Determinants of Internet Financial Reporting by Egyptian Companies

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Abstract
This research aims at examining the determinants of internet financial reporting by Egyptian companies through measuring the extent of internet financial reporting (IFR) practices in Egypt and the association between IFR and the Egyptian listed companies' characteristics. The research sample consists of 133 Egyptian companies listed on the Egyptian stock exchange as well as Nile stock exchange. The sample includes only those companies that disclose financial information on the internet. This research considers; company's size, profitability, liquidity, leverage, company's age, auditor type and ownership structure as the independent variables that might impact the company's' corporate IFR practices. Moreover, a disclosure checklist of 56 voluntary items is adopted to measure the level of IFR. The findings of the multiple regression models revealed that three independent variables were found significantly associated with the level of Internet Financial Reporting including; company's size, auditor type and the company's age. However, other company characteristics were found insignificant such as liquidity, leverage, profitability and ownership structure.
Keywords: Internet, Financial Reporting, Egypt, Disclosure, Corporate Financial Reporting

1. Introduction

Nowadays, most companies in developed or developing countries are substantially relying on the internet for business and financial disclosures. Debreceny, Gray, and Rahman (2002) refer to Internet Financial Reporting (IFR) as the distribution of corporate financial and performance information using Internet technologies such as the World Wide Web. Internet financial reporting has been described using several terms such as electronic-based financial reporting, corporate internet reporting, and internet disclosure. The companies can provide financial information on the internet at a very low cost and can reach a wider range of stakeholders who can have immediate access to the company's annual reports. (Almilia, 2009).

IFR is one of the most controversial research topics; some studies believe that IFR is necessary and results in numerous benefits. According to Elhelaly and Mohamed (2014) IFR minimizes the cost of producing and distributing financial information. Based on the empirical evidence provided by Khan (2015) IFR practices help in attracting more foreign investors and the promotion of business. On the contrary, it has been argued that IFR implementation will subject disclosed information to easily misrepresentation (Bin Ali Khan & Binti Omar, 2013) Moreover, disclosing corporate financial information on the internet can result in information overload and internet fraud (Desoky, 2009)

Manini, Abdillahi, and Hardy (2014) clarified that disclosure of information supports investors in investment decision making and encouraged potential investors to invest in the company. Therefore, it can be comprehended that IFR practices increases the availability of financial information around the world; thus, enhancing investment. Several studies had been conducted in different countries focused on examining the determinants of IFR and the underlying drivers associated with it to improve disclosure practices such as Greece (Bekiaris, Psimada, & Sergios, 2014); Indonesia (Almilia, 2009); Slovenia (Dolinšek, Tominc, & Lutar Skerbinjek, 2014); Turkey (Aqel, 2014); New Zealand (Oyelere, Laswad, & Fisher, 2003); Nigeria (Agboola & Salawu, 2012); and Egypt (Desoky (2009) ; Aly, Simon, and Hussainey (2010) ; Soliman (2013)). The Egyptian government has been making evident efforts towards encouraging local and foreign investors, however there are comparatively few researches concerning the IFR practices in Egypt, therfore, this research contributes to the existing accounting literature in Egypt and intends to fill the gap through examing some of the determinants of IFR that were proven to be significant in different countries and investigate them in Egypt. This may increase regulators' awareness regarding the underlying drivers associated with IFR and may assist in identyfing ways to improve disclosure practices.

The research structure will be as follows: the next section covers a literature review on the IFR practices in developed and developing countries. The third section clarifies the research aims and methodology. Comprehensive analysis regarding the association between IFR and seven company characteristics and multiple regression models will be provided in the fourth section. The final section presents the main findings, limitations, and future research.

2. Literature review and hypotheses development
2.1Theoretical background
Different company's characteristics were considered as determinants of IFR such as; company's size,

internationality, auditor type, profitability, leverage, liquidity, industry type, ownership structure and the company's age. Studying these determinants can be clarified using various theories such as: agency theory, signaling theory, corporate governance theory, technology acceptance model, cost benefit analysis theory, and legitimacy theory. The subsequent part focuses on the most important theories that are significantly aligned with IFR.

2.1.1 Agency theory

Agency theory is concerned with solving conflicts between principals and agents of the principal (Namazi, 2013). Managers may not always seek to maximize shareholders' wealth. There are some managers who may seek personal goals. In order to minimize the agency costs that are paid to an agent acting on the behalf of a principal, companies should increase the amount of information disclosed (Aly et al., 2010). Furthermore, Yao, Nurunnabi, and Alam Hossain (2012) argue that agency costs may be influenced by the company's characteristics such as; company size, auditor type, company profitability and liquidity situation. Moreover, Soliman (2013) indicated that IFR is considered as a mechanism that controls managers' actions and protects the shareholders. It can be concluded that a company's credibility increases by revealing financial information leading to decreasing agency costs

2.1.2 Signalling theory

According to signalling theory, companies need to disclose a certain level of information similar to other companies, to avoid being recognized as covering up bad news from its stakeholders (Hannon, 2014). Signalling theory suggests that profitable companies have an incentive to disclose more information, to signal the firm's profitability to investors in order to support management's continuation of their positions and levels of compensation (Oyelere et al., 2003). Thus, IFR is used by companies as a signaling tool to attract investors and convey that the company is performing well.

2.2 Determinants of Internet Financial Reporting

Several studies addressed the determinants of IFR in different countries and had reached different findings regarding the significance of the company characteristics. Some of these variations were due to different sample size, IFR index applied, and the mix of the variables chosen. The following part discusses some of the determinants of IFR that were proven to be significant in different countries.

2.2.1 Company's size

Many researchers studied the association between a company's size and IFR. The following researches (Celik, Ecer, and Karabacak (2006);Almilia (2009);Agboola and Salawu (2012);Soliman (2013);Aqel (2014); Dolinšek et al. (2014)) found that the company's size was significantly associated with the firms' disclosure practices. However, others researchers (Aly et al. (2010); Agyei-Mensah (2011);Hossain, Momin, and Leo (2012); Yao et al. (2012)) provide empirical evidence indicating that the company's size does not impact IFR practices. Some theoretical arguments such as agency theory suggests that larger companies tend to disclose more information in order to reduce agency costs (Agboola & Salawu, 2012). Based on prior researches and the above theoretical arguments, it can be inferred that large companies have a higher tendency of disclosing information than small companies. Thus, the researchers propose the following hypothesis:

H_1: There is a significant positive association between large Egyptian companies and the use of internet financial reporting.

2.2.2 Profitability

A company's profitability refer to the ability of a company to make profit. Prior explanatory research that tested the association between profitability and IFR provided conflicting conclusions. Some studies such as: Agyei-Mensah (2011) in Ghana using a sample of 35 companies and the Bekiaris et al. (2014) study in Greece and Cyprus using a sample of 24 construction companies found that the company's profitability impacts their web-based voluntary disclosure. Moreover, Aly et al. (2010) conducted a study using a sample size of 35 Egyptian companies to examine the relationship between IFR and seven independent variables (size, leverage, auditor size, liquidity, foreign listing, profitability, and industry type). The study's results suggest that there is a significant relationship between IFR practices and profitability. Furthermore, Desoky (2009) investigated six potential determinants that can affect the level of internet reporting among Egyptian companies. The six explanatory variables included in the research were; the company's size, foreign listing, profitability, ownership structure, industry type, and legal form. The sample size included 88 Egyptian companies and 39 items disclosure index. Desoky (2009) concluded that profitability was one of the four significant varibles that have a relationship with the level of corporate internet reporting.

On the contrary, other studies such as Pervan (2006) which adopted 30 Slovene companies and Hossain et al. (2012) indicated that the company's profitability does not influence IFR. Signaling theory implies that companies with greater profitability want to signal the company's profitability to investors; thus, these companies have the motive to adopt IFR and disclose more corporate information (Oyelere et al., 2003). Based on the theoretical arguments and previous researches mentioned above; the second hypothesis is formulated:

H$_2$: There is a significant positive relationship between company's profitability and the use of internet financial reporting.

2.2.3 Liquidity

Several studies tested the relationship between liquidity and IFR. Oyelere et al. (2003) conducted a study in New Zealand which included 229 listed companies. The study results showed that a significant positive relationship existed between both variables. Moreover, Agboola and Salawu (2012) indicated that a company's liquidity is a significant variable that affects the level of web-based financial practices. On the other hand, Garg and Gakhar (2010) examined the association between IFR and liquidity in India on 200 companies and the findings indicated that liquidity is not significant. Other studies' findings also suggested that IFR is not affected by the company's liquidity level such as (Aqel, 2014);Hossain et al. (2012)). According to signaling theory, highly liquid companies are more likely to reveal more corporate information (Abd-Elsalam, 1999), whereas the agency theory proposes that companies with less favorable liquidity might as well disclose information to fulfill the shareholders' information needs (Agboola & Salawu, 2012) Accordingly, it is hypothesized that:

H$_3$: There is a significant positive relationship between the level of the company's liquidity and the use of internet financial reporting.

2.2.4 Leverage

It has been argued by some researchers that according to agency theory, companies with a high leverage ratio have a greater stimulus to provide more disclosures (Almilia, 2009) This is due to the fact that highly leveraged companies are more exposed to higher agency costs. Moreover, the agency costs tend to decrease when firms provide consistent and updated information (Hannon, 2014). Also, some studies Celik et al. (2006); Hannon (2014) conducted in Turkey reached the same conclusion that leverage significantly affects IFR practices. However, others such as: Debreceny et al. (2002) studied the relationship between both variables in 660 companies among 22 different countries and the findings suggest that leverage is insignificant. The relationship between the IFR index and leverage has been examined only once in Egypt by Aly et al. (2010) and its results indicate that a company's leverage does not affect IFR practices. Therefore, the following hypothesis is stated based on theoretical arguments and prior studies as:

H$_4$: There is a significant relationship between highly leveraged companies and the use of internet financial reporting.

2.2.5 Company's age

Several researchers studied the association between IFR and a company's age and suggested that a significant negative relationship exists such as; Flanagin (2000); AbuGhazaleh, Qasim, and Roberts (2012); Kamalluarifin (2016)). Flanagin (2000) suggested that new companies have an incentive to use the internet as a strategy to attain a competitive advantage since they were established in an environment with highly advanced technologies. Morover, Haniffa and Cooke (2002) suggested that newer companies are more likely to disclose financial information on the internet to increase the investors' confidence. AbuGhazaleh et al. (2012) pointed out that newer companies have a higher tendency to disclose financial information on the internet than older companies. On the contrary, other research such as that by; Yao et al. (2012);Umoren and Asogwa (2013);Hannon (2014) and Dolinšek et al. (2014)) provided empirical evidence that implies that a company's age does not impact IFR practices. Based on the above studies and arguments; the following hypothesis is developed:

H$_5$: There is a significant negative association between company's age and the use of internet financial reporting.

2.2.6 Ownership Structure

The agency theory suggests that companies with diffused ownership are more likely to disclose information to help its shareholders in observing the managers' performance (Oyelere et al., 2003) Moreover, Yao et al. (2012) conducted a study in Bangladesh using a sample of 83 companies which examined the relationship between IFR and ownership structure. The findings denote that ownership structure has a significant effect on IFR. In addition some studies; Oyelere et al. (2003); Bekiaris et al. (2014); Dolinšek et al. (2014), the results were in agreement with agency theory; it was found that the degree of internet financial reporting increases with ownership structure. Moreover, the study of 77 Nigerian companies that was conducted by Agboola and Salawu (2012) found out that companies with dispersed ownership have a greater tendency to adopt IFR than companies with lesser ownership dispersion. On the contrary, other studies suggest that the company's ownership structure does not influence the extent of internet financial disclosure practices such as; Celik et al. (2006); (Garg & Gakhar, 2010) .

These results were concluded in Turkey, hence the following hypothesis is developed:

H$_6$: There is a significant positive relationship between the company's ownership structure and the use of internet financial reporting.

2.2.7 Auditor type

Several studies suggested that bigger and recognized audit firms are capable of exhibiting superior influence and are less probable to be impacted by clients compared to unknown audit firms (Yao et al., 2012). Moreover, Xiao,

Yang, and Chow (2004) suggested that a company with a Big-four auditor hired is more likely to get better protection against uncertainity from internet disclosure relative to a company that has a non-big-four auditor. Several studies tested the association between IFR and auditor type; however, there were contradictory results. Some results indicated that the type of auditor impacts the level of corporate internet disclosure such as; Xiao et al. (2004a); Agboola and Salawu (2012); Yao et al. (2012). On the other hand, other researchers' findings indicated that an insignificant relation between the IFR and the company's auditor exists including :Agyei-Mensah (2011); Aly et al. (2010);Hossain et al. (2012);Bekiaris et al. (2014); Umoren and Asogwa (2013). Thus, the subsequent hypothesis is developed:

H_7: *There is a significant positive relationship between the auditor type and the use of internet financial reporting.*

To summarize, several studies were conducted in different countries to identify the association between IFR and company characterisitcs. Few studies have been done in Egypt with variations in variables. As a result, this research intends to fill this gap through studying some of the determinants of IFR that were proven to be significant in different countries and investigate them in Egypt. Therfore, the main aim of this research is to examine the determinants of Internet Financial Reporting by Egyptian companies through answering the following questions:

- What is the extent of internet financial reporting practices among Egyptian companies?
- What are the major company characteristics that influence internet financial reporting in Egypt?
- Why companies engage in internet financial reporting and to what extent?

3. Research Methodology

3.1 Sample size

This research measures the relationship between the dependent and independent variables through different quantitative measurements.

The population of this research comprises all Egyptian companies that disclose financial information on their websites. However, companies that have corporate websites but do not disclose financial information as well as banks and investment companies are excluded from the sample. As a result, the sample represents 133 listed Egyptian companies from different sectors that are being traded either in the EGX or Nilex and that disclose financial information on their websites.

Table 1: Sample Companies by industry		
Sector	Number of Companies	Percentage (%) Number of Companies / 133
Basic Resources	6	4.5%
Chemicals	2	1.5%
Construction and Materials	17	12.8%
Food and Beverage	23	17.3%
Healthcare and Pharmaceutical	11	8.3%
Industrial goods and services and automobiles	13	9.7%
Oil and gas	2	1.5%
Personal and Household products	7	5.3%
Real Estate	27	20.3%
Retail	4	3%
Media	1	0.8%
Technology	2	1.5%
Telecommunications	5	3.8%
Travel and leisure	13	9.7%
Total	**133**	**100%**

Table 1 shows the number of companies included in the sample from different sectors. The real estate sector has the largest number of companies that release financial data on their websites. However, this might be due to the large number of listed companies within the real estate sector.

3.2 Data collection method

Most of the data was collected from secondary sources such as financial statements and annual reports. The data were obtained from the companies' 2014 annual reports since 2015's annual reports were not yet published by most of the companies included in the sample. The sample companies' websites were visited in January 2016 to gather the needed information used in calculating the Internet financial reporting index and for measuring the independent variables. To ensure that the data is free of error and accurately calculated, a validity check was performed by revisiting each of the sample company's website in April 2016. After revisiting the websites, it

was found out that the websites that were under construction are still inaccessible up to the end of April 2016.

3.3 Research model

3.3.1 Dependent variable: IFR disclosure index

The dependent variable is the level of internet financial reporting which is to be measured through the development of specific criteria or index to evaluate the company's websites. Thus, this research assesses the corporate websites of all the firms that disclose their financial information on the internet. Several studies have previously developed a disclosure index to examine the IFR practices by listed companies. This research adopts the internet reporting index checklist used by Xiao et al. (2004a). Moreover, this research implement un-weighted dichotomous disclosure index because it does not focus on a single user group (Bonsón Ponte & Escobar Rodríguez, 2002). Therefore, such companies that do not provide financial information on the internet are excluded.

The IFR disclosure index used in this research had 56 items that assess a company's contents on financial information, other financial information, presentation and user support. The disclosure index is classified into three sections. The first section focuses on the availability of the financial statements. The second section measures the availability of other financial information including environmental information, current share price, number of shares and other financial data. The last section focuses on the website's presentation and user support.as shown in appendix (1).

Measurement of the dependent variable

Disclosure Index (DI) = $\sum x / n$

Where;

$\sum x$ = the total score of the company

x= 1 if the item is disclosed; 0 otherwise

n= the maximum possible score that can be obtained by a company

3.3.2 Independent variables

This research has seven determinant variables of IFR including; company's size, profitability, liquidity, leverage, company's age, ownership structure and auditor type.
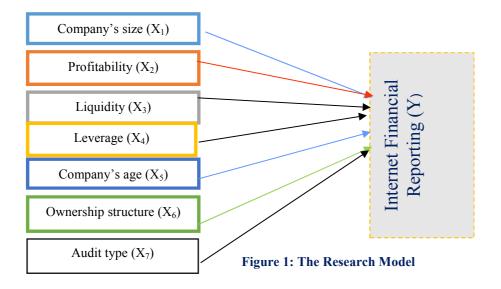
The following table represents the measurement and symbols of the independent variables

Table 2: Independent variable's definition and symbol

Independent variable	Measurement	Symbol	References
Firm Size (X1)	Natural Log of total assets	SIZE	Soliman (2013) and Aqel (2014).
Profitability (X2)	Net profit / total sales	NPMARGIN	Yao et al. (2012)
Company's liquidity (X3)	Current Assets/ Current Liabilities	LIQ	Hossain et al. (2012)and Aqel (2014)
Company's Leverage (X4)	Total Liabilities/ Total Assets	LEV	Almilia (2009),
Company's Age (X5)	Number of years passed since foundation	AGE	Umoren and Asogwa (2013) and Agboola and Salawu (2012)
Ownership Structure (X6)	Percentage of free float rate	OWS	Celik et al. (2006) and Bostanci and Kilic (2010)
Auditor type (X7)	(1) If a big-four audit firm employed. (0) otherwise	AUD	

Table 2 clarifies the variable measurement and studies supporting this. Some studies Celik et al. (2006); Bostanci and Kilic (2010) used free float ratio to provide quick information about ownership structures of companies. Free float ratio represents the ratio of a company's outstanding shares, which is available to the public in the market without any restriction on trading, to the total shares of the company (Bostanci & Kilic, 2010).

Model 1

IFR disclosure index(Y) = b0 + b1SIZE + b2NPMRGIN + b3LIQ + b4LEV - b5AGE + b6OWS +b7AUD + ε

Figure 1: The Research Model

4. Data analysis and Findings

4.1   Descriptive Analysis

Table 3 Descriptive Statistics (dependent and independent variables)					
	N	Minimum	Maximum	Mean	Std. Deviation
IFR index	133	.21	.77	.4926	.10725
Size	133	5.83	10.76	8.7124	.85783
Profitability	133	-15.03	2.38	-.0786	1.54432
Liquidity	133	.05	83.13	3.1237	8.66444
Leverage	133	.01	32.70	.7410	2.80756
Age	133	3.00	160.00	34.5940	26.20607
Ownership	133	.00	1.00	.3957	.24382
Auditor type	133	.00	1.00	.3308	.47229

Table 3 represents that the mean value of the IFR disclosure index is 0.4926. This average is relatively low which infers that the majority of Egyptian firms were not capable of utilizing their websites and failed to provide adequate financial and non-financial information. Moreover, the maximum score that was achieved by an Egyptian firm is 0.77 (77%). While the minimum items that were disclosed resulted in a score of 0.21. The mean value of internet financial reporting disclosure is consistent with Agboola and Salawu (2012) 0.4604 in Nigeria, Hossain et al. (2012) 0.529 in Qatar, and Khan (2015) 0.4828 in Malaysia.

For the independent variables, table (3) shows the standard deviation for company size indicates high variation regarding the company's size exists across the companies. As for the sample companies' profitability ratio, the mean value suggests that the listed Egyptian firms, on average, are experiencing negative trends regarding the profitability ratio. Additionally, the mean value of the sample companies' liquidity is 3.1237 suggesting that the companies' current assets are sufficient to cover their current liabilities. The descriptive statistics shows that the sample companies' leverage has a mean value of 0.7410. Furthermore, the average company age of the selected sample is 34 years. The oldest company in the sample has been operating for 160 years while the youngest was 3 years. Accordingly, a large dispersion exists. In addition, the mean value of the ownership structure which is measured by the free-float rate is 0.3957 (39.57%). Finally, a percentage of 33.08% of the sample companies are audited by one of the big four audit firms.

Research Journal of Finance and Accounting
ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online)
Vol.8, No.10, 2017
www.iiste.org
IISTE

4.2 Correlation matrix

Table 4: Correlations Matrix between dependent and independent variables

	IFR index	Size	Profitability	Liquidity	Leverage	Age	Ownership	Auditor type
IFR index	1							
Size	**.424**[**]	1						
Profitability	.022	.022	1					
Liquidity	-.107	-.197[*]	.061	1				
Leverage	.042	-.079	.001	.221[*]	1			
Age	-.065	.197[*]	.066	-.037	.008	1		
Ownership	.012	-.119	.085	.250[**]	.065	-.067	1	
Auditor type	**.300**[**]	.339[**]	.087	-.071	.131	.097	.049	1

*.Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 4 represents the correlation matrix between IFR and the independent variables. The table shows two significant correlations. The correlation coefficient indicates the association between IFR and both auditor type and company's size are a weak positive relationship since the correlation is less than 0.4. The results regarding the company's age are consistent with other studies such as Agboola and Salawu (2012) and Aqel (2014). The remaining independent variables are insignificantly correlated with the IFR disclosure level.

4.3 Regression Analysis

A multiple regression is performed to test the relationship between dependent variable (Internet Financial Reporting) and the independent variables (size, profitability, liquidity, leverage, age, ownership structure and auditor type).

Table 5: Model 1 Summary

Model 1	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.489[a]	.239	.196	.09616

Table (5) suggests that the R square of the first model that includes all seven independent variables is equal to 0.239 (23.9%), while the adjusted R square is equal to 0.196 (19.6%). The model's adjusted R square suggests that 19.6% of the variance in the internet financial reporting is explained by the seven independent variables included in model 1. The remaining 80.4% is due to the absence of other independent variables that might have an impact on the IFR practices. As for the standard error of the estimate (SE), when it is low, it serves as an indicator of the accuracy of predictions. Accordingly, the lower the standard error of the estimate the better the model.

Table 6: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.362	7	.052	5.600	.000[a]
	Residual	1.156	125	.009		
	Total	1.518	132			

According to the ANOVA table 6, the model is highly signicfacant at 1 percent since the pvalue (.000)

Table7: Model 1 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.058	.094		.617	.538		
Size	**.050*****	.011	.401	4.635	**.000**	.815	1.227
Profitability	.001	.005	.008	.107	.915	.979	1.022
Liquidity	-.0006	.001	-.048	-.578	.564	.865	1.156
Leverage	.002	.003	.061	.746	.457	.920	1.086
Age	**-.0006****	.000	-.160	-2.002	**.047**	.953	1.049
Ownership	.021	.036	.048	.590	.556	.916	1.092
Auditor type	**.038***	.019	.166	1.951	**.053**	.844	1.185

*Significant at the 0.10 level ** Significant at the 0.05 level *** Significant at the 0.01 level

According to the above table, the estimated regression function is:

Yi = 0.058 + 0.050size + 0.01profitability - 0.0006Liquidity + 0.002leverage - 0.0006Age + 0.21ownership + 0.38auditor

Table (7) shows that the intercept value $B_0 = 0.58$ which predicts that the value of IFR will be equal to 0.58 when all of the independent variables are equal to zero.

Moreover, the regression results in table (7) shows that out of the seven independent variables; size, profitability, liquidity, leverage, age, ownership structure and auditor type included in the model, three variables are only considered statistically significant namely; size, age and auditor type.

The beta coefficient $B_1 = 0.05$ for the company's size indicate that when the company's total assets increase, the internet financial reporting practices will increase by 0.050 holding all other independent variables constant. The results revealed that the company's size and IFR have a significant association which is consistent with several studies such as; Almilia (2009); Debreceny et al. (2002);Soliman (2013); Aqel (2014) and Dolinšek et al. (2014) Moreover, the resarch results supported the notion that the company's size has a positive significant relationship with the IFR and that large firms have a higher tendency to engage in IFR practices. In addition, table (7) shows that $B_5 = -0.0006$ indicating that the company's age is having a significant negative relation with IFR. This means that when the company's age increases by one year, the IFR practices would decrease by 0.0006 while the remaining independent variables remain unchanged. The research results are in line with researches such as: Soliman (2013) and Dolinšek et al. (2014). Therefore, the findings support that a negative significant relationship exists between the company's age and the level of financial disclosure on the company's websites.This indicates that older firms are less likely to disclose financial information on their websites.

Moreover, the last significant variable $B_7 = 0.038$ of the type of auditor suggests that when the auditor type changes from a local audit firm to one of the big four audit firms, the company's internet financial disclosure will increase by 0.038 while holding other variables constant. The findings are in agreement with Agboola and Salawu (2012), and Yao et al. (2012). The variation inflation factor (VIF) and the independent variables' tolerance suggest that a multicollinearity problem is unlikely to exist.

Model 2

According to the previous model's results, a second model was developed to test the relationship between the IFR and three independent variables that are significantly correlated and have the highest R square are; the company's size, age and auditor type.

Table 8: Model 2 ANOVA					
Model 2	Sum of Squares	df	Mean Square	F	Sig.
Regression	.353	3	.118	13.036	.000[a]
Residual	1.165	129	.009		
Total	1.518	132			

Based on the above ANOVA table, one can indicate that model two is highly significant at 0.01 level.

Table 9: Model 2 Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.072	.088		.820	.414		
Size	**.049****	.010	.394	4.737	**.000**	.858	1.165
Auditor type	**.041***	.019	.182	2.224	**.028**	.884	1.131
Age	**-.0006***	.000	-.161	-2.043	**.043**	.960	1.041

* Significant level 0.05 ** Significant level 0.01

Based on the results of Table 9, there are three independent variables (size, auditor type and company's age) that were found significant. The co-linearity statistics of this model suggest that multicollinearity problems are nonexistent.

The estimated regression function of this model is as follows:

Yi = 0.072 + 0.049size + 0.041auditor - 0.0006age

According to the above equation, the intercept infers that IFR result in 0.072 when all independent variables are equal to zero. As for the company's size, the beta coefficient denotes that when the company's total assets increase, the IFR practices will augment by 0.049 while keeping all other factors constant. Similarly, changing the company's auditor type by employing one of the big-four audit firms will result in an increase by 0.041 on the company's online disclosure practices. Finally, while holding other variables constant, any increase in a company's age will result in a negative decrease in the internet financial disclosure of the firm by 0.0006.

Table 10 Model 2 Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.482[a]	.233	.215	.09504

Table 10 indicate that Model two that consists of three independent variables only resulted in an R square of 23.3%. The R square of this model proposes that the model's independent variables were successful in explaining the variance of internet financial reporting by 23.3%. While the remaining percentage (76.7%) remain unexplained due to the nonexistence of other variables that can affect the IFR practices.

4.3.1 Comparison between the two models

Table 11 Comparison between Model 1 and Model 2		
	Model 1	**Model 2**
Independent variables	**Seven independent variables** (Size, liquidity, profitability, leverage, ownership structure, auditor type and age)	**Three independent variables** (Size, age and auditor type)
Model's significance	0.000^a	0.000^a
R	48.9%	48.2%
Adjusted R Square	19.6%	21.5%
Standard error of the Estimate	0.09616	0.09504

As shown in table 11 both models were highly significant at 0.01 level. To be more precise, the correlation coefficient tends to increase as the number of independent variables increase regardless of the significance of these variables (Weill & Woerner, 2013). Accordingly, when comparing between two models one should depend on the adjusted R Square (Dufour, 2011). It is evident that the adjusted R Square of model 2 (21.5%) is greater than that of model 1 (19.6%), this suggests that model 2 can provide better explanation of the dependent variable's variance compared to model 1. Finally, after comparing the standard error of the estimate of both models, it is found that model 2 has lower standard error. Accordingly, the second model's predictions are more accurate.

Table 12: Summary of Hypotheses	
Hypothesis	Accepted or rejected?
H_1: There is a positive association between large Egyptian companies and the use of internet financial reporting.	Accepted
H_2: There is a significant positive relationship between company's profitability and the use of internet financial reporting.	Rejected
H_3: There is a significant positive relationship between the level of the company's liquidity and the use of internet financial reporting.	Rejected
H_4: There is a significant relationship between highly leveraged companies and the use of internet financial reporting.	Rejected
H_5: There is a significant negative association between company's age and the use of internet financial reporting.	Accepted
H_6: There is a positive relationship between the company's ownership structure and the use of internet financial reporting.	Rejected
H_7: There is a positive relationship between the auditor type and the use of internet financial reporting.	Accepted

Based on the regression results H_1, H_5 and H_7 can be accepted due to the variables' significance. However, H_2, H_3, H_4 and H_6 are rejected because of the insignificance of the variables as shown in table (12).

4.4 Comparison with previous researches in Egypt

As mentioned previously, there were few researches conducted in Egypt related to the association between corporate financial disclosure on the internet and company characteristics. A comparison was done between the most recent studies and this research as shown in table 13.

Table 13 Egyptian Studies Comparison				
	Desoky (2009)	Aly et al. (2010)	Soliman (2013)	This research
Sample size	88 Companies	35 Companies	40 Companies	133 Companies
Disclosure Index	39 items	90 items	60 items	56 items
All Independent variables	Size, profitability, industry type, ownership structure, foreign listing and legal form	Size, profitability, liquidity, leverage, auditor type, industry type and foreign listing	Size, profitability, auditor type and age	Size, age, liquidity, profitability, leverage, auditor type and ownership structure
Significant variables	Ownership structure, profitability, foreign listing and size	Industry type, profitability and foreign listing	Size and profitability	Size, age and auditor type

5. Discussion

The research findings indicated that the level of Internet Financial reporting of Egyptian companies is associated

Research Journal of Finance and Accounting
www.iiste.org
ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online)
Vol.8, No.10, 2017

with size, age, and auditor type. However, the other companies determinates; profitability, liquidity, leverage and ownership structure, are not associated.

The significance of the company's size aligns with the assumptions of agency theory; since it argues that larger firms are more likely to disclose financial information on their websites with the aim of reducing agency costs. Likewise, the research results propose that as the firms' size increase, the extent of IFR practices increase. Thus, based on the research findings together with agency theory, one can conclude that large firms are keener to disclose financial information than small firms.

According to the regression results, there is a significant negative relationship between the company's age and IFR. However, the signaling theory suggests otherwise; it proposes that older companies are more likely to reveal financial information on the internet. Accordingly, the findings of this research are inconsistent with the supposition of the signaling theory. However, several studies support this finding such as; Flanagin (2000); AbuGhazaleh et al. (2012) and Kamalluarifin (2016). This contradiction can be justified by arguing that old Egyptian companies are dubious and hesitant about using new technologies. Furthermore, one can argue that older firms favor the traditional way of disclosing financial information rather than implementing more advanced and innovative methods.

6. Conclusion

It is noticeable that Internet Financial reporting practices are growing tremendously in corporate and market activities. Nowadays, many companies engage in publishing financial information on their websites. It has been argued that the use of the internet can increase the accessibility of financial information. To be more precise, confidence in financial markets is needed by the users of financial reporting; including regulators and investors, such confidence can be obtained by disclosing more information on the internet.

The purpose of this research was to examine the extent of Internet Financial Reporting practices in Egypt. This research studied the use of the internet for disclosing financial information by listed Egyptian companies. Moreover, it examined the company characteristics that impact the extent of corporate disclosure on the internet. The characteristics examined were; company size, profitability, leverage, liquidity, age, ownership structure, and auditor type. Based on the research findings, internet financial reporting of the Egyptian companies was influenced by some firm characteristics including; company's age, size and auditor type. Other variables included in this research were found insignificant.

The research has some implications for the Egyptian Stock Exchange to specifically require all listed Egyptian companies to have websites. While visiting the companies' websites to gather the needed information, several problems were witnessed such as; incomplete financial information, unaudited financial statements, and the unavailability of the latest annual reports. Accordingly, companies that disclose financial information on the internet must abide by certain guidelines to ensure that the financial information provided on their websites are complete, free of manipulation, and audited by specialized auditors. Thus, this research suggests that management and auditors of Egyptian companies to enhance the quality of the information revealed on the internet. Moreover, it is equally important to assign a monitoring body to ensure good implementation of internet financial practices especially for those companies listed on the Egyptian Stock Market. Like any academic research, this research is subject to some limitations. Firstly, the findings of this research are based on a single year; meaning that it is cross-sectional research. Thus, it was incapable of assessing the changes in IFR practices at different periods because that could only be done by performing a longitudinal research. Secondly, the adjusted R square that resulted from the regression model which included three significant variables explains 21.5% of the variation in the IFR in Egypt. Thus the model lacks other independent variables that could affect Internet Financial Reporting. Furthermore, in order to identify the essential types of disclosure items, future research could adopt a weighted as well as un-weighted disclosure index.

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Appendix 1: *Internet Financial Reporting disclosure index*

Contents on financial statements
Balance sheet of current year
Balance sheet of past year(s)
Income statement of current year
Income statement of past year(s)
Cash flow statement of current year
Cash flow statement of past year(s)
Statement of change in owners' equity of current year
Statement of change in owners' equity of past year(s)
Notes to the accounts of current year
Notes to the accounts of past year(s)
Audit report of current year
Audit report of past year(s)
Interim reporting
Segmental reporting
Other financial information
Management discussion/analysis
Information on corporate strategy
Number of shares
Current share price
Share price history or Share price graphing facility
Ownership structure (composition)
Press releases
Main indicators about the company performance
Monthly or weekly sales or operating data
Corporate social responsibility
Environmental information
General information about directors
Information about directors dealing in the company's shares
Information on Corporate Governance
Information on Company Policy
Information on Audit Committee
Information on Board Meeting
Information on Directors Remuneration
Information on Shareholdings
Information on IFRSs/BFRSs
Information on ISA/BSA
Graphs on Financial Performance
Information on the dividend policy
Information on the EPS
Presentation and user support
Sound or video files
Clear boundaries between the audited and un-audited information
Annual report in PDF and/or HTML format
Phone no., address, or e-mail hyperlink to investor relations
Financial data in processable format (such as Excel)
Possibility to download information
Hyperlinks inside the annual report
External links to related contents
Date when site was last updated
Sitemap
Contact us
English version of home page
Internal search engine
FAQ/Query
Privacy
Terms of conditions
Webmail
Career/Jobs