

USERS' PERCEPTIONS ON INTERNET FINANCIAL REPORTING: EMPIRICAL EVIDENCE FROM BANGLADESH

Md. Babar^{*}, and Md. Abdul Mannan^{}**

Abstract

In the age of digitalization, Internet Financial Reporting (IFR) brings a revolutionary & dramatic change in information availability to the external users. The Internet technology enables companies to make continuous disclosure of corporate information which offers several significant benefits to the users. The motivation of this research is to measure the perception of users regarding the benefits and problems of internet financial reporting in the context of Bangladesh. We have selected the 133 respondents by random sampling. The respondents of our study include students, teachers, bankers, businessman and so on. The researchers have identified fourteen most important benefits that IFR can offer to the users. Among the benefits of IFR, the most mentionable are – easily communicable, conveniently accessible, provide timely information, comfortable to use and inexpensive. This study revealed few problems of IFR also—difficulty in differentiation between unaudited and audited items, costly IFR printing and difficulty in differentiation between mandatory and non-mandatory information. Finally, we have made a factor analysis with the fourteen items (the benefits of IFR). This resulted in six factors which explain 63.43% of the total variance. This research is very much relevant in the recent digitalization strategy of Bangladesh and will contribute in the existing academic literature as this is the first documented attempt of this kind in Bangladesh.

Keywords: Internet Financial Reporting (IFR), financial statements, factor analysis, benefits of IFR.

1. Introduction

The Internet is a technology with the power to revolutionize external financial reporting (Jones & Xiao, 2004). Internet Financial Reporting (IFR) can be defined as the public reporting of operating and financial data of a business enterprise by the WWW or related Internet-based communications medium (Lymer et al., 1999). Use of Internet as a channel for dissemination of the corporate information is a phenomenon that has experienced considerable growth during the recent years (Moradi et al., 2011). The development of the Internet as a distribution channel of financial information creates a new communication medium and reporting environment in the corporate world (Ashbaugh et al., 1999; Chan & Wickramasinghe, 2006).

In the Internet era many listed companies have decided to use Internet as a communication tool for investors' relation (Pervan & Sabljic, 2011). It is a unique information disclosure tool that encourages flexible forms of presentation and allows immediate, broad, and inexpensive communication to investors (Kelton & Yang,

* Assistant Professor, Department of Accounting & Information Systems, Jagannath University.

** Assistant Professor, Department of Accounting & Information Systems, Jagannath University.

2008). Internet communication is multidirectional in nature and very fast in transmission (Sanchez et al., 2011). The Internet also provides a unique form of corporate voluntary disclosure that enables companies to provide information continuously and instantaneously to global audience (Abdelsalam et al., 2007).

According to Lev (1992) continuous disclosure minimizes investors' surprise especially on negative news. Lev (1992) also noted that without active disclosure the truth never comes out and a permanent information gap exists between insiders and outsiders of the company. Traditional print-media cannot be used for continuous corporate disclosure. The traditional methods of corporate communication are less timely resulting in a permanent information gap between insiders and outsiders and therefore, they lack decision-usefulness. The Internet offers dynamic updating potential and thus addresses timeliness implications of both financial and non-financial information.

Moreover, Lymer and Tallberg (1997) have identified a number of advantages that the internet offers over traditional print-media. First, the internet offers a low cost solution (to both users and producers) to access of corporate data. Second, it offers instant access to data at convenient times for users. Third, it facilitates mass communication. Fourth, the internet has fewer constraints on presentation flexibility than conventional print-media. Fifth, it offers access to greater volumes of data than previously possible. And finally, it allows users to export data for manipulation. Because of these advantages, the Internet appears particularly pertinent to corporate reporting.

Unfortunately, sometimes IFR may provide unreliable information by posting unaudited financial information. Besides, inadequate website security will also result in unreliable information, which is caused by immoral hacker activities (Ashbaugh et al., 1999). According to Ashbaugh et al. (1999), the financial information given can be considered reliable if it has been certified by an independent auditor. Worries will arise when irresponsible preparer intend to provide unaudited information on the web. Preparer of IFR might provide inadequate IFR information, which may not meet the users' needs (Baldwin and Williams, 1999).

In the following section, we will make a review of relevant literature and try to focus the various aspects of Internet Financial Reporting (IFR) from the research insight.

2. Review of Literature

There have been a growing number of empirical studies on IFR since 1995 reflecting the growth in this form of information dissemination (Davey & Homkajohn, 2004). In recent times, IFR is an attractive and fast growing research topic (Oyelere et al., 2003; Xiao et al., 2005). Several professional studies in the US, UK and Canada have also examined the status of IFR. These include the Institute of Chartered Accountants in England and Wales (ICAEW) (Spaul, 1997), the International Accounting Standard Committee (IASC), the International Accounting Standards Board (IASB) (Lymer et al., 1999), Canadian Institute of Chartered Accountants (CICA) (Trites, 1999), and the U.S. Financial Accounting Standards Board (FASB) (FASB, 2000, 2001).

Furthermore, very few prior studies explore the demand side of IFR related issues. Such issues include users' information attitudes and preferences (Beattie and Pratt 2003), and users' preferences of the online reporting format and the effect of such format on decision-making (Ghani et al., 2009).

Jones and Xiao (2003, 2004) and Xiao et al. (2002, 2005) investigated the potential development and future trends as expected by expert users of IFR. He found that IFR is a mainstream source of information but traditional financial reporting is still actively used.

Ettredge et al. (1999) analyzed the online financial information provision of companies by comparing those that target sophisticated users with those that target less sophisticated users. They concluded that the sophisticated user generally led to a more extensive online data provision (for instance the full annual report), whereas the less sophisticated user was provided with more abbreviated financial information (for instance a summary of the annual report).

Hodge and Maines (2004) investigated whether XBRL-enhanced search engines help non-professional financial statement users get and use related financial information for investment decision-making. They found that while many users do not access this technology, those that do are better at getting and using information. They concluded that these search-facilitating technologies support users by increasing transparency of financial statement information.

Lymer (1999) found that the advantages of the Internet for financial reporting are its cheapness, speed, dynamism and flexibility. IFR can be cost effective, fast, flexible in format, and accessible to all users within and beyond national boundaries (Haniffa & Ab. Rashid, 2004).

Joshi & Al-Modhahki (2003) and Ali Khan & Ismail (2009) found 'global reach and mass communication', 'timeliness and updateability' and 'interaction and feedback' are important advantages of IFR, while 'security problems' and 'authentication, attestation and legal impediments' are important disadvantages of IFR.

Moreover, Ali Khan and Ismail (2012 and 2013) examined the perceptions regarding advantages and problems in using IFR in Malaysia. The results revealed that there are three benefits to the users who depend on IFR to collect financial information; increasing timeliness and efficiency in obtaining financial information, making investment decision process easier and faster, and providing information for companies inexpensively.

In a study Al-Htaybat et al. (2011) investigated the perceptions of users regarding IFR practices in Jordan. The author found that there is a strong agreement among the respondents on IFR being useable, accessible and available any time and from anywhere as a source of information for users' decision making in Jordan. However, users' perceptions regarding usefulness of IFR in decision making significantly differed. They addressed economic factors such as the cost of having Internet access and the cost of printing accounting information as two concerns regarding the future of IFR in Jordan. They also stated that the traditional copy of the

annual report is still the preferable source of accounting information for Jordanian users.

Beattie and Pratt (2003) investigated all groups involved in corporate internet financial reporting including expert users, non-expert users, preparers and auditors. They looked at users' perceptions of desirable additional information to be provided online and the ability to easily move information if provided in different formats. They concluded that increasing of IFR has favorable impact on users.

Khadaroo (2005) suggested that the problem of IFR is the lack of auditing of IFR, thus leaving auditors with little control over contents and changes made to audited information. The paper concluded suggesting that IFR should be standardized in order to protect users and improve credibility and reliability of financial information. Furthermore, corporate information provided on the Internet should be audited.

Hodge (2001) investigated whether firms can influence investors' perceptions of their financial reports by hyperlinking audited financial statements to unaudited information. The study found that this affected investors' judgment, and further misclassification of audited or un-audited financial information which mislead investors.

Mohamed (2002) examined the dissemination of information on companies' websites by comparing three active stock exchanges in Egypt, Kuwait and Saudi Arabia. He concluded that most companies use the Internet as an advertising medium rather than a medium for disseminating financial information.

In a study, Ali Khan and Omar (2013) analyzed the important items in the disclosure of content and presentation dimension that can be used to describe the level of IFR from auditor's perception in Malaysia. It was found that loading time of the website below 10 seconds, annual report in PDF format, hyperlinks inside the annual report, ability to download reports and hyperlinks to financial analysts are consider important in case of internet financial reporting.

Although the literature addressing the concept of IFR has been subject to increasing amounts of research over last decade and is considered to be a user-oriented development, little is known about the users' perceptions regarding the role of IFR in practices (Al-Htyatbat et al., 2011; Beattie and Pratt, 2003; Quagli and Riva, 2005). Moreover, only a limited number of studies have emerged to explain the attitudes and preferences of users towards internet financial reporting, especially in the context of emerging economies. To the best knowledge of the authors, no extensive research is done in Bangladesh regarding this issue. This study is the first attempt to explore the users' perceptions towards the advantages and disadvantages of IFR in the context of Bangladesh. Therefore, we can formulate the objective of this research as follows.

3. Research Objective

3.1 Broad objective of the research:

- To find out users' perception towards the internet financial reporting (IFR) in Bangladesh.

3.2 Specific objectives of the study:

- To measure the perception of users' regarding the benefits of internet financial reporting.
- To find out the users' perception regarding the various problems of internet financial reporting.

4. Methodology of the study

4.1 Population and Sample

The population of the study is the entire users of Bangladesh who use internet financial reporting (IFR) for various purposes. We have selected the 133 respondents by random sampling. The respondents of our study include students, teachers, bankers, businessman and so on. The respondents of our study usually use the internet financial reporting for their investment purpose. Here, our sample includes graduate level student having investment in capital market and hence it is believed that they are also significant users of IFR.

Table1: The demographic characteristics of respondents.

Gender		
	Frequency	Percent
Female	32	24.1
Male	101	75.9
Total	133	100.0
Age		
	Frequency	Percent
20-25 years	72	54.1
26-30 years	57	42.9
31-35 years	2	1.5
36-40 years	2	1.5
Total	133	100.0
Education		
	Frequency	Percent
Graduate with business background	103	77.4
Graduate with non-business background	8	6.0
post graduate with business background	17	12.8
post graduate with non-business background	4	3.0
having professional qualification	1	.8
Total	133	100.0
Occupation		
	Frequency	Percent
Students	102	76.7
Teacher	5	3.8
Bankers	13	9.8
Others	13	9.8
Total	133	100.0

4.2 Development of the questionnaire and Administration of the survey

The questionnaire is comprised of four sections: First section is the introduction regarding the intention of the research which is addressed to the respondent so that respondent may know about the motive of this research. Second section is the core part which asks the respondents about their perception regarding the various benefits and problems of internet financial reporting (IFR). Third section contains the demographic profile of the respondents.

In this study, we chose a Likert-type scale format for collecting responses. Sekaran (1992) and Zikmund (1997) suggest that the Likert scale is suitable for use as an attitudinal scale. Therefore, all the constructs in the questionnaire adopted a five point Likert-type scale.

From literature review, we identified fourteen significant benefits of IFR and a few problems also. Data were collected from 133 samples using self-administered questionnaire. The respondents are asked to state their perception regarding various aspects of the Internet Financial Reporting.

To ensure the validity of the scale, the systematic review of literature is conducted from which the items of the questionnaire are developed. Various prior studies used the same items or variables to measure the perceptions of users regarding the internet financial reporting. Moreover, we have conducted a group discussion with the colleagues of department of Accounting & Information Systems, Jagannath University. From that discussion, we have incorporated significant items and eliminated a few. Language is kept as simple as possible; instructions are carefully worded so that the respondents may easily understand the questionnaire without any ambiguity. So the researchers are satisfied regarding the validity of the scale.

On the other hand, the researchers also made a reliability analysis of the data collected from the respondents. The main purpose for the reliability analysis of the data is to determine the trustworthiness of the data. However, Cronbach's alpha is the one that is most commonly used reliability measures (Malhotra, 2000; Cronbach, 1951; Hair et al., 2006). In our current study, the reliability co-efficient Cronbach's Alpha value is 0.60 which is within the acceptable limit (Cronbach, 1951). So we can state that the scale used in this study is reliable.

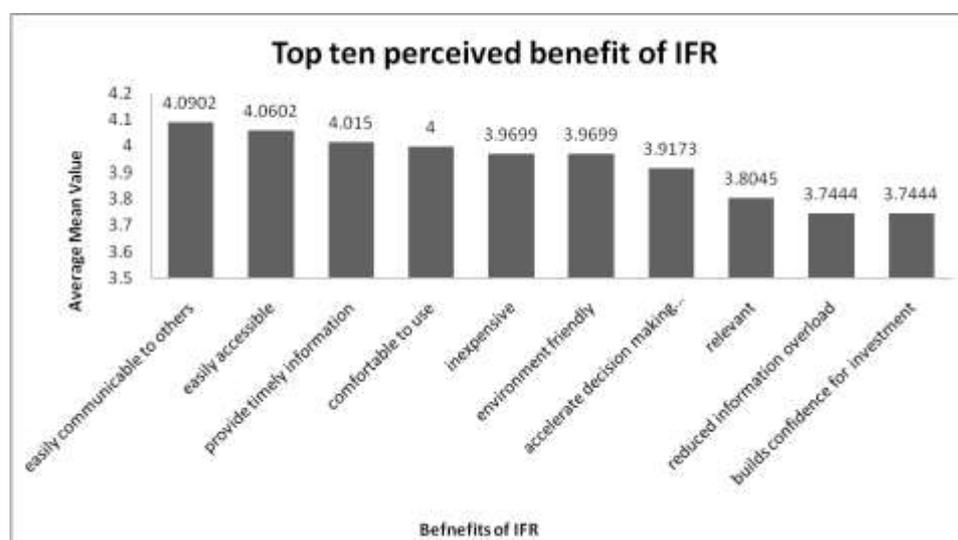
5. Analysis and Findings

The Table 2 describes the perceptions of the respondents regarding the benefits of internet financial reporting. The following table presents the mean & standard deviations of 14 benefits of the five-point scale. The benefits are sorted by mean so that we can assess the importance of each item.

Table 2: Perception toward the benefits of Internet Financial Reporting (Sorted by Mean)

Rank	Items	Mean	Standard deviation
1	easily communicable to others	4.0902	.83900
2	easily accessible	4.0602	.89408
3	provide timely information	4.0150	.87892
4	comfortable to use	4.0000	.88763
5	inexpensive	3.9699	.83430
6	environment friendly	3.9699	1.02941
7	accelerate decision making process	3.9173	.90491
8	relevant	3.8045	.89153
9	reduced information overload	3.7444	1.04195
10	builds confidence for investment	3.7444	.94271
11	provide sufficient information	3.6767	.99658
12	consistent	3.5940	.81685
13	easily understandable	3.5639	1.02509
14	reliable	3.5263	.98918

From the above table it is observed that among the benefits of Internet Financial Reporting (IFR), easy communicability has the highest mean score (4.0902). The other benefits of IFR are easily accessible, provide timely information, comfortable to use, inexpensive, environment friendly and so on. It is also found that in case of reliability of IFR information, it scores lowest (3.5263). The reason might that IFR contains some unaudited information which creates skepticism in the minds of users. The following graph shows the top ten benefits of Internet Financial Reporting.

Figure 1: Top Ten Perceived benefits of IFR

Although Internet Financial Reporting (IFR) has lots of benefits to the users, it has few drawbacks also. Table 3 provides a descriptive statistics regarding the problems of IFR in the context of Bangladesh. The problems are sorted by mean and the standard deviation of each is provided in the following table.

Table 3: Perception regarding the problems of Internet Financial Reporting (Sorted by Mean)

Rank	Items	Mean	Standard deviation
1	difficult to differentiate unaudited and audited items	3.4662	1.01167
2	IFR print is costly	3.4211	1.09552
3	difficult to differentiate mandatory and non-mandatory information	3.1880	1.03096
4	require complex technical knowledge	3.0376	1.13088
5	lacks authentication and attestation	3.0226	.98062
6	poor website design	2.7068	1.11316
7	contain junk information	2.5639	1.03245

Although Internet Financial Reporting (IFR) has tremendous benefits and easy accessibility, there are few problems also. The mostly agreed problem of IFR is sometimes users can not differentiate unaudited and audited items in the IFR. Another mentionable problem is that the downloaded IFR print is costly. The other drawbacks of IFR are— it difficult to differentiate mandatory and non-mandatory information, requires complex technical knowledge, lacks authentication and attestation, poor website design and sometimes IFR contains contain junk information. Although there are few problems of IFR but there is no doubt that IFR is beneficial to the users.

5.1 Factor analysis

The appropriateness of factor analysis is dependent upon the sample size. Hair et al. (1998) suggested that for factor analysis the preferable sample size is 100 or more. In this research, the sample size is 133 which are quite satisfactory.

On the other hand, Kaiser – Meyer- Olkin (KMO) measure of sampling adequacy is still another useful method to show the appropriateness of data for factor analysis. The KMO statistics varies between 0 and 1. Kaiser (1974) recommends that values greater than 0.5 are acceptable. Between 0.5 and 0.7 are mediocre, between 0.7 and 0.8 are good, between 0.8 and 0.9 are superb (Field, 2000). In this study, the value of KMO for overall matrix is 0.631. Hence the sample taken to process the factor analysis is statistically significant.

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.631
Bartlett's Test of Sphericity	Approx. Chi-Square	239.539
	df	91
	Sig.	.000

Bartlett's test of sphericity (Bartlett, 1950) is the third statistical test applied in the study for verifying its appropriateness. This test should be significant, having a significance value less than 0.5. In the present study, test value of Chi – Square 239.539 is significant indicating that the data is appropriate for the factor analysis.

Table 5: Eigenvalues of unrotated factors

No. of Factors	Eigenvalues	As Percentages	Cumulative %
1	2.735	19.537	19.537
2	1.462	10.445	29.982
3	1.339	9.566	39.548
4	1.205	8.605	48.153
5	1.090	7.787	55.940
6	1.048	7.488	63.428

This study employed Principal Component Analysis (PCA) followed by the varimax rotation for the 14 items relating to the benefits of IFR. In case of factor analysis, factor loading cut off point determination is very important. Stevens (1992) suggests a minimum cut-off point 0.4, irrespective of sample size, is considerable. In this study 0.5 is used as factor loading cut off point as suggested by Hair et al. (1998). When the 14 items are analyzed by the Principal Component Analysis, six factors are extracted from the analysis with an Eigen value of greater than 1, which explained 63.428% of the total variance (Table- 5).

Table 6: Rotated Component Matrix

	Component					
	1	2	3	4	5	6
relevant	.775					
environment friendly	.666					
builds confidence for investment		.776				
accelerate decision making process		.748				
consistent			.850			
reliable			.604			
easily communicable to others				.758		
easily accessible				.709		
comfortable to use					.821	
easily understandable					.647	
provide sufficient information						.641
reduce information overload						-.624

Factor 1: This factor comprises two variables namely- relevant and environment friendly with factor loadings ranging from .775 to .666. Factor-1 accounts for 19.537% of the total variance.

Factor 2: Two variables are included in this factor. They are builds confidence for investment and accelerate decision making process. Their factor loadings range from .776 to .748. The factor explained 10.445%.

Factor 3: This factor consists of two variables - reliable and consistent. A variance of 9.566% has been explained by this factor.

Factor 4: Factor 4 is constructed with two variables namely- easily communicable to others and easily accessible which explain 8.605% of the total variance.

Factor 5: This factor comprises two variables namely- comfortable to use and easily understandable with factor loadings ranging from .821 to .647. Factor-5 accounts for 7.787% of the total variance.

Factor 6: This last factor comprised of two variables relating to provide sufficient information and reduce information overload. The variance explained by this indicator amounted to 7.488%.

From the above analysis, we find that the IFR provides various benefits to the users. The significant benefits are IFR is relevant, environment friendly, builds confidence for investment, accelerates decision making process, consistent and so on. So it is evident that IFR offers several significant advantages to the users for their decision making.

6. Conclusion

This study provides empirical evidence regarding the perception of users about Internet Financial Reporting (IFR) in Bangladesh. With the advancement of information technology, Internet Financial Reporting is gaining its momentum. Throughout the world many researchers are trying to discover various facts regarding IFR. In Bangladesh, research relating to this issue has been ignored largely. From our study, six factors are extracted which explain more than sixty three percent of the total variance. It is evident that IFR provides significant advantages to the users compare to traditional printed corporate report. The mentionable benefits of IFR are— easily communicable, readily accessible, relevant and environment friendly, builds confidence for investment, accelerate decision making process, reliable, consistent, comfortable to use, easily understandable, provide sufficient information and reduce information overload. The findings of the current study are quite consistent with similar prior studies (Ali Khan and Ismail, 2012; Ali Khan and L.H. Siang, 2013; El-Naby, 2012; Ali Khan et al., 2013).

On the other hand, few problems of IFR are revealed from this study. The problems are- sometimes users can not differentiate unaudited and audited items in the IFR. The other drawbacks of IFR are downloaded IFR print is costly, it is difficult to differentiate mandatory and non-mandatory information, require complex technical knowledge, lacks authentication and attestation, poor website design and sometimes IFR contains junk information.

Nevertheless, this research focuses on the benefits of IFR from the perspective of external user. So it is quite possible to assess the needs and benefits of IFR from the

perspective of IFR provider. It is believed that these two researches together can draw the holistic picture about IFR practice. Further research should be conducted to confirm the reliability and wider validity of the findings of this research on different user groups of IFR. To the knowledge of the authors, this is the first documented attempt to measure the perception towards the usefulness of IFR in Bangladesh. Overall, it is believed that this study has formed the foundation for further explorations.

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