

ON THE EFFECT OF THE ONLINE REPORTING OF ACCOUNTING

INFORMATION ON INVESTMENT DECISION-MAKING PROCESS

IN SAUDI ARABIA

Nizar Alshowaiman

College of Business and Economics, Qassim University, Qassim, Saudi Arabia

Abstract:

The aim of this study is to achieve three aims. First, it is oriented to explore the extent of online reporting of accounting information among companies listed in the Saudi Stock Market. Second, it investigates companies' concerns on online reporting of accounting information.

Finally, it discusses the effect of using online reporting of accounting information on improving investment decision-making. A questionnaire was developed on the basis of a literature review in order to collect the required data from a sample consisted of 30 broker companies. A total of 150 questionnaires were distributed to the participants and 122 questionnaires were used for analysis purposes. The results found that companies listed in the Saudi Stock Market have a moderate degree of using online reporting of accounting information with numerous concerns related to numerous aspects. The original value of this paper emerged from its contribution to online reporting of financial and non-financial information by identify the extent and concerns of online reporting and highlighting that companies practices of online reporting play an important role in investment decisions made investors. The study recommended companies to increase their degrees of online reporting due to its preferable outcomes and recommend future researchers to consider limitations face by this study and to investigate obstacles that hinder companies to using online reporting of information.

Keywords: popularity of online reporting; concerns of online reporting; investment decision-making process; Saudi Stock Market.

JEL Classification: M40, M48.

1. Introduction

Internet expanded benefits includes dissemination of corporate information. One of the most important advantages of using the Internet by corporations to report accounting information is related to the reduction of risks among investors (Ojah and Mokoaleli-Mokoteli, 2012). Timeliness and efficiency of using corporate financial information, as well as, helping investors to make their personal economic decisions were reported by Khan and Ismail (2012) as key benefits of using Internet-based accounting reporting. According to Hindi and Rich (2010), as cited in Abdul Halim et al. (2015), investors use the Internet as the main source of accounting information.

The Internet technology use, as an effective tool for the online reporting of accounting information, was described using numerous terms like Web-based business reporting (Beattie and Pratt, 2003), corporate reporting on the Internet (Marston and Polei, 2004), Internet-based disclosure (Xiao et al., 2004), Internet financial reporting (Smith and Pierce, 2005), online business reporting (Williams et al., 2006), Web-based financial reporting (Momany and Al-Shorman, 2006),



Web-based corporate reporting (Dutta and Bose, 2007), corporate Internet reporting (Ezat and El-Masry, 2008), online corporate reporting (Rowbottom and Lymer, 2009), e-disclosure (Serrano-Cinca et al., 2009), online reporting of accounting information (García and García-García, 2010), corporate online reporting (Al-Htaybat et al., 2011), e-financial reporting (Khan and Ismail, 2012), Internet financial disclosure (Alshowaiman, 2013 and Basuony and Mohamed, 2014), Internet-based disclosure (Gajewski and Li, 2015), online financial reporting (Hellmann, 2016), electronic financial reporting (Scherr and Ditter, 2017) and digital reporting (Alkhatib et al., 2017).

For the current study, online reporting of accounting information (ORAI) was used to describe accounting information disclosure via electronic means such as websites, links to the company's annual reports and links to the capital market. We follow Ashbaugh et al. (1999) who suggested three conditions to describe an organization as using ORAI: the company's financial statements are available on its website, presence of a link of the annual report of the company on the Internet, or a link to security and exchange system of electronic data collection.

The practical use of ORAI expanded among companies since 1990s (AdulHalim et al., 2015). In the academic vein, many studies have undertaken by researchers in different countries to explore extent, determinants and relationships of ORAI with other variables. Using a sample selected from 22 countries, Debreceny et al. (2002) investigated the determinants of ORAI. Holm (2000) explored the extent of ORAI among listed companies In Denmark. Ismail (2002) examined the relationship between company characteristics, size, leverage, as well as profitability and company's voluntary use of ORAI by companies in the Gulf Cooperation Council (GCC) countries. The association between ORAI and company characteristics such as firm size using a sample of Portuguese companies was predicted by Rodrigues and Menezes (2003). The impact of company's characteristics and corporate governance in the context of Egyptian companies was studied Elsayed et al. (2010). The quality of ORAI using a sample of Malaysian companies was examined by Abdul Aziz et al. (2011). Relevance of digital information for financial institutions in Taiwan was studied by Chou et al. (2011). Concurrently, Al-Htaybat et al. (2011), explored the perceptions of users of ORAI in the Jordanian context. The aim of Sharma (2013) study was to explore both extent and determinants of ORAI in commercial banks in Nepal. Momany and Pillai (2013) investigated the extent of ORAI among listed companies in The United Arab Emirates. Andrikopoulos et al. (2013) explored the effect of Internet disclosure on corporate performance using a sample of international companies listed in London, Singapore and Oslo stock exchange markets. Alshowaiman (2013) analyzed the extent of ORAI among Saudi companies as well as factors that affect the adoption of ORAI by these companies. Caliskan and Güler (2014) examined factors that have an influence on ORAI among listed Turkish companies. Alam and Rashid (2014) conducted a survey of websites of Pakistani companies in order to investigate the status of ORAI among these companies. AdulHalim et al. (2015) measured the extent of investors' relations on the basis of web-based accounting reporting in Malaysia. Kamalluarifin (2016) examined the impact of three mechanisms of corporate governance namely, the board independence, the experience and the duality) and three firm's characteristics (firm size, the leverage level, and the firm profitability) on timeliness of ORAI among listed companies in Malaysia. Bin-Ghanem and Ariff (2016) examined the influence of the effectiveness of board of directors and audit committee in GCC countries.

Despite the great attention paid by academic researchers and practitioners to explore ORAI related issues (Dull et al., 2003), little studies have been carried out using a sample of companies listed in the Saudi Stock Market to examine popularity, concerns and the effect of ORAI on investors decisions. On the other hand, the results of studies conducted in western setting cannot be generalized to Saudi Arabia firms due to the difference of business environments. Hence, this



study contributes to the literature of ORAI knowledge through achieving three fold aims which were investigation the extent to which Saudi listed companies use ORAI, exploring their concerns about ORAI related issues and examining the role that ORAI plays in improving investors' decision-making process.

2. Literature review and hypotheses development

Using the Internet as a practical tool to disclose corporate information, either financial or non-financial information, was one aspect of internet technology employed by companies in different countries. A review of the appropriate literature revealed that research on ORAI can be classified in numerous veins. First, the impact of different variables on ORAI such as corporate governance (Parlakkaya et al., 2015; Sanad and Al-Sartawi, 2016; Kamalluarifin, 2016), board characteristics (Razak and Zarei, 2015), firm characteristics such as size, age, ownership and audit quality (Ismail, 2002; Rodrigues and Menezes, 2003; Agyei-Mensah, 2012; Abdullah et al., 2017), corporate performance (Andrikopoulos et al., 2013). Second, determinants of ORAI (Debreceny et al., 2002; Oyelere et al., 2003; Laswad et al., 2005; AbuGhazaleh et al., 2012; Ojah and Mokoaleli-Mokoteli, 2012; Khan and Ismail, 2014; Caliskan and Göler, 2014; Al-Sartawi, 2017b; Yassin, 2017). Third, aspects and practices of ORAI such as financial transparency and presentation of updated information (Ettredge et al., 2002; Ezat and El-Masry, 2008; Khan and Ismail, 2012; Alali and Romero, 2012; Kuruppu et al., 2015; Oyelere and Zanella, 2017). Fourth, extent of ORAI popularity among companies (Ghani and Said, 2010; Abdul Aziz et al., 2011; Alqudsi-ghabra et al., 2011; Momany and Pillai, 2013; Pozniak, 2013; Basuony et al., 2014; Brown, 2018). Fifth, the impact of ORAI on other variables such as market value added and competitive advantage (Hunter and Murphy, 2010; Al-Sartawi, 2017a). Sixth, ORAI as a source of information for decision makers like investors (Bonson-Ponte and Escobar-Rodriguez, 2002; Chang et al., 2008; Pinsker and Wheeler, 2009; Turel, 2010; Kelton and Pennington, 2012; Esterhuyse and Wingard, 2016). Based on these veins of research, the current study considered three major aspects of ORAI, which were popular of ORAI, different concerns of ORAI and the impact of using ORAI on investment decision-making process. The following sections highlight dimensions of each of these aspects on which study hypotheses were developed, tested, and interpreted.

2.1 Popularity of ORAI practice among companies

Reviewing the literature of ORAI revealed, in general, five themes of ORAI popularity among companies as shown in Table (1). The first one refers to website maintaining (Brennan and Hourigan, 2000 and Salawu, 2013). Outside demand for ORAI was a considerable theme of adopting ORAI by companies (Khan et al., 2008, Aly et al., 2010 and AdulHalim et al., 2015). Other studies described voluntary online reporting of financial and non-financial information as key dimensions of ORAI popularity (Ettredge et al., 2002, Xiao et al., 2004, Prabowo and Tambotoh, 2005, Turel, 2010; Salawu, 2013 and AdulHalim et al., 2015). In fact, companies prefer the online reporting in response to stakeholders' demand of ORAI and investors increased interest in using ORAI (Brennan and Hourigan, 2000 and Serrano-Cinca et al., 2009). Finally, companies tend to trade their stocks (Agarwal et al., 2015). Percentages of using ORAI mentioned in the previous studies were dismissed in the current study due to the fact that those studies were published in previous studies.

Table 1:
Dimensions of ORAI popularity among companies

Dimensions	Authors
Maintaining a website	Brennan and Hourigan (2000); Salawu (2013);
and the second second	



Increased demand for ORAI	Brennan and Hourigan (2000), Khan et al. (2008),
	Serrano-Cinca et al. (2009). Aly et al. (2010),
	AdulHalim et al. (2015)
Voluntary adoption of ORAI	Ettredge et al. (2002), Xiao et al. (2004), Prabowo and
	Tambotoh (2005); Turel (2010); Salawu (2013);
	AdulHalim et al. (2015).
Investors increased interest to	Geerings et al. (2003); Kamalluarifin (2016)
use ORAI	
Online trading of stocks	Agarwal et al. (2015)

Following previous studies, this study used the dimensions as reported in Table 1 in order to explore popularity of using ORAI among Saudi companies. Hence, the following hypothesis was suggested:

 H_{01} : There is no popularity of ORAI among companies listed in the Saudi Stock Market.

2.2 Companies' concerns about ORAI

Many benefits of using ORAI have been reported in previous studies. Examples of these benefits include ORAI (Spanos and Mylonakis, 2006, Khan et al., 2008, AdulHalim et al., 2015), decreased costs of disclosure (Debreceny et al., 2002), disclosure of suitable content of ROAI (Marston, 2003, Spanos and Mylonakis, 2006, Khan et al., 2008, AdulHalim et al., 2015), improved timeliness and transparency reporting (Kelton and Yang, 2008, Serrano-Cinca et al., 2009, Aly et al., 2010 and AdulHalim et al., 2015), providing easy access to information (AbuGhazaleh et al., 2012). Another benefit of ORAI related to provide stakeholders with a background about the company, share price and ratio analysis (Hamid, 2005).

Table 2:
Dimensions of companies' concerns about ORAI

Dimensions	Authors
- Presentation of ORAI	Spanos and Mylonakis (2006), Khan et al. (2008), AdulHalim et al.
	(2015).
- Decreased cost of disclosure.	Debreceny et al. (2002),
- Wider reach and speed.	
- Disclosure of suitable content of	Marston (2003), Spanos and Mylonakis (2006), Khan et al. (2008),
ORAI	AdulHalim et al. (2015).
- Improved disclosure transparency	Kelton and Yang (2008); Serrano-Cinca et al. (2009); Aly et al.
	(2010); AdulHalim et al. (2015)
- Timeliness; real-time reporting;	AbuGhazaleh et al. (2012); AdulHalim et al. (2015); Kamalluarifin
periodical reporting of information	(2016).
- Decreased disclosure cost	AbuGhazaleh et al. (2012)
- Easy access to information	AbuGhazaleh et al. (2012)
- Background of the company	Hamid (2005); Ezat and El-Masry (2008)



- Share price data
- Ratio analysis

Referring to dimensions of companies' concerns about ORAI and in order to investigate these concerns among Saudi companies, the following hypothesis was suggested:

 H_{02} : There are no concerns about ORAI among companies listed in the Saudi Stock Market.

2.3 Improving investment decision-making process based on ORAI

Examining the relationship between corporate governance and ORAI, Kelton and Yang (2008) found an effect of corporate governance on company's behaviour of Internet information disclosure due to information asymmetry problems between firms' managers and their investors. Esterhuyse and Wingard (2016) defined information asymmetry as a condition in which one party has an access to better information than other parties.

Table 3:

Dimensions of using ORAI to improve investment decisions

Dimensions	Authors
Forecasting and Future Plan	Khan et al. (2008); Ezat and El-Masry (2008).
Reduced information asymmetry	Debreceny et al. (2002); Ettredge et al. (2002); Kelton and Yang
	(2008); Chang et al. (2008); Esterhuyse and Wingard (2016)
Information on management analysis	Esterhuyse and Wingard (2016)
Financial and nonfinancial information	Spanos and Mylonakis (2006), Salawu (2013); AdulHalim et al.
	(2015).
Reporting on corporate risks	Domínguez and Gámez (2014)
Efficiency and effectiveness of stock	Ragab and Omran (2006)
market	

According of Aly et al. (2010), one of the effective uses of ORAI is to enhance decision-making process of stakeholders. Other uses of ORAI is to ensure effective communication with investors (Bollen et al., 2006). Regarding the relationship between ORAI and investment decision-making process, Domínguez and Gámez (2014) indicated that corporate reporting on risks plays a significant role in decisions-making process and on firm evaluation. Regarding the previous development, we can advance the next hypothesis:

 H_{03} : there is no influence of ORAI on improving investment decision-making in the Saudi Stock Market.

3. Methodology

3.1 The sample, instrument and data collection

Due to the difficulty in locating individual investors who are trading on stocks in the Saudi Stock Market, the number of participants was limited to 30 broker companies which are trading stocks on behalf of individual investors and have sufficient knowledge and experience about the Saudi Stock Market. A questionnaire was developed based on previous studies using Likert-five point scale, where (1) describes strongly disagree and (5) refers to strongly agree. It was



structured into four main parts: Part one refers to popularity of ORAI among companies. Part two aimed at exploring concerns about ORAI among companies listed in the Saudi Stock Market. Part three included items related to using ORAI to enhance investors' decision-making process. A total of 150 questionnaires were distributed to participants in the period between March till September 2017. Only 129 questionnaires were returned. Out of them, 7 questionnaires were excluded due to incomplete data. Therefore, the final number of questionnaires used in this study was 122 questionnaires with a response rate of 80%.

Validity and reliability Validity of the questionnaire used in the current study was explored using a panel of academic and practitioner experts comprised six experts to review the relevance of items of the questionnaire. Based on their suggestions, three items were deleted and four items were modified. Reliability, on the other hand, was measured using Cronbach's alpha. Table 4 shows variables, dimensions of items as well as results of Cronbach's alpha of the questionnaire. The results confirmed that Cronbach's alpha each item is acceptable, ORAI popularity ($\alpha = 0.827$), ORAI concerns ($\alpha = 0.949$), ORAI use in decision-making ($\alpha = 0.941$), investors' dimensions ($\alpha = 0.0.921$). The overall Cronbach's alpha value of questionnaire was ($\alpha = 0.966$). According to George and Mallery (2003), a value of alpha greater than 0.90 indicates an excellent level of internal consistency while a value of alpha greater than 0.80 suggests a good level of internal consistency. Therefore, the instrument used in this study was accepted with due to its high level of reliability. Schmitt (1996) added that correlations among measures of variables should be presented in addition to Cronbach's alpha values. The results of inter-item correlation matrix indicated a positive medium to high correlations among variables.

Table 4:

Variables, dimensions, items and Cronbach's alpha of the questionnaire

Variables	Dimensions		No. of Items	Alpha
	Maintaining a website	POP1	3	
	Increased demand for ORAI	POP2	3	_
ORAI popularity	Voluntary adoption of ORAI	POP3	3	0.827
	Investors increased interest in ORAI	POP4	3	_
	Online trading of stocks	POP5	3	_
	Presentation of ORAI	CON1	4	
	Decreased cost of disclosure.	CON2	3	_
	Suitable content of ORAI	CON3	3	
05.11	Improved disclosure transparency	CON4	3	0.040
ORAI concerns	Timeliness; real-time and periodical reporting of information	CON5	3	- 0.949
	Easy access to information	CON6	3	=
	Company background and analysis	CON7	3	=
OD Al was in	Forecasting and Future Plan	DEC1	3	
ORAI use in	Reduced information asymmetry DEC2		4	0.941
decision-making	Information on management analysis	DEC3	3	_



Financial and nonfinancial information	DEC4	3	
Reporting on corporate risks	DEC5	3	
Efficiency and effectiveness of stock market	DEC6	4	
Total		60	0.966

3.2 Correlation matrix

The results of correlation among variables shown in Table (5) indicated that variables used in this study were positively correlated. ORAI is significantly and positively correlated to ORAI concerns (r = 0.722, P-value = 0.000) and investors use of ORAI in decision-making (r = 0.667, P-value = 0.000). These results suggest a strong linear relationship among variables. Multicollinearity was also evaluated in order to ensure the absence of collinearity problem.

Values of tolerance and variance inflation factors confirmed that none of the variables depended on any of other variables behaviours.

Table 5:

Correlation matrix results

Variables	A	В	С	Tolerance	VIF
A	-			0.478	2.92
В	0.722**	-		0.478	2.92
C	0.667**	0.718**	-	-	-

A: ORAI popularity, B: ORAI concerns, C: ORAI use in decision-making, Tolerance > 0.1, VIF: variance inflation factor < 5.

4. Hypotheses testing

Hypothesis 1 suggested that there is no popularity of ORAI among companies listed in the Saudi Stock Market. Means, standard deviations and t-values were used to assess ranks and relative importance of items for participants' perceptions as can be seen in Table 6.

Table 6:

Means and standard deviations of popularity of ORAI items

No.	Items	Means	SDs	Rank	Importance	t-value	Sig.
5	POP3	3.85	1.34	1	High	6.53	0.000
2	POP2	3.46	1.26	2	Moderate	3.77	0.000
1	POP1	3.39	1.31	3	Moderate	3.44	0.001
4	POP4	3.25	1.31	4	Moderate	2.51	0.003
3	POP5	3.18	0.98	5	Moderate	2.04	0.046
-	-	3.43	1.03	-	Moderate	4.57	0.000

The results in Table 6 designated a moderate overall level of ORAI popularity among companies (mean = 3.43, SD = 1.03, t = 4.57, Sig. = 0.000). Voluntary adoption of ORAI was the item that ranked first with a high degree of importance (mean

^{**} Correlation is significant at the 0.01 level (2-tailed).



= 3.85, SD = 1.34, t = 6.53, Sig. = 0.000), while online trading of stocks was the last item with a moderate degree of importance (mean = 3.18, SD = 0.98, t = 2.04, Sig. = 0.046). Based on these results, it was approved that there is an evidence of ORAI popularity among companies listed in the Saudi Stock Market. Consequently, hypothesis 1 was rejected and the alternative hypothesis was supported. Hypothesis 2 postulated that there are no concerns about ORAI among companies listed in the Saudi Stock Market. Means, standard deviations and t-values were used to assess ranks and relative importance of items for participants' perceptions.

Table 7:

Means, standard deviations and t-values of ORAI concerns items

No.	Items	Means	SDs	Rank	Importance	t-value	Sig.
1	CON1	3.61	1.01	1	Moderate	5.09	0.000
5	CON5	3.53	1.31	2	Moderate	4.23	0.000
6	CON6	3.50	0.94	3	Moderate	3.96	0.000
3	CON3	3.46	1.02	4	Moderate	3.48	0.001
7	CON7	3.43	1.32	5	Moderate	3.20	0.002
4	CON4	3.38	1.36	6	Moderate	3.05	0.003
2	CON2	3.18	1.34	7	Moderate	2.48	0.040
-	-	3.44	1.21	-	Moderate	3.99	0.000

The results displayed in Table 7 showed a moderate level of ORAI concerns among companies. Item 1 ranked first (presentation of ORAI) with a moderate degree of importance (mean = 3.61, SD = 1.01, t = 5.09, sig. = 0.000), followed by item 5 (Timeliness or real-time and periodical reporting of information) with a moderate degree of importance (mean = 3.53, SD = 0.94, t = 4.24, Sig. = 0.000). Item 2 rank last with a moderate degree of importance (mean = 3.18, SD = 1.34, t = 2.48, Sig. = 0.000). The results implied a moderate overall of ORAI concerns among companies (mean = 3.44, SD = 1.21, t = 3.99, Sig. = 0.000). Based on these results, hypothesis 2 was rejected and the alternative hypothesis was accepted. That is, companies listed in the Saudi Stock Market have numerous concerns about ORAI. Hypothesis 3 assumed an effect of ORAI on improving investors' decision-making.

Table 8: Results of multiple regression analysis

Model -	Model summary ANOVA		Model summary ANOV		1	Coefficients	
Model	R	\mathbb{R}^2	F	F Sig.		t	Sig.
1	0.824	0.679	126.024	0.000			
A					0.160	2.14	0.035
В					0.701	9.33	0.000

Predictors: A (popularity of ORAI), B (ORAI concerns). Dependent variable: improving investors decision-making by ORAI

The results in Table 8 showed a strong positive relationship among popularity of ORAI and ORAI concerns and improving investors decision-making by ORAI (r = 0.824). In fact, these factors can explain about 68% of the variance in



improving investors decision-making by ORAI. F-value with a significant level at $\alpha \le 0.05$ (F = 126.024, Sig. = 0.000) emphasized a goof fit model in which independent variables are able to predict the dependent variable. The results indicated also that the degree of effect of ORAI popularity on improving investors decision-making by ORAI ($\beta = 0.160$, t = 2.14, Sig. = 0.035) was less that the degree of effect of ORAI concerns on improving investors decision-making by ORAI ($\beta = 0.701$, t = 9.33, Sig. = 0.000). Consequently, hypothesis 3 was rejected and instead the alternative hypothesis was supported which stated that both popularity of ORAI and ORAI concerns and improving investors decision-making by ORAI have a significant effect on improving investors decision-making. Table 9 presented the results of hypotheses testing.

Table 9: Summary of hypotheses testing

No.	Hypotheses					
H01	There is no popularity of ORAI among companies listed in the Saudi Stock Market.	Supported				
H02	There are no concerns about ORAI among companies listed in the Saudi Stock	Supported				
	Market.					
H03	There is no effect of ORAI on improving investment decision-making in the Saudi	Supported				
	Stock Market.					

5. Discussion and conclusion

Threefold aims were established in this study. First, to investigate the popularity of ORAI among companies listed in the Saudi Stock Market. Second, to explore concerns that the same companies have on ORAI. Third, to examine the effect of using ORAI by Saudi companies on improving investment decision-making process. The results based on data that collected form broker companies confirmed a good level of ORAI popularity among those companies. For participants in this study, the popularity level of ORAI was approved since these companies have a good degree of voluntary adoption of ORAI in the existence of an increased demand from for ORAI from stakeholders particularly investors.

This was in line with previous studies that indicated an outside demand for ORAI by companies (Khan et al., 2008, Aly et al., 2010 and AdulHalim et al., 2015), website maintaining (Brennan and Hourigan, 2000 and Salawu, 2013) as well as increased interest for ORAI by investors (Brennan and Hourigan, 2000 and Serrano-Cinca et al., 2009) and trading stocks using online means (Agarwal et al., 2015). On the other hand, the results accepted that companies have numerous concerns relating to ORAI. Examples of these concerns found by the current study with agreement of previous studies covered presentation of ORAI (Spanos and Mylonakis, 2006, Khan et al., 2008, AdulHalim et al., 2015), decreased cost of disclosure of accounting information (Debreceny et al., 2002), providing a periodical and real-time updated information along with transparency reporting (Kelton and Yang, 2008, Serrano-Cinca et al., 2009, Aly et al., 2010 and AdulHalim et al., 2015), providing suitable content of information when suing online reporting (Marston, 2003, Spanos and Mylonakis, 2006, Khan et al., 2008, AdulHalim et al., 2015) using easy access to this information (AbuGhazaleh et al., 2012) and to disclosure a background on the company, share prices and ratio analysis (Hamid, 2005).

Finally, the results pointed out a significant effect of using ORAI on improving investors' decision-making process. The same result was echoed in Epping and Wilder (2011) who found a positive relationship between web-based reporting of accounting information and enhancement of investment decisions. On the other hand, AdulHalim et al. (2015) also



showed an influence of non-financial information on investors' decisions. According to Esterhuyse and Wingard (2016), companies that seek to increase investors' certainty proceed to voluntary disclosure. Geerings et al. (2003) highlighted an influence of non-financial information on investors' decision-making process. Kamalluarifin (2016) found that companies provide investors with easy access to information in order to make decisions possible. It was concluded based on these results that companies listed in the Saudi Stock Market use online reporting of their financial and non-financial information.

The majority of these companies voluntary chose ORAI in response to the increased demand from stakeholders for using ORAI and to provide a good image of the company in the eyes of investors by adopting several significant practices such as updating their information presented via the Internet, decreasing information asymmetry, achieving information transparency, reporting corporate risks, helping investors through furnishing information on management analysis, future planning and predictions, financial and non-financial information, and efficiency and effectiveness of stock market.

6. Contribution, limitations and recommendations

Many studies have been carried out to investigate online reporting of accounting information in different countries. However, the current study provided a main contribution to the body of the literature through investigating both popularity and concerns of ORAI among companies listed in the Saudi Stock Market in addition to highlighting that using ORAI plays a critical in the enhancement of investment decision-making process. Despite the results of this study, generalization of these results should be considered with caution due limitations of the study related to the small size of the sample, difficulty to reach more investors as well as the cross-sectional design adopted in this study. Future studies, therefore, are called to pay great attention to these limitations.

Bibliography

Abdul Aziz, A., Ariffin, N. and Mohamed, I. (2011). Internet financial reporting in Malaysia. International Conference on Machine Learning and Computing, IPCSIT, 3, IACSIT Press, Singapore.

Abdullah, M. D. F., Ardiansah, M. N., & Hamidah, N. (2017). The Effect of Company Size, Company Age, Public Ownership and Audit Quality on Internet Financial Reporting. Sriwijaya International Journal of Dynamic Economics and Business, 1(2), 153-166.

AbuGhazaleh, N., Qasim, A. and Robert, C. (2012). The determinants of Web-based investor relations activities by companies operating in emerging economics: The case of Jordan. Journal of Applied Business Research, 28(2), 209-226.

AdulHalim, N., Basiruddin, R. and Ali, N. (2015). Measuring the extent of investor relations on the web: A multi-dimensional approach. Procedia Economics and Finance, 31, 714-721.

Agarwal, V., Taffler, R., Bellotti, X. and Nash, E. (2015). Investor relations, information asymmetry and market value. Accounting and Business Research, 46(1), 31-50.

Agyei-Mensah, B. (2012). Corporate financial reporting: Firm characteristics and the use of internet as a medium of communication by listed firms in Ghana. African Journal of Business Management, 6 (6), 2299-2309.

Alali, F. and Romero, S. (2012). The use of the Internet for corporate reporting in the Mercosur (Southern common market): The Argentina case. Advances in Accounting, 28(1), 157-167.

Alam, Z. and Rashid, K. (2014). Corporate Financial Reporting on the Internet: A Survey of Websites of Listed Companies in Pakistan. The IUP Journal of Corporate Governance, XIII(3), 17-39.

Al-Htaybat, K., (2011). Users' perceptions on Internet financial reporting practices in emerging markets: Evidence from Jordan. International Journal of Business and Management, 6 (9), 170-182.

Alkhatib, Esra'a and Collis, Jill and Ojala, Hannu, Digital Reporting by Small Private Companies: Evidence from the UK (June





1, 2017). Available at SSRN: https://ssrn.com/abstract=2978512 or http://dx.doi.org/10.2139/ssrn.2978512

Alqudsi-ghabra, T., Al-Bannai, T. and Al-Bahrani, M. (2011). The Internet in the Arab Gulf Cooperation Council (AGCC): Vehicle of change. International Journal of Internet Science, 6 (1), 44-67.

Al-Sartawi, A. (2017a). The Effect of the Electronic Financial Reporting on the Market Value Added of the Islamic banks in Gulf Cooperation Council Countries, 8th Global Islamic Marketing Conference. 4-6 May. International Islamic Marketing Association, Turkey

Al-Sartawi, A. (2017b). The Level of Disclosing Intellectual Capital in the Gulf Cooperation Council Countries. International Research Journal of Finance and Economics, 159, 90-99.

Alshowaiman, N. (2013). The internet financial reporting by listed Saudi companies on tadawul website: (between 2004 and 2005). Journal of Administrative and Economic Sciences, 6 (2), 13-43.

Aly, D., Simon, J. and Hussainey, K. (2010). Determinants of corporate internet reporting: evidence from Egypt. Managerial Auditing Journal, 25 (2), 182-202.

Andrikopoulos, A., Merika, A., Triantafyllou, A. and Merikas, A. (2013). Internet disclosure and corporate performance: A case study of the international shipping industry. transportation research Part A, 47, 141-152.

Ashbaugh, H., Johnstone, K. and Warfield, T. (1999). Corporate reporting on the Internet. Accounting Horizons: 13 (3), 241-257.

Basuony, M. and Mohamed, E. (2014). Determinants of internet financial disclosure in GCC countries. Asian Journal of Finance & Accounting, 6 (1), 70.

Beattie, V. and Pratt, K. (2003). Issues concerning web-based business reporting: an analysis of the views of interested parties. The British Accounting Review, 35 (2), 155-187.

Bin-Ghanem, H. and Ariff, A. (2016). The effect of board of directors and audit committee effectiveness on internet financial reporting: Evidence from gulf co-operation council countries. Journal of Accounting in Emerging Economies, 6 (4), 429-448.

Bollen, L., Hassink, H. and Bozic, G. (2006). Measuring and explaining the quality of Internet investor relations activities: A multinational empirical analysis. International Journal of Accounting Information Systems, 7 (4), 273-298.

Bonson-Ponte, E. and Escobar-Rodriguez, T. (2002), "A survey on voluntary disclosure on the internet: empirical evidence from 300 European Union companies", The International Journal of Digital Accounting Research, Vol. 2 No. 3, pp. 27-52.

Brennan, N. and Hourigan, D. (2000). Corporate reporting on the internet by Irish companies. Irish Accounting Review, 7, 107-35.

Brown, A. (2018). The financial reporting of the National Fisheries Corporation of Tuvalu: The case for alternative indigenous reporting mechanisms. Marine Policy, 88, 93-100.

Çalişkan and Güler (2014). Corporate reporting on the Internet: An investigation on Turkish listed companies. Marmara University Journal of Economic & Administrative Sciences, 36 (2), 251-274.

Chang, M., D'Anna, G., Watson, I., & Wee, M. (2008). Does disclosure quality via investor relations affect information asymmetry? Australian Journal of management, 33(2), 375-390.

Chou, S., Yen, T. and Kuo, Y. (2011). Internet information relevance of financial institutions: Evidence from Taiwan. Review of Pacific Basin Financial Markets and Policies, 14(04), 647-670.

Debreceny, R., Gray, G. and Rahman, A. (2002). The determinants of Internet financial reporting. Journal of Accounting and Public policy, 21 (4-5), 371-394.

Domínguez, L., and Gámez, L. (2014). Corporate reporting on risks: Evidence from Spanish companies. Revista de Contabilidad, 17 (2), 116-129.

Dull, R., Graham, A. and Baldwin, A. (2003). Web-based financial statements: hypertext links to footnotes and their effect on decisions. International Journal of Accounting Information Systems, 4 (3), 185-203.

Dutta, P. and Bose, S. (2007). Web-based corporate environmental reporting in Bangladesh: An exploratory study. Cost and





Management, 35 (6), 29-45.

Elsayed, A., El-Masry, A. and Elbeltagi, I. (2010). Corporate governance, firm characteristics, and Internet financial reporting: Evidence from Egyptian Listed companies. Corporate Ownership & Control, 7 (4), 396-426.

Epping, L. and Wilder, L. (2011). Factors impacting the credibility of websites disclosure. Journal of Financial Reporting and Accounting, 9 (1), 27-46.

Esterhuyse, L. and Wingard, C. (2016). An exploration of the online investor relations (IR) practices of companies listed on the Johannesburg Stock Exchange (JSE). South African Journal of Economic and Management Sciences, 19 (2), 215-231.

Ettredge, M., Richardson, V. and Scholz, S. (2002). Dissemination of information for investors at corporate Web sites. Journal of Accounting and Public Policy, 21 (4-5), 357-369.

Ezat, A. and El-Masry, A. (2008). The impact of corporate governance on the timeliness of corporate internet reporting by Egyptian listed companies. Managerial finance, 34 (12), 848-867.

Gajewski, J. and Li, L. (2015). Can Internet-based disclosure reduce information asymmetry?. Advances in Accounting, 31 (1), 115-124.

García, A. and Garcia-Garcia, J. (2010). Determinants of online reporting of accounting information by Spanish LGAs. Local Government Studies, 36 (5), 679-695.

Geerings, J., Bollen, K. and Hassink, H. (2003). Investor relations on the Internet: A survey of the Euronext Zone. European Accounting Review, 13(3), 567-579.

George, D. and Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. Boston: Allyn & Bacon.

Ghani, E. and Said, J. (2010). Digital reporting practices among Malaysian local authorities. Electronic Journal of e-Government, 8 (1), 33-44.

Hamid, F. (2005). Malaysian companies' use of the Internet for investor relations. Corporate Governance, 5 (1), 5-14.

Hellmann, A. (2016). The role of accounting in behavioral finance. Journal of Behavioral and Experimental Finance, 9, 39-42.

Holm, C. (2000). Financial reporting on the Internet - An examination across industries and company size. The 23rd Annual Congress of the European Accounting Association, Munich, Germany, March 29-31, 2000.

Hunter, Shirley A. and Smith, L. Murphy. 2010. Impact of Internet Financial Reporting on Emerging Markets. Journal of International Business Research. 8 (2): 21-40.

Ismail , T. (2002). An empirical investigation of factors influencing voluntary disclosure of financial information on the Internet in the GCC countries. Available at https://ssrn.com/abstract=420700 or http://dx.doi.org/10.2139/ssrn.420700.

Kamalluarifin, W. (2016). The influence of corporate governance and firm characteristics on the timeliness of corporate Internet reporting by top 95 companies in Malaysia. Procedia Economics and Finance, 35, 156-165.

Kelton, A. and Pennington, R. (2012). Internet financial reporting: The effects of information presentation format and content differences on investor decision making. Computers in Human Behavior, 28(4), 1178-1185.

Kelton, A. and Yang, Y. (2008). The impact of corporate governance on Internet financial reporting. Journal of accounting and Public Policy, 27 (1), 62-87.

Khan, M. and Ismail, N. (2012). Bank officers' views of Internet financial reporting in Malaysia. Procedia - Social and Behavioral Sciences, 57, 75-84.

Khan, M. and Ismail, N. (2014). Determinants of web based financial reporting in Malaysia. GIABR Journal of Business, 1 (1), 83-102.

Khan, M., Muzaffar, A. and Nazmul, A. (2008). Corporate financial reporting on Internet: Global developments and an appraisal of practices in Bangladesh. Working Paper No. AIUB-BUS-ECON2008-25. American International University-Bangladesh. Available at: http://orp.aiub.edu/WorkingPaper/WorkingPaper.aspx?year=2008.

Kuruppu, N., Oyelere, P. and Al Jabri, H. (2015). Internet financial reporting and disclosure practices of publicly traded corporations: Evidence from Sri Lanka. Accounting & Taxation, 7 (1), 75-91.





Laswad, F., Fisher, R. and Oyelere, P. (2005). Determinants of Voluntary Internet Financial Reporting by Local Government Authorities. Journal of Accounting and Public Policy, 24, 101-121.

Marston, C. (2003). Financial reporting on the internet by leading Japanese companies. Corporate communications: An international journal, 8 (1), 23-34.

Marston, C. and Polei, A. (2004). Corporate reporting on the Internet by German companies. International Journal of Accounting Information Systems, 5 (3), 285-311.

Momany and Pillai (2013). Internet financial reporting in UAE: Analysis and implications. Global Review of Accounting and Finance, 4 (2), 142-160.

Momany, M. and Al-Shorman, S. (2006). Web-based voluntary financial reporting of Jordanian companies. International Review of Business Research Papers, 2, 127-39.

Ojah, K. and Mokoaleli-Mokoteli, T. (2012). Internet financial reporting, infrastructures and corporate governance: An international analysis. Review of Development Finance, 2 (2), 69-83.

Oyelere, P. and Zanella, F. (2017). Regulation and Transparency: The Case of Corporate Governance Disclosure on the Internet in the United Arab Emirates. World Academy of Science, Engineering and Technology, International Journal of Economics and Management Engineering, 11(12).

Oyelere, P., Laswad, F. and Fisher, R. (2003). Determinants of Internet financial reporting by New Zealand companies. Journal of International Financial Management and Accounting, 14 (1), 26-63.

Parlakkaya, R., Kahraman, U. and Cetin, H. (2015). The effects of the corporate governance on the level of Internet financial reporting: Evidence from Turkish companies. International Journal of Economics and Management Engineering, 9 (3), 920-924.

Pinsker, R. and Wheeler, P. (2009). Nonprofessional investors' perceptions of the efficiency and effectiveness of XBRL-enabled financial statement analysis and of firms providing XBRL-formatted information. International Journal of Disclosure and Governance, 6(3), 241-261.

Prabowo, R. and Tambotoh, J. (2005). Internet financial reporting as a voluntary disclosure practice: An empirical analysis of Indonesian manufacturing firms using order logistic regression. Jurnal Akuntansi & Bisnis,5(2), 149-160.

Ragab, A. and Omran, M. (2006). Accounting information, value relevance and investors' behavior in the Egyptian equity market. Review of Accounting and Finance, 5(3), 279-297.

Razak, R. and Zarei, K. (2015). The Influence of board characteristics and ownership structure on the extent of Internet financial disclosure in Saudi Arabia. Journal of Emerging Trends in Economics and Management Sciences, 6 (2), 158-168.

Rodrigues, L. and Menezes, C. (2003). Financial reporting on the internet - The Portuguese case. RAE electron, 2 (2). http://dx.doi.org/10.1590/S1676-56482003000200004.

Rowbottom, N. and Lymer, A. (2009). Exploring the use of online corporate reporting information. Journal of Emerging Technologies in Accounting, 6 (1), 27-44. https://doi.org/10.2308/jeta.2009.6.1.27.

Salawu, M. (2013). The extent and forms of voluntary disclosure of financial information on Internet in Nigeria: An exploratory study. International Journal of Financial Research, 4(1), 110-119.

Sanad, Zakeya, Al-Sartawi, Abdalmuttaleb. 2016. Investigating the Relationship between Corporate Governance and Internet Financial Reporting (IFR): Evidence from Bahrain Bourse. Jordan Journal of Business Administration, 12(1):239-269.

Scherr, E. and Ditter, D. (2017). Customization versus standardization in electronic financial reporting: Early evidence from the SEC XBRL Mandate. Journal of Information Systems: Summer, 31 (2),125-148.

Schmitt, N. (1996). Uses and abuses of coefficient alpha. Psychological Assessment, 8(4), 350-353.

Serrano-Cinca, C., Rueda-Tomás, M. and Portillo-Tarragona, P. (2009). Factors influencing e-disclosure in local public administrations. Environment and planning C: Government and Policy, 27 (2), 355-378.

Sharma, N. (2013). Web-based disclosures and their determinants: Evidence from listed commercial banks in Nepal. Accounting and Finance Research, Accounting and Finance Research, 2 (3), 1-13.





Smith, B. and Pierce, A. (2005). An investigation of the integrity of Internet financial reporting. The International Journal of Digital Accounting Research, 5 (9), 47-78.

Spanos, L. and Mylonakis, J. (2006). Internet corporate reporting in Greece. European Journal of Economics, Finance and Administrative Sciences, 7, 1-14.

Turel, A. (2010). The Expectation Gap in Internet Financial Reporting: Evidence from an Emerging Capital Market. Middle Eastern Finance and Economics, (8), 94-107.

Williams, S., Scifleet, P. and Hardy, C. (2006). Online business reporting: An information management perspective. International Journal of Information Management, 26 (2), 91-101.

Xiao, J., Yang, H. and Chow, C. (2004). The determinants and characteristics of voluntary Internet-based disclosures by listed Chinese companies. Journal of Accounting and Public Policy, 23 (3), 191-225.

Yassin, M. (2017). The determinants of internet financial reporting in Jordan: financial versus corporate governance. International Journal of Business Information Systems, 25(4), 526-556.



Reproduced with permission of copyright owner. Further reproduction prohibited without permission.

