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THE THEORETICAL FRAMEWORK BEHIND INTERNET FINANCIAL REPORTING

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ABSTRACT

Financial reporting on the Internet by corporations is now a recognized and widely used phenomenon. It is different in many respects from the traditional hard copy versions of financial reports. The interface for presentation may also vary, being html or adobe acrobat format. There needs to be a regulatory framework for financial reporting on the Internet to generate better quality and uniformity of Internet based financial reporting. There are various Sociological and Accounting theories that represent this process of disclosing financial reports on websites. The fundamental theories described in this paper include: Communications theory, Entity theory, Enterprise theory, Regulatory Capture theory, the User’s cognitive learning process and Human-Computer Interaction theories. These theories can be used as the basis of the development of a regulatory framework for financial reporting on the Internet.

Keywords: Internet, Financial Reporting, Theories, Framework.

INTRODUCTION

The Internet offers a new medium for presentation of financial reports by companies. New applications, new users and faster connections have spurred the Internet to become an important medium for communication, information dissemination and commerce (McKnight et al 1995).

It is different from the traditional hard copy format due to many factors. The first aspect is the form of presentation. This covers many aspects such as information being presented on a screen, compared to information being presented in the form of hard copy. Access to the information is also different with the use of companies’ websites for financial reporting. There is more then one path of accessing the data such as going to the website of the company directly, using a search engine or accessing the company’s website through a secondary site such as a stock exchange website. The interface itself may have different forms such as html format or adobe acrobat format. Information may be presented in different forms such as abridged information, information divided into sub categories (referred to as interactive reports) or a scanned version of the hard copy report.

INTERNET REGULATORY FRAMEWORK

According to Litan and Wilson (2000) the transition from hard copy to Internet usage for presentation of financial information requires major changes in the legal and regulatory framework in which economies function. The existing model for financial disclosure must be updated so that all assets-tangible and intangible are measured accurately (Litan & Wilson 2000). Litan and Wilson (2000) have also proposed that utilising the Internet capabilities more efficiently should generate
financial reporting that is forward looking, describing not only historical cost based elements, but also providing a more accurate picture of the organisation's current and future prospects. Litan and Wilson (2000) have emphasized that the Internet regulatory framework needs to be user and market-driven rather than issuer or company driven. The implication here is that companies need to focus on the information needs of users, not just a pure cost versus benefit analysis for the company.

Companies from different regions, using one medium for presentation of financial information, the Internet, pose elements of differentiation for the user. This may occur in the context of the use of different standards, different frameworks, different languages, different stages of information (none, abridged, detailed), and different types of information. This can be described as a spectrum of information ranging from no financial information to maximum, detailed, online reporting.

SOCIOLICAL AND ACCOUNTING THEORIES IN THE CONTEXT OF INTERNET FINANCIAL REPORTING

Online financial reporting can be described in terms of sociological and accounting theories. The fundamental theories that will be used to achieve this purpose include:

- Communications theory (Shannon and Weaver 1949)
- Entity theory (Paton 1962)
- Enterprise theory (Soujanen 1954)
- Regulatory capture theory (Posner 1974)
- User’s Cognitive Learning Process (Kennedy & Maines 2002)
- Human-Computer Interaction Theories: Information Foraging Theory (Pirolli 2002)

Communications theory

Shannon and Weaver (1949) produced a general model of communication that identified elements relating to transmission of information from one source to another. These elements have the following components:

- Information Source,
- Channel,
- Destination (Shannon and Weaver 1949).

Information Source

All human communication has some source (information source in Shannon and Weaver’s terminology), some person or group of persons with a given purpose, a reason for engaging in communication. In the context of the Internet this source is first of all the company itself, which is the primary source of information.

If the company does not provide information on its own website then secondary sources of company information become relevant such as databases generated by regulatory bodies, and /or private companies providing information on companies either free of charge or for a fee. The source controls the content and the quality of the message. In the context of Internet financial reporting, it’s the company that decides as to what it wants to project to the users of the information. Qualitative characteristics of financial reporting including timeliness, completeness,
understandability and relevance of information therefore become the responsibility of the source, the company with the webpage.

**Channel**

The Internet itself is the channel for communicating the information to the user. Before the Internet was used as a medium of presentation of financial information, and even now, the hard copy, the paper version was the major, if not the sole means of channelling financial information to users.

The Internet poses new aspects as a medium of information presentation. The issues that relate to the Internet as a communication medium include the readability, usability and understanding of the information. These aspects relate to the nature of the information as well as the technical aspects of the medium of presentation itself. The Internet as a channel for communicating information faces aspects of quality control and security of the information presented. Security of the information is a major element in the context of Internet financial reporting. Internet is a channel that allows around the clock access to the information. It also allows information to be susceptible to manipulation and change by any party that can and has a motive to do so. It is the responsibility of the company to ensure the security of the financial information while it is presented via the channel. This is more complicated than hard copy channel because of the continuous exposure of information to unauthorized change on the Internet. This is because hard copy versions of reports could not be changed by third parties once printed and disseminated. Users and third parties could change them for personal use but the original version coming from the source itself could not be changed so readily.

**Destination**

The destination is the various types of users of financial reports. The user may question the nature of the information, the quality and completeness of the information and the authenticity of the information. Or the user may accept the information to be credible enough to be used for decision making. The Internet poses a major dilemma regarding this aspect of presentation of information. In order to increase user confidence companies can take measures such as providing information on security measures adopted, verification reports, such as additional assurance by auditors and statements from third parties guaranteeing the quality and content of the information so presented to be at least of the same standard as hard copy.

**Entity theory**

The entity theory emphasizes the concept of “stewardship” or “accountability” where the business is concerned about its survival and the business projects financial information to equity holders in order to meet legal requirements and to maintain a good relationship with them in case more funds are needed in the future (Paton 1962). Therefore this theory relates to the company itself, shedding light on why companies may present their financial reports on their websites.

The Entity theory may explain disclosure on the Internet in terms of the business being responsible and accountable towards its stakeholders, trying to meet the information needs of the users. For multinational and large companies this notion might even hold more strongly due to the expansive nature of the users. Regulatory frameworks have encouraged companies to reach all the users more or less simultaneously. The Internet offers this benefit, where companies can reach a wider audience at the same point in time.
The theory has mentioned companies fulfilling legal requirements in addition to meeting the information needs of their users. This notion extended to Internet financial reporting raises questions about the jurisdictions and the laws that need to be followed, considering that the Internet has no formal boundaries.

According to Lymer et al (1999) there is a range of regulatory bodies that are becoming active in the area of Internet Financial Reporting. These include The International Monetary Fund (IMF), International Accounting Standards Board (IASB), International Federation of Accountants (IFAD), Web Trust, COB (France), the Financial Accounting Standards Board (FASB, U.S.). Other bodies include the Australian Securities and Investment Commission (ASIC) and the Auditing and Assurance Standards Board, Australia, which have made pronouncements on the submission or use of electronic accounting data in various ways. The recommendations of these bodies are provided in more detail as follows:

**International Monetary Fund (IMF)**

IMF launched a Special Standard in 1996 dealing with timely release of data with equal and ready access for all users. The standard also covers other factors including integrity of data, quality of data and reconciliation and reliability of data. IMF has focused most on timeliness of financial information. According to the standards, even with optimal quality of financial information, information not released in time to users, would render the information useless and irrelevant in regards to decision making (Wallace 1996).

**International Accounting Standards Board (IASB)**

The IASB (formerly referred to as the IASC) published a detailed report, titled ‘Business Reporting on the Internet’ in 1999. This was supposed to be the first step in the process of developing standards in the context of financial reporting on the Internet. The report focused on the following aspects of online financial reporting:

- the current technologies available for electronic business reporting;
- what companies around the world are actually doing (this involved a detailed analysis of the Web sites of the 30 largest companies in each of 22 countries, 660 companies in all);
- the sort of standards for electronic business reporting that are needed now, within the constraint of today’s technologies;
- the shortcomings of business reporting on the Internet within current technologies; and
- the technological changes that can they improve electronic business reporting (Lymer et al. 1999)

According to the guidance issued by the IASB, the financial reports provided online should have the same scale and scope as traditional hard copy versions, otherwise any information lacking or additional information should be disclosed as such.

The guidance requirements also include the following factors.

1. Boundaries should be clearly set out between audited financial statements and related financial information,
2. Users should be notified of significant changes to website,
3. Internal link integrity should be assured at all times,
4. External link integrity should be assured to an optimal level,
5. All security provisions should be made to ensure integrity of the data,
6. Errors existing should be clearly identified (Lymer et al 1999).

In addition to these guidelines, the report also incorporated a “code of conduct” that incorporated the additional requirements to enhance online financial reporting. These recommendations focused on:

- Data quality: maintaining the same scale and scope as hard copy,
- Proper application of IASB accounting standards, with differentiation between sections following the standards and sections not abiding by the standards and or following another GAAP,
- Proper classification of data as complete or summarized,
- Provision of additional data to enhance decision making,
- Clear differentiation by the company and the auditor between audited and un-audited sections of the reports,
- Provision of reports in multiple languages and clear identification of the scope of the audit; whether the multiple language versions come under the umbrella of being audited or not,
- Authentication and verification of data provided on the webpage,
- Maintenance of internal and external integrity of data,
- Provision of additional communication means for additional information if required. (Lymer et al. 1999)

**International Federation of Accountants**

International Federation of Accountants (IFAC) has issued a paper prepared by the Information Technology Committee of IFAC to promote awareness among all accountants of the impact of e-business on the work of accountants and key issues which need to be addressed. IFAC (2002) has emphasized the importance of security of the accounting information.

IFAC (2002) has also emphasized that the responsibility of maintaining the integrity of accounting data rests on the management. IFAC (2002) has defined the following criteria for a reliable IT system generating reliable accounting information:

- Integrity: The first condition under this factor is for the information to be accurate and complete. The second condition is for the IT systems to be complete and relevant. The third condition is protection against unauthorized change and manipulation.
- Availability: IFAC has emphasized that the hardware, software, data and information should be available constantly, with the ability to download the data within reasonable time.
- Authenticity: This relates to the trailing of the information to its source thus generating verifiability.
- Authorization: Only authorized personnel should be allowed to enter or change information made available to the user. (IFAC 2002, p 10).

IFAC (2002) has described the above criteria in the light of the qualitative characteristics of completeness, accuracy and timeliness. Therefore if a company would fulfil these criteria, it will enhance these qualitative characteristics.
**Web Trust**

The Web Trust program undertaken by the AICPA and the Canadian Institute of Chartered Accountants also incorporates security issues as the responsibility of the issuing organization. There are six standards incorporated in the program including a standard dealing with security. The Security standard assures that the website of the organization should maintain effective controls and practices to address security matters such as encryption of private and confidential customer information, protection of information once it reaches the site, protection against virus transmission, and customer approval before the site stores, alters or copies information on the customer’s computer (Web Trust 2006).

**Commision des Operations de Bourse (COB)**

The Commision des Operations de Bourse (COB) is a French public independent regulatory agency whose mission is to ensure the protection of investors whether their investments are in securities or other financial products involving public offerings, the adequacy of the information given to investors and the proper operation of the markets in financial instruments. COB issued a press release regarding the use of the Internet for distribution of financial information by listed companies, in May 1999.

Some of the recommendations are listed below.

1. The information provided by a company on its web site should be accurate, precise and sincere. Any links to additional sites should be easily identifiable. Disclaimers on the website of the company should be clearly identified with all contents of the website to which they hold.

2. If there are any errors on the web site they should be quickly identified, a warning should be issued and the mistake should be rectified.

3. Documents listed on the web site should be clarified as either complete, or as summaries or extracts. With summaries and extracts reference should be made as to where the whole document can be obtained.

4. The source of the information should be clearly identified. Outside information should not be included on the website without the author's permission. Financial research regarding the company should be carefully evaluated before being added to the website. It should be presented honestly and should not mislead the public. Extracts of the research should not be presented in such manner as to favour the company and the details of the author and the full research should be provided (Commision des Operations de Bourse 1999).

The point made by COB is very clear that the responsibility to maintain quality and accuracy of financial reporting on a company’s website, rests with the company itself and that the company needs to ensure that only reliable sources of third party information are presented on its website.

**FASB Institutional Framework (United States of America)**

Financial Accounting Standards Board (FASB) has provided a more precautionary approach to be taken by companies on their websites. According to a report published by FASB (2000, p.72):

> Companies should provide cautionary disclaimers on the web page in relation to forward-looking statements and speeches, not provide links to analysts’ websites, include full sets of statutory reports and notes, and avoid duty to update disclosures by putting disclaimers against updated information and update security measures.
FASB’s approach is a mixture of the accountability that the company has towards its stakeholders to provide complete information and to protect the information from manipulation and at the same time an approach that would protect the company as well from potential litigation such as by providing disclaimers against information that may not be verified by an third party or that may be based on speculation such as forward looking statements. The approach taken by FASB is a conservative one, generating user confidence in past information rather then current or future based information.

**Other U.S. Regulation**

The Securities and Exchange Commission (SEC), in Securities Act Release No. 33-7233, indicates, in part, that, "The liability provisions of the federal securities laws apply equally to electronic and paper-based media." (Gray & Debreceny 2001). This suggests that companies are as responsible for maintaining the integrity and quality of online financial reporting as of hard copy financial reports.

Although in relation to auditor responsibility in respect of financial reporting on the Internet, the Securities Act has clarified that auditors are not required by Section 550 to read information contained in electronics sites, or to consider the consistency of other information in an electronic site with the original documents. This responsibility rests with the management.

The Australian Securities and Investments Commission (ASIC)

The viewpoint of ASIC (2004) on the use of the Internet as a medium of presentation of financial information has been the creation of a regulatory and business environment in which:

> Consumers of e-commerce financial products and services can be confident that their interests are properly protected, Industry participants can confidently plan and develop e-commerce initiatives, ASIC can further enhance its ability to be an effective and credible regulator in the e-commerce context.

The aim of ASIC is to protect user interest. In the context of Internet financial reporting, the major concern from ASIC’s point of view will be to ensure that financial information provided by companies is not misleading or deceptive, and that users can confidently use the information for decision making purposes.

**Auditing and Assurance Standards Board (Australia)**

The Auditing and Assurance standards and guidance statements are issued by the Auditing and Assurance Standards Board (AuASB) which is a part of the Australian Accounting Research Foundation. The standards are mandatory to be applied to all financial report audits as well as to other financial/ non financial information (The Institute of Charted Accountants in Australia 2006).

The guidance statements are there to provide detailed assistance on the implementation of the standards. The focus in the context of this research is on AGS 1050. The reason for that is that this guidance statement focuses on auditor responsibility in the context of financial reporting on the Internet.

AGS 1050 has clarified that the preparation and presentation of the financial report on the website remains the responsibility of the management but the auditor needs to face certain factors that may
result in “risk of audit report being inappropriately associated with unaudited information on company’s website” (The Institute of Chartered Accountants in Australia 2006, p.856). This statement implies that companies may associate the audit report to un-audited information, giving the false impression that a specific set of information is audited when it is not. This is a significant risk in relation to reliance on information presented on the website by a company to a degree that is associated with audited information only.

According to the guidance statement, the auditor may clarify in the engagement letter that “the examination of controls over the electronic presentation of audited financial information on an entity’s website is beyond the scope of the audit of the financial report” (The Institute of Chartered Accountants in Australia 2006, p857). Here the guidance statement is referring to security of information presented online. It has clarified that this is the responsibility of the management and not of the auditor.

AGS 1050 has emphasized that the auditor may provide additional assurance in relation to online financial reporting, where management may request the auditor to provide additional assurance in respect of controls and security, and other information. This is considered a separate website assurance engagement. The auditor may provide a separate audit report for online reports which would have additional statements relating to the scope of the audit according to third AGS 1050 recommendation in 8.1.j. (The Institute of Chartered Accountants in Australia 2006).

If the auditor is not satisfied that management has dealt with issues relating to financial reports and or audit reports to be presented on the company’s website, the auditor may notify the management in writing that the audit report should not be presented on the website and that the financial reports are not to be referred to as audited (The Institute of Chartered Accountants in Australia 2006).

After the audited financial report is disclosed on the company’s website, the auditor has no responsibility to make any inquiries. If the auditor finds out that the audit report is being misused the auditor may ask the company to take off the audit report from the website immediately. If management would not taken appropriate action based on the auditor’s concerns, the auditor may seek legal advice and action (The Institute of Chartered Accountants in Australia 2006).

In summary, AGS 1050 has shifted the responsibility on the auditor of assessing whether additional statements are required in an audit report meant specifically for online reporting and that this is considered a separate assurance engagement. The responsibility for the quality and security of information on a company’s website still rests on the shoulders of the management. The aim of this guidance statement is to make the auditor aware of any legal implications that may arise from the presentation of audited financial reports online and the measures that the auditor may take to protect against potential liability issues. Therefore the auditor only needs to ensure that any information that is to be placed on a company’s website initially is appropriately associated with the audit report and that it satisfies the auditor’s expectations. Beyond this point the auditor is relieved of additional responsibility unless it’s an additional assurance engagement.

**Summary regulatory bodies and the entity theory**

The regulatory bodies discussed have focused on rules and recommendations in relation to companies presenting financial information online. One component of the entity theory related to the point that companies present information to users in order to meet legal requirements.
Considering the coverage provided by various regulatory bodies in relation to financial reporting online, covering quality and security of the information, the question still remains: Do companies follow the recommendations provided by various bodies? Do companies maintain the security, quality and integrity of the information presented on the websites?

**Enterprise Theory (Waino & Soujenan 1954)**

This theory has been formulated by Waino and Soujanen (1954) which views the enterprise as a social institution where decisions are made that affect a number of interested parties: shareholders, employees, creditors, customers, various government agencies and the public.

The purpose of incorporating this theory is that when a company decides to present its financial information on its website, it has made a decision. This decision has consequences and affects. The larger the company, the greater the number of stakeholders affected.

As a result the company owes responsibility to the larger number of users to provide quality, reliable, complete financial information online. This information may have a significant impact on the decision making process of a larger pool of users compared to the number of users affected if the company would choose to use hard copy medium only to transmit financial reports.

**Regulatory Capture Theory (Posner 1974)**

The theory emphasizes the role of the manager as a major influence on the regulatory agencies and the rules that they develop and try to enforce. Capture theorists provide the views that while the purpose in fact or origin of regulation is to protect the public interest, this process is not achieved because, in the process of regulation, the regulated comes to control or dominate the regulator (Posner 1974).

In the context of Internet reporting, there are rules and guidelines provided by regulatory agencies. So the extreme situation presented by Posner (1974) does not exist, where companies have no one to answer to or no regulations to follow at all.

The point though is as to how rigorously the rules and recommendations are actually implemented? The question implies that companies may not have a need to dominate or control the regulator if they can get away with not putting the rules and recommendations into practice. This enhances the concept that there may be a gap between de jure and de facto accounting and that regulators may not have the resources to minimize the gap. In the context of the Internet, this gap may be varied for different types of companies and or countries.

**User’s Cognitive Learning Process**

Hodge, Kennedy and Maines (2002) have asserted that managers lobby against certain elements being recognized in the body of the financial statements. And that users place more emphasis on the body of the financial statements rather than the notes to the financial statements due to processing costs and cognitive limitations. This characteristic is manipulated by management, who according to Hodge, Kennedy and Maines (2002) prefer and have the choice to disclose data in the notes to the financial statements rather than recognize it in the main body. This is specifically so for data that would have a negative effect on the bottom line and the investor’s perception of the firm’s performance. Many factors may hold this concept to be true and relevant such as limited time.
frame for the user to make a decision, lack of patience to read through every single piece of information presented in financial reports, inability to pick up important pieces of information from a vast amount of data.

Hodge, Kennedy and Maines (2002) identified most users as ‘sequential’ searchers, who look at the financial reports in the order in which they are presented, as compared to ‘directive’ searchers who go directly to the information that they need. This would further support the notion that sequential users may not be able to reach or find important information due to time and cost constraints. This might lead to inaccurate and inefficient decision making on behalf of the user.

In the context of Internet financial reporting, the capabilities of the technical language used for financial reporting would have a major bearing on how easily the format of the reports allow for direct extraction of information. If reports are presented in Acrobat format or html format, then a ‘find’ option may help the user to get to the information required. In spite of this feature there may be multiple instances of the key word or phrase within the report that the user may have to go through to get to the relevant information. Certain reporting languages have promised to alleviate this problem.

**Human-Computer Interaction Theories**

Human-Computer Interaction theories deal specifically with aspects, benefits, problems and issues that may arise when a user would utilize the computer to find information.

**Information Foraging Theory**

Information foraging theory deals with how user strategies, plans and technology utilized for information finding, assimilation and analysis are suited to the way data is presented in the computer environment (Pirolli & Card 1999). Pirolli and Card (1999) has identified two types of costs associated with extracting data on the Internet. One is the time cost that is the time it takes to find the relevant information on the website. The second is the resource cost that relates to user’s attention and effort. Pirolli and Card (1999) deduced from the research that users prefer maximum information output per unit cost. In the context of financial reporting on the Internet, this would relate to the amount of time and effort it would take to access relevant financial reports of a company on the world wide web.

Information Foraging Theory has then been linked to a concept called “Information Overload”.

**Information Overload Theory**

Rao (2002) has described Information overload as the situation where the user is faced with large amounts of data that they have to look through to get to the specific information that the user wants.

This theory can be applied at two stages of extracting financial information from a company’s website. The first instance is typing the name of the company in a search engine such as ‘Yahoo’ to look for the company’s web page. In many instances various pages of findings may be generated, through which the user would have to determine the primary web page of the company. The second stage of ‘information overload’ may occur at the company’s website, where once
again the user may have to spend more time and effort to get to the specific piece of information desired.

Rao (2002) has described Information Scent as the user’s understanding of environmental cues in judging where information would be found and where would the user have to navigate to get to the information. Rao (2002) has used the term ‘proximal cues’ utilized by the user to navigate through the information sources. Typical examples of proximal cues are hyperlinks that are underlined and highlighted for the user to click on and follow to get to the information source. So in a way the user is “sniffing” out where the financial information may be, starting from the search engine, to the findings on the search engine, to the company’s web page, to a hyper link that may lead to the annual report for example, to the actual report itself.

Rao (2002) found that display of key words that best describe the information that may be accurately linked to the key word, enhanced the Information Scent theory and minimized the costs associated with the Information Foraging Theory.

From the company’s point of view, this would imply the degree of user friendliness incorporated by the company in its website. The emphasis here is more on the presentation aspect of financial reports on a company’s website. Information scent theory would be supported if companies have the correct keywords with relevant hyperlinks, leading the user to the information desired. It would also imply providing all elements that users may seek, with hyperlinks, in a sequential manner, on the company’s website. If a company was to use a PDF interface without hyperlinks to individual elements in the financial report, without providing a table of contents, with page numbers, this would lead to a user being overwhelmed with vast amount of data to search through. Combined with the cognitive limitations that the user may face, might result in the relevant information being missed altogether.

The point is that users should be helped by the company to get to the information desired in least amount of time and with minimal effort. This responsibility would probably rest on the web designer of the company, who will have to work in unison with management to achieve a more useful company website.

**Information Modelling on the Internet**

Price (2001) has shed light on the structure of the medium, which is the Internet itself as a mode of presentation. He has pointed out that with the Internet the user is working with reduced screens, slow access and limited service, while from the company’s point of view the delivery is to a much wider audience.

Price (2001) has described three characteristics of data presented on the Internet: height, width and the third element of depth, referring to the hyperlinks, which when clicked on lead to another source of data. This has not been possible with the hard copy medium.

Just like Rao (2002), Price (2001) has also emphasized the aspect of time. How much time does it take for the user to access the data required? Price (2001) has further extended on this concept by pointing out that due to extensive navigation from one page to another the formulation of a mental model of the content of each page becomes difficult.
Price (2001) has utilized the concepts of “perception” produced by Gestalt Arnheim’s concept of “visual thinking” to understand and improve what is presented in cyber space. Thus a user would apply logic and perception to understand the information presented by a company on its website. This might be confusing for the user, if the company would provide disclaimers regarding the information presented on its website. This would raise questions regarding the reliability and verifiability of the accounting information online.

Price (2001) has pointed out that obtaining and utilizing information from the Internet, via a monitor, may not be an easy task for the user. Price (2001) has also made the point that users access company information with certain pre-conceived ideas that have been formulated based on past experience such as trusting that the information presented by a company on its website, has at least the same quality and scope as hard copy. How true can this perception be held? If companies are not taking complete responsibility to maintain the quality of information online, then this would compromise the qualitative characteristics of financial reporting online and would result in reduction of user confidence in the information, or worse, it might result in wrong decision making on behalf of the user.

**Quantum Theory of Internet Value**

Orlowski (2003) has pointed out the promises made when the Internet was introduced to the public in the 1990’s. Some of the promises made were: everyone having an Internet connection, and access to a wide array of knowledge.

As time has passed by the “information costs” have become obvious. So the question addressed by Orlowski (2003) is: What is the value of the Internet? According to Orlowski (2003) there must be a quantum amount of Internet utility. The value of the Internet in 1994 must be the same, not diminished now.

If management would not display all accounting information on the website of the company, than every user would not have equal access to the data. If the information is presented accurately in the main language, and is different in other languages, once again one user may be disadvantaged over another. If the information is not updated on the website, a similar problem of information asymmetry is faced.

So although the Internet may have the potential to enhance information provision to a wider audience, the element of control by humans still remains important as a factor affecting quality and quantity of information presented on the web.

The Quantum theory supports the idea that companies should follow a uniform set of procedures in regards to the presentation of information online, in order to benefit all users, regardless of the type of users.

**Digital Imprimatur**

Levy (2004) has described the Internet as a contradictory tool of communication. Walker (2003) developed the theory called “Digital Imprimatur”. This refers to the notion that at a future point in time nothing will be allowed on the Internet without a proper technical authorization.
Levy (2004) has described the advantages of such a system as eliminating identity theft, enabling secure transactions. Thus giving birth to a concept called “trusted computing”, where not only people but also computer programs would be stamped with identifying marks. The impact that this would have on an organization’s financial and other data is idealistic as far as tracing of data input; responsibility for data generation and sourcing of data is concerned. This would have a positive impact on verifiability and reliability of information presented on companies’ websites.

**Post Modern Communication Theory**

This theory deals with control and regulation in relation to the way information is presented on the Internet. It relates to the concepts of the Arbolic model and the Rhizomatic model (Massumi 1987).

The Arbolic model is State philosophy. Arbolic thought is strict and stiff. This represents uniformity, lack of flexibility in the nature of the information presented on the Internet (Massumi 1987).

On the contrary, Rhizomatic thought is non-linear, anarchic and nomadic, and it moves across borders (Deleuze and Guattari 1987). This view is exact opposite of the Arbolic model, in the respect that corporations are allowed complete flexibility in regards to the nature of financial reporting information presented on a company’s website.

Deleuze and Guattari (1987) have also formulated that the user is being transformed from “arborial” to “rhizomatic” wandering across the globe via the Internet. This would imply choice for the user. The user, by accessing financial information on the Internet, has access to a wide range of information, from different companies. Therefore the user faces more options as a stakeholder, transcending national boundaries.

Brande (1996) has described the Internet as a new and open ended domain of production, circulation and consumption. This concept would entail the use of the Internet to reach a wider audience, globally.

**The Internet: A paradigm shift for communication**

Barr (2000) has described the Internet as a paradigm shift for communication. McMahon (2006) has suggested that this definition provided by Barr (2000) has come from Thomas Kuhn’s work “The structure of Scientific Revolutions” (1962). Kuhn (1962) has described paradigms as universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners. According to Kuhn, paradigms have two characteristics: The first one is that they attract people away from other competing models, and second that they are open ended to create problems for people to solve. This theory very well applies to the Internet since companies worldwide are now using the Internet as a medium of presentation and communication of financial information. It poses problems of security of data, quality of data, on time delivery of data, just to mention a few of the issues that surround Internet reporting.

McMahon (2006) has claimed the Internet to be ‘the greatest surveillance tool known’. Mc Mahon (2006) in his study has extended this concept to consider the affect of the Internet as a surveillance tool in countries like China, which are based on the Confucian system. In these countries the individual is strongly a part of the system, the family and the nation. This impacts the company as well, since these companies were owned by the government not long ago. With the privatisation process and the listing on the stock exchange locally and internationally, the reporting needs of
these companies have changed as well. There are more stakeholders interested nationally and on a global scale.

Mc Mahon (2006) has pointed out that in such countries the government has maintained power by controlling what information is released to the public. But with the introduction of mediums like the Internet this control is diminishing and globalisation is coming into play in these countries as well.

According to Tomlinson (1999) globalisation is a process in which complex interconnections are rapidly developing between societies, institutions, collectives and individuals world wide. Thus the reports provided by a Chinese company can be accessed by a user in another country. Perhaps this is leading to better, more transparent reporting in order to attract capital.

Schiller (1989) has discussed the idea of information being shared across boundaries, beyond countries. This relates well to the adoption of International Accounting Standards in China and China's ambitious efforts of "westernising" their financial reporting to attract more capital for listed companies. The amount of financial reporting that actually occurs on the companies' websites needs to be examined.

Globalization and the Internet

Webster (2002) has mentioned the concept of “Globalisation of Communications”. He has described it as “a supportive, tensive and contradictory role in the global market system, of which it is itself a major manifestation”. Webster (2002) has described the Global Communication phenomenon as supportive as well as contradictory. He has expanded on this point by mentioning that the information provided by companies via mediums such as the Internet may have a negative consequence for the company. An example can be a news release that would negatively affect the share price of the firm. At the same time, mediums like the Internet are offering exposure of the company to many more audience than was possible without the presence of the Internet. Webster (2002) goes on to explain that Globalisation requires and at the same time enhances an “information infra-structure”. According to Webster (2002) following are the elements of this infra-structure:

- World-wide expansions of services that collect information, analyse and distribute it, and add value by analysing and collating it.
- Globalisation requires the construction and where necessary, enhancement of computer and communications technologies (Webster 2002).
- This information structure has resulted in the growth of information flows at a quite extra-ordinary rate" (Webster 2002).

The point Weber (2002) has made is that technologies such as the Internet are supporting and are being supported by the globalization process. This exposes the company to a wider range of users, thereby increasing responsibility to provide quality information to not just one, but multiple set of users.

CONCLUSION

Various theories were described in the context of financial reporting by companies on the Internet. They have all pointed towards the importance of quality, completeness and security of accounting information presented by companies on their websites. Internet financial reporting has extended
the number and types of users of the information, beyond national boundaries. This means that companies now need to satisfy the information requirements of multiple, global users. There needs to be an Internet regulatory framework that is user driven. There are various national and international bodies that have provided guidelines that can be incorporated in a framework, relating to optimum financial reporting on the Internet. On the contrary, there is a gap between frameworks, policies and guidelines and actual reporting that deems frameworks and policies ineffective at varying levels. It is up to the companies to ensure that this gap is narrowed as much as possible to use the Internet most effectively and efficiently in order to fulfil the information needs of all stakeholders.

**REFERENCE LIST**


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