A Review of E-Financial Reporting Research
Authors

Mohd Noor Azli Ali Khan\textsuperscript{1}
and Noor Azizi Ismail\textsuperscript{2}
1Management Department, Faculty of Management and Human Resource Development, Universiti Teknologi Malaysia

2College of Business, Universiti Utara Malaysia
Abstract

Internet is a very exciting medium to look into especially with regards to presentation, disclosure
and financial reporting. The Internet also has become one of users’ most frequently used sources of information. Consistent with the innovation of the
Internet as a cheap but powerful communication device, disclosure of financial and non-financial information on the Internet is becoming an increasingly
popular subject of research. Internet reporting or e-reporting is a very powerful and useful tool for financial reporting information.
Reporting (IFR) has become quite a trendy practice of communicating with stakeholders in recent times. World Wide Web (WWW) technologies are
extensively used by ever-increasing number of companies around the world. A growing percentage of those companies have created
and promoted websites on the Internet. There have been tendencies to disseminate information on their websites, including financial data, financial
performance, social and environmental issues, corporate information, corporate governance, marketing and other information. At this point, a
significant amount of academic research has been established in the area of IFR in developed countries such as the United States, United Kingdom and other
European countries. On the contrary, very few studies are carried out in developing countries. Previous IFR studies are divided into three main
groups: single-country studies, multi-country studies and international studies. Methodologically, studies on IFR are categorized into three main
groups: descriptive research, comparative research and explanatory research. This paper seeks to contribute to the existing body of knowledge
concerning online financial reporting by reviewing and documenting the research of IFR.
Keywords: Internet financial reporting, descriptive studies, relationship studies and dimension.
Introduction

The Internet, being the fastest mode of communication, multidirectional in nature
and very fast in transmission (Sanchez et al., 2011), has the widest reach in the present world of globalized economics (Garg & Verma, 2010) and
can be a powerful tool for building shareholder value (Seetharaman & Subramaniam, 2005/2006). The Internet also is a unique information
disclosure tool that encourages flexible forms of presentation and allows immediate, broad, and inexpensive communication to investors
Furthermore, the Internet also provides a unique form of corporate voluntary disclosure that enables companies to provide

(Kelton & Yang, 2008).
information instantaneously to global audience (Abdelsalam, Bryan & Street, 2007). Moreover, the Internet enables companies to
voluntarily communicate share prices, preliminary announcements, press conferences, and other information via email and web casts to a large global
audience of current and perspective investors (Abdelsalam & Street, 2007).
Using the Internet allows a company to provide on-line a large volume of information which users can access on demand, in function of their particular
area of interest (Bonson & Escobar, 2006). Also, corporate information on the Internet provides benefits in cost-cutting, distribution, frequency and
speed (Gandia, 2008). In the present global era, the use of Internet in financial reporting plays a significant role in the market (Al Arussi et al., 2009) and
forming investors worldwide (Abdelsalam & Street, 2007). In relation to the Internet as a medium for disclosure, the management can reduce
the agency problem and alleviate information asymmetry due to its unlimited space, wide coverage, easy-access report, and real-time
information (Al Arussi et al, 2009). Internet financial reporting (herein after known as IFR) has become quite a popular practice of communicating with
stakeholders in recent times. Therefore, research on the evolution of it is considered relevant to public. Therefore, this paper aims to examine and
synthesize the previous studies on IFR research.

The remainder of this paper is organized as follows: the next section
provides a review of the literature on IFR research and describes the categorization of IFR. The following section describes the descriptive studies,
association studies, dimension of IFR and timeliness of IFR. Conclusions are drawn in the last section. This section should follow
keywords. This section should provide background of the study and highlight research motivation.
Review of Literature on IFR

Literature in relation to financial reporting on the Internet is growing
(Oyelere et al., 2003). In recent years, Internet usage has significantly impacted companies’ corporate reporting practices (Khadaroo, 2005) and the
issue of IFR has been the subject of attention of a number of researchers (Chatterjee & Hawkes, 2008). There are lots of IFR researches. The growing
use of the Internet for corporate dissemination, including providing annual reports on the Internet, and the extent and sophistication of IFR
practices vary across countries (Mohamed et al., 2009). In general, the research of IFR can be divided into several themes, as follows:
descriptive research, comparative research and explanatory research (Pervan, 2006). Furthermore, most researchers include a
comprehensive set of financial statements and financial highlights extracted from the statements in their corporate website to
Categorization of IFR

An extensive review of the literature reveals that several studies have looked into IFR and could be
classified into two themes (Hassan et al., 1999). Hassan et al. (1999) categorize IFR research that examine (1) the practice of companies for
reporting purpose and investor relations (IR) communication strategy; and (2) the determinants of Web-based disclosure policy choice. Moreover, the
literature in IFR area can be classified into two themes:
(1) the practices of companies using the Internet for financial reporting purposes and as
an investor relations communication strategy; and (2) the determinants of web-based disclosure policy choice (Joshi & Al-Modhahdki, 2003).
Furthermore, the research on web reporting can be divided into two main categories: descriptive research and explanatory research (Marston & Polei,
2004; Garg & Verma, 2010). Otherwise, the research on IFR can be divided into three main categories: descriptive research by one or more countries, research
by professional bodies and explanatory research (Ali Khan, 2010).

A number of studies discuss the benefits of IFR,
speculate on its future, and identify issues and concerns in relation to the use of such medium (Oyelere et al., 2003). Oyelere et al. (2003) find
that some studies report on surveys on IFR practices in single countries while others undertake cross-country comparisons. Furthermore, literature in
IFR field differentiates research for three main groups; single-country studies, multi-country studies and international studies (Celik et al., 2006).
A few studies examine the corporate characteristics associated with the choice of Internet corporate financial reporting (Oyelere et al., 2003).
The extent of the studies on corporate internet reporting (CIR) can be categorized as either descriptive studies or association studies.
Abdelsalam et al. (2007) explain that descriptive research focus on providing statistics on how many items of given disclosure
checklist are disclosed/provided. Otherwise, association research (i.e., providing evidence of independent variables associated with
the level of disclosure) emphasizes the determinants of CIR (Abdelsalam et al., 2007).
In summary, several prior studies describe IFR disclosure and presentation in specific countries or listed companies on specific stock exchanges.
Additionally, as summarized in Table 1, evidence links several firm specific characteristics with the level of IFR disclosure. These include the size of
the firm, which appears to be positively associated with the disclosure on the Internet. Also, evidence on other variables examined is largely inconclusive.
Table 1: Summary of Selected Empirical Studies Addressing Determinants of Internet Financial Reporting
Please See Table 1 in Full PDF Version
Explanatory Studies

Most of early studies on IFR are descriptive in nature. Petravick and Gillett (1996) reported that 69% of the
top 150 of Fortune 500 companies had websites and 54% of them made some form of financial information available on their websites. Louwers,
Pasewark and Typpo (1996) found that approximately 23% of the top 150 Fortune 500 corporations include virtually all the information
typically shown in a paper based annual report, on the web. Petravick and Gillett (1998) discovered that 99 (79.2%) of the top 125 of the Fortune 500 companies
published their earnings online simultaneously with an earnings announcements. Gowthrope and Amat (1999) analyzed the
financial reporting on the Internet by a total of 379 firms quoted on the Madrid Stock Exchange and note that 19% of the firms disclose financial
information on the web. Deller, Stubenrath and Weber (1999) reported that U.S. corporations were using the Internet for investor relations more
extensively than their counterparts in the U.K. and Germany. Hedlin (1999) analyzed the web based investor relations activities of 60 companies listed on
the Stockholm Stock Exchange in Sweden and found that 83% of the firms had financial reports on their websites.
Craven and Marston (1999) analyzed a sample of 2006 companies obtained from the FTSE-100 index and from companies with high stock capitalization according to
the Financial Times in January 1998. Findings included that 153 companies (74\%) had web pages, 67 companies (33\%) provided their accounts in
detail, whereas 42 companies (20%) only provided a summary.

Debreceny and Gray (1999) surveyed the corporate
website of 45 large, listed U.K., German, and French companies to examine audit implication of electronic dissemination of financial information. Their
findings raised significant issues regarding the format and usability of the information provided, such as: is the audit opinion safe from change by the client or
related other party?, should the web-based auditor’s report reside at the auditor’s or the client’s website?, what is the meaning of an audit report
in a hyperlinked web environment?, should the auditor allow hypertext links to the auditor’s report?, should the auditor allow hypertext links from
the auditor’s report?, home of the financial statements and the audit, auditor’s report ‘look and feel’, and authority of the audit statements.
The disclosure of corporate information by Internet is attracting the attention not only of various accounting bodies but also researchers (Bonson & Escobar, 2006).
Several standard setters and professional groups have also sponsored IFR studies. These include the Institute of Chartered Accountants in England and
Wales (ICAEW, 1998, 2004), the International Accounting Standards Committee (IASC) (Lymer et al., 1999), Canadian Institute of Chartered
Accountants (CICA) (Trites, 1999), the U.S. Financial Accounting Standards Board (FASB, 2000, 2004), and the International
Federal of Accountants (IFAC, 2002).
Relationship Studies

While descriptive studies provide valuable insights into the studies of IFR, this probably would not explain
the factors that influence the IFR. Therefore, several studies have been carried out to explain the factors that influence IFR. Research on IFR has produced
valuable insights into the determinants of companies’ Internet disclosure choice (Kelton & Yang, 2008). Ashbaugh et al. (1999) document IFR practices and
provide preliminary evidence on why some firms disseminate financial information on their corporate websites, while others do not. Ashbaugh et
al. (1999) find that firms engaging in IFR are larger and more profitable than those not engaging in IFR. Furthermore, firms responding to their survey...
indicate that disseminating information to shareholders is an important reason for establishing an Internet presence. Ashbaugh et al.
(1999) is one of the pioneer studies to investigate the IFR issue; however, it does not provide a theoretical rationale for its analysis.
Craven and Marston (1999) present the result of a survey of Internet reporting based on the top 200 UK companies. They find that larger companies
are more likely to disclose information on their website, although industrial classification did not seem to be significant. Pirchegger and Wagenhofer (1999)
find that whereas firm size and profitability affect the IFR of Australian companies, they do not affect German companies’ IFR choices. Joshi and Al-
Bastaki (2000) survey the current state of Internet usage by a sample of 35 banks in Bahrain. Their study finds that large size banks have been using their
websites of financial reporting purposes.

Debreceny et al. (2002) examine voluntary IFR in 22 countries to identify the
firm and environment determinants of IFR. They used two dimensions (i.e., content and presentation) to measure the level of IFR. They find that presentation
aspect of IFR is more associated with the level of technology and disclosure environment than the content of IFR. They also find that voluntary
adoption of IFR in 22 countries is associated with company size and listing on an U.S stock exchange, but not associated with leverage, risk, or Internet
penetration in the countries.

Xiao et al. (2004) measure IFR in four dimensions (i.e., content, presentation
methods, mandatory items, and voluntary items) and analyze the determinants of Internet-based corporate disclosure by Chinese listed companies. They find that
IFR is positively and significantly associated with the proportion of institutional ownership (also called legal person ownership), but not with
ownership by domestic private investors, foreign investors, or the state. Al Arussi et al. (2009) find that level of technology, ethnicity of CEO and firm
size are determinants of both internet financial and environmental disclosure.

More recently, Ali Khan (2010) also measure IFR in
two dimensions (i.e., content and presentation) and analyzes the determinants of IFR by Malaysian listed companies. He finds that IFR is
positively and significantly associated with firm size, listing age and return on equity. Furthermore, Aly et al. (2010) find that profitability, foreign listing
and industrial sector (communications and financial services) are the most important factors that affect the amount and the
presentation formats on the internet reporting in Egypt.

One characteristic of prior studies on IFR research is strong focus on the
economic aspects of determinants of IFR (Kelton & Yang, 2008). A number of studies investigate the association between IFR and factors such as firm
size, profitability, leverage, etc. (Craven & Marston, 1999; Debreceny et al., 2002; Ettredge et al., 2002; Oyelere et al., 2003).
After having an extensive literature review, this section concludes that the dimension of IFR had been defined in various and inconsistent ways.
Consequently, the use of different dimensions of IFR construct creates problem and difficulties in integrating the existing knowledge. Table 2 show a
summary of independence variables result of IFR research.
Table 2: Summary of Independence Variables Results for IFR

Please See Table 2 in Full PDF Version
Timeliness of IFR

Although many studies investigate the extent of IFR and its determinants, few studies focus on the
timeliness (Ezat & El-Masry, 2008). According to Abdelsalam and Street (2007), numerous studies examine the level of corporate internet
reporting (CIR) and/or the determinants of IFR level of CIR: only few studies focus on timeliness. Pirchegger and Wagenhofer (1999) analyze five items in the
dimension of timeliness: regular website updating, ability to distinguish current from older information, the availability of daily stock quotations,
the response time to standard requests, and the response time to special requests. Pirchegger and Wagenhofer (1999) find that, on average, German
and Austrian companies satisfy 66.3% of the five timeliness criteria studied.

Ettredge, Richardson and Scholz (2002) find an
average delay of 30 days from U.S. companies file Form 10-K and the date Form 10-K appears on the company website. Shorter delays are associated with
greater profitability, shorter lags in announcing earnings through press releases, and the use of multiple file formats for Form 10-K presentations.
Longer delays are associated with external links to U.S. Security and Exchange Commission (SEC) dan Electronic Data
Gathering, Analysis and Retrieval (EDGAR).

Moreover, two CIR studies focusing on timeliness were published in 2004. Oyelere
et al. (2004) identify growing user demands for increased timeliness of CIR. Davey and Homkajohn (2004) measure CIR timeliness and find that
Thai companies perform better on user support and content than timeliness and technology. Ezat and El-Masry (2008) examine the key factors that affect the
timeliness of IFR by Egyptian listed companies on the Cairo and Alexandria Stock Exchange. They find that a significant relationship between the
timeliness of IFR and firms size, type of industry, liquidity, ownership structure, board composition and board size. Abdelsalam and El-
Masry (2008) provide evidence of a link between timely IFR and the ownership structure characteristics of board independence and size.
Conclusion

This paper provides insights into the evolution of IFR research to contribute to the literature
by reviewing and documenting the research of IFR. It is perhaps the conclusion of this paper that many are keen to see pointers for the direction of
future empirical and more conclusive work in the IFR field.

Previous studies reveal that the trend of IFR researches
starts from descriptive research, comparative research, association research, dimension and timeliness of IFR. As suggested by Ashbaugh et
al. (1999), Oyelere et al. (2003), and Ali Khan and Ismail (2011), future research should develop a comprehensive predictive model for the choice of IFR.
Furthermore, in line with the proposition before, changes in the IFR environment necessitate current examination and broader analysis of
disclosure practices (Kelton & Yang, 2008). Therefore, question such as determinants or factors underlying the influences for adopting practices
needs more detailed examination and analyses. This situation will give an opportunity to further investigate the factors that
influence the practice of IFR.

A comprehensive review of existing literature disclosure index indicates
that different researchers used different dimensions to represent IFR disclosure index. These differences contribute to the variations in the findings among the
researchers and thus are unable to clearly explain the phenomenon and the influence factors. Therefore, the dimension of IFR disclosure index has
also become an important and an interesting agenda to be investigated. Based on extensive literature review, as mentioned by Ali Khan and Ismail (2010), and Ali
Khan and Ismail (2011), it could be concluded that a more comprehensive and holistic reporting index using a relevant dimension is needed. Content
dimension will reveal information on how to use latest display in disseminating a company corporate information and website design. Then,
presentation dimension will supply information on the usage of the latest display criteria in disseminating corporate
information and company's web design.
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