

The Influence of Board Characteristics and Ownership Structure on the Extent of Internet Financial Disclosure in Saudi Arabia

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Abstract

This study investigates whether board characteristics and ownership structure affect the extent of internet financial disclosure in Saudi Arabia listed companies (SLC). A total of 90 companies were selected as a sample from 168 companies listed on the Tadawul website in Saudi Arabia for the year 2013. This study aim to shows that board characteristics (board independence, board size, role duality and board activity) and ownership structure (concentration of ownership, private ownership, foreign ownership and government ownership) affect the extent of financial disclosure on the company websites. The result for this study indicated that concentration of ownership is significant in explaining the extent of internet financial disclosure on Saudi companies' websites. This paper extends the stream of research that confirms the widespread use of internet in disclosing financial information. The paper provides insights into internet financial reporting in Saudi Arabia that will benefit all stakeholders with an interest in corporate reporting in this region. The findings highlight the need for improvement by Saudi Companies in many areas, especially in regard to the regular updates of information provided on their websites. This paper also provides a better understanding of the choice of the internet to release information in Saudi Arabia, where internet reporting is not standardized.

Keywords: disclosure, internet financial reporting, board characteristics, ownership structure

INTRODUCTION

Financial reports play an important role in companies because it reflects the efficiency and effectiveness in the management of the company and the work undertaken by the company. Financial information is important to the organization and all the stakeholders including government, creditors, investors, accountants and the general public. Traditionally, companies use a paper-based reporting system to share financial information. However, since 1990s, companies are utilizing the internet as a medium to disclose their information. The Internet provides a useful communication tool for corporate organizations. The use of the internet enables information to be disseminated worldwide and thus facilitate the improved availability of financial information in particular, to encourage investment. In addition, the information asymmetry and agency conflicts existing between the management and the shareholders increase demand for more information disclosure in the modern capital market. Through enhanced disclosure on the internet, agency risk that result from information asymmetries would be reduced.

Many of the largest corporations in developed countries now have an internet website for financial reporting. Financial information provided on the web includes comprehensive sets of financial statements including footnotes; partial sets of financial statements; and/or financial highlights that may

include summary financial statements or extract of such statements (Oyelere et al, 2003). The growth of internet financial reporting is due in combination with the growth in internet multimedia capability and capacity for interactive communication. The Internet allows companies to reach a much wider range of stakeholders at a relatively lower cost, fast and flexible in format (Debreceeny, Gray and Rahman, 2002). The internet also offers easy and equal access to all firms' information and increases the image of the firms through creative and innovative presentation on the website (Al Arussi et al, 2011). Through the usage of technological advances, companies can display information using live streaming audio and video in the website (Mohammad et al, 2003) so the interested users can listen to conference, annual meetings and etc. The use of internet financial reporting also leads to a reduction in incidental request from non-shareholders financial statement users (Khadaroo, 2005)

Overall internet financial reporting creates effective and interactive communication with the investors which in turn adds real value to the shareholders and facilitates the companies in controlling their marketplaces (Al Arussi et al, 2011). Because of the many benefits, Internet financial reporting plays an important role in representing management's transparency and accountability in conducting the business. Since internet financial reporting is growing, many researchers, especially from

developed countries, start to investigate the factors that might affect the extent of internet financial reporting. The determinants (factors) of internet financial reporting have become a subject of much interest in recent years and have attracted the interest of many accounting journal. A growing and developing literature on this subject has been published particularly since the early 2000. These studies (such as Xiao et al, 2004; Tariq, 2001; Oyelere et al, 2005) focus on internal determinant factors such as firm size, internationality, leverage, shareholders, IT experts and some corporate governance mechanism and external determinants such as regulations and government roles. As such, there are still limited numbers of studies that examine the association between corporate governance mechanism and board characteristic with Internet financial reporting. Furthermore, majority of this study concentrate on develop countries including the US, UK and Australia.

Therefore this paper aims to investigate whether board characteristics and ownership structures influence the extent of internet financial disclosure in Saudi Arabia. This study investigates whether internet financial disclosures in Saudi Arabia can be explained by the same determinants used in other similar studies.

INTERNET FINANCIAL DISCLOSURE IN SAUDI ARABIA

In Saudi Arabia, the influence of politics and government bureaucracy is the factor that affects the adoption of innovations by organizations (Wheeler, 2005). In many cases politics determines the adoption of new technologies in the country, regardless of commercial needs. In the last three decades the Kingdom of Saudi Arabia has witnessed significant developments in all fields including the business sectors. These developments have led to an increased perception in the importance of financial information and their impact on the national economy as a whole. Hence serious steps have been taken to promote the disclosure of financial information.

Stock trading in Saudi Arabia began in 1935 when the first public company was established. However the market remained informal and trading did not become organized until the early 1980s when the Saudi government embarked on a rapid development program. In 1984 the Saudi government placed all stock trading under the supervision and control of the Saudi Arabian Monetary Agency (SAMA) and authorized commercial banks to act as brokers. In 1985 the Ministry of Commerce and Industry issued the disclosure and transparency standard. Corporate governance is supported by issuing this standard because disclosure and transparency is considered to be one of the most important elements of corporate governance best practice.

A major development in the Saudi stock market was the introduction of an electronic stock trading system called Tadawul in October 2000. Tadawul provides investors with the opportunity to invest from the comfort of their homes or offices via internet. Tadawul website provides market prices, news and corporate information within Saudi Arabia and abroad. This new technology has boosted the transparency of the Saudi stock market, with issuers' submitted regulatory announcements such as financial statements which are then released immediately to the public via internet. On 16th June 2003, Saudi CMA by the Capital Market law issued a Royal decree No.(M/30) that require all Saudi listed companies to publish some required financial information on the CMA's website which is Tadawul website. Among other CMA requires all SLCs to publish their quarterly financial statement online no later than fifteen days after every quarterly report and no later than forty days after their annual statement report. CMA also provides specific online forms to be filled in the Tadawul website. In 2006, the board of Capital Market authority (CMA) issued corporate governance guidance in Saudi Arabia. This guidance recommends all listed firms to disclose corporate governance information to the public. Because of that, company in Saudi Arabia started to disclose financial and nonfinancial information on their websites. However, to date there is no mandatory regulations on the specific types of financial information need to be disclosed on company's website.

LITERATURE REVIEW

Several studies have been carried out to explain the factors that influence internet financial reporting (IFR). Many early studies have strong focus on the economic aspects of the determinants of internet financial reporting. Oyelere, et al. (2003) summarized the major determinants of disclosure study to include corporate size, size of the firms' auditor, listing status, profitability, leverage and industry. Corporate governance mechanism (board characteristics, ownership structure and audit committee) has been added in the later studies of the determinants of internet financial reporting.

Asbaugh, et al. (1999) documented Internet financial reporting practices and provide preliminary evidence on why some company disseminates financial information on their websites, while others do not. The study showed that companies engaged in internet financial reporting are larger and more profitable than those not engaging in internet financial reporting. Craven and Marston (1999) also found that larger companies are more likely to disclose financial information on the website in UK. In Australia, Pirchegger & Wagenhofer (1999) also found that firm size and profitability affect IFR.

Oyelere, et al. (2003) examines the voluntary adoption of the internet as a medium for transmitting financial reports and determinants of such voluntary practices by New Zealand companies. The study use company size, company profitability, liquidity, internationalization, diffusion of ownership, industry type and leverage as the determinants of internet financial reporting. The result indicated about three-quarter (73%) of companies with websites provides financial information on their websites. The study used univariate and multivariate analytical approaches to identify the determinants of internet financial reporting. The result of this study indicates that firm size, liquidity, industrial sector and the spread of ownership motivate the provision of IFR.

Puspitaningrum, et al. (2012) found empirical evidence whether corporate governance mechanisms affect the level of voluntary disclosure of Internet Financial Reporting (IFR) in Indonesia. Dependent variable is measured using Internet Disclosure Index (IDI) that consists of 50 items to measure the content (40 items) and the presentation (10 items) of companies' website. The study use all of 420 Indonesian companies listed in Indonesian Stock Exchange (IDX) in the period of 2010. Independent variables are managerial ownership, block holder ownership, independent board, audit committee meetings frequencies and audit committee competency. The result of multiple regressions indicates that the types of information disclosed and information presentation in the companies in Indonesia are very limited (approximately 32%). Among the independent variables, the result shows that only audit committee meeting frequencies influence voluntary disclosure of IFR.

In addition to examine internet financial reporting as a whole, there are few studies that focus only on the internet financial disclosure (IFD). Alarussi, et al. (2011) examined the relationship between internet financial disclosure (IFD) and internal determinants from the Malaysian perspective. This study emulates Xiao, et al. (2004), Tariq (2001) and De Silva & De Lira (2004). The independent variables tested are internationality, leverage, foreign shareholders, IT experts, firm's age, number of shareholders and corporate governance mechanism. For corporate governance mechanism, the study focuses on dominant personalities in audit committee, chairman of audit committee and nominations committee and dominant personalities in the audit and nomination committee. The result of multiple regression model showed that there is a significant positive relationship between the extent of IFD and IT experts, firm's age, number of shareholders and listing status. However there is a significant negative relationship between IFD and dominant personalities in the audit and the nomination committee.

Al Sakaneh, (2011) examined public listed companies in Amman Stock Exchange (ASE) to investigate the extent of dissemination of financial information over the internet. This study main objective is to examine the relationship between some factors and adoption of internet for disclosure of financial reporting. To examine the extent of disclosure, this study performed content analysis on the website of 100 companies listed on ASE. The result shows that 84% of ASE public listed companies have website. The result show that companies in Jordan are still partially behind those of others developed countries and other developing countries. The study also examined the effect of three factors, namely firm size, leverage and profitability on the internet financial disclosure (IFD). A linear regression analysis result shows that there is a significant positive relationship between the amount of financial communication through the internet and company size.

Alshowaiman, (2013) uses a self-constructed internet financial reporting index to examine the extent to which companies in Saudi Arabia use the internet for financial disclosure between the year 2004 and 2005. As for the determinant of internet based financial disclosure, Alshowaiman, (2013) tested on government ownership, foreign ownership, big 4 audit firm, types of industry, and location of companies. The study found that the presentation format of IFR is associated with the employment of a big four audit firm and companies in the banking industries disclose more information and have more extensive and elaborate presentation formats than do other companies. He also found that companies in the main cities, Riyadh, Jeddah and Dammam, disclose more information than do companies in other Saudi cities.

HYPOTHESES AND MEASUREMENT

This study main objective is to investigate whether board characteristics and ownership structure affect the extent of internet financial disclosure on Saudi companies' website. In order to achieve the stated objective, this study will test the relationship between the dependent variable and various independent variables. The dependent variable for this study is internet financial disclosure. This study uses the same index to measure internet financial disclosure (IFD) in the same way as Alarussi, et al. (2011). The data for dependent variable consist of 15 items that represent the index for the financial disclosure. A score sheet is utilized to determine the score of the extent of disclosure amongst the selected companies. These items represent the financial information that is disclosed through the internet annual report and other places on the website. It is recorded as 1 if disclose item is available and 0 if does not. The 15 items include financial highlights, current press release or news, current share price, share performance chart,

operation review, financial review, financial calendar, annual report, annual report for past year, half year report, quarterly report, balance sheet in quarterly report, income statement in quarterly report, cash flow in quarterly report and accounting notes in quarterly report.

The data for the independent variables are extracted from the companies' 2013 website and online annual reports. Several score sheets are used to measure each of the independent variables according to its scale of measurements (nominal, ordinal, interval and ratio). This study looks at two different main determinants for independent variables: the board characteristics and ownership structure, which will be further discuss in the following section.

BOARD CHARACTERISTICS

Board of directors can be an effective mechanism to monitor top management on behalf of dispersed shareholders. The preparation of the annual report falls within the discretion of the boards. The way the board is composed affects the extent of financial disclosure in the annual report. Board characteristics are relevant to corporate performance (Ghosh, 2006). Board characteristics include its independence, its size, the presence of a leadership structure and the board activity.

(a) Board independence

The agency problem emerged from the conflict of interest between shareholders and managers where managers have the tendency to maximize their interests at the expenses of shareholders' welfare (Jensen & Meckling, 1976). This conflict of interest has led shareholders to be more eager to monitor the managers by delegating authority to the board of directors to monitor and control the decisions made by the managers. For directors to be more effective and act in the shareholders' interest there should be higher proportion of non-executive directors on the board. The agency theory assumes that the presence of outside administrators leads to a reduction of the agency problems between the managers and shareholders due to their independence and objectivity. The independence non-executive directors are considered as a tool for controlling the behavior of the leader. Fama (1980) views that board of directors' viability might be enhanced by the inclusion of outside directors. A high percentage of independent directors on the board enhances the monitoring of managerial opportunism and reduce management's chances of withholding information (Kelton & Yang, 2008). Several empirical studies (Beasley, 1996; Xiao et al, 2004) found a positive relationship between the proportions of non-executive directors and the extent of internet financial disclosure. However, other result (Eng & Mak, 2003; Gul & Leung, 2004) found that increased presence of outside directors is associated with reduced

disclosure by companies in Singapore and Hong Kong.

This study assumes that when the board is independent this will lead to a better control of management and therefore a high extent of internet financial disclosure. Thus, the study suggests the following hypothesis:

H1: There is a relationship between the board independence and internet financial disclosure.

Board independence is measured by the proportion of non-executive directors (NED) on the board. It is calculated by the number of NED on the board divided by the total number of directors on the board.

(b) Role duality

Role duality occurs when the chief executive officer (CEO) is also the chair of the board of directors. According to agency theory, dual role creates a strong individual power base, which could impair board independence and the effectiveness of its governing function may thus be compromise. The CEO may be capable of controlling board meetings, selecting agenda items and selecting board members (Fama & Jensen, 1983 and Kelton & Yand, 2008).

Agency theory supports the separation of the two roles to provide checks and balances over management's performance (Haniffa & Cooke, 2002). However, Gul & Leung, (2004) found that CEO duality is associated with lower voluntary disclosure. Cadbury Committee Report (1992) recommended that large companies separate the roles of CEO and chair of the board of directors. Separation of the position of the chairman of the board and CEO can enhance the independence board leadership and help fully representing the interest of the shareholders.

As such, this study based its argument on agency theory, that an independent chairman provides strong power to the board in effectively monitoring and demanding sufficient information This study hypothesize that

H2: There is a relationship between the role duality and internet financial disclosure.

Role duality is coded as '1' if the CEO is also the chair of the board. Otherwise it is coded as '0'.

(c) Board Size

The number of directors on the company's board should play a critical role in monitoring of the board and in taking strategic decisions. There are different views and arguments on the issue of board size. There is an argument supporting the idea of increasing board size. Resource Dependency theory argues that large board size has a variety of knowledge and more ability to manage the capital resource of the company (Pfeffer, 1972). A large board also assists in performing more monitoring, providing companies with the diversity that help them in providing critical resources and eliminate

environmental uncertainties, alleviating the dominance of the CEO, and increasing the pool of expertise that yields from the diversity of the board (Singh et al., 2004; Yermack, 1996). Lipton and Lorsch (1992) stated that large board size is dysfunctional because a large number of directors are easy to be controlled by top managers and, therefore, they cannot criticize the policies of the top managers or discuss the performance of the company truthfully. While, another view argues that small board size provides more quality of monitoring because there is no contradiction in thinking or objectives among directors. According to Jensen (1993) the board consists of more than seven or eight directors are more easily controllable by the manager. Campos et al (2002) noted that the size of the board should not be too large or too small and suggested an optimum number is between 5 to 9 members. Large board increase problems of communication and coordination and also reduces the ability of directors to oversee management.

Based on the above argument, this study hypothesize that there is a relationship between the size of the directors' board and the internet financial disclosure. This study expects that company with small size of board will disclose more information on the internet. As such, the following hypothesis is formulated:

H3: There is a relationship between board size and internet financial disclosure.

Board size is measured by the total number of member on the board.

(d) Board activity

Board of directors meeting frequency can be considered as a measure of the activity of the Board of Directors (Xiao et al, 2004). When the number of meetings increases, the operating performance of the company is improved (Vafeas, 1999). This suggests that the frequency of meetings is an important aspect in the effectiveness of the Board. The board that meets more frequently, should be able to devote more time to discuss more important issues. To control the production of information at board meetings and participate in decision making, the attendance of members at meetings can be considered as a determinant of the quality of the work of the board (Ben Ayed-Koubaa, 2010). When the board is active, they will demand sufficient information from company. Thus, this study suggests the following hypothesis:

H4: There is a relationship between board activity and internet financial disclosure

Board activity is measured by the percentage of attendance at the board meeting during the year.

OWNERSHIP STRUCTURE

This study focuses on four aspects of ownership structure of companies that are likely to affect the extent of financial disclosure. These aspects include

concentration of ownership, government ownership, private ownership and foreign ownership.

(e) Concentration of ownership

The agency theory suggests that in modern society, due to the separation of ownership and control, there is a possibility of agency conflicts (Jensen & Meckling, 1976). This conflict may be more important when shares are widely distributed than when they are held by one person (Fama & Jensen, 1983). Managers can therefore disclose information as a means to reduce agency conflicts with shareholders. The premise of agency theory is that companies with widely held ownership can incite their managers to disclose more information to convince the shareholders that they are taking the right actions and to help their shareholders in monitoring their behavior (Raffournier, 1995). Presenting their financial reporting on the Internet is perhaps a mechanism by which they might disclose more information to reduce the agency costs. Managers with high ownership-control have the power to act against the interest of minority shareholders (Jenson and Meckling, 1976). This is because they have greater access to internal information and no compelling need to present their financial reporting on the Internet. The findings of studies examining the relationships between concentration of ownership and Internet financial disclosure are mixed. Oyelere et al. (2003) and Marston and Polei (2004) find a positive association between concentration of ownership and Internet financial disclosure while Abdel Salam & Street (2007) and Xiao et al. (2004) find no association. This study will use the following hypothesis to see whether concentration of ownership has an effect on Internet financial disclosure.

H5: There is a relationship between concentration of ownership and internet financial disclosure.

Concentration of ownership is measured by the percentage of shares held by major shareholders.

(f) Government ownership

Xu and Wang (1999) stated that government agencies do not emphasize on efficiency, competence or profitability when making investment. Rather government may place top priority on maintaining social order and creating job opportunity and thus favor companies employing more workers. Saudi Arabia political pressures might be expected on companies where government holds proportion of their total shares. In 2013, government ownership in Saudi Arabia listed companies range between 0.0048% to 0.015% (Tadawul Annual Report, 2013). Wang (2008) stated that government investors might be subjected to a high degree of political control due to simply being government representatives. Xiao et al (2004) also support that firms with government agency held ownership perform significantly worse than other types of firms. Company with government agency held ownership would reduce internet financial disclosure because they are less motivated

than other ownership type. Based on this argument, it is hypothesized that

H6: There is a relationship between government ownership and internet financial disclosure.

Government ownership is calculated based on the sum of the percentage of equity shares owned by the government.

(g) Private ownership

Private agencies ownership or blockholders refer to entities holding more than 3% of a firm's outstanding shares (Abdelsalam & El-Masry, 2008). A high private agencies ownership shows a tight monitoring by outsiders to the management of the entities. This kind of monitoring will encourage managers to increase their performance and to manage the business more transparently. In turn, it will also decrease managers' opportunistic behavior. In 2013 private individual hold around 99.91% and private companies held around 0.06% of Saudi Arabia listed companies (Tadawul Annual Report, 2013). Based on the argument, it is therefore hypothesized that:

H7: There is a relationship between private ownership and internet financial disclosure

Private agencies ownership is calculated based on the sum of the percentage of equity shares owned by private individual or private companies.

(h) Foreign ownership

Agency theory implies that company with foreign ownership would disclose more information. This is supported by Haniff and Cooke (2002) that found a significant positive relationship between foreign ownership and the extent of paper-based disclosure. The results support the argument that the higher foreign ownership is in an organization, the higher information asymmetry will be, and, it is critical if the regulations of the investment receiving country are not well understood. This in turn, pushes foreign shareholders to ask for more information, which is initially not required by the regulations, and eventually leads to more disclosure (Leung, Morris & Gray 2005). The best way to fulfill that requirement is through the Internet as it is available everywhere (Lodhia, 2004). In 2013 1.73% of Saudi listed company shares are held by foreign shareholders (Tadawul Annual Report, 2013). Consequently, it is hypothesized:

H8: There is a relationship between foreign ownership and internet financial disclosure

Foreign ownership is calculated based on the sum of the percentage of equity shares owned by foreign companies or individual

METHODOLOGY AND DATA

SAMPLE

This study will use a content analysis approach to examine the information cited by most active traded companies listed on Tadawul in 2013. Data is collected for 2013 as it is the most recent years for which company annual reports are available. The sample is used for two reasons (1) consistent with

prior studies that assumed listed companies are more likely to have resources to adopt internet financial reporting and failure to do so is more likely reflect the result of a deliberate choice (2) Saudi listed companies make the most important contributions to the Saudi Arabian economy.

The data for this research is secondary in nature and obtained from two sources: (1) the companies' websites; and (2) the companies' online annual reports. Since this study is related to internet financial disclosure, only companies that have websites will be selected as the population of the study. Companies without a functioning website and websites not in English will not be included. A total of 90 datasets were collected during November 15, 2014 to December 1, 2014 from 168 companies.

TEST PROCEDURE

To test the hypothesis, a model is developed for a regression analysis on the relationship between dependent variable and the independent variables.

A formal regression equation used to test the hypotheses is:

$$IFD = \beta_0 + \beta_1 \text{independent} + \beta_2 \text{duality} + \beta_3 \text{boardsize} + \beta_4 \text{attendance} + \beta_5 \text{major} + \beta_6 \text{private} + \beta_7 \text{foreign} + \beta_8 \text{government} + \epsilon$$

Where IFD is total disclosure score across the entire 15 items, Independence is the percentage of non-executive directors (NED) on the board, Duality is coded as '1' if the CEO is also the chair of the board. Otherwise it is coded as '0', Board size is the number of people on the board, Attendance is the percentage of meeting attendance, Major is the percentage of shares held by major shareholders, Private is the percentage of shares held by private shareholders, Foreign is the percentage of shares held by foreign shareholders and Government is the percentage of shares held by government shareholders.

RESEARCH FINDINGS AND DISCUSSION

DESCRIPTIVE STATISTICS

Table 1 show that 63.3% of Saudi listed companies disclosed financial highlight on their websites. In the case of press release, 96.7% disclosed it on their websites. Around 60% of Saudi companies disclosed share price on their websites, while only 55.6% have disclosed the share performance chart on their websites. For operation review 55.6% disclosed it on their websites and 56.7% of Saudi listed companies disclosed financial review on their websites. For financial calendar 96.7% disclosed it on their websites. In addition, 45.6% of Saudi companies disclosed on their websites both annual report and past year annual report and 57.8% disclosed half year report. For all of quarterly report, quarterly balance sheet, quarterly income statement, quarterly cash flow and quarterly accounting notes, 87.8% of Saudi companies disclosed it on their websites.

Table 1: Frequency table

item	Disclosed	Not disclosed
Financial highlight	63.3%	36.7%
Press release	96.7%	3.3%
Share price	60%	40%
Share performance chart	55.6%	44.4%
Operation review	55.6%	44.4%
Financial review	56.7%	43.3%
Financial calendar	96.7%	3.3%
Annual report	45.6%	54.4%
Past year annual report	45.6%	54.4%
Half year report	57.8%	42.2%
Quarterly report	87.8%	12.2%
Quarterly balance sheet	87.8%	12.2%
Quarterly income statement	87.8%	12.2%
Quarterly cash flow	87.8%	12.2%
Quarterly accounting notes	87.8%	12.2%

With regards to independent variable, **Table 2** reports the mean, medians and standard deviation. Overall, the result for board characteristics shows that the percentage of board independent is between 10% to 100% with a mean of around 52%. In term of board size, Saudi companies have between 5 to 11 members with most companies' average of 8.6 members. Board Meeting attendance range between 5.60% to 100% with a mean of 89.73%. In term of ownership structure, major shareholders reach up to 99.5% of ownership with the average of around 27.74%. Most shareholders come from private ownership between 0 to 99.5% with an average of 26.16% share. For

foreign ownership it is between 0 to 93.48% ownership with a mean of 8.47%. As for government ownership, it is in the range of 0 to 100% with an average of 12.68%.

Table 2: Descriptive statistic for independent variable

Independent variable	Minimum	Maximum	Mean	Standard deviation
Independence	10%	100%	52.36%	52.23%
Board size	5	11	8.6	1.40
Role duality	0	1	.0349	0.18
Board Meeting attendance	5.60%	100%	89.73%	14.76%
Major shareholder	0	99.50%	27.74%	20.67%
Private ownership	0	99.50%	26.16%	22.51%
Foreign ownership	0	93.48%	8.47%	17.34%
Government ownership	0	100%	12.68%	23.25%

CORRELATIONS

In order to see whether there is any correlation among the variables, Pearson correlation matrix test has been performed. **Table 3** presents the correlation matrix for the individual continuous variable used in the OLS regression. The highest and significant correlation is between dependent variable and major shareholders (0.001) and foreign ownership (0.043) which is in a negative sign.

Table 3: Pearson correlations

		IFD	independence	Board size	Role duality	attendance	Major shareholder	private	foreign	government
IFD	Pearson Correlation	1	.058	.042	-.106-	-.081-	-.380- **	-.223-	-.245-*	-.117-
	Sig. (2-tailed)		.648	.697	.330	.609	.001	.065	.043	.340
	N	90	65	88	86	42	69	69	69	69
independence	Pearson Correlation	.058	1	.071	.084	-.016-	-.016-	.003	.103	.090
	Sig. (2-tailed)	.648		.575	.506	.923	.905	.983	.439	.496
	N	65	65	65	65	40	59	59	59	59
boards size	Pearson Correlation	.042	.071	1	-.076-	-.381-*	-.032-	-.067-	.169	.147
	Sig. (2-tailed)	.697	.575		.487	.013	.796	.584	.164	.229
	N	88	65	88	85	42	69	69	69	69
role duality	Pearson Correlation	-.106-	.084	-.076-	1	.110	.356**	-.023-	-.085-	.480**
	Sig. (2-tailed)	.330	.506	.487		.489	.003	.852	.487	.000
	N	86	65	85	86	42	69	69	69	69
attendance	Pearson Correlation	-.081-	-.016-	-.381-*	.110	1	.279	.217	.069	.137
	Sig. (2-tailed)	.609	.923	.013	.489		.090	.191	.680	.411
	N	42	40	42	42	42	38	38	38	38
major shareholder	Pearson Correlation	-.380- **	-.016-	-.032-	.356**	.279	1	.596**	.264*	.406**
	Sig. (2-tailed)	.001	.905	.796	.003	.090		.000	.029	.001
	N	69	59	69	69	38	69	69	69	69
private	Pearson Correlation	-.223-	.003	-.067-	-.023-	.217	.596**	1	.163	-.271-*
	Sig. (2-tailed)	.065	.983	.584	.852	.191	.000		.180	.024
	N	69	59	69	69	38	69	69	69	69
foreign	Pearson Correlation	-.245-*	.103	.169	-.085-	.069	.264*	.163	1	-.152-
	Sig. (2-tailed)	.043	.439	.164	.487	.680	.029	.180		.213
	N	69	59	69	69	38	69	69	69	69
government	Pearson Correlation	-.117-	.090	.147	.480**	.137	.406**	-.271-*	-.152-	1
	Sig. (2-tailed)	.340	.496	.229	.000	.411	.001	.024	.213	
	N	69	59	69	69	38	69	69	69	69

In addition to the correlation between independent and independent variable, there are seven other significant correlation (at $p \leq 0.05$ significance level or better) recorded for the sample. There is a significant positive correlation between major shareholder and role duality (0.003), private ownership (0.000), foreign ownership (0.029), and government ownership (0.001). There is a significant positive correlation between role duality and government ownership (0.000). There is a significant negative correlation between board size and meeting attendance (0.013) and between private ownership and government ownership (0.024)

Table 4: Summary of result for test on collinearity

	Collinearity Statistics	
	Tolerance	VIF
independence	.788	1.269
Boardsize	.782	1.279
Attendance	.795	1.258
majorshareholder	.501	1.995
Private	.773	1.293
Foreign	.618	1.618
government	.675	1.481

To ensure that the model developed for this study is robust, the model was tested for multicollinearity. Based on the result from **table 4**, it is obvious that the tolerance value for this study is in the amount of 0.501 to 0.795 which is above the threshold value of 0.10. While the highest VIF value is 1.995 which is less than the threshold value of 10. Since all of the VIF value is below 4, there is no evidence of significant multicollinearity in the result of the study. Thus, the independent variables in this study do not seem to be severely affected by collinearity and so standard interpretation of the regression coefficient can be made.

MULTIVARIATE RESULTS

In order to find the relationship between internet financial disclosure and board characteristic and ownership structure in Saudi Arabia, this study use multiple regression analysis. **Table 5** presents the result for the multiple regressions where the dependent variable is the total score of internet financial disclosure index (IFD) and various independent variables. The overall regression on the model is significant as shown by the F-statistic of 2.059 ($p=0.000$). The model has a moderate fit of around 17% (adjusted r squared) in explaining the dependent variables. The result of multiple regression tests among independent variables used in this study shows that only major shareholders is statistically significant at 5% significance level. Therefore only one of the proposed hypotheses, H5, is supported, while H1, H2, H3, H4, H6, H7 and H8 are rejected. This study only succeeds in finding evidence that concentration of ownership affect the extent of Internet financial disclosure in Saudi Arabia public listed companies. However, this study could not find

evidence that board characteristic and other ownership structure influence the extent of internet financial disclosure in Saudi Arabia listed companies. The result is consistent with Oyelere et al. (2003) and Marston and Polei (2004) that find a relationship between concentration of ownership and internet financial disclosure.

LIMITATIONS

This study has limitation in the research period use of only one year therefore the results only describe condition in that period and the fact that companies websites are always changing is not taken into account. The study only examined eight factors that might explain IFD. There are possibly other factors such as industry type, size, liquidity, leverage, firm risk, level of IT, growth, etc. that could further explain the extent of IFD among Saudi companies. This study only focuses on the 15 items of financial information disclosure on the companies' websites. It does not cover all information provided on the websites.

CONCLUSION AND RECOMMENDATION

This study of Saudi Arabia listed companies represents one of the first comprehensive examinations on IFD. This study is important as it helps to identify whether internet financial disclosure can be explained by the elements of the board characteristic and ownership structure. As such, Saudi government, Tadawul stock market, Saudi companies and regulators are able to gain new insights in terms of understanding the determinant of internet financial disclosure. The principal implications of this paper’s findings, both for future research and policy-making by companies, users and reporting companies, are that the full potential of Internet financial disclosure by Saudi companies has yet to be made. An interesting aspect of future research would be a comparison between the findings from the same companies on the Tadawul Website and the Websites of those companies during the same period (from 2013) or with other periods of time after 2013 to explore changes in practice. Also, it would be interesting to compare findings from the Websites of those companies with other disclosing sources, e.g. the Saudi Central Website. Moreover, a comparison of the findings with those obtained from similar economies, beside Saudi Arabia, would also be of interest. Future research might extend the scope of this study by involving comparative studies with other Arabic or gulf countries (such as Bahrain, Kuwait, United Arab Emirates, Qatar and Oman)

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