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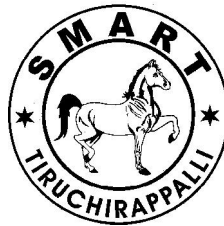
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EFFECTIVENESS OF INFORMATION DISCLOSURE OF INDIAN PUBLIC SECTOR BANKS ON THEIR WEB SITES - AN EMPIRICAL STUDY

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ABSTRACT

*The Internet has emerged as a recent medium of presentation of banks' information. This study is an attempt to examine the degree of effectiveness of information disclosure of banks on their websites. For the purpose of this study, a list of items of information disclosure was prepared and subsequently they were classified into four attributes such as general attribute, financial attribute, investor attribute, and corporate governance attribute. In order to measure the level of information disclosure by banks, a **Bank Disclosure Attribute Index** was constructed and scores were assigned for each attribute and finally overall disclosure score for each bank was arrived at using BDAI. Each bank's website was explored to identify the availability of the above attributes. The sample for this study includes all the Indian public sector banks, numbering twenty seven. This study used statistical tools such as Chi Square Test, Multiple Correlation and ANOVA. It is found that the majority of the Indian public sector banks are not disclosing required information adequately. Further, there is no uniformity among the banks in each of the attributes. It is also found that there is significant correlation between overall information disclosure and four categories of attributes such as general attribute, financial attribute, investor attribute, and corporate governance attribute. In the context of the qualitative characteristics identified by the International Accounting Standards Board Framework, adopted by national jurisdictions, inadequate and non-uniform disclosure would compromise quality, relevance, usefulness and timeliness of reporting information on the internet. Thus, the public sector banks have to improve their effectiveness of disclosure to make the internet a more reliable source for presentation of reporting information than ever before.*

Key words: *Indian Banking, Public Sector Banks, Internet banking, Bank Disclosure Attribute Index*

Introduction

The Internet has evolved as a medium of information presentation and usage on an increasing scale since its public usage in the early nineties. The growth in the number of Internet users over the years has had a major impact on information disclosure frameworks and systems. The major difference between traditional representation of information (hard copy) and the internet is that with the internet, there are no boundaries as to who uses that information and it is virtually global. E-Business tools are providing new ways to communicate vast quantities of information, in an environment where information flows continuously and without hindrance. The second difference that exists with the use of the internet is the simultaneous release of opinions of third parties such as analysts that did not exist with hard copy. With regard to the whole world, North America, Europe and Oceania/ Australia are the regions that have played a major role in the adoption of the internet technology. By the year 2006, 16 percent of the world population has

adopted the internet technology. According to Cucuzza and Cherian (2001), E-Business tools are providing new ways to communicate vast quantities of information in an environment where information flows continuously and without hindrance. Another difference is the release of company information on third party websites, where no financial reporting may be present on a company's primary website. The present study is an attempt to examine the effectiveness of information disclosure of Indian public sector banks on their websites.

Review of Literature

In India not many studies have been conducted on internet disclosure levels. However, there are numerous papers that sought to study the process of internet disclosure internationally. These studies investigated the nature and extent of disclosure on corporate websites.

Pirchegger and Wagenhofer (1999) compared the disclosure scores of the Austrian companies with German companies and found that Austrian larger companies disclosed more. Marshon (2003) found that internet reporting was well established among leading Japanese companies. Balwinder Singh and Pooja Malhota (2004) identified banks which were not making full utilization of internet to disclose information to stakeholders. Allam and Lymer(2003) showed the results of corporate disclosure of companies of largest countries and found that US,UK and Canadian companies lead in reporting over internet.

Accounting organizations and standard setters are also paying attention to the rapid growth of dissemination of accounting information on the internet. The International Accounting Standards Committee (IASC) commissioned a discussion paper for business reporting on the internet (published by Lymer et al., 1999). This IASC report provided a survey of web-based financial reporting practices of the 660 public corporations in 22 countries. The study concluded that a significant number of companies in many countries use the web for communication of business performance to stakeholders. Petrarick and Gillett (1996) reported that 69% of Fortune 150 companies in the USA have websites, with 81% of them disclosing substantive financial information.

Grove (1997) coined the term 'inflection point' which he defined as "a change in business environment that has the potential to alter the way a company operates". According to King (2001), the Internet is an inflection point which has an impact that has not yet been fully determined. He also pointed out that the most important effects on cost management practices have been in the areas of information communication and transaction processing. This would imply that companies which are using the internet for accounting and financial information presentation, may see additional benefits over additional costs by providing financial reports on a website.

Objectives of the Study

This study has the following objectives:

1. To identify the items of information disclosure of public sector banks and classify them into four attributes, viz., general attribute, financial attribute, investor attribute, and corporate governance attribute.

2. To construct Bank Disclosure Attribute Index (BDAI) based on the above items.

3. To measure the effectiveness of Information Disclosure of Indian Public Sector Banks using the above index (BDAI).

4. To compare the level of information disclosure, bank-wise and attribute-wise.

Research Methodlogy

The present study is an empirical study to examine the effectiveness of information disclosure by Indian public sector banks on their web sites. The sample for this study includes all the Indian public sector banks, numbering 27. For the purpose of this study, a list of items of information disclosure was prepared and subsequently they were classified into four attributes such as General Attribute, Financial Attribute, Investor Attribute, and Corporate Governance Attribute. The classification of attributes is given in **Tables - 1(a) and 1(b).** In order to measure the level of information disclosure by banks, a Bank Disclosure Attribute Index (BDAI) was constructed. While constructing the index, one point was given to one attribute and 1-3 and 1-5 points were given to some attributes as shown in **Table - 2**. Each bank's website was explored to identify the availability of the above attributes. Scores were assigned for each attribute and finally overall disclosure score for each bank was arrived at by using the BDAI. After calculating the total scores of disclosure for each bank, the percentage of disclosure was calculated as follows: Disclosure % = Total Scores / 61 * 100. This study used statistical tools such as Multiple Correlation, Chi Square Test and ANOVA. The period chosen for the study ranges from February 2008 to July 2008.

Hypotheses

For achieving the objectives of this study, the following hypotheses were tested.

Hypothesis I

H01 : All the banks have adequate

H01a : overall information disclosure and

H01b : disclosure on four categories of attributes.

Hypothesis II

H0 2 : There is no significant correlation between the various types of disclosure, viz., overall and four attributes of disclosure.

Hypothesis III

H03 : There is no significant difference among banks on the question of information disclosure.

Hypothesis IV

H04 : There is no significant difference among the various attributes of information disclosure by the banks.

Results and Discussion

Table - 3 shows, the scores earned by all Indian Public Sector Banks for over all disclosure and for each of the four attributes in percentage. The overall information disclosure ranges from a minimum of 37.7% (State Bank of Mysore) to a maximum of 85.2% (Bank of Baroda), with mean value of 55.64% and SD of 9.6. Disclosure on general attribute ranges from a minimum of 40.9% (State Bank of Mysore) to a maximum of 81.8% ((Bank of Maharashtra), with mean value of 67.9% and SD of 12.16. Disclosure on financial attribute ranges from minimum of 0 % (State Bank of Hyderabad) to maximum of 100% (Bank of Baroda), with mean value of 30.45% and SD of 21.42. Disclosure on investor attribute ranges from a minimum of 18 % (State Bank of Mysore) to a maximum of 90.9% (UCO Bank), with mean value of 56.8% and SD of 17.7. Disclosure on corporate governance attribute ranges from a minimum of 50% (3 banks) to a maximum of 100% (5 banks), with mean value of 74% and SD of 16.5. Thus it is found that the majority of the Indian Public Sector Banks are below average in the effectiveness of disclosing required information in their websites.

Chi Square Test was applied to know the association of the score of each bank with its benchmark score. The mean value of overall information disclosure and each of the four attributes is considered as benchmark value. Applying Chi Square Test, the Null hypothesis I (H01a) is accepted for overall disclosure level

of banks. Thus, there is adequate overall information disclosure (95.9%) by banks. However, the Null Hypothesis I (H01b) is rejected with regard to the disclosure level of banks for four attributes. Thus, there is no adequate disclosure of information on the four categories of attributes [such as general (43.4%), financial (59.1%), investor (42%) and corporate governance (24.8%)] by banks. Further, the attributes are deviated more among the banks, which indicate that there is no uniformity in the information disclosure among banks for the four attributes.

Table - 4 shows the correlation between the disclosure items, viz., overall and four attributes of disclosure. It is found that the correlation between the overall disclosure and four different categories of attributes (general, financial, investor and corporate governance) is significant at the 0.05 level (two-tailed) and at 0.01 level (two-tailed). Corporate governance attribute has a significant positive correlation with the investor attribute. This means that greater the investor attribute disclosure, better the corporate governance. Applying the correlation test, the hypothesis II (H02) is rejected. Thus, there is significant correlation between the various types of disclosure, viz., overall and four attributes of disclosure.

Table - 5 gives the results based on ANOVA test. As the calculated value is (1.225) lesser than the table value (1.598), the null hypothesis III (H03) is accepted. In other words, there is no significant difference among banks with overall disclosure of information.

Table - 6 gives the result based on ANOVA test. As the calculated value is (29.215) higher than the table value (2.44135), the null hypothesis IV (H04) is rejected. In other words, there is significant difference among the banks with regard to the various disclosure attributes such as general, financial, investor and corporate governance.

Conclusion

This study has examined the effectiveness of information disclosure of Indian Public Sector Banks on their websites by developing an index called Bank Disclosure Attribute Index (BDAI). In the context of the qualitative characteristics identified by the International Accounting Standards Board Framework, adopted by national jurisdictions, inadequate and non-uniform disclosure would compromise quality, relevance, usefulness and timeliness of reporting information on the internet. In other words, this would pose a dilemma for the user in the context of comparability, due to lack of uniformity. Thus the Public Sector Banks have to improve their effectiveness of disclosure to make the internet a more reliable source for presentation of reporting information than ever before.

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Table – 1(a)

Classification of items of information disclosure into General and Financial Attributes

General Attributes		Financial Attributes
Site map	On line banking	Financial highlight summary
Search box	Telebanking	Auditors' reports
Contact us	Calculators	Income statement
Downloads of data	Webcasting events	Cash flow statement
e-mail	Privacy statement	Full accounts
SMS	Branches	Intrim accounts (unaudited)
Latest products	Atm sites	Financial results
Latest services	Market news	Financial highlight summary
	What's new	
	Logon to e-banking on home page	

Table – 1(b)

Classification of items of information disclosure into Investors and Corporate Governance Attributes

Investor Attributes	Corporate Governance Attributes
Contact us	Contact us
Downloads of data	Downloads of data
e-mail	e-mail
SMS	Privacy statement
Market news	Comments and feedback
Press releases	Disclaimer
Latest stock prices	Investor relation
Share price performance	Corporate governance
Historical share price	Contact us
Share holding patterns	Downloads of data
Investor relation	

Table – 2
Bank Disclosure Attribute Index

S.No	Disclosurue Item	Points	S.No	Disclosurue Item	Points
1	Site map	1	24	Photo gallery	1
2	Search box	1	25	Links	1
3	Contact us	1	26	Tenders	1
4	Downloads of data	1	27	Chairman's message	1
5	e-mail	1	28	Corporate information	1
6	SMS	1	29	Officers details	1
7	Latest products	1	30	Financial highlight summary	1
8	Latest services	1	31	Organizational structure	1
9	On line banking	1	32	Auditors' reports	1
10	Telebanking	1	33	Income statement	1
11	Calculators	1	34	Cash flow statement	1
12	Webcasting events	1	35	Vision and Mission Statement	1
13	Privacy statement	1	36	Press releases	1
14	Branches	1 to 3	37	Latest stock prices	1
15	ATM sites	1 to 3	38	Share price performance	1
16	Market news	1	39	Historical share price	1
17	What's new	1	40	Share holding patterns	1
18	Logon to e-banking on home page	1	41	Full accounts	1 to 5
19	Comments and feedback	1	42	Interim accounts (unaudited)	1 to 5
20	Bank's publication	1	43	Financial results	1 to 5
21	FAQ	1	44	Investor relation	1
22	Service charges	1	45	Corporate Governance	1
23	Disclaimer	1		Total	45 to 61

Note : This Bank Disclosure Attribute Index was constructed by the researchers.

Table – 3
Level of Information Disclosure of Banks

(in percentage)

S. No	Name of the Bank	Information Disclosure				
		Overall	General	Financial	Investor	Corporate Governance
1	Allahabad Bank	50.8	54.5	36.8	45.5	62.5
2	Andhra Bank	47.5	45.5	47	45.5	62.5
3	Bank of Baroda	85.2	63.6	100	81.8	75
4	Bank of India	65.6	63.6	63	54.5	75
5	Bank of Maharashtra	55.7	81.8	31.5	72.7	62.5
6	Canara Bank	49	68	0	63.6	62.5
7	Central Bank of India	47.5	72.7	26	45.5	62.5
8	Corporation Bank	47.5	54.5	15.7	63.6	87.5
9	Dena Bank	59	68	63	63.6	62.5
10	Indian Bank	47.5	77	10.5	36.4	75
11	Indian Overseas Bank	60.7	68	47	72.7	87.5
12	Oriental Bank of Commerce	63.9	72.7	47	63.6	87.5
13	Punjab & Sind Bank	54	72.7	15.7	54.5	100
14	Punjab National Bank	60.6	63.6	21	90.9	100
15	State Bank of India	60.6	72.7	26	63.6	100
16	Syndicate Bank	52.4	59	26	36.4	62.5
17	UCO Bank	59	68	26	90.9	75
18	Union Bank of India	57.3	63.6	21	81.8	62.5
19	United Bank of India	60.6	77	36.8	54.5	100
20	Vijaya Bank	63.94	77	36.8	54.5	100
21	State Bank of Bikaner & Jaipur	63.94	81.8	36.8	63.6	62.5
22	State Bank of Hyderabad	44.26	77	0	45.5	50
23	State Bank of Indore	40.9	50	15.7	36.4	50
24	State Bank of Mysore	37.7	40.9	26	18	50
25	State Bank of Saurastra	52.45	81.8	10.5	36.4	62.5
26	State Bank of Travancore	50.8	63.6	10.5	45.5	75
27	State Bank of Patiala	63.9	95.5	26	54.5	87.5
	Chi-Square	8.333	10.074	7.444	7.074	5.407
	Degrees of Freedom	17	10	9	7	4
	Asymp. Sig.	0.959	0.434	0.591	0.421	0.248
	Mean	55.6404	67.9296	30.4556	56.8889	74.0741
	Std. Deviation	9.64751	12.16356	21.42862	17.75197	16.59976

Results computed by using BDAI, based on the information disclosed on the websites of the banks.

Table - 4
Inter se Correlation between Overall and various Disclosure Attributes

Disclosure		Overall Information Disclosure	General Attribute Disclosure	Financial Attribute Disclosure	Investor Attribute Disclosure	Corporate Governance Attribute Disclosure
Overall Information Disclosure	Pearson Correlation	1	.398[*]	.727[**]	.643[**]	.497[**]
	Sig. (2-tailed)		.040	.000	.000	.008
	N	27	27	27	27	27
General Attribute Disclosure	Pearson Correlation	.398[*]	1	-.115	.222	.333
	Sig. (2-tailed)	.040		.568	.265	.089
	N	27	27	27	27	27
Financial Attribute Disclosure	Pearson Correlation	.727[**]	-.115	1	.306	.118
	Sig. (2-tailed)	.000	.568		.120	.558
	N	27	27	27	27	27
Investor Attribute Disclosure	Pearson Correlation	.643[**]	.222	.306	1	.408[*]
	Sig. (2-tailed)	.000	.265	.120		.035
	N	27	27	27	27	27
Corporate Governance Attribute Disclosure	Pearson Correlation	.497[**]	.333	.118	.408[*]	1
	Sig. (2-tailed)	.008	.089	.558	.035	
	N	27	27	27	27	27

*- Correlation is significant at the 0.05 level (two-tailed)

*- Correlation is significant at the 0.01 level (two-tailed)

Table - 5
Analysis of Variance (Bankwise)

Source of Variation	SS	df	MS	F	P-value	F crit
Between Banks	14518.22	26	558.3931	1.225	0.232	1.598
Within banks	49216.23	108	455.7058			
Total	63734.45	134				

Table - 6
Analysis of Variance (Attributewise)

Source of Variation	SS	df	MS	F	P-value	F crit
Between disclosure item	30171.13	4	7542.782	29.215	2.51E-17	2.44135
Within disclosure item	33563.32	130	258.1794			
Total	63734.45	134				