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The Extent of Internet Financial Disclosure: A Case of Jordanian Companies

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Abstract

This paper examined the usage of the Internet as a tool for financial disclosure in Jordan in 2006. Levels of usage are computed by means of a disclosure index, which contains comprehensive financial and non-financial items representing the current situation of online Jordanian companies. 76 out of 215 listed Jordanian companies in 2006 had accessible and active websites. The overall Internet financial disclosure percentage, as measured by means of a disclosure list containing 28 items, was 63%. The online disclosure varies among companies' sectors. Drawing on the disclosure list, companies in banking sector scored the highest disclosure percentage, 91%. Percentage of disclosure in manufacturing, services and insurance sectors were a bit close; they scored 58%, 52%, and 51%, respectively. The study showed that Jordanian companies have used the Internet as a tool for financial disclosure, but they still need to exploit the full potential of Internet financial disclosure.

Keywords: Financial disclosure; Internet; Jordanian companies

مدى الإفصاح المالي عبر الإنترنت: دراسة على الشركات الأردنية

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ملخص

تهدف هذه الدراسة إلى قياس مدى استخدام الإنترنت وسيلة للإفصاح المالي من قبل الشركات في الأردن دولة من الدول النامية في عام 2006. لقد تم قياس مدى استخدام الإنترنت من خلال احتساب متوسط بنود الإفصاح التي تضمنتها قائمة الإفصاح المالي والتي اشتملت على 28 بنداً من بنود الإفصاح المالي عبر الإنترنت. وقد أظهرت النتائج أن 76 من أصل 215 شركة أردنية كان لها موقع يعمل على الإنترنت وأن مدى الإفصاح المالي لهذه الشركات كان 63% بعد قياسية بواسطة المتوسط الحسابي لبنود القائمة. لقد اختلف مدى الإفصاح بين قطاعات الشركات الأردنية، قطاع البنوك أفصح عن 91% من بنود الإفصاح، وتبعه قطاع الصناعة بنسبة 58%، ومن ثم جاء قطاع الخدمات بنسبة 52% ومن ثم قطاع التأمين حيث أفصح عن 51%. وقد أظهرت النتائج أن الشركات الأردنية تستخدم الإنترنت وسيلة للإفصاح المالي بشكل واضح ولكن هذا الاستخدام لم يكن بشكل يتواءم مع الإمكانيات والمزايا المتوفرة في الإنترنت وسيلة من أجل الإفصاح المالي بين الشركات.

الكلمات الدالة: الإفصاح المالي، الإنترنت، الشركات الأردنية.

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1. Introduction

This paper aims to examine the usage of the Internet as a tool for financial disclosure in Jordan in 2006. Also, this study is intended to examine the reliability of the information disclosed by Jordanian companies on their websites. The Internet has generated a communication revolution in the global business, as it is providing an innovative way for communicating and interacting with consumers around the globe. Since the Internet came into existence in early 1990s (Lymer, 1997), as a new tool of business communication, it has affected all aspects of society (Jones & Xiao, 2003). It is becoming an increasingly important and effective means of communication, and the number of Internet users is rising constantly ever since. For instance, a survey by the Internet World State[†] shows that global Internet usage - the world's on-line population - reached 15.7% in 2005, and the global growth of on-line population between 2000 and 2005 was estimated by 182.0%. Undoubtedly, the nature of the Internet has affected how the business approach is being performed online. Over the past few years, the Internet financial reporting has become a new e-communication application to disseminate information about the companies' financial performance. The rapid growth of the Internet has enhanced companies to adopt the Internet as a business communication medium, and it has become an attractive market place for business, E-commerce, and financial reporting (Jones & Xiao, 2003). Therefore, companies around the world increasingly are adopting this communication method by setting up their own websites on the Internet to disclose financial information and communicate with their investors (see Lymer et al., 1999, and Jones & Xiao, 2003).

In accounting literature, a company's website, which has become a new method for disclosing accounting information to stakeholders, has gained much attentions from accounting scholars who believe that this domain is in need for an urgent investigation in the context of international financial disclosure research. Therefore, Internet financial reporting research is a recent but fast growing phenomenon in the accounting literature. Many accounting scholars carried out empirical investigations to measure the level of Internet usage by companies as a financial communication tool to provide their financial information online (Lymer (1997); Lymer & Tallberg (1997); Deller et al. (1999); Gowthorpe & Amat (1999); Graven & Marston (1999); Hedlin (1999); Lymer (1999); Pirchegger & Wagenhofer (1999); Debreceny & Gray, (2001); Allam & Lymer (2002); Ettredge et al. (2002); Oyelere et al. (2003); Lodhia et al. (2004); Marston & Polei (2004); Xiao et al. (2004); and Al-Htaybat & Napier (2006)). However, most of these studies have been undertaken in

[†] Home page available at <http://www.internetworldstats.com/stats5.htm>

European countries and the USA, and very few ones were carried out in the developing countries, especially in the Middle Eastern area. This study, intended to be an update for a study carried out by Al-Htaybat & Napier in 2006, sheds light on the usage of the Internet as a tool for financial disclosure in Jordan as one of the developing countries. This study also intends to examine the reliability of the information disclosed by Jordanian companies on their websites as a new objective.

2. Research Problem

2.1. Financial Reporting and Information Technology in Jordan

The Jordanian financial reporting system has been confronted recently by the new changes in the Jordanian capital markets. In 1998, and as a result of the new orientation of Jordanian government towards the international trade and international markets, a new reforming programme has been adopted to transfer Amman Financial Market (AFM) into new Jordanian Capital Market (JCM), with a new regulatory system and new and more extensive disclosure requirements for the listed companies. The new JCM has three institutions, namely, the Jordan Securities Commission (JSC), the Amman Stock Exchange (ASE) and the Securities Depository Centre (SDC) (Al-Htaybat & Napier, 2004).

Also it has been confronted by the new developments of technological innovation, and the emergence of the Jordanian network communication in the early 2000s. In 1999 a new reform process commenced to reform the Jordanian telecommunication and postal sectors. This reform programme included restructuring and privatisation procedures, and it encouraged the government to transform the Jordanian telecommunications into a modern sector with a new legal framework. Currently, telecommunications sector in Jordan is one of the most booming and dynamic sectors. Over the past few years, this sector has accomplished astonishing developments on more than one front, including the regulatory and legislative domains, infrastructure, and the services. It also improved the quality of existing services at more reasonable prices. This is a result of the high level of current and anticipated investment, for both telecommunications and information networks to increase capacity for fixed lines, mobile subscribers and information network with higher bandwidths and other services (Abu-Ghazaleh, 2005). In line with the government's obligations towards the World Trade Organisation (WTO), Jordanian government is doing its best to free up the telecommunications market. Late in 2003, the Government Policy on the Information and Communication Technology (ICT) sector was issued in compliance with Jordan's commitments to WTO and with the objective of laying out the proper legislative environment in this sector (Abu-Ghazaleh, 2005). This statement declared the government's intention to free up

the sector and put an end to the present duopoly of the two mobile companies (by the beginning of 2004) and the monopoly of the Jordan Tel+communications Company (JTC) (by the end of 2004) (Abu-Ghazaleh, 2005). The following will explain the main indicators on telecommunications market in Jordan:

So far the Telecommunications Regulatory Commission (TRC), which was established by means of the Telecommunications Law No. (13) of 1995, has licensed four mobile providers, which are currently operating, namely: Fastlink (currently named Zain), Mobilecom (currently named Orange), Umniah, and Express. Jordanian mobile market has shown satisfactory indicators in the recent years. At the beginning of 2005, the monopoly of Jordan Telecom Company, which provided fixed telecom services for many years was ended; and the fixed market was fully opened. (TRC's Website on www.trc.gov.jo).

Internet access has been available in Jordan since 1996. The Internet service is provided through licensed data communication companies. There are several Internet service providers (ISPs) in Jordan, namely: Wanadoo, Networks Exchange Technology Co. Ltd. (NEXT), Batelco Jordan, AccessMe Jordan, Jordan Data Communication Services Co. (LinkdotNet), Middle East Communications Corporation (MEC), International Data Exchange (INDEX), Private Applied Science University (ASU), and National Information and Technology Center (NITC). On June 2002, The Ministry of Education in Jordan and JTC signed a three year agreement of US\$ 5,649,718 to link government schools with a digital e-education network. The Intranet linkage project is a first step preceding another project to link all education facilities in Jordan via fiber optic cables to the national e-education network (Abu-Ghazaleh, 2005). By the end of 2006, there were new subscribers with an astonishing increase of Internet subscribers. The main indicators of Telecom development are presented in Table (1) (p.34).

These developments and changes in the Jordanian business environment and economy reflected in the Jordanian regulatory system and the resulting changes in the Jordanian companies' communication system. This provides an opportunity to assess the extent to which Jordanian companies are using the new Technology to communicate with their stakeholders. Therefore, the current study targets the Jordanian companies' financial disclosure practices after the new developments. In particular, this study will examine the level of Internet financial disclosure practices and the level of the Internet usage for financial disclosure by Jordanian companies listed on ASE in 2006.

3. Previous Studies

The existence of the Internet as a global network communication has affected all aspects of society (Jones & Xiao, 2003). In comparison with the traditional printed company annual report, Internet has provided numerous benefits for companies. It allows global reach abilities and information exchange on a worldwide scale; it also provides numerous opportunities and advantages to transfer information in a very fast and cost-effective way ((Lymer, 1997; 1999; Lymer, Debreceeny, Gray & Rahman, 1999; and Ettredge et al., 2001). Another important benefit offered by the Internet is its timely aspect; it enables real-time reporting rather than the traditional periodic time of printed reporting (Lymer, 1997; and Lymer et al., 1999). Also the Internet is predicted to provide a remedy for the traditional problem of company financial reporting - the ability to satisfy users' needs (Xiao et al., 2002; Lodhia et al., 2004). However, Internet financial reporting is not free of limitation; Table (2) (p.34) shows some of the benefits and limitations of Internet financial reporting.

In this context, Oyelere et al. (2003, pg.38) stated that:

“Internet reporting improves users' access to information by providing information that meet their specific needs, allowing non-sequential access to information through the use of hyperlinks, interactive and research facilities, and allowing the opportunity for providing more information than available in the annual reports. This improved accessibility of information results in more equitable information dissemination among stakeholders”.

As soon as accounting researchers became aware of the fact that companies used the Internet as a financial reporting tool, a number of empirical investigation carried out to examine companies financial reporting on the Internet. Marston & Polei (2004) analysed many of these studies in their paper. They classified the Internet prior research into descriptive and explanatory studies. Descriptive studies: these provide a survey that describes the general overview of the current situation of the companies' Internet reporting in single countries or cross-country comparisons (i.e. Lymer, 1997; Lymer & Tallberg, 1997; Deller et al., 1999; Gowthorpe & Amat, 1999; Hedlin, 1999; Lymer, 1999; Lodhia et al., 2004). Explanatory studies: these studies go one step further and examine the company characteristics to explain the factors behind the differences between company Internet reporting (i.e. Graven & Marston, 1999; Pirchegger & Wagenhofer, 1999; Allam & Lymer, 2002; Ettredge et al., 2002; Marston & Polei, 2004; Xiao et al., 2004). As shown in Table (3) (p.35), Marston & Polei (2004) classify these studies, according to whether they carry out descriptive survey that describe the general situation of Internet financial disclosure at specific country in specific period of time, or they carry out an Explanatory study to explain the main factors that may influence the level of

Internet financial disclosure. Some of these studies will be discussed in the rest of this section in order to provide an empirical background to the current empirical objectives and to the findings of the current investigation, and to increase the understanding of the relevant research method related to the current study.

3.1. Descriptive Studies

As shown in Table (3), one of the earliest and pioneer descriptive surveys was conducted by Lymer (1997). He examined the top 50 companies listed on London Stock Exchange in two periods, and he reported that 92% of 50 companies had active websites, and 52% of these companies published their accounts or reports on their websites in the first period (end of January and early of February 1997) compared with 60% in the second period (June 1997). Additionally, 14% out of the first 52% provided full accounts, compared with 32% out of 60% providing full accounts in the second period. Summary accounts were provided by 12% out of 52%, compared with 22% out of 60%, and un-audited interim accounts were provided by 26% and 34% out of 52% and 60% respectively.

In a later descriptive survey, Hedlin (1999) classified the developments of the company's home page into three generations: Early Generation—at this stage companies' websites focuses on the customer rather than the investor, so it contains general company information of little interest to investors. Intermediate Generation – at this stage companies' websites focuses more on using the Internet to communicate investor information. Advanced Generation – at this stage companies' websites is taking the advantage of the Internet's unique features and possibilities of the future medium. Also Hedlin (1999) examined a random sample of 60 companies listed at the Stockholm Stock Exchange in September 1998, and 98% of these companies had an active home page.

Gowthorpe and Amat (1999) surveyed the state of Internet reporting of the 379 companies listed at the Madrid Stock Exchange in July 1998. Of the sampled companies there was 16% (61 companies) had an accessible home page, and out of these companies, there were only 34 (55.7%) disclosing some sort of financial information online. Deller et al., (1999) carried out a comparative survey on the usage of the Internet by 100 largest companies listed at stock market in the USA, UK and Germany in January 1998. Findings show that of the US companies, 95% had a home page, compared with 85% of the UK companies and 76% of German companies. Presentation quality of the Internet financial reporting varies from a country to another; 35% of the USA and UK companies provided corporate reports in PDF format. However, the percentage was 17% in Germany.

The U.S. Financial Accounting Standards Board (hereafter, FASB, 2000) carried out a descriptive survey on 100 sampled companies of US companies in January 30, 1998. Findings show that 99 companies out of the 100 companies had active websites; 93 out of the online companies provided some form of financial information. Findings also show that 88% provided tables of contents of the websites, 64% provided search boxes to locate specific information, 21% had websites in other languages (not English), 67% provided a hyperlink to the investor relations page, and 22% provided hyperlink to the most recent annual report.

Ponte et al. (2000) conceded a descriptive survey on the content of leading European companies' websites in 1999. Findings show that 100% of the sample companies had active websites and all of them supplied full annual accounts. Later on in the USA, Ettredge et al. (2001) investigated Internet financial disclosure practices by using 490 USA company websites. Results showed that (on average) around 38% out of 17 accounting items in their checklist were presented, and only 45% of the sampled companies provided a complete annual report. Lybaert (2002) examined the level of Internet financial reporting of 188 companies listed on Amsterdam Stock Exchange. A list containing 44 questions was employed and the results showed that 66 companies disclosed only annual reports as a whole, 90% disclosed some sort of investors' information, also the results showed that investors could not find the latest information on the websites. Finally the companies did not use the website technology to present their information very well. Recently, Lodhia et al. (2004) examined the Internet financial disclosure by top 50 Australian companies between September and November 2001. Results showed that Australian companies are providing the mandatory requirements at the Internet.

Al-Htaybat & Napier (2006), and for the first time in Jordan as one of the developing countries carried out a survey to examine the level of Internet financial disclosure by Jordanian companies. Results show that 55 (29%) out of 190 Jordanian companies listed on ASE in August 2004 had active, accessible websites. The banking sector on average scored the highest level of Internet disclosure, followed by companies in the service, manufacturing and the insurance sectors in ascending ranking order. Generally, Al-Htaybat & Napier (2006) argued that the online Jordanian companies in 2004 can be located in the first stage, suggested by Hedlin (1999), of using Internet reporting.

3.2. Explanatory Studies

Craven & Marston (1999) carried out an empirical study to examine the level of Internet financial disclosure of 206 large UK companies in January 1998. Out of the companies selected, 153 (74%) had an active websites. Of these companies 67 (32,5%) provided full annual reports. Most of the

companies used HTML format in their presentation and only 9 companies used PDF format. Craven & Marston (1999) also examined the factors behind the differences in the level of Internet financial disclosure between companies. They examined the association between company variables such as size and industry type and Internet disclosure. Results show that there is a positive relationship between larger companies and Internet financial disclosure, and no significant relationship with the industry type.

Pirchegger & Wagenhofer (1999) carried out an empirical study to examine the level of Internet financial disclosure by a sample of 32 Austrian companies listed in the Vienna Stock Exchange at two points of time (end of December 1997 and 1998). They examined the relationship between company size, the percentage of free float of the shares of a company and the level of internet financial disclosure. Results show that both factors go in harmony with the level of the Austrian companies Internet financial disclosure. Ashbaugh et al. (1999) conducted another empirical study to examine the level of Internet financial disclosure of a sample of 290 USA companies. Results showed that 87% of the companies had a website. Ashbaugh et al. (1999) also tested the following company variables: company size, profitability, the percentage of equity shares held by individual investors and the traditional reporting practices of the companies. The results showed that only company's size and industry type were with significant relationship with Internet financial reporting.

In the USA, Ettredge et al. (2002) carried out an empirical investigation to examine the relationship between the level of Internet disclosure and some company variables. Ettredge et al. (2002) examined a sample of 220 U.S. companies. The results showed that out of 220 companies, there were 193 companies with an active website. Also the results showed that company size and raising equity capital were with positive relationship with Internet financial disclosure, while, company's performance was with no association. The study by Debreceny et al. (2002) goes beyond the analysis of firm-specific determinants for Internet financial reporting by surveying 660 companies in 22 countries. The results revealed that firm-specific characteristics (such as firm size and listing on U.S. stock exchanges) and environmental variables were good predictors for the nature and quantity of information disclosed on company Websites. The overall financial reporting disclosure environment appeared to be a strongly significant explanatory variable.

Another explanatory study was carried out by Allam & Lymer (2002) to measure the level of Internet reporting by the largest 50 companies selected from each of: the USA, the UK, Canada, Australia, and Hong Kong at the end of 2001 and early 2002. The results showed that 99% of the sampled companies had websites; the US, the UK and Canadian companies were the leaders with

respect to Internet reporting, followed by Australian companies with few differences, and finally Hong Kong with a considerable gap in both technological and content matters. The association between the level of Internet reporting among the five countries and the company's size was examined, and it was found that there was no relationship between the size of the companies and the level of Internet reporting.

Oyelere et al. (2003) examined the level of Internet voluntary disclosure of 229 companies listed on the New Zealand Stock Exchange at the end of 1998. The results showed that out of the sampled companies there were 106 companies without websites; 30 companies with websites but not engaging in Internet reporting and 90 companies engaging in Internet reporting. Out of these 90 companies, there were 34 companies providing comprehensive annual financial statements, 16 companies providing financial highlights, and 40 companies providing both comprehensive financial statements and financial highlights. Also 37 out of 90 companies provided financial information in PDF format; 31 companies used HTML format; 18 companies used both formats. Furthermore, Oyelere et al. (2003) examined the association between the level of Internet financial disclosure and several company characteristics, namely: company size (market capitalization and total assets), profitability (return on equity and on total assets), liquidity (cash assets by total assets), internationalization, industry type, leverage (debt to equity ratio), and spread of shareholding. The analysis showed that companies disclose more information on the Internet are generally larger, more liquid, more internationalized and more profitable, and had a larger spread of ownership than other companies.

An additional explanatory study was carried out by Marston & Polei (2004) to examine the level of Internet for financial disclosure by 100 companies listed on Frankfurt Stock Exchange in the years 2000 and 2003. The analysis showed that all companies were with an active website, and 89% of the sampled companies provided full annual reports on their websites. Marston & Polei (2004) examined the relationship between the Internet financial disclosure and company characteristics, namely company size (market capitalization), profitability (return on equity), ownership structure (percentage of free float), systematic risk (beta), and foreign listing status. The results of the normal score regression analysis showed that company size and percentage of free float contributed to explain the variation in the overall disclosure in 2000; however, 2003 results showed that the size and foreign listing were significant, and the systematic risk and profitability were insignificant in both years.

A further empirical study was carried out by Xiao et al. (2004) to examine Internet reporting by 300 Chinese companies listed either on Shanghai or Shenzhen Stock Exchange on December 31, 2001. The descriptive results

showed that out of these companies, there were 203 had accessible websites, 144 (71%) of these companies disclosed financial information on the Internet, 96 (47.3%) had websites in the English language, 35 companies' financial statements were audited by the big-5 auditors, and there were 14 companies from the IT industry. Furthermore, Xiao et al. (2004) examined the relationship between the level of Internet disclosure and several companies' variables namely: share ownership, independent directors, auditor type, foreign listing or share ownership, industry type, and the influence of the China Securities Regulation Commission (CSRC). The finding showed positive association between Internet disclosure and the following variables: foreign ownership, Big-5 international auditor, legal person ownership, proportion of independent directors and IT industry, while there was a negative association with government ownership.

This review shows that the use of the Internet as a company communication tool for financial disclosure is growing internationally. Also Internet reporting seems to be a growing area in accounting research, as much attention has been drawn in accounting and financial reporting research toward the usage of the Internet as financial communication tool by companies in many countries around the world. As seen above, several studies provided mainly an overview of the current use of the Internet for online reporting; they did not provide reasons for the differences in the level of information presented on the Internet. Also there are studies that went on one step further to examine certain independent variables (e.g., company size or industry type) with the level of Internet disclosure. Many of the above studies have been undertaken in the well developed countries around the world and very few studies have been carried out in the developing countries (see Xiao et al., 2004), especially in the Middle Eastern area. In this context, Al-Htaybat & Napier (2006) argued that the Internet financial disclosure has become an urgent investigation in European countries and the USA and the number of published studies on the Internet financial disclosure is very limited in the developing countries. Therefore, this study is intended to be an update for study (Al-Htaybat & Napier, 2006) in Jordan, as it continues their work to examine the usage of the Internet as a tool for financial disclosure in Jordan as one of the developing countries. This study is also intended to expand on Al-Htaybat & Napier (2006) by examining the reliability of the information disclosed by Jordanian companies on their websites as a new objective.

4. Research Design

The current study is located within the functionalist paradigm or positivism paradigm on the basis of carrying out an empirical investigation to examine the usage of the Internet as a tool for financial disclosure in Jordan as one of the

developing countries. Positivism research measures “what is” disclosed on the Internet by Jordanian companies, not “what should be” disclosed on the Jordanian companies’ websites (see Hussey & Hussey, 1997). According to FASB (1999; 17), the Internet-months are like years in the sense that things change so quickly. It has been said that 18 Internet weeks equal 1 normal year. This study is intended to examine the usage of the Internet as a tool for financial disclosure in Jordan as one of the developing countries. The problem statement in the current research is as follows:

Have Jordanian companies enhanced their Internet usage for financial communication with their stakeholders since 2004?

To answer this question, several research objectives can be identified into research questions indicating to which extent Jordanian companies have enhanced their Internet usage for financial communication since 2004. These research objectives in the form of research questions will be discussed in the following section in detail.

Generally as seen in research studies, the usage of the Internet by companies for business financial communication with their investors is fairly new in all the countries around the world. Therefore, most of the governments and other regulatory authorities do not require yet companies to establish their websites in order to disclose any financial information (see Debreceny & Gray, 2001; Oyelere et al., 2003; Marston & Polei, 2004; Lodhia et al., 2004; Xiao et al., 2004). Thus, companies in many countries do disclose financial information on the Internet voluntarily. Likewise, there are no mandatory requirements requiring Jordanian companies to disclose accounting information on the Internet.

As seen above, the main research question was: Have Jordanian companies enhanced their Internet usage for financial communication with their stakeholders since 2004? In order to answer this question there are several research objectives should be obtained. This study is trying to answer the following question:

1. Are Jordanian companies having more accessible and active websites in 2006 than in 2004?

The answer to this question will be by determining the number of Jordanian companies that have useable websites (i.e. accessible and active) in 2006 and comparing them with number of online companies was found in 2004.

2. Are Jordanian companies disclosing more financial information on their websites in 2006 than in 2004?

The answer to this question will be by measuring the level of Internet financial reporting by Jordanian companies in 2006 and comparing the results with the level of online Jordanian companies' disclosure in 2004 as found by prior study.

Furthermore, as this study intends to expand on prior study in Jordan by going a step further to examine the reliability of the information disclosed by Jordanian companies on their websites. In the context of reliability and creditability of online information, Allam & Lymer (2002) argued that information is reliable when independent auditors have audited it. Thus, audited printed annual reports are expected to be a reliable source of financial information for users to depend upon when making their financial decisions.

3. Are Jordanian companies providing any evidence for the reliability of their accounting information?

The answer to this question will be determined by finding out whether Jordanian companies disclose auditors' reports with their disclosed information, or a link to auditors' homepage or any other evidence in relation with independent auditors.

4.1. Disclosure Index as an Important Research Method

As seen above, the main objective of this study is to measure the level of Internet financial disclosure on the Jordanian companies' websites. In the context of measuring financial disclosure, Wallace (1987) argued that financial disclosure is an abstract and broad concept which cannot be measured directly. As it has been noted above there are two type of the research method that have been used to measure the level of Internet disclosure. One type of research on the Internet financial disclosure was mainly descriptive, which concentrated on one country by giving a descriptive overview of the current situation of online companies' financial disclosure. This kind of research can be referred to as Content Analysis as a research methodology. Other type of research went one step further by using a disclosure checklist to evaluate the extent of the Internet usage for financial disclosure. These checklists were constructed by choosing and classifying a list of particular items to analyse narrative and/or non-narrative, financial and/or non- financial companies' disclosure (Marston & Shrivess, 1991). This is done by using specific coding scheme to demonstrate the disclosed and/or not disclosed information in both the main text and/or companies' accounts in the annual reports (Marston & Shrivess, 1991).

Beattie et al. (2004) argued that the disclosure index, as a research methodology is a well established research method in the area of companies' annual reports. In this context, Marston & Shrives (1991, pg.195) stated that:

“One research instrument that has been used in numerous publications is an index of disclosure of particular information in company reports. Such an index aims to show the level of disclosure in a set of company accounts. It can be used to show compliance with regulations if items in the index are so chosen or conversely it can be used to show the level of voluntary disclosure.”

4.2. The Disclosure Index for the Jordanian Companies' Websites

Since this study is intended to be, in part, an update for a study conducted earlier by Al-Htaybat & Napier, (2006), we decided to use their checklist as the current disclosure benchmark, which contains comprehensive financial and non-financial items representing the current situation of online Jordanian companies. This also will help to provide a direct and valid comparison with the prior results. We do believe that in order to provide a true image and useful insight into existing Jordanian Internet disclosure practices, our checklist should include a set of items representing the status of Jordanian companies' websites. Our argument here is that it is better to tackle the status Jordan as a developing country and not to bring irrelevant items from one of the prior studies that was conducted in developed countries, and apply it on companies that function in a totally different environment. It is important to note that these steps of constructing their Internet checklist will not only represent the actual situation of Jordanian companies online but also improve the validity of their research method. The current disclosure checklist is divided into two main parts. The first part consists of 10 general items focusing on non-financial issues, and the second part includes 18 items of the financial reporting items' content. Table (4) (p.36) shows the complete current set of the Internet disclosure checklist.

Table (4) shows that the final list comprises 28 financial and non-financial un-weighted items representing the actual usage of the Internet by Jordanian companies. There are 10 general items focusing on non-financial issues, these items indicate the following:

- The company name as listed on ASE represents the existence of companies' websites.
- The existence of a list of the website items or part (Site Map) and/or Search Box represent the simplicity of surveying the website.
- Availability of PDF file represents downloadable data.
- HTML Formats represent the usage for publishing information.

- The provision of latest news and/or events is looking at how the company presents the first generation of Internet financial disclosure.
- Different languages, Arabic and/or English represent whether the company is attempting to target foreign investors.
- Further contact details such as e-mail address or mailing address are supplied, and any further information enquiries that could arise are representing some sort of investors' relation information.

The second part includes 18 items of the financial reporting items' content. These items are the classic financial reporting items such as Auditors' report, Balance sheet, Income statement, Cash flow statement, Statement of changes in equity, and Notes and accounting policies. These items may be found in any mandatory requirements of any capita market. This checklist has been selected and used as an applicable benchmark representing the actual situation of the online Jordanian companies, and its items will be investigated on the basis of existence/non-existence (1/0), dichotomous approach. The later approach based on coding a disclosed item with '1' and a not disclosed item with '0', so as to avoid the problems of assessing whether partial disclosure occurred. Furthermore, there are two different scores that were determined for each company's website. The former score is the 'Total Checklist Items (TCI=28)', and the other score is the 'Actual Disclosed Items' (ADI). The Internet Disclosure Index (IDI) is computed for each company's website by dividing the ADI by 28.

Moreover, the current study will follow Allam & Lymer (2002) to examine the reliability of the information disclosed by Jordanian companies on their websites, in which they argued that auditor's report for stakeholders is an important basis to evaluate the credibility and reliability for company financial information. Therefore, a signed and dated auditor's report by the auditor or/ and whether the Jordanian company provides a hyperlink to auditor home page will be the proxies to measure the credibility and reliability online Jordanian company financial information.

4.3. Research Sample

The current study aims to draw a comprehensive picture of the Internet financial reporting situation of Jordanian companies in 2006. Therefore, all 215 Jordanian companies listed on ASE[‡] on the 21st of June, 2006 will be included in this study. The sampled companies consisted of 16 banks, 26 insurance companies, 84 service companies and 89 manufacturing companies. Any listed

[‡] Available on (www.ammanstockex.com).

company to be included in the sample should have an active website. The starting point for the current website allocation was the 67 companies' website addresses found by prior study[§] in Jordan. These companies included 12 companies with potential website not found, and 55 companies with active website. In order to determine whether any of the 12 companies with a potential website not found in the prior study, and the remaining 148 Jordanian companies have websites or not, the name of each company will be searched on the Internet by using the global search engine, Google (www.google.com), the Jordanian search engine on the Internet, such as "Jordan on the web" and "JordanLinks.com" (www.jordanlinks.com), and through a specialist Arab search engine, "Arabia online" (www.arabia.com).

Analyses of Internet financial disclosure practices by the Jordanian companies were listed on ASE in 2006. The level of overall Internet financial disclosure in 2006 will be measured, and the mean, standard deviation, minimum and maximum values will be utilised to explain the level of financial disclosure on the Jordanian companies' websites.

5. Internet Financial Disclosure Practices in Jordan

In this section, the level of usage of the Internet as an electronic tool for financial disclosure is highlighted. The advantages of corporate home pages as tools to reach stakeholders in an online virtual environment are identified.

5.1. Finding Jordanian Companies Online in 2006

As in any part of the world Internet reporting is a new phenomenon in Jordan, and they are ultimately used in order to provide a general overview of the listed Jordanian companies' situation online. As seen in methodology section, this requires including all Jordanian companies listed on ASE until the 21st of June, 2006 in the current sample. The first research question here was that: (Does the company have a website on the Internet?) In order to find out and allocate the Jordanian websites on the Internet, the name of each company, in Arabic and English, was searched on several search engines** during June 2006 to allocate the online companies. Table (5) (p.36) summarises the results of the results of this survey, the table shows the number of Jordanian companies with and without an active Website according to industry sectors.

[§] The author obtains the 67 companies' website addresses by contacting Al-Htaybat.

** Google (www.google.com),
JordanLinks.com (www.jordanlinks.com)
Arabia online (www.arabia.com)

As Table (5) illustrated that out of the 215 companies that were included in the survey there were 83 potential websites were identified of Jordanian companies listed on ASE during June 2006. 76 of the companies (or 35% of 215) have active Websites. Table (5) shows that there were 6 cases were with online address and were under Only one case was allocated online with non-Jordanian Website. In total there were 132 cases that have (the 6 companies out of 26 in the Insurance sector, 68 out of 84 companies in the Services sector, and 58 companies out of 89 in the Manufacturing sector) no Website located at 2006.

The general observations from online Jordanian companies were that, the usage of the Internet by the Jordanian companies for business purposes varies from a sector to another. For instance most companies in the banking sector use more their websites as a business tool than any other sector. They provide a wide range of advertising material, contact details and other promotion material about the bank in question and its activities; moreover, many of these companies use their websites as a tool of communication with their customers through using their website for customers' services. Also all companies in the banking sector were unique with their presentation, through using graphics in their presentation to report diagrams to support the explanation of the comparative analysis provided about their financial performance and graphics of their share price fluctuations. Most online Jordanian companies were using hyper-linking feature on their websites to allow for inter-linking of pages of information to support web user to control access on their sties and facilitate reading their documents provided online. The following section will discuss the situation of the online Jordanian companies in 2006.

5.2. Internet Disclosure found at Jordanian Companies' Websites

As discussed in the previous sections, the purpose of this study is to measure the level of disclosure in the Jordanian companies' websites during June and July in 2006. In order to obtain this objective, the current study use the scoring sheet developed by Al-Htaybat & Napier (2006), which contains 10 general items and 18 financial reporting related items, to measure the online situation of the Jordanian companies during this time. Also the dichotomous approach was employed to avoid the risk of penalising companies for partial disclosure. Also, as mentioned above, the actual inspections of the Jordanian companies' websites was conducted during June and July 2006. This entails that a double check of the same website in both months, to identify and correct any error or misunderstanding regarding any item in a company's website^{††}. The

^{††} No change has been noted on the Jordanian companies' websites over the two months.

Internet Disclosure Index (IDI) received by each company in each sector in the sample, and the descriptive statistics of IDI on each sector and in total are listed in Table (6) (p.37) and in Table (7) (p.38), respectively.

As Table (7) illustrates, the mean of overall Internet disclosure percentage, by online Jordanian companies listed on the ASE in 2006, was 63%. The online disclosure varies among Jordanian companies and sectors. Companies in the banking sector scored the highest disclosure percentage, 91%. Percentage of disclosure in manufacturing, services and insurance sectors were a bit close; they scored 58%, 52%, and 51%, respectively. For further understanding of the current situation of the online disclosure by Jordanian companies, a detailed analysis of the Internet disclosure checklist, item by item will be useful. As discussed in the methodology section, the current checklist contains two major components of the online disclosure: the first component contains 10 general items about the company's website; the second component contains 18 financial reporting information items. The following sections will discuss both components as follow:

5.2.1. General Items found at Jordanian Companies' Websites

Table (8) (p.38) summaries the disclosure level of general items that found disclosed online by Jordanian companies surveyed.

Company's news and events: Almost 56% of the online Jordanian companies had the latest news summaries sections on their homepages, which also include general news about the company as well as the future events. In this context, Allam & Lymer (2002) argued that companies disclosed their latest news and events on their websites this is an indication of online investor relations' services. List of the site parts and link to any part and search engine box: Almost all (100%) of the online Jordanian companies were providing List of the site parts and link to any part (site map), and 88% of the surveyed companies were providing search engine box. In this context, Allam & Lymer (2002) and Lodhia et al. (2004) stated that the existence of a site map and the search engine box are proxies' measures of the simplicity of surfing the company's website. E-mail and mailing contacts: It was found that 96% of the online were providing an E-mail and mailing contacts on their websites. Allam & Lymer (2002) and Lodhia et al. (2004) argued that ccompanies provide e-mail contacts usually allow investors to send messages from a web page within the company's or investor relations' website. Also E-mail is preferable method as it allows investors to save the address in their mailing list, which gives them the ability to send any requests at any time without the need to visit the company's website again.

Presentation formats (HTML, PDF): On average, 55% of the Jordanian companies surveyed provided their presentation on a downloadable PDF format. HTML was the most popular format, (100% of the companies, used in presenting company information on the Internet, and none of the Jordanian companies was found presenting information by using XML format. Versions of the company's website (Arabic and English): It was found that 44% of the Jordanian companies surveyed had a website in English and in Arabic languages. When companies provide two versions of their homepage, especially in foreign language, this could be a strong indication of having foreign investors or these companies have an international investors' relation. This may come as results of these companies are with big size, and with large number of foreign investors. Information enquiries service: An information enquiry is an online service that allows users to enquire directly and define which aspects they wish to be informed and notified about. This service was found available on 50% of the online Jordanian companies. This service also could be considered as a good indication of a strong online investors' relation service.

5.2.2. Financial Items found at Jordanian Companies' Websites

This set of financial items shows the availability of financial information that disclosed by Jordanian companies on their websites. Table (9) (p.39) summaries the disclosure level of financial items that found disclosed online by Jordanian companies surveyed.

The following section will discuss the financial items that related to the company's website: Financial statements and auditor's reports: As discussed in methodology section one extra point was given to each company for providing its full annual report in one document online. 37% of the Jordanian companies surveyed had full annual reports online. Although the main financial statements at least were disclosed by 37% of the companies in the current sample, it was found there is a variation in the level of financial statements disclosure among the companies that covered in this study, as on average 60% of the companies provided both balance sheet and income statement, 48% of the online companies provided a cash flow statement, 37% of the companies provided statement of changes in equity, and notes and accounting policies. Auditor's report is very important for financial information credibility and reliability (Allam & Lymer, 2002), and the auditor's reports were disclosed by only 37% of the surveyed companies, which are the companies providing the full annual reports.

Other financial/ none financial items that related to the company's annual report: These items focused on the narrative sections of the companies' annual reports, 55% of the online Jordanian companies provided the names of their

directors' board members, 43% provided the chairman speech, 47% disclosed the board of director reports. Moreover, most of the online companies 93% provided a brief summary of company's history. Only 5 companies did not provide such history. Also in the narrative sections of the Jordanian companies' annual reports were found that, 41% of the companies provided brief summary about the top managers, and 43% provided brief summary about the company's human resources. Furthermore, as shown in Table (9), there were 84% of the companies disclosed a statements contains the company profile, 95% of the surveyed Jordanian companies provided information on the company's products and services. Company accomplishments of last year were disclosed by 56% of the online companies and 49% disclosed the future plans. Finally 37% of the companies provided online the chart of the company's organisational structure.

5.3. Reliability and Creditability of Online Information

As seen in the prior studies review, the use of the Internet technology for companies Internet financial is currently a well-established tool in many countries around the world, as company desires to build an international profile and sources of funds by disclosing information on the Internet to communicate with their users. Alongside, investors are relying more on Internet information. However, one of crucial problem facing Internet financial reporting is the reliability and creditability of online information. Given that the rapid change in the information technology, the wide spread of user and the companies' desire to disclose more online information as it is cheaper and easier than most of the traditional ways. On the other hand, the freedom of Internet technology has created major problem related to ensuring the security, the reliability, and creditability of online information (see Xiao et al., 2002, and Jones & Xiao, 2003).

In the context of reliability and creditability of online information, Allam & Lymer (2002) argued that information is reliable when independent auditors have audited it. Thus, audited printed annual reports are expected to be a reliable source of financial information for users to depend upon when making their financial decisions. However, as seen in Table (9) the printed version of auditor's reports were disclosed by only 37% of the surveyed companies. Not one company provided a link to relevant auditors' website or even an authorised or regulatory body in Jordan. Nor did any of the online Jordanian companies provide any kind of auditor's signature on the document. Further, none of the online Jordanian companies provided an indication or guidance to users within the annual reports to show the point of audited and none audited information. This may lead to say Jordanian companies don't give any emphases to reliability and creditability of their online information.

6. Discussion of the Internet Financial Disclosure in Jordan

The previous section shows the descriptive analyses of the Internet usage as an electronic tool for financial disclosure by the Jordanian companies in 2006. This section will contain a discussion of the main findings in comparison with prior findings by Al-Htaybat & Napier (2006). As this study is seeking to provide an update to the prior study in Jordan, also it's worthwhile in this section to see the growth of the Internet usage as an electronic tool for financial disclosure by the Jordanian companies after two years from the pioneer study.

6.1. Discussion of the main findings

As seen in previous section the main findings of this study were as follows: 76 out of 215 companies listed on ASE in 2006 had accessible websites; also it was found a significant level of Internet financial information available on the Jordanian's websites. These sites were containing reporting data during the study period. In particular, it was noted the following: Jordanian companies' sites provided information about companies' products and services. Even though there was a good number of Jordanian companies providing a full version of printed annual reports online, but there was a variation among Jordanian companies websites in the level of online financial information, most companies disclosed information less than their printed financial information, those companies disclosed on their websites summary of financial information or some of the financial statements, such as income statement, a summary balance sheet. However the majority missed the auditor reports.

Moreover, it was found also that there was a wide variation among companies in the narrative sections of the companies' annual reports. A significant number of online companies disclosed the chairman's message, board of director's report, company profile, brief summary of company's history, brief summary about top managers and human resources, company accomplishments of last year with figures, and future plans for at least one year ahead. However, some of the online Jordanian companies were selective in providing these parts of the annual reports. Al-Htaybat & Napier (2006, p. 23) has described the Jordanian companies' Internet disclosure in 2004 in the following terms:

“Jordanian companies are only beginning to use the Internet in significant numbers, with the majority of listed companies still lacking a website. Most companies are located in Hedlin's first stage, using the Internet mainly for advertising their products and services, but a few (less than 10% of all listed companies, predominantly in the banking sector) are in, or at least at the threshold of, Hedlin's second stage, as they are using the Internet as another communication channel to duplicate their printed financial statements using electronic formats (HTML and/or PDF)”.

Although the existence of Jordanian company's Internet financial reporting as a new method for disclosing accounting information to stakeholders can be classified as the phenomenon of the new millennium. Over the last few years, there were much attention has been drawn by Jordanian companies toward the usage of the Internet as financial communication tool.

Therefore, it is interesting to compare the results of the current study with earlier studies in Jordan. According to the survey conducted by Al-Htaybat & Napier in 2004 for Internet financial disclosure, 55 companies (29%) out of 190 listed companies had Websites in 2004, 52% of their checklist (28 items) were provided online. The banking sector scored on average the highest level of Internet disclosure, followed by companies in the service, manufacturing and the insurance sector in ascending ranking order. Compared with the current findings, 76 companies (or 35% of 215) had active Websites. The general observations from the current online Jordanian companies were that, on average the overall Internet disclosure by online Jordanian companies listed on the ASE in 2006, was 63%, with increase level measured by mean of the same checklist (28 items) 11%. Also the usage of the Internet by the Jordanian companies for business purposes varies among sectors. For instance, companies in bank sector scored the highest level of Internet disclosure with 91% of overall items, followed by companies in manufacturing sector with score 58% of overall items, and companies in the service and insurance sectors came next as the former scored 52% and the later scored 51% of the overall items.

Other observations from the current online Jordanian companies were that, compared with Al-Htaybat & Napier's (2006) findings, there are many companies increased the amount of stakeholder information available on their website. There is an increase in the use of PDF for downloading of data, more un-audited data accessible on sites. Many of the companies without websites by the end of 2004 did have websites by the end of 2006. The trend in the level of Internet disclosure is illustrated in Figure (1) (p.39).

As seen above 35% of 215 Jordanian companies had active websites, compared with Gowthorpe and Amat (1999) 18% of 379 companies listed on the Madrid Stock Exchange in 1998 had websites. Oyelere et al. (2003) found that 54% of 229 companies listed on the New Zealand Stock Market in 1998 had websites on the Internet. Generally, the online financial reporting by Jordanian companies can be located again at the end of first stage^{‡‡} and the

^{‡‡} *Early Generation*: at this stage companies' websites contain general company information of little interest to investors. *Intermediate Generation* – Using the Internet to communicate investor information. *Advanced Generation* – Taking advantage of the unique features and possibilities of the medium (Hedlin, 1999).

beginning of second stage of using Internet reporting (see Hedlin, 1999; and Lymer & Debreceny; 2003).

On average 63% of the Internet financial disclosure items that formed the current checklist, achieved through disclosing either an entire document of annual reports or parts of their audited financial statements. The overall current situation of the Jordanian companies' Internet financial reporting is similar to Internet financial reporting by companies in other developed countries in Europe several years ago (Al-Htaybat & Napier, 2006). For instance, at the end of January in 1997 it was found 52% of 46 online British companies published their accounts/reports on the Internet (Lymer, 1997). Also, in 1998 it was found 55% of 61 Spanish companies were providing Internet financial reporting (Gowthorpe & Amat, 1999). In this context, Al-Htaybat & Napier (2006) suggested that Jordanian companies' are in their way to follow companies in European countries regarding Internet financial reporting, given that there is a significant impact on Jordanian companies from these countries through international trade agreements with the several countries in the European Union and USA.

Finally, as seen in this section, many companies without websites at the end of 2004 did have websites by the end of 2006. Also there are many companies increased the amount of stakeholder information available on their website, and the use of PDF for downloading of accounting information increased on Jordanian companies websites.

7. Conclusion and Recommendations

This paper examined the usage of the Internet as a tool for financial disclosure in Jordan as one of the developing countries. This study comes two years after conducting a pioneer study on this sub domain by Al-Htaybat & Napier (2006) in 2004. Although over the last few years there were much attention has been drawn by Jordanian companies toward the usage of the Internet as financial communication tool for disclosing accounting information to stakeholders, it remains as new phenomenon of the new millennium. Generally, it can be said that, the development of the Internet and its use by the business community to distribute financial information is occurring so rapidly that companies, standard setters and regulators have not addressed many fundamental issues. As currently there are no laws or regulations forcing companies to publish annual reports on the Internet in Jordan. There are no rules governing Internet disclosure or digital annual reports in Jordan as the case in many countries around the world. The development of the Internet financial information is taking place so rapidly that standard setters and regulators have not addressed any of its issues in Jordan.

There are several elements found in the literature could be recommended as set of common-sense best practice to improve the online financial reporting by Jordanian companies:

- As a minimum level of Internet reporting company should include on its homepage the full versions of its printed financial reports, a complete set of IAS financial statements as defined in IAS 1, and in the case where the company does not provide the full versions, for instance, just the income statement, the balance sheet, and all of the basic financial statements but without the notes to the financial statements, or only selected financial data –the company should provide a clear indication of doing so and the reasons behind that, and it should provide a point of contact for obtaining this information. Conversely, if additional information is provided on the company's homepage that is not disclosed in printed version, the fact that there is additional information provided on the company's homepage should be disclosed.
- The auditor's report is an important source of credibility and reliability for annual reports. Therefore, companies should provide an auditor's report; in which auditor should make clear which pages are subject to an audit opinion, and this report must be signed and dated by the auditor.
- Companies should provide a clear indication to tell users a point when they are leaving from the financial report – that is, audited financial statements and related operating and financial data.
- When company divided its Internet reporting into separate online files and documents for online presentation or downloading convenience, all parts should be listed together on the company's website, and appropriate cross referencing between the documents should be provided.

The present study drew a complete picture and provided for enhancing our understanding of the financial disclosure situation of Jordanian companies on the Internet, and it can also be considered as a comprehensive work with respect to the developing countries generally, and to Jordan particularly. As has seen above, the Internet is providing an innovative way for communicating and interacting with consumers around the globe. Therefore, by improving the current situation of Jordanian companies on the Internet by applying the above recommendations will generate a communication revolution in the local business, as the Jordanian government commenced orientation towards international trade and international markets in order to enhance the Jordanian economy through outside trade. Thus the Jordanian government should recognise the need for taking the advantages of the Internet to create a more attractive investment climate.

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Table 1: Telecom Main Market Indicators

Number of Subscribers: (000)	2000	2001	2002	2003	2004	2005	2006
Fixed Phone	620	660	674	623	638	628	614
Mobile & Trunking	389	866	1200	1325	1624	3138	4343
Internet	32	66	62	92	111	197	206

(Source: TRC's Website on www.trc.gov.jo)

Table 2: Benefits and Limitations of Internet Financial Reporting

Benefits	Limitations
<ul style="list-style-type: none"> • Global reach and mass communication • Timelines and updateability • Interaction and feedback • Presentation flexibility and visibility • Navigational ease • Increased information (downloadable) and analysis • Cost beneficial • Archived information can be kept and users of websites can be tracked • Integration 	<ul style="list-style-type: none"> • Developed/Developing country digital divide • Costs and expertise • Information overload • Security problems • Authentication, attestation and legal impediments • Poor website design and advertising • User preference and competence

Source: (Lodhia, 2004)

Table 3: Previous studies of Internet financial disclosure

Study	Country(s)	Sample (company)	Active Website	Type of the study (Descriptive or Explanatory)
Lymer (1997)	UK,	50	92%	Descriptive
Lymer & Tallberg (1997)	Finland	72	90%	Descriptive
Heldin, (1999)	Sweden	60	99%	Descriptive
Gowthorpe & Amat (1999)	Spain	206	16%	Descriptive
Graven & Marston (1999)	UK	206	74%	Explanatory/ Company size, Industry type
Deller et al. (1999)	Germany, UK, & US	100 each country	95% USA, 85% UK, & 76% Germany	Descriptive
Pirchegger & Wagenhofer(1999)	Austria	30 in two years, 97 & 98	20% in 1997 & 26% in 1998	Explanatory/ Company size and its % of free float
Ashbaugh et al. (1999)	USA	290	87%	Explanatory/ Company' size, Industry type & Profitability
FASB (2000)	USA	500	99%	Descriptive
Ponte et al. (2000)	Europe	50	100%	Descriptive
Marston & Wu (2000)	Japan	99	92%	Explanatory/ Company size, Profitability & Industry type
Ettredge et al. (2001)	AIMR	490	89%	Descriptive
Allam & Lymer (2002)	USA, UK, Canada, Australia & Hong Kong	250	99%	Explanatory/ Company size
Lybaert (2002)	Netherlands	188	80%	Descriptive
Bonson & Escobar (2002)	15 different countries in Europe	300	100%	Explanatory/ Company size, Industrial sector, Country culture
Ettredge et al. (2002)	USA	220	88%	Explanatory/ Company size, Performance, Access to the capital markets, Information asymmetry, and Companies' quality reporting practices
Debreceny et al. (2002)	World sample	660	86%	company size, foreign listing, US listing companies, industry, growth prospects and intangibles, market risk (beta)
Haasbroek, (2002)	South Africa	300	76%	Profitability and Industry type
Oyelere et al. (2003)	Netherlands	229	53%	Company size, Profitability, Liquidity, Internationalization, Industry type, Leverage, and Spread of shareholding
Lodhia et al. (2004)	Australia	50	100%	Descriptive
Marston & Polei (2004)	Germany	50	99%	Explanatory/ Company size, Profitability, Ownership, Beta, Foreign listing
Xiao et al. (2004)	China	300	68%	Explanatory/ Ownership, Independent directors, Auditor type, Foreign listing or Share ownership, Industry type, and the influence of CSRC.
Al-Htaybat & Napier (2006)	Jordan	190	30%	Descriptive

Table 4: Internet Disclosure Checklist

General Information	
1	Company's name
2	Company's news and events
3	List of the site parts and link to any part
4	Search engine box
5	E-mail contact
6	Mailing contact
7	Presentation formats using HTML
8	Presentation formats using PDF
9	Two versions of the site: Arabic and English
10	Information enquiries service
Financial Reporting Information	
11	Complete annual report as one document
12	Names of members of the board of directors
13	Chairman's speech
14	Board of director's report
15	Company profile
16	Brief summary of company's history
17	Brief summary about top managers
18	Brief summary about company's human resources
19	Information on company's products or services
20	Company accomplishments of last year with figures
21	Plans for at least one year ahead
22	Organisational structure chart of the company
23	Auditors' report
24	Balance sheet
25	Income statement
26	Cash flow statement
27	Statement of changes in equity
28	Notes and accounting policies

Table 5: Survey for Listed Jordanian Companies Websites in 2006

Sectors	Total	No websites	%	Non-Jordanian websites	Inaccessible Websites	With active websites	%
Banks	16	0	0	0	0	16	100
Insurance	26	6	23	1	5	14	52
Services	84	68	81	0	1	15	18
Manufacturing	89	58	65	0	0	31	35
Total	215	132	61	1	6	76	35

Table 6: IDI for each company in 2006

Banking	IDI*	Service	IDI
1	1.00	42	0.61
2	0.93	43	0.93
3	0.96	44	0.36
4	0.96	45	0.46
5	1.00	Manufacturing	IDI
6	0.93	46	0.61
7	0.86	47	0.86
8	0.86	48	0.96
9	0.96	49	0.54
10	0.54	50	0.61
11	0.96	51	0.89
12	0.89	52	0.57
13	0.96	53	1.00
14	1.00	54	0.61
15	0.86	55	0.50
16	0.96	56	0.86
Insurance	IDI	57	0.96
17	0.61	58	0.54
18	0.29	59	0.96
19	0.50	60	0.39
20	0.64	61	0.43
21	0.54	62	0.29
22	0.61	63	0.86
23	0.36	64	0.36
24	0.86	65	0.43
25	0.54	66	0.39
26	0.36	67	0.29
27	0.61	68	0.39
28	0.39	69	0.43
29	0.29	70	0.36
30	0.61	71	0.36
Service	IDI	72	0.46
31	0.46	73	0.86
32	0.36	74	0.36
33	0.32	75	0.43
34	0.36	76	0.46
35	0.96		
36	0.46		
37	0.93		
38	0.36		
39	0.50		
40	0.46		
41	0.32		

*IDI=Internet Disclosure Index

Table 7: Descriptive statistics of IDI by sector in 2006

Bank	N	Min.	Max.	Mean	S.D
IDI	16	0.54	1.00	0.91	0.11
Insurance					
IDI	14	0.29	0.86	0.51	0.16
Service					
IDI	15	0.32	0.96	0.52	0.230
Manufacturing					
IDI	31	0.29	1.00	0.58	0.23
All Sectors					
IDI	76	0.29	1.00	0.63	0.25

Table 8: General Items found at Jordanian Companies' Websites

General Information		Number*	%
1	Company's name	75	100
2	Company's news and events	42	56
3	List of the site parts and link to any part	75	100
4	Search engine box	66	88
5	E-mail contact	72	100
6	Mailing contact	72	96
7	Presentation formats using HTML	75	100
8	Presentation formats using PDF	41	55
9	Two versions of the site: Arabic and English	33	44
10	Information enquiries service	37	50

*Number of companies disclosed each item.

Table 9: Financial Items found at Jordanian Companies' Websites

Financial Reporting Information		Number	%
11	Complete annual report as one document	28	37
12	Names of members of the board of directors	41	55
13	Chairman's speech	32	43
14	Board of director's report	35	47
15	Company profile	63	84
16	Brief summary of company's history	70	93
17	Brief summary about top managers	31	41
18	Brief summary about company's human resources	32	43
19	Information on company's products or services	71	95
20	Company accomplishments of last year with figures	42	56
21	Plans for at least one year ahead	37	49
22	Organisational structure chart of the company	28	37
23	Auditors' report	28	37
24	Balance sheet	44	59
25	Income statement	44	59
26	Cash flow statement	36	48
27	Statement of changes in equity	28	48
28	Notes and accounting policies	28	37

Figure 1: The Developments of the Level of the Internet Disclosure by Jordanian Companies from 2004 to 2006

