99)	
AFAT	1.93E-01	***	1.81E-01	***	1.63E-01	***	1.49E-01	***	1.36E-01	***
	(4.72)		(4.28)		(3.98)		(3.68)		(3.17)	
EBITVTAS	-7.79E-01	***	-7.15E-01	***	-7.59E-01	***	-6.94E-01	***	-7.82E-01	***
	(-10.95)		(-9.66)		(-10.56)		(-9.53)		(-10.05)	
LNVT	3.68E-02	***	-3.45E-02	***	2.92E-02	***	2.29E-02	***	3.37E-02	***
	(10.08)		(10.22)		(9.05)		(5.5)		(9.86)	
LNAGE	1.81E-02	**	-4.82E-03		-1.32E-02	*	-1.67E-02	**	-8.56E-03	
	(-2.21)		(-0.62)		(-1.74)		(-2.38)		(-1.02)	
CONSTANT	1.83E-03		-7.51E-03		8.56E-02	*	1.48E-01	***	5.70E-02	
	(0.03)		(-0.14)		(1.91)		(2.77)		(1.02)	
Observations	276		296		296		296		274	
Wald	308.39	***	220.08	***	251.46	***	242.85	***	207.06	***
LL	183.04		185.67		188.08		188.78		173.56	

**SECTION 3
CORPORATE
GOVERNANCE IN
MALAYSIA**

EXPLAINING SRI BEHAVIOUR OF MALAYSIAN UNIT TRUST FUND MANAGERS USING THEORY OF PLANNED BEHAVIOR

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Abstract

This study aims to examine the impact of Theory of Planned Behavior components – attitude, subjective norms and perceived control behavior on perceived socially responsible investment (SRI) behavior among fund managers of unit trust fund companies with intention to engage in SRI as a mediating variable. This cross sectional study employs questionnaire to collect the opinion from respondents. Three hundred and twenty questionnaires have been distributed but only 84 have been returned by the fund managers, with a response rate of 26.25 per cent. A scan of such questionnaires further revealed that only 73 could be taken up for analysis. Thus, the usable rate is 22.81 percent. Structural Equation Modeling (SEM) that has been used in the study has revealed that the model has a good fit for the model (above minimum requirements for goodness of fit criteria) which indicates the appropriateness of instrument and measurement. The analysis shows that subjective norms have significant and positive direct effect on perceived SRI behavior. In addition, subjective norms also have a significant and positive indirect effect on perceived SRI behavior through intention to engage in SRI. Attitude has a positive and significant direct impact on intention, while it does not have a significant direct effect on perceived SRI behavior. Besides, the study has evidenced significant direct effect of intention on perceived SRI behavior. However, the study has not found any evidence to support the association of perceived control behavior with intention and perceived SRI behavior. The major limitation of this existing study is a lower response rate; nevertheless it provides good understanding on the interaction of attitude, subjective norms, perceived control behavior, intention and behavior in the context of socially responsible investment in emerging economies like Malaysia.

Keywords: Theory of Planned Behavior, Attitude, Subjective Norms, Perceived Control Behaviour, Intention, Socially Responsible Investment

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Introduction

Socially responsible investment (hereafter referred as SRI) is receiving more attention among business community around the globe. SRI is alternatively known as ethical investment, social investing, socially aware investing, values-based investing or mission-based investing. These terms tend to be used interchangeably within the investment industry to describe an approach to investing that integrates personal values and societal concerns into the investment decision making process (Scheuth, 2003). According to Bardai (2001), SRI or ethical investment has three important characteristics – (i) the investment is profitable, (ii) the investment protects the interest of stakeholders and shareholders, and (iii) the returns and the risks are equally shared by the related parties. Schwartz (2003) defines SRI as a set of approaches which include social or ethical goods or constraints as well as more conventional financial criteria in decision over whether to acquire, hold or dispose of a particular investment. Chong and Anderson (2008) define SRI as a pool of investment that is to be acquired, retained or realized by reference to non-financial factors such as a company's compliance with environmental standards, the company's employment policies or the company is involved in the manufacture or sales of alcohol, tobacco or armaments.

The history of ethical investment can be traced back to the eighteen century when Religious Society of Friends (Quakers), a religious movement, during its annual meeting held in Philadelphia in 1758 advised its members against slave-trade. During the same period, one of the founders of Methodism – John Wesley (1703-1791) instructed the followers to avoid investing money in companies that engaged in the manufacturing of guns, liquor, tobacco and whose business practices harmed neighbourhood and employees' health. The establishment of ethical investment funds in 1970s in the United States and the United Kingdom ushered the new era of modern SRI. In 1971, the mutual fund – the Pax World Fund, was established and avoided investing in companies that were associated with the Vietnam War like the Dow Chemical which was manufacturing napalm a mass destruction weapon. Besides, the large investing institutions in the United States also avoided investing in companies related with South Africa business, which practicing the apartheid policy

then. Nowadays, there are several investors who have similar interest on ethical aspect, that draw up the investing criteria based on moral standards and these investors have set up their own institution to pursue the agenda of ethical investment. One institution of such kind being is the Friends Provident Stewardship Fund of the United Kingdom (Solomon and Solomon, 2004).

None can dispute the extensive influence that businesses have on the environment and society welfare today. Consequently, more and more people are becoming increasingly aware that unless companies take account of the environmental, social and ethical issues in its business decision making, our future social and economic welfare might be in doubt. Such concern has created the need to take notice and try to influence corporate actions. SRI provides an effective way to modify and control corporate behavior and any potential antisocial and unethical business activity. Providers of finance such as banks, other financial institutions, or investors and company's stock holders have the ultimate power over corporations, and therefore can influence corporate business. By restricting and channelling funds away from disapproved activities, responsible control over company is exercised. In other words, if providers of finance are not willing to finance questionable business activities, companies may find it hard to execute their projects and further develop their business. Also, company's share price can be negatively affected by the investors' sentiment toward unethical or morally questionable business. Therefore, companies cannot afford to be publicly designated as socially irresponsible. Thus, SRI is becoming an important segment of capital markets today, as it enables investors to invest without having to compromise their moral standards, and it provides an effective supervision of corporate behaviour.

SRI has a great potential to grow and has become important in Malaysian market due to enhanced awareness of Malaysian investors on socially responsible funds and faith based portfolios, regulatory sponsored initiatives and institutional supports (Sustainable and Responsible Investment in Asia, (AsriA), 2003). However, the challenge that remains is to create SRI investor, specifically among the fund managers. In Malaysia, SRI is relatively a new investment product; however, it is not a new concept since the Islamic fund has existed in its financial market for the last

40 years. Even though Shariah compliance funds presence is strongly felt, but SRI is not only avoiding businesses related to usury riba', pork-related products, gambling activities or alcoholic beverages, but also avoiding businesses that harm the well-being of environment, society and the community members, and this is indeed in line with Islamic teachings (Musa, 2001). The holy book – Al- Quran clearly prohibits mankind from polluting the environment and do harm. Allah does state; "Seek instead, by means of what God has granted (the good of) the life to come, without forgetting, withal, thing own (rightful) share in this world, and do good (unto others) as God has done good unto thee; seek not to spread corruption on earth: for, verily, God does not love the spreaders of corruption" (al – Qasas: 77).

The SRI concern is also shared by the authorities, in particular the Securities Commission (SC). The regulatory body believes that capital market plays the central role to establish the incentives in driving corporations towards corporate responsibility behavior in the extended corporate governance framework. Among the regulator's efforts is dichotomize all counters listed on the Malaysian Bourse into two areas – shariah compliance and shariah non-compliance, which facilitates investors to choose their preferred ethical portfolios. The lists are revised twice a year, in April and October. In addition, together with the Bursa Malaysia, the regulator has made available social and environmental indices such as the Dow Jones Sustainability Index to allow investors to focus their investment strategies on the benefits of socially and environmentally responsible investing. Besides, the SC organises Institutional Investors Programme, twice a year, in order to enhance awareness of leading edge practices in developed capital market with regard to shareholder engagement to increase the investee companies' performance.

According to Musa (2001) there is an increasing religious awareness among the Muslims which in turn has made them to be rationale in their behaviour and socially concerned when they take investment decisions and it is also believes a similar phenomenon is being experienced by investors of other faiths. Put together, these groups of ethically conscious people, Muslims and non-Muslims, could form a relatively large group of potential investors with substantially large funds for investment (Musa, 2001). However, individual investors are not enjoying abundant resources and adequate capacity to influence corporation in observing ethical business conduct and good governance or avoiding harmful business activities. Therefore, this role should be carried out by Malaysian institutional investors, given their enormous funds and large pools of expert talents (Bardai, 2001).

Furthermore, with regard to SRI development in Malaysia, institutional investors are expected to play greater significant role. The Silver Book initiative by Prime Minister Office and Ministry of Finance, which was launched in 2006, provides guidelines to institutional investors in placing money in a corporation that observes ethical corporate standards and good governance as well as protecting the interest of community while running a business. It also suggests several roles which institutional investors can play to influence investee companies in embracing contribution to society as a core part of their business. In short, to encourage greater ethical business practices, the owner (shareholder) of company, in particular the institutional investors have to play active role via SRI. In addition, there is a strong loud for institutional investors to adopt and lead SRI strategic initiative. In line with government and regulatory supports, SRI can assist in improving further the country's social, environmental and ethical standards.

SRI success is critically depending on behaviour of institutional investors including unit trusts' fund managers. Fund managers are responsible for the investment of the financial assets on behalf of the institutional investors' beneficiaries, depositors, members and clients. They make a decision, on the investment strategy, investment allocation decision the proportion of the assets to be invested in different financial assets such as equity, debt or other types of instruments, corporations to be selected for placing the entrusted money, and overseeing the performance of portfolios. Some fund managers are expected to engage investee corporations' management at formal channel like annual corporate general meetings or in informal manner via monthly dialogue. Given the important role of fund manager, if SRI is to have a sound future in Malaysia, it is necessary that the driving forces come from within the institutional investors themselves. Proper policies and initiatives are needed to encourage awareness, behaviour and active stance among fund managers toward SRI. However, before that, it is imperative to examine the factors that motivate those fund managers towards SRI behaviour. This creates opportunities for a new investigation, thus justifying this study.

The organization of this paper is as follows. The first three sections elaborate the introductory part of the study and provide initial understanding on the issue understudy. The following section four presents the review of the related literature of this study. Specifically, it critically analyses previous similar studies as appeared in literature. Section five deliberates the research method adopted in this study. Discussion on research framework, definition of variables and measurement, sampling technique, questionnaire design and hypotheses

formulation is presented in the section. Section six provides data analysis and presents a detailed argument in answering the research questions. Finally, section seven summarizes prominent findings of the study, apart from describing the limitations and the possible investigation in future within the subject understudy.

Literature Review

Hofmann, Holezl and Kirchler (2008) evaluate and compare the suitability of the Multiple Attribute Utility Theory, Theory of Planned Behavior and Issue-Contingent Model in evaluating moral decision making in investment area. This study employs experimental technique and the participants are undergraduate and postgraduate students around Vienna, Austria. With regard to TPB concern, the experimental analysis evidences that intention significantly predicts ethical investment behaviour i.e. selecting shares of ethics-compliant firms. Furthermore, the analysis reveals that subjective norm is a stronger predictor than attitude on intention. However, both subjective norm and attitude have significant influence on intention. Besides, the study finds no evidence to support the influence of perceived control behaviour on intention as well as behaviour in context of ethical investment.

Buchan (2005) employs Theory of Planned Behavior (Ajzen, 1985) to examine the ethical decision making in the public accounting profession. The study measures ethical behaviour by predicting intention of respondents towards four ethical vignettes, which are common ethical dilemma in public accounting firms. Employing a structural equation modelling technique, the study finds evidence of strong direct relationship between attitudes and ethical intention. Besides, the study finds that subjective norm has a strong indirect influence on ethical intention through attitude. The study finds no evidence to support the relationship between perceived control behaviour on ethical intention.

Carpenter and Reimers (2005) also evaluate the impact of attitude, subjective norm and perceived control behaviour on ethical intention among MBA students towards fraudulent financial reporting behaviour. Using a multiple regression technique, the study evidences that attitude and subjective norm are significant predictors to ethical intention. However, the study finds no evidence to support the association between perceived control behaviour and ethical intention.

In an earlier work, Hofmann, Penz and Kirchler (2004) employ TPB framework to explain factors influencing ethical behaviour in Austrian financial markets. Applying qualitative techniques – seven expert interviews and five focus groups discussion, the study evidences several important points. Firstly, the analysis reveals that social and environmental friendly attitudes significantly influence respondents' demand towards ethical investment. The study also finds support that perceived control behaviour is another important contributor, even though it may not be as strong as attitude. Meanwhile, the study evidences that respondents feel that subjective norm is a less important factor that influences demand on ethical investment instruments.

Chang (1998) evaluates the impact of attitude, subjective norms and perceived control behaviour on ethical intention. The study measures intention by asking respondents' level of agreement on the given ethical scenarios in the area of information system. Using the structural equation modelling technique, the study evidences that perceived control behaviour is a better ethical intention predictor than attitude. Besides, the study also finds no significant direct impact of subjective norm toward ethical intention. However, it finds that subjective norm has a significant indirect impact on ethical intention through attitude.

Research Method

Research framework

The framework of this study is developed after TPB by Ajzen (1991; 1985). TPB is the extension of the earlier Theory of Reasoned Action (TRA) by Fishbein and Azjen (1975). TPB postulates that an individual's behavior is determined by intention to perform the particular behavior. Intention is being influenced by attitude, subjective norms and perceived control behavior. Ajzen (1991) refers attitude to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question; subjective norm refers to the perceived social pressure to perform or not to perform the behavior; and perceived control behavior refers to the perceived ease or difficulty of performing the particular behavior.

In this study, there are three independent variables. They are attitude, subjective norms and perceived control behavior as explained by Theory of Planned Behavior (Ajzen, 1991; 1985). This study attempts to evaluate the association of these independent variables with the dependent variable – the perceived SRI behavior. This study also employs a mediating variable – the intention to engage in SRI. These dependent and mediating variables are adapted from the previous study by Lewis and Mackenzie (2000). In their study, they examine the motivation and the favorable role of individual ethical investor from the Friends Provident Fund and NPI of the United Kingdom to invest in ethical fund.

The studies of Hofmann et al. (2008) and Hofmann, Meier-Pesti and Kirchler (2007) are

among the notable empirical works that have incorporated ethical decision making model like Theory of Planned Behaviour (Ajzen, 1985) and Issue-Contingent Model (Jones, 1991) in investigating factors that influence the intention of investors to engage in SRI and SRI behavior. In Hofmann et al. (2007), four ethical vignettes are employed; in Hofmann et al. (2008) the experimental approach is used to capture SRI behavior. Schueth (2003) meanwhile conceptually discusses the behavior of SRI investors by evaluating the three common activism strategies. The first strategy is screening – where SRI investors normally perform double bottom line

analysis to include companies that comply with social, ethical and environmental (SEE) criteria and exclude companies that fail to meet such requirements. The second strategy is shareholder advocacy where SRI investors engage companies' management via dialogues, meetings, submitting proposal or exercising their vote on certain corporate resolutions. The third strategy is community investing and SRI investors provide capital to projects that aim to enhance the quality living of community members such as microcredit assistance to small entrepreneurs. The Figure 1 illustrates the research framework of this study.

Figure 1. Research Framework
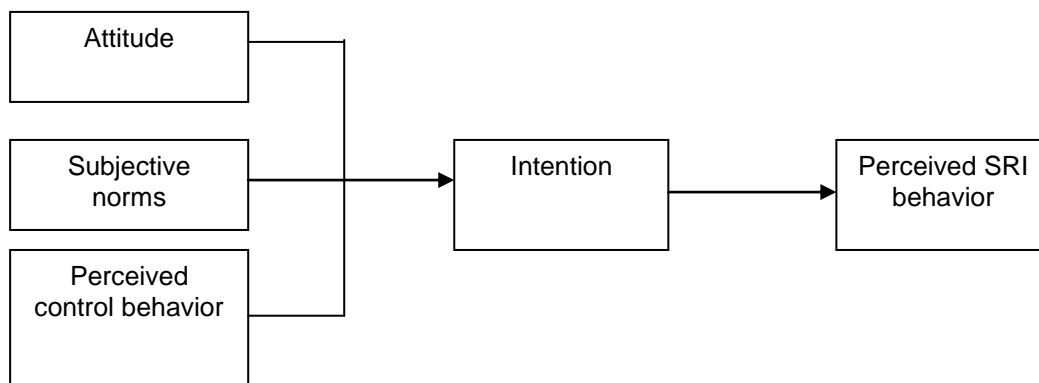
Hypotheses formulation

A general rule of TPB suggests that more the favorable attitude and subjective norm with respect to a behavior, and greater the perceived behavioral control, the stronger should be an individual's intention to perform the behavior under consideration (Ajzen, 1991). Similarly, greater intention to engage in the particular behavior leads to stronger commitment to perform the behavior under consideration (Ajzen, 1985). In the context of SRI, the study postulates that more favorable evaluation of SRI among unit trust fund managers increases their intention to engage in SRI. Next, as more important stakeholders pressure fund managers towards SRI, it enhances their intention too to engage SRI. In addition, if fund managers find ease to perform SRI behavior, it is postulated to increase their intention to engage in SRI. Besides, in this study, it is also assumed that a stronger intention to SRI increases the commitment to SRI behavior among fund managers of unit trust companies. The preceding arguments lead to the following hypotheses of the study

H₁: Attitude positively and significantly predicts intention to engage in SRI.

H₂: Subjective norms positively and significantly predict intention to engage in SRI.

H₃: Perceived control behavior positively and significantly predict intention to engage in SRI.

H₄: Intention significantly mediates attitude, subjective norms and perceived control behavior association with SRI behavior.

Target population, setting and sample

The population for this study is fund managers working in unit trust fund companies in Malaysia holding Capital Market Representative License (CMRL) as required by the Securities Commission. As on 30th June 2010, there were 39 approved unit trust fund companies, as per the license registry maintained by the Securities Commission. In all, 320 licensed fund managers were employed by these companies. Following census method, all the managers have been included for the purpose of the study.

Instrumentation and measure

A questionnaire has been used to gather feedbacks from respondents. There are three sections where respondents are required to answer all questions, following the directions given for each section. The first section deals with the respondents' perception on SRI behavior. The second section is concerned

with the respondents' intention to engage in SRI. The third section seeks the respondents' perception on their companies' ethical climate. The first and second sections have been developed based on Lewis and Mackenzie (2000) work on ethical investors' support for activism in the United Kingdom. Six point Likert scaling has been followed in the questionnaire where (6 = strongly agree; 5 = agree; 4 = slightly agree; 3 = slightly disagree; 2 = disagree; 1 = strongly disagree).

For dependent variable, respondents need to answer six statements which have been used to measure perceived SRI behavior. The statements are (i) I provide an ethically screened portfolio to beneficiaries and clients, (ii) I offer advice to investee companies to show them how to improve in their social, ethics and environmental performance (SEE), (iii) I quietly lobby investee companies in a concerted way to adopt better SEE policies, (iv) I work with other investors to promote higher standards of corporate governance, (v) I contribute actively to debate about corporate ethics to the development of public policy and (vi) I campaign publicly for investee companies to adopt better SEE policies. In order to measure mediating variable – intention to SRI, four items have been used. The items are (i) I want to avoid companies which are doing harm to society, ethics and environment (SEE), (ii) I intend my investments to help investee companies making a positive contribution to society, (iii) I want my investment to be used to campaign for investee companies to change and (iv) I intend to invest in ethically clean portfolio.

In addition, consistent with Theory of Planned Behavior, this study uses three independent variables – attitude, subjective norms and perceived control behavior. For attitude, four statements have been developed. The four items are (i) For me to invest in a company that is assisting needy persons in the society is acceptable, (ii) For me to invest in company that complies with all the state laws and regulation is extremely good, (iii) For me to invest in a company that complies with the ethical norms of the society are beneficial and (iv) For me to invest in a company that has green technology is extremely good. Three statements have been employed on subjective norms. The three items are (i)I believe my employer expects that I should not invest in a company that damages natural environment. (ii) I believe that clients, beneficiaries and shareholders expect that I should invest in a company that promotes volunteerism and (iii) I think other institutional investors expect that I should invest in a company that sponsors culture, sport and art event. For perceived control behavior, the four statements employed are (i) I enjoy autonomy to make a decision to invest in a company that operates strictly within the legal

framework of the society, (ii) I easily make decision to invest in a company that assists less fortunate in the society, (iii) For me to make a decision not to invest in a company that avoids good governance practices is easy, and (iv) I have full control to make a decision to invest in a company that makes as much profit as possible.

Data collection

Data collection has been done in month of October 2010. The questionnaires have been distributed personally to fund managers since the headquarters of unit trust fund companies are in Kuala Lumpur – the capital of Malaysia; except those at Johor, Kedah, Terengganu, Sarawak and Sabah states due to distance factors. Thus, questionnaires have been posted to fund managers at those states. Respondents have been requested to return the completed questionnaire within one month. A follow up call and e-mail have been made after two weeks to enhance participation. To remain anonymity, fund managers have been asked not to indicate their names or identification in questionnaire. Completed questionnaires have been returned directly to researchers using a stamped and sealed addressed envelope. The data obtained have been keyed in into Statistical Package for Social Science 16.0 and later exported to AMOS 16.0 for Structural Equation Modeling (SEM) analysis.

Research Findings

Response

After a month, a total of 84 questionnaires have been returned. It was 26.2 percent of response rate from a total of 320 distributed questionnaires. During data entry and data verification, it has been found that 11 questionnaires contained incomplete details. This has left only 73 useable questionnaires to be included in the final analysis. This amounts to 22.81 percent of useable questionnaires.

Descriptive analysis

In terms of descriptive analysis, the mean for perceived SRI behavior is 3.77 indicating that on an average respondent do not agree with the proposed statements. However, the mean of intention to engage in SRI is 4.74 showing that on average respondents agree to the proposed statement. The mean score of attitude is 4.78, indicating on an average respondents agree to the statements. Mean for subjective norms is 3.55 and mean for perceived control behavior is 3.92, reflecting that on an average respondents do not agree to the given statements. Table 1 summarizes descriptive analysis all of variables employed in this study.

Table 1. Descriptive Analysis of Variables (N =73)

Variables	Mean	Standard Deviation
Perceived SRI behavior	3.77	0.961
Intention to engage in SRI	4.74	0.615
Attitude	4.78	0.657
Subjective norms	3.55	0.792
Perceived control behavior	3.92	0.819

Confirmatory factor analysis

Confirmatory factor analysis (CFA) has been employed in this study. This analysis provides better understanding on the interaction effects between employed variables. Moreover, this analysis helps to confirm the employment on two different instruments that measure attitude, subjective norms and perceived control behavior of Ajzen (1985), and also intention and perceived SRI behavior of Lewis and Mackenzie (2000). According to Byrne (2001), CFA model fit is based on multiple criteria that reflect statistical, theoretical, practical consideration. Chi-square (x^2) measure is the most generally reported measure of model fit; however, Raykov (1998) argues that Chi-square should not be considered in isolation because it is sensitive to both sample size and the degrees of freedom in model.

Therefore, Byrne (2001) proposes that other goodness-of-fit statistics should also be employed and considered when deciding the model fit as it "takes a more pragmatic approach in the evaluation process". Those statistics are Chi-square/degree of freedom (x^2/df), Goodness-of-fit (GFI), Tucker Lewis Index (TLI), Comparative Fit Index (CFI), and Root-Mean-Square Error of Approximation (RMSEA). Furthermore, Byrne (2001) recommends that RMSEA is one of the most informative indices of model fit since it takes into account the error of approximation in the population, has a less stringent requirement on Chi-square, and is less sensitive to

the number of sample and parameters in the model. From the preceding argument and consistent with Byrne (2001) pragmatic approach in determining model sit, a set of goodness of fit indices are observed in this study including x^2, x^2/df, GFI, TLI, CFI and RMSEA. Table 2 provides summary of recommended fit indices.

Before checking CFA, reliability of each variable has been examined. SPSS has been used to run Cronbach Alpha reliability test. The dependent variable – perceived SRI behavior has resulted in alpha reliability of 0.86 consisting of 6 items. The mediating variable – intention to engage in SRI has 4 items with alpha reliability of 0.78. The three independent variables, namely attitude, subjective norms and perceived control behavior have the alpha reliability of 0.765, 0.752), and 0.611, respectively.

CFA was analyzed using AMOS 16 to examine the relationship among variables of this present study. Figure 3 indicates the interaction model of these variables. It evidences a good fit indices (x^2 = 0.388, df = 1, p = 0.533, x^2/df = 0.388; GFI = 0.998; CFI = 1.000; TLI = 1.113 and RMSEA = 0.000. The CFA results indicate support for the proposed model and the construct distinctiveness of the variables. To test the hypotheses of the study, regression analyses were conducted following procedures recommended for testing mediated moderation models (Muller, Judd and Yzerbyt, 2005; Baron and Kenny, 1986).

Table 2. Goodness of Fit Criteria on Model Fit

Goodness of fit criteria	Type	Acceptable	Recommended Values	Interpretation
Chi-square (x^2)	Model fit		p > 0.05	Non-significance means the model fits the observed covariance and correlations
Chi-square/*df* (x^2/df)	Absolute Model Parsimony	Less than 3.0	Less than 2.0	A value 0 indicates poor model fit. Values ranging from 2.0 to 3.0 signify mediocre fit.
Goodness-of-fit (GFI)	Absolute Fit	0 (not fit) to 1 (perfect fit)	Greater than 0.90	A value 0 indicates poor fit and value more than 0.90 indicates good model fit.
Comparative Fit Index (CFI)	Incremental Fit	0 (not fit) to 1 (perfect fit)	Greater than 0.90	A value 0 indicates poor fit and value more than 0.90 indicates good model fit.
Tucker-Lewis Index (TLI)	Incremental Fit	0 (not fit) to 1 (perfect fit)	Greater than 0.90	A value 0 indicates poor fit and value more than 0.90 indicates good model fit.
Root Mean- Square Error of Approximation (RMSEA)	Absolute Fit	0 to 1	Less than 0.08	A value less than 0.05 indicate good model fit. Values ranging from 0.05 to 0.08 indicate acceptable fit. Values above 0.08 to 0.10 indicate mediocre fit. Values more than 0.10 indicates poor fit.

Sources: Hair et al. (2006), Kline (2005) and Byrne (2001)

Results

Figure 2. Structural Equation Model for Attitude, Subjective Norms, Perceived Control Behavior, Intention to Perceived SRI Behavior
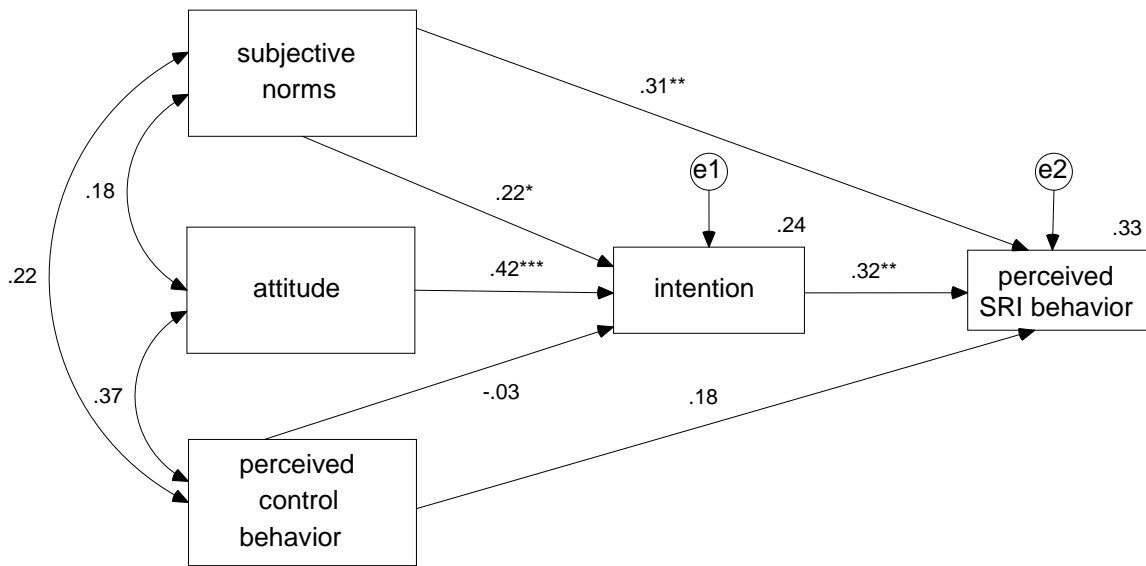
x^2	df	p	x^2/df	GFI	CFI	TLI	RMSEA
0.388	1	0.533	0.388	0.998	1.000	1.113	0.000

Note: Chi square/degree of freedom (x^2/df), Goodness of fit (GFI), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA).
***p < 0.000;** $p < 0.01$; *$p < 0.05$

Figure 2, indicates that attitude has a higher influence on intention (0.43) than subjective norms (0.22) and perceived control behavior (-0.03). The analysis also shows that attitude does not have direct effect on perceived SRI behavior. However, it has an indirect effect through intention. Subjective norms has a higher influence on perceived SRI behavior (0.31) than perceived control behavior (0.18). Intention significantly influences perceived SRI behavior with a score of 0.32 and $p = 0.002$. This finding supports Hofmann et al. (2007; 2004) that postulate stronger intention encourages SRI behavior among investors. Furthermore, attitude has a significant impact on intention as $p = 0.000$. In addition, subjective norms

also has a significant impact on intention with $p = 0.036$. Besides, subjective norms has a significant impact on perceived SRI behavior as $p = 0.003$.

Thus, these analyses find support for Hypothesis 1 and Hypothesis 2. However, the analysis finds no support for Hypothesis 3. Besides, the Hypothesis 4 is also not supported. The analyses indicate that intention only significantly mediate the effect of attitude and subjective norms towards perceived SRI behavior, and not perceived control behavior. No multicollinearity problem has been encountered in the analysis. Table 3 provides summary of the unstandardized parameter estimates and t – values for the various paths in the SEM of the model shown in Figure 2.

Table 3. A Summary of the Dimensions and Model Estimation

		Estimate	S.E.	C.R.	P
Intention	<--- Attitude	.391	.104	3.773	***
Intention	<--- Subjective norms	.172	.082	2.095	.036
Intention	<--- Perceived control behaviour	-.026	.084	-.307	.759
Perceived SRI behavior	<--- Intention	.501	.159	3.161	.002
Perceived SRI behavior	<--- Perceived control behaviour	.207	.117	1.773	.076
Perceived SRI behavior	<--- Subjective norms	.374	.124	3.005	.003

Assessing the multiple fit indices in Figure 3, the modified SEM model has shown good fit. The overall model has a value of 0.998 for GFI, meeting the threshold of 0.90. The values for CFI and TLI are 1.000 and 1.113 respectively. These exceed the recommended threshold of 0.90. Moreover, the RMSEA value of the overall model is 0.000, that is below the recommended threshold value below 0.05 to 0.10 (Hair et al. 2006). Subsequently, all the fit indices reflected exceed the recommended guidelines for good fit. Thus, this study concludes and offers the model of Theory Planned Behavior-SRI which reflects good measurement and statistical fit. In summary, SEM has been defined to assess the relationship between elements of Theory Planned Behavior – attitude, subjective norms and perceived control behavior; with intention and perceived SRI behavior. The model has shown significant parameter estimates and acceptable fit indices, compared with recommended guidelines. The major implication of the SEM model is that the intention to engage in SRI behavior can be enhanced through attitude. Meanwhile perceived SRI behavior can be enhanced through subjective norms.

Discussion

The study finds several interesting findings. Subjective norm has a significant direct effect to perceived SRI behavior and it also has a significant indirect effect to perceived SRI behavior through intention. Attitude does not have any direct relationship with perceived SRI behavior, but it does significantly influence intention. Besides, intention also has a significant effect on perceived SRI behavior. However, this study does not find support on the association of perceived control behavior on intention as and perceived SRI behavior. Therefore, unit trust fund companies, regulators and relevant professional association could take advantage to initiate more programs that enhance societal, environmental and philanthropy attitude among their fund managers in order to enhance intention to SRI. More important, the analyses show the need of other important stakeholders – beneficiaries, shareholders, clients and even management of companies to play a vital role to pressure fund managers towards SRI. The study evidences that their crucial perception on SRI has a direct and indirect significant influence on intention and SRI behavior.

Nevertheless, the CFA has produced results to establish that the proposed model reflects good measurement and is statistically fit. Since previous SRI studies such as Hofmann et al. (2007, 2004) have only examined the impact on intention, the employment of instrument from Lewis and Mackenzie (2000) to measure the SRI behaviour. Even though recording the accurate SRI behavior is

challenging and costly, the fitness of intention and SRI measurement based on earlier work by Lewis and Mackenzie (2000) provides good alternative to the use of ethical vignettes that are commonly employed in ethical decision making and ethical behaviour model research. Furthermore, the items used for SRI behaviour measurement reflect three common SRI investors' activisms – screening, shareholder engagement/shareholder advocacy and preference proposed by Schueth (2003). Meanwhile, the use of Theory of Planned Behaviour components – atttidue, subjective norm and perceived control behavior by Ajzen (1991; 1985) also reflects good measurement and statistically fit model to predict ethical intention including intention to engage in SRI. Therefore, in examining the influence of personal factors on ethical intention or ethical behavior, components of TPB continue to be favored and recognized instruments. In fact, as far as literature concerned, this paper provides new insight on employing components of TPB to predict SRI intention and SRI behavior.

Limitation and recommendation for future research

Even though this study found strong support on the impact of subjective norms and attitude on intention and perceived SRI behavior, opportunities exist for further enhancement due to several limitations. The analysis has revealed that perceived control behavior does not predict mediating and dependent variables as postulated and evidenced by Chang (1998). Therefore, the employment of larger size of respondents may provide more conclusive outcomes on this TPB component in the context of SRI. Besides, predictive power of the model is lower i.e. 24% for intention and 33% for perceived SRI behavior. In future, the inclusion of other possible variables is appropriate such as organizational factors, demographic factors and social factors. For instance, other organizational factors that can be considered as additional predictors are ethical climate, ethical culture, reward system, top management commitment, investment objective and acceptance level towards return and risks of investment. Meanwhile other possible social factors are moral intensity, social consensus and proximity.

For future studies, similar analysis can also be conducted in different set of environment to enhance international comparisons. In addition, similar instruments can be employed to investigate the issue among fund managers from other types of institutional shareholders such as insurance companies, banks, and pension funds since this current study takes setting among fund managers of unit trust fund companies. Nevertheless, this study offers new understanding on the influence of

attitude, subjective norms and perceived control behavior on intention and SRI behavior among fund managers of unit trust companies in emerging economic like Malaysia.

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DOES BETTER CORPORATE GOVERNANCE ATTRACT FOREIGN EQUITY OWNERSHIP? EVIDENCE FROM MALAYSIAN LISTED COMPANIES

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Abstract

This study examines the effect of firm-level corporate governance variables on foreign equity ownership (FEO) in Malaysia. Foreign equity ownership can be an important source of capital for companies to fund their expansion and growth. To attract FEO, good corporate governance practices are vital because these practices are used to reduce or mitigate agency cost. Based on a sample of listed firms on Bursa Malaysia and employing multiple regression analysis, the study finds that a number of corporate governance mechanisms significantly improve the ability of companies to attract foreign equity ownership, especially, Insider Ownership, Government Ownership, Firm Size, Dividend Yield and Tobin's Q. The results of the study indicate that firm-level efforts for better corporate governance sends positive signals and confidence to foreign investors.

Keywords: Foreign Equity Investment, Corporate Governance, Stock Ownership

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Acknowledgement

1. Introduction

Foreign equity ownership (FEO) is becoming an increasingly important source of capital for Malaysian public listed companies. FEO can take the form of foreign portfolio investment (FPI) or foreign direct investment (FDI). Although both forms of investment result in equity ownership by foreigners, they have pro and cons. Specifically FDI is the entry of funds into a country where foreigners purchase a minority stake in a company. In contrast,FDIinvolves the investment in the assets of a company achieved through acquisition of a controlling interest(Neumann et al 2009). Hence, FPI tends to be more speculate in nature while FDI more long term and less volatile. A case in point being the Asian economic crisis in 1997 that saw the capital flight of FPI from South East Asian countries and the rapid decline of their currencies. Because FDI is more permanent, countries

normally prefer foreign equity participation to come from FDI.

One of barriers faced by local companies in raising new equity finance is the lackluster performance of the Malaysian stock exchange and subdued local investor sentiment in the aftermath of Global Financial Crisis in 2009. This has forced many Malaysian companies to look overseas to finance their expansion. However, the fallout from the Financial Crisis resulted in a drastic drop in Malaysia's share of inward direct foreign investments from US$7.32 billion in 2008 to US$1.38 billion in 2009 (UNCTAD, 2010). While foreign capitalinflows can fluctuate from year to year, the magnitude of the decline should be a cause for concern for Malaysia as its immediate neighbours such as Singapore, Thailand and Indonesia managed to attract considerably more foreign investment. In the past, most inward capital

flows have been to the US, European Union and Japan because of their well developed financial markets and strong regulatory frameworks (UNCTAD, 2010). Despite the fact that foreign equity investment in emerging economies is increasing, competition among countries is intensely high. As domestic sources of outside finance dry up, many countries have been liberalized their foreign equity ownership restrictions and foreign capital has become an increasingly important source of finance for expansion (Bekaert, Harvey, and Lumsdaine, 2002).In this regard, corporate governance is becoming a very important strategic tool because one way companies can compete for foreign capital is on the basis of how well they represent the interests of foreign investors.

In order to attract outside investors, firms need to implement corporate governance mechanisms that provide protection of the interests to the new shareholders (Shleifer and Vishny, 1997). Corporate governance mechanisms assure investors in corporations that they will receive adequate returns on their investments. If the required mechanisms are not in placeor do not function properly, outside investors will not purchase their equity securities. This is because foreign investors need the assurance that the governance practices at both the firm and country level are good and transparent before they are prepared to put their capital at risk.Recent studies indicate that the quality of governance system can affect the inflow of foreign investments. La Porta et al. (2000) suggest that a sound corporate governance framework in terms well defined investor protection and transparent disclosure increases foreign investors' willingness to provide debt and equity financing as they are more vulnerable to information asymmetry compared to domestic investors. Shleifer & Vishny (1997) also found that good governance in the form of better minority shareholder protection will be likely to lower the costs of capital for firms. Good investor protection also appears to encourage cross-bordermerger and acquisition activity. For example, Aggarwal et al. (2005) and Rossi and Volpin (2004) offer evidences that that the volume of cross border M&A activity and takeover premiums increases in countries with stronger shareholder protection and stronger accounting standards, shareholder rights and legal standards. Taken together, the above studies find that good corporate governance characterised by predictable, transparent and stable investment environment is essential for establishing an attractive investment climate. A 2010 report produced by the Asian Corporate Governance Association (ACGA) ranked Malaysia 6th among 11 counties in Asia, behind Singapore, Hong Kong, Japan, Taiwan and Thailand. The implication for Malaysian companies is that if they wish to attract more foreign capital, they must ensure that the quality of their corporate governance mechanisms is on par or even exceeds that of its Asian neighbours.

The aim of this paper is to investigate the corporate governance mechanisms in Malaysian and determine the special characteristics of Malaysia firms in terms of ownership structure and how this affects FEO. The second is to test whether firms' with good corporate governance are better able to attract foreign capital inflow. Prior studies suggest that corporate governance is expected to positively affect equity participation of foreign investors (Dahlquist & Robertsson, 2001). To test the relationship between foreign equity ownership and corporate governance, we use firms' level data and examine a number of key corporate governancevariables. As our main corporate governance variables, we use insider ownership, proportion of non executive to executive directors to capture monitoring activities and government ownership. Inthis study, we also use three control variables comprising of firm size, dividend yield and Tobin's Q.

The paper proceeds as follows. The next section reviews the literature on Corporate Governance practices and ownership structure in Malaysia. The description of the dependent and independent variables, development of hypotheses and research method is outlined in Section 3. Section 4 presents empirical results and interpretations. The final section presents the summary and conclusions.

2. Literature Review

Corporate Governance and Ownership Structure in Malaysia

The Malaysian system of corporate governance system is based on the Anglo Saxon model found in the US and UK where boards operate at the single tier level. Under this system executive and non-executive director's sit together to address agency issues such as maximizing shareholder's value and protection of shareholder's interest. In terms of regulation, Corporate Governance in Malaysia is based on the Malaysian Code on Corporate Governance (MCCG) which was formulated in 2000and applies primarily to boards of listed companies. The Code draws heavily from the recommendations of the Cadbury Report (1992) and the Hampel Report (1998) and incorporates best practices for areas covering the integrity of the company's financial reporting, composition of the audit, remuneration and nomination committees, qualification of directors and the equitable treatment of shareholders and stakeholders. Malaysia has adopted a hybrid approach where MCCG sets standards for desirable practices for publicly listed companies (PLC) to follow, but

companies are given the flexibility to develop their own approach in implementing best practices. When best practices are not complied with, PLCs must give reasons for the non-compliances in their annual reports and the steps taken to ensure future compliance.

Although the Malaysian system of Corporate Governance is very similar to the UK model, there are significant differences between the two countries' corporate governance systems in terms of the way in which ownership and control are organized. In Malaysia, the controlling shareholders tend to comprise of the government, private institutional investors and 'insiders''. For this type of ownership structure, agency problems arise because of conflicts in interest between controlling shareholders andweak minority shareholders (Claessens, Djankov, & Lang, 2000; Mohd Ghazali and Weetman, 2006). Hence, corporate governance systems in Malaysia need to address the problem of 'insiders'' withholding private information from outside minority shareholders and using this information for their personal gain (Shleifer and Vishny, 1997).In contrast, equity ownership in UK companies is widely dispersed and with conflicts arising between strong managers andweak shareholders (Filatotchev & Bishop, 2002).The lack of monitoring by weak shareholders of UK companies allows managers the opportunity to expropriating or misallocate corporate resources for their own private advantage(Schiehll, 2006).

Insider ownership represents the percentage of shareholdings of all the directors in the company. The annual reports of listed companies in Malaysia provides information on the percentage holding of the top 30 shareholders, as well as percentage holding by individual directors. This is used to compute the percentage of insider ownership. Empirical findings show that insider directors with high ownership display a greater tendency to expropriate firm wealth for their private benefit (Schiehll, 2006). It has also been argued that a lower incidence of insider ownership leads to improved governance quality in terms of less earnings management (Brennam & Franks, 1997) and more transparent reporting (Tam and Tan, 2007). It is argued that the smaller the fraction of shares that is held by insiders, the more difficult it becomes for managers to entrench their control on the firm and perform earnings management. Conversely large outside shareholders provide efficient an effective mechanism for monitoring of firm performance. For example, Mitton's (2002) reports that Malaysia companies that had a greater level of outside ownership experienced significantly better stock price performance during the Asian crisis.

Board composition could be a particularly important governance variable because it will indirectly reflect the role of NED in improving corporate disclosures. It has been suggested that non-executive directors (NED's) may help to alleviate the agency problem by monitoring and controlling the opportunistic behaviour of management. A non-executive director is a member of the board of directors of a company who does not form part of the executive management team. He or she is not an employee of the company or affiliated with it in any other way. The MCCG (2000) recommends that the board should include a balance of executive directors and non-executive directors (including independent non-executives) such that no individual person or group can unduly influence the board's decisions. The presence of non-executive directors provides a monitoring or oversight function of company management and this may help reduce agency costs (Hermalin and Weisbach, 1991). Non executive directors are more likely to be independent of management's influence and this enables them to act objectively in decisions involving internal controls and corporate governance. Their independence can help to attract outside capital as their presence makes investors feel more confident that their interests are being well protected (Beasley, 1996). A further positive role of non-executive directors is in terms of disclosure quality. For example, a Malaysian study by Haniffa and Cooke (2002) found a significant association between voluntary disclosure levels and NED on the board.

A number of studies have found that government ownership is detrimental to corporate governance and performance. Shleifer and Vishny (1998) suggest that managers in government owned corporations will override governance systems to expropriate firm assets for the benefit of politicians and bureaucrats. This is the "grabbing hand" argument where the State uses firms to pursue its political objectives, while the public pays for losses incurred by non-performing firms. There are also other reasons that explain why government ownership results in poor governance mechanisms. Estrin and Perotin (1991) suggest that firms with the government ownership will not pursue good governance because profit is not the overriding objective. The state will also have political as well as social objectives such as creating employment opportunities, refraining from closing down loss-making subsidiaries, retrenching staff and pursuing projects to achieve social objectives. Additionally because the firm is run by government appointed representatives, executive compensation and incentive payments are not related to firm performance. Hence there is no personal incentive for managers to ensure that the organization is run efficiently or well governed.

La Porta et al (1999) found that from a corporate governance standpoint, larger firms displayed greater separation of the ownership and control functions. Additionally bigger companies

tend to be more mature with established governance structures in terms of audit committees and outside directors represented on the board of directors (Khanchel, 2007). Larger companies generally have lower levels of information asymmetry regarding their governance mechanisms, command more analyst coverage and are generally more attractive to institutional investors (Bushee & Noe, 2000). This is further supported by Dahlquist and Robertsson (2001) who document that foreign investors in Sweden prefer large companies because information about them is more readily available. In summary, because larger firms adopt better corporate governance systems, this tends to lower monitoring cost by outside investors and attract greater investment.

While dividends payout functions as a signal of company value (Olhson, 1995), prior studies have also found that low dividend payouts are indicative of governance problems (Kalcheva & Lins, 2007). La Porta et al (2000) found that minority shareholders may face expropriation by insiders. To mitigate this problem, Jensen (1986) proposes the payment of dividends to shareholders instead of using it for unprofitable projects. Therefore dividend payout has a positive impact on protection of minority shareholders. It is has also been found that firms that pay higher dividends come under greater scrutiny by the capital markets. Greater monitoring by the market helps alleviate opportunistic management behavior and, thus reduce agency cost (Easterbrook, 1984). Thus, the dividend yield ratio can be viewed as a surrogate for of stronger legal protection of minority shareholders.

Tobin's Q is a widely used performance measure to capture the success of corporate governance mechanisms in enhancing shareholder value and to predict the future success of companies. For example, Weir et al (2002) used Q as a proxy for how closely shareholder and manager interests were aligned. They found that the value of Q increased for firms with more effective the governance systems. Lemmon and Lins (2003) further found that Tobin's Q falls for firms in which minority shareholders are subject to expropriation. In analysing the effect of cross-border mergers on corporate, Bris et al and (2008) found that the Tobin's Q of an industry increased when firms within the industry were acquired by foreign firms with better and more efficient corporate governance. McConnell and Servaes (1990) provided evidence of a positive correlation between shareholdings held by large investors and corporate performance based on Tobin's Q, and further concluded that institutional investors are more effective in monitoring manager performance than individual shareholders. The improvement in monitoring of manager behavior has the effect of forcing them to act in the interest of outside shareholders.

In summary, one of the objectives of good corporate governance is to overcome the inherent conflicts of interest between minority shareholders, majority shareholders and management (Young, et al, 2002). Conflicts of interest may arise when the governance environment allows controlling shareholders and management to withhold information or expropriate wealth from the minority investors. Good corporate governance can help to ensure that the rights of both minority and majority shareholders are well protected. In Malaysian firms, since foreign equity owners tend to be the minority shareholders, the threat of expropriation of firm wealth by insiders and the majority could be one reason why Malaysia lags behind its Asianneighbours in attracting foreign equity participation.

3. Data and Method

3.1 Sampling Procedure and Data Collection Method

Thesample in this study consists of 317 Malaysian listed firms over the period 2005-2009. Data was collected from two separate sources: Bursa Malaysia library and annual reports. The Bursa Malaysia database was used to retrieve information on domestic and foreign equity ownership. Information on the board of directors and the financial accounting data was obtained from the annual report. In order to test the relationship between the variables of corporate governance andFEO,we use multiple regression analyses.

Empirical Model and Proxy Variables

Prior studies indicate that weak governance systems in terms of investor protection may hinder the inflow ofcapital to companies. We hypothesize that foreign investorsare likely to avoid poorly governed firms because their capital is at risk. Specifically, we maintainthat because foreign investors tend to be the minority owners, they face expropriation of their assets by the majority. We use a firm-level cross-sectional data and employ multiple regression analysisto test the relationship between Foreign Equity Ownership and six proxies for Corporate Governance. This is represented by the following equation:

Foreign Equity Ownership (FEO) = $\alpha_0 + \alpha_1 x_1 + \alpha_2 x_2 + \alpha_3 x_3 + \alpha_4 x_4 + \alpha_5 x_5 + \alpha_6 x_6$

where,

FEO = <u>Average Share Price *i* x Total Shares Issued *i*x % of Foreign Ownership</u>
Total Market Value of FEO
and,
Average Share price *i* - average share price for firm *i* for the whole financial year.
Total Share Issued *i*- total ordinary shares issued by firm *i* in the market.
% of Foreign Own *i* - percentage of ordinary shares own by foreigners in firm i.
Total Market FEO - the total market value (in terms of RM) of foreign equity investment in Malaysia and which includes Equity Capital & Reinvested Earnings.

To capture firm level corporate governance attributes we use six endogenous variables identified by many researchers as good proxies for qualities of corporate governance.
These variables include:

i) Insider Ownership (IO):

H₁: There is a negative relationship between FEO and Insider Ownership.

H_1: **There is a negative relationship between FEO and Insider Ownership.**

ii) Non- Executive Directors Proportion (NED):

H_2: **There is a positive relationship between FEO and NED proportion.**

iii) Government Ownership (GO):

H_3: **There is a negative relationship between FEO Rate and Government Ownership.**

iv) Firm size (FS):

H_4: **There is a positive relationship between FEO Rate and Firm Size.**

v) Dividend Yield (DY):

H_5: **There is a positive relationship between FEO Rate and Dividend Yield.**

vi) Tobin's Q (TQ):

H_6: **There is a positive relationship between FEO Rate and Performance.**

Table 1.0. Independent Variables and Expected Sign

Independent Variables	Formula	Expected sign
Insider Ownership (X_1)	Percentage of total directors' shareholding	negative
NED Proportion (X_2)	<u>Numbers of Non-Executive Directors</u> Total Numbers of Directors	positive
Firm Size (X_3)	Log10 Assets Value	positive
Government Ownership (X_4)	1 or 0	negative
Dividend Yield (X_5)	<u>Total Payout Dividend</u> Average Share Price	positive
Tobin's Q (X_6)	<u>Market Value of the Issued Shares</u> (Book Value of Total Assets - Total Liabilities - Minority Shares - Preference Share)	positive

The governance variables are shown in Table 1.0 together with their predicted relationship with FEO. The predicted direction of the linear relationship between the six governance measures withFEO is based on prior studies highlighted in the literature review, with a positive sign indicating thatthe FEO is increasing for firms with better governance and a negative sign denoting an inverserelationship.

4. Analysis and Discussion

Based on the regression results obtained from SPSS and after filtering, normality tests. multi-colinearity tests, the coefficientsand regression outputs are shown below:

Table 2.0. Results of Regression Model

Dependent Variable	Foreign Equity Ownership		
Independent Variable	Coefficients	t-statistics	Probability
Insider Ownership (X_1)	-0.000620	-2.417	0.016
NED to ED Proportion (X_2)	-0.000085	-0.249	0.803
Government Ownership (X_3)	0.001424	-6.683	0.000
Firm Size(X_4)	-0.001096	17.022	0.000
Dividend Yield (X_5)	0.005199	3.255	0.001
Tobin's Q (X_6)	0.000763	28.862	0.000

R-squared	0.783
Adjusted R-squared	0.778
F-statistic	185.449
N	317 companies

The *F*-statistic is significant with a value of 185.45 (*F* critical value is at 5% significance, two-tailed test). The *t* test indicates that five governance measures are significant at the 5% level. These measures are insider ownership, firm size, government ownership, dividend yield and Tobin's Q. Model fit is also strong with the regression equation explaining 78% (R^2) of the variability in FEO. The high degree of association between FEO and suggeststhat improvements on corporate governance attract moreforeign investments.

Insider ownership has an inverse relationship with FEO. This is consistent with H_1, which stated there is a negative relationship between FEO and insider ownership (Mitton 2002).Firmswhere directors hold a higher percentage of the issued ordinary shares display a lower ability to attract foreign investors. This is because a higher incidence of insider ownership leads to reduced governance quality in terms of aggressive earnings management (Brennam & Franks, 1997) and less transparent reporting(Tam and Tan, 2007).

WhileGovernment Ownership is predicted to have a detrimental effecton FEO, our results showa positive influence. Why FEO increases in government owned companies could be due to the preferential treatment that some government linked companies enjoy in Malaysia. This preferential treatment could take the form of biases in allocating contracts and securing faster approval for regulatory applications such as business licenses and permits. Certain industries in Malaysia arealso protected by the Government through the imposition of tariff and non-tariff barriers. Additionally for some companies in key industries such as Banking, Automotive or Airlines, the Government has introduced legislation restricting foreign equity ownership. The Malaysian Governmentmay also choose to hold a 'golden share'in these companies which effectively gives them the power to veto any decisions made by the company. Thus, the preference for foreign investors in Government linked companies might have less to do with good governance, but influenced moreby the protectionism and unfair competitive advantage to them.

The results further indicate that although size is a significant variable, foreign ownership is lower in smaller firms. This is in contrast to previous studies that document a positive relationship (Dahlquist and Robertson, 2001). A possible explanation for the inverse relationship is that small firms could be easier to understand and monitor and have better growthopportunities (Evans, 1987). In contrast,

larger firms would have potentially largeragency problems in terms of monitoring cost. Hence, foreign investors tend to underweight larger firms in their portfolio selection.

Although Dahlquist and Robertson (2001) reports that foreign investors in Sweden prefer firms that pay low dividends, the opposite appears to hold for Malaysian. Our results indicate a positive relationship between dividend yield and foreign equity ownership. This supports the Easterbrook (1984) argument that external shareholders exert pressure on firms to pay out dividends to minimize misallocation of firm resources by insiders. Thus, dividend payoutcan serve as an effective governance mechanism for the protection of minority interest.

5. Conclusion

A limitation of this study is that although the results indicate that there is significant casual relationship between foreign equity ownership and good corporate governance, the cause and effect issue is not clearly addressed. It could also be argued that it is the foreign equity ownership variablethat is the contributing to good corporate governance and not vice versa. For example, foreign investors through their voting power can push for superior governance practices to be adopted by the company. Therefore, further research could be done in this area. An added complication is that it is difficult to measure the quality of corporate governance at the firm level. The study has utilised six proxies for corporate governance derived from the annual report of listed companies. However, these measures are not exhaustive and the study acknowledges that other governance measures such as transparency in reporting, internal control systems, qualification and experience of directors and number of board meetings may also be correlated with good governance practices, but were not included in the study.

This paper has examined the impact of various corporate governance variables upon the foreign equity ownership in a sample of Malaysian publicly listed companies. We find that good corporate governance increases the foreign equity participation in local companies. In the past, foreign equity participation in Malaysian companies was restricted to 30%.To keep in step with the global trend towards liberalization of economies and compete for foreign investment, the Malaysian Government has relaxed the foreign shareholding cap in a number of industries. For example foreign

investors can now hold 100% of the equity of companies in the manufacturing and hotel industry. Additionally, overseas investors can now hold 70% of the equity of insurance companies and investment banks. The conclusion that can be drawn from this study is thatFEO is not only influenced by macro factors such as government incentives, efficient legal systems and political stability, but is also dependent on firm level governance. The results suggest that if Malaysian companies intend to improve theiraccess to foreign capital, it is in their best interest to adopt better governance mechanisms.Companies having superior governance systems in place are likely to enjoy a competitive advantage in terms of attracting more foreign equity capital.

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