GLOBAL FINANCIAL CRISIS AND CREDIT RISK DISCLOSURE IN THE UAE BANKS

Magdi El-Bannany*

Abstract

The aim of this study is to establish a model to explain the reasons for changing the level of credit risk disclosure among the UAE Banks over the period 2006-2009. Multiple regression analysis is used to test the relationship between the level of credit risk disclosure as a dependent variable and global financial crisis and other independent variables. The results show that global financial crisis, foreign ownership, bank age, investment in information technology systems and bank profitability variables have a significant impact on the level of credit risk disclosure. In addition the results show that listing age has no impact on the level of credit risk disclosure. More evidence is needed on the determinants of the level of credit risk disclosure before any generalization of the results can be made. In addition, the empirical tests were conducted only on the UAE Banks Group over the period 2006-2009 and hence the results of the study cannot be assumed to extend beyond this group of banks or to different study periods. The study might help the reporting regulators in formulating guidelines or/and standards for disclosing information about credit risk in banks. In addition, knowing the factors which might affect the level of credit risk disclosure might help in formulating strategies and policies to help in that extent. This paper adds to the literature of credit risk disclosure studies through explaining for the first time the determinants of level of credit risk disclosure only in banks. In particular, it tests the new theories that global financial crisis, foreign ownership, bank age, investment in information technology systems, bank profitability and listing age have a significant impact on the level of credit risk disclosure.

Keywords: Credit Risk Disclosure, Global Financial Crisis, Foreign Ownership, Bank Age, Investment in Information Technology Systems, Bank Profitability, Listing Age, United Arab Emirates.

** College of Business Administration, University of Sharjah, UAE, Faculty of Commerce, Ain Shams University, Egypt*
Principal, Dr El-Bannany & Co Accountants, UK
Email: melbannany@sharjah.ac.ae, magdi_elbannany@yahoo.co.uk, elbannany@aol.com

1. Introduction

Credit risk can be defined as the potential loss of the fund lent to the borrower as a result of many reasons e.g. counterparties default on a financial instrument contract (Palfi and Mureşan, 2009; Bodla and Verma , 2009; Cabedo and Tirado, 2004; Mcanally, 1996), spoiling in the credit quality of borrowers and counterparties, the dynamics of the asset value of the issuer (Crouhy et al., 2000).

Khambata and Hirche (2002) argued that credit risk is the most important risk for commercial banks and poor asset quality is the main reason for many bank failures. In addition, increasing in the amount of loan loss provision to cover the non-performing loans indicate a deterioration in loan quality as credit risk increases. Study of Linsley et al. (2006) about risk disclosure for banks in UK and Japan revealed that the highest numbers of disclosures fall within the credit risk area. Study of Frolov (2006) about credit risk disclosure in Japanese banks revealed the advantages and disadvantages of the credit risk disclosure approach and suggested ways to improve bank transparency in lending activities.

Studies of Ariffin et al. (2009) and Suresh et al. (2009) show the importance of credit risks in the banking sector, including Islamic banks and revealed that credit risk is the most important risk for banks because it might lead to bank failures and banking crises worldwide. In addition, the study of Njanike (2009) during the Zimbabwean Banking Crisis revealed the reason for the reduction in the number of banks from forty at the end of year 2003 to twenty nine at the end of year 2004 was the poor credit risk management represented by high levels of insider loans, speculative lending, and high concentration of credit in certain sectors.

Lu and Lee (2009) argued that credit risk is a traditional type of risk in banking sector and might lead to different types of problems to the bank e.g. insolvency, inability to grow and failure to compete with other banks. Juta and Ingrịda (2009) mentioned

that the recent banking crisis in started in 2008 in several banks of the USA and European countries lead to increasing the importance of studying the credit risk issue. They added that Lending activities are the main traditional services provided by banks and hence the major risk will be the credit risk.

From the above we can conclude that studying issues related to credit risk e.g. disclosing information about this type of risk rather than other types of risks is more important because it is main reason for global financial crisis. The influence of global financial crisis is more on banking sector compared to other sectors, so it is worthwhile to concentrate this study on banking sector.

Hamid (2004, p.118) stated that "research in a specific industry will allow the researcher to see some specific pattern in disclosure theme for those industries because all disclosure items were treated equally" and this is the case of the present study which focus on credit risk disclosure (CRD) in banking. Moreover, study of Bischof (2009) mentioned revealed that disclosing information about credit risk was more than other types of risks and this was in line with the emphasis of IFRs 7 which in turn show the high weighing level of importance of this type of risk compared to others in banking sector. Furthermore, It can be argued that investigating the issue of risk disclosure is important because this type of information is critical for enhancing the performance of capital markets through eliminating problems such as insider trading (see for instance, Deumes, 2008 and Fuller and Jensen, 2002) and through using it as a competitive advantage in attracting capital (Skinner, 1994, 1997).

Previous studies of CRD have ignored the effects of factors such as global financial crisis and market structure. The aim of this study is to fill this gap by investigating the CRD level in UAE banks over the period 2006-2009 (see table 1) and by considering factors which have ignored in previous studies.

The reminder of the paper is structured as follows: Section II examines the literature on the constructing of credit risk disclosure index and explaining the determinants of credit risk disclosure. Section III covers the research method. Section IV discusses the empirical evidence on the relationship between credit risk disclosure and independent variables. Section V presents the conclusions.

Table 1. The sample of banks in the study

Banks Names and Abbreviations
Abu Dhabi Commercial Bank (ADCB)
Abu Dhabi Islamic Bank (ADIB)
Bank of Sharjah (BOS)
Commercial Bank International (CBI)
Dubai Bank (DB)
Dubai Islamic Bank (DIB)
Emirates Islamic Bank (EIB)
First Gulf Bank (FGB)
Invest Bank (IB)
Mashreq Bank (MB)
National Bank of Abu Dhabi (NBAD)
National Bank of Umm Al Qaiwain (NBQ)
National Bank of Ras Al-Khaimah (RAKB)
Union National Bank (UNB)

2. Literature review

The purpose of this section is to cover the literature review about how to establish a CRD index and what are the factors which might help in explaining the differences in level of CRD among banks and will be divided into two sections as follows:

2.1. Constructing of Credit Risk Disclosure index

Content analysis has been used by previous studies about risk disclosure to construct the risk disclosure index (see for instances, Konishi and Ali, 2007; Abraham and Cox, 2007; Linsley and Shrives, 2006 and Linsley, et al., 2006). Content analysis is a technique of gathering data about a specific issue e.g. credit risk disclosure based on a list of items related to this issue and these items can be measured by different means e.g. word, sentence, paragraph and graph (see for instance, Boolaky, 2006 and Milne & Adler, 1999)

Frolov (2006) argued that there are different factors influencing the content of the CRD index and hence its usability e.g. prevailing accounting practices, regulatory policies, taxation rules, and other

institutional factors. The sample of the present study contains different types of banks e.g. commercial and Islamic banks and hence the influence of these factors on the CRD index is expected to be high. As a result, to avoid this problem, the index used for the present study will be limit only to the term 'credit risk'. Hence, electronic approach rather than content analysis can be considered as more convenient, effective and efficient because it is less time consuming and more accuracy compared with content analysis technique (see for instance, Kamath, 2008 and Abdolmohammadi, 2005) and for these reasons the electronic approach will be adopted for the present study. In addition, using of electronic technique for the first time in a risk disclosure study can be considered as a contribution of the present study to risk disclosure literature.

2.2. The determinants of intellectual capital disclosure level

Different factors can affect the level of credit risk disclosure of these are global financial crisis, foreign ownership, bank age, investment in information technology systems, bank profitability and listing age. These factors will be discussed below and the hypotheses will be formulated and tested:

1. Global Financial Crisis

As argued above credit risk is the main cause of global financial crisis which in turn might lead to serious liquidity problem to the firms and hence go for bankruptcy. It can be argued that the occurrence of the global financial crisis should motivate the management of the firms to disclose information to the interested users e.g. investors about different aspects e.g. credit risk to show them that their firms are capable to perform well under these bad circumstances. Information about credit risk which can be disclosed as mentioned by Frolov (2006) levels of non-performing loans, loss provisioning and loan write-offs, command special interest of the market participants.

So it can be assumed that the disclosing information about credit risk will be higher during and post the global financial crisis period compared to pre global financial crisis period.

Based on the above argument, the First hypothesis is;

H1: there is a positive relationship between the global financial crisis and the level of credit risk disclosure.

2. Foreign Ownership

The occurrence of global financial crisis might activate the business culture factor, which assume that foreign rather than national ownership might represent a pressure on the management of the firms to disclose information about different aspects e.g. credit risk to help in reducing the worrying level of the investors about their investments hoping to retain and attract more foreign investors to invest in these firms.

Therefore, the Second hypothesis is;

H2: there is a positive relationship between foreign ownership and credit risk disclosure level.

3. Bank Age

It can be argued that the age of the firm as a potential advantage for the elder compared with younger firms because of features related to aspects such as experience in dealing with different economic conditions gained over a period of time and hence can be considered as sources for competitive advantage. Based on this argument it can be assumed that elder rather than younger firms as a competitive tool will disclose more information about aspects might help in minimising the bad feelings about the impact of global financial crisis on the firms performance e.g. credit risk. The study of El-Bannany (forthcoming) in UAE revealed positive relationship between the bank age and disclosure level.

The age of the firm is measured by the number of years from when the firm started until each year of the study period.

Therefore, the Third hypothesis is;

H3: there is a positive relationship between the age of the bank and credit risk disclosure level.

4. Investment in Information Technology Systems

Several definitions for information technology have been provided in the literature. Information technology can be defined as "all forms of technology applied to processing, storing, and transmitting information in electronic form" (Lucas,1997, p.7). Information technology is "the use of computers and other electronic means to process and distribute information" (Hussey, 1995, p.189). Information technology can be described as "technology involved in acquiring, storing, processing and distributing information by electronic means (including radio, television, telephone, and computers)" (Collin and Joliffe, 1992, p.114).

The common meaning of these definitions indicates to the communicating role of information technology in providing information to the users.

Daniel and Storey (1997, p.894) refer to the results of the survey by Booz et al. (1996) where the unit transaction cost for a non-cash payment is £1.08 for a branch, 54p for a telephone bank, 26p for a PC bank and just 13p for an internet bank. Gupta (1998, p.1) refers to the results of the survey by the American Bankers Association in the USA (1998) that each deposit or cashing a cheque transaction costs the bank an average of $1.07, while an ATM can process the same transaction for 27 cents only

and this in line with the results of the study of Holden and El-Bannany (2004) in UK.

Hence it can be argued that the cost of disclosing information about e.g. credit risk for interested users for firms investing in more advanced information technology systems (ITS) will be cheaper than the ones which are investing in less advanced ITS.

The cost of investing in information technology systems is included the amount spent on hardware and software. But because of the data availability problem in the UAE, the published data on the hardware cost will be used as a measure of investment in information technology systems.

The hardware cost for bank i's in year t (IT it), will be used to represent the level of bank i's investment in ITS in year t.

Therefore, the Fourth hypothesis is;

H4: there is a positive relationship between the level of investing in information technology and credit risk disclosure level.

5. Bank Profitability

Assuming that Profitability as a informative success indicator is the result of the existence of effective and efficient systems and procedures in high rather than less profitable firms e.g. internal control system, risk management and fulfilling the desire of different stakeholders and hence de-motivate the firm management from disclosing information and thus the management of these firms might perceive that there is no need to disclose e.g. credit risk information for the potential interested stakeholder.

El-Bannany (2008, 2007) argued that Information about return on assets as a measure of firm profitability is requested for internal use by the firm management to assess to what extent the assets utilisation was efficient and hence lead to firm profitability but information about return on equity is serving the need of the internal and external stakeholders and hence return on equity as a profitability measure can be seen as more informative compared to return on assets. So, return on equity will be used as a measure of bank profitability in this study.

Therefore, the fifth hypothesis is;

H5: there is a negative relationship between bank profitability and credit risk disclosure level.

6. Listing Age

It can be argued that newly listed companies are more motivated than eldest listed ones to disclose information in their annual reports for several reasons e.g. reducing the perceived worrying about credit risk and hence retain and/or attract external fund to it [see for instance, , Barnes and Walker, 2006; Garcia-Meca, et.al, 2005, Haniffa and Cooke, 2002 and Cook, 1989].

Based on this argument we can say that the need for more information about credit risk especially with the occurrence of global financial crisis will be higher for the newly listed companies rather than eldest listed ones

Listing status is measured by using a dummy variable equal to 1 if the firm is listed in Dubai Financial Market and 0 if not in each year of the study period.

Based on the above argument, the Sixth hypothesis is;

H6: there is a negative relationship between the listing age of the bank and level of credit risk disclosure.

3. Research Method

The aim of this study is to establish a model to explain the reasons for the changes in the level of credit risk disclosure among the UAE Banks over the period 2006-2009. The regression technique is used because of it is relevance in investigating the relationship between the dependant and the independent variables [see for instance, Changliang et al. (2010); Johnson & Wichern (2008) and Sprinthall (2007)].

The regression model will be as follows:

$LGCRDit = \alpha_0 + \alpha_1 (GFCt) + \alpha_2 (FOR_{it}) + \alpha_3 (AGEit) + \alpha_4 (LGITit) + \alpha_5 (ROEit) + \alpha_5 (LISTAGit) + uit$

Where:

LGCRDit Credit Risk Disclosure level by bank i in year t, measured by the logarithm of the number of the frequency of credit risk term.

GFCt Global Financial Crisis represented by a dummy variable equal to 1 for years 2008 and 2009 and 0 for years 2006-2007.

FORit A dummy variable equal to 1 if bank i in year t is allowing foreign ownership and equal to zero otherwise.

AGEit The age of bank I in year t measured by the number of years from when the bank started until each year of the study period.

LGITit Natural logarithm of total cost of hardware and software of computing systems for bank i in year t to represent the investment in information technology systems.

ROEit is the profitability of bank i in year t, measured by the return on its equity.

LISTAGit A dummy variable equal to 1 if the bank is listed in Dubai Financial Market and 0 if not in each year of the study period.

uit disturbance term.

4. Analysis of the results

4.1. Descriptive statistics

Table 3 reports the descriptive statistics for credit risk disclosure level and independent variables used in

this study. The credit risk disclosure level for the sample banks throughout the study period varies from 0.70 to 1.81 of the logarithm of the number of items forming the credit risk disclosure index and the mean for the credit risk disclosure level is 1.33. The independent variables represented by global financial crisis; foreign ownership; the age of the bank; investment in information technology systems; bank profitability and listing age in Dubai Financial Market vary as well and "this gives more credibility to the results of the study" as argued by Naser and Al-Khatib, (2000).

Table 3. Descriptive Statistics for the dependent and independent variables

N= 56 observations

Variable	Mean	SD	Min	Max
Credit Risk Disclosure Index (LGCRDit)	1.33	0.24	0.70	1.81
Global Financial Crisis (GFC_t)	0.75	0.44	0.00	1.00
Foreign Ownership (FOR_{it})	0.73	0.45	0.00	1.00
Bank Age (AGE_{it})	27.07	10.12	4.00	42.00
Investment in Information Technology Systems ($LGIT_{it}$)	1.53	0.41	0.70	2.33
Bank Profitability (ROEit)	0.14	0.08	-0.17	0.31
Listing Age ($LISTAG_{it}$)	4.32	2.41	0.00	9.00

4.2. Test for Multicollinearity

Vogelvang (2005) mentioned that multicollinearity will be existed if there are correlations among the independent variables within the same regression formulae and this can be tested using different approaches and one of these is correlation analysis. El-Bannany (2002) referred that if the correlation coefficient between any two independent variables in the correlation analysis is say 0.99 or more, then the existence of the multicollinearity problem can be confirmed and hence removing one of the two highly correlated variables can sort out this problem.

The correlation analysis results (see table 4) show that the highest correlation coefficient value is between LISTAGit and LGITit which is less than 0.99 (it is 0.69), and this means that there is no multicollinearity problem between the independent variables of the study model.

Table 4. The correlation coefficient matrix for the independent variables

Variable	GFCt	FOR_{it}	AGE_{it}	LGITit	ROEit	$LISTAG_{it}$
Global Financial Crisis (GFC_t)	-	0.023 (0.865)	0.086 (0.527)	0.264* (0.050)	-0.112 (0.411)	0.336* (0.011)
Foreign Ownership (FOR_{it})	0.023 (0.865)	-	0.069 (0.615)	0.147 (0.280)	0.148 (0.267)	0.520** (0.000)
Bank Age (AGE_{it})	0.086 (0.527)	0.069 (0.615)	-	0.252 (0.061)	0.416** (0.001)	0.212 0.117
Investments in Information Technology Systems (LGITit)	0.264* (0.050)	0.147 (0.280)	0.252 (0.061)	-	0.203 (0.134)	0.693** (0.000)
Bank Profitability (ROEit)	-0.112 (0.411)	0.148 (0.276)	0.416** (0.001)	0.203 (0.134)	-	-0.001 (0.995)
Listing Age ($LISTAG_{it}$)	0.336* (0.011)	0.520** (0.000)	0.212 (0.117)	0.693** (0.000)	-0.001 (0.995)	-

The 2-tailed significance level is shown in brackets.
*** Correlation is significant at the 0.01 level (2-tailed)*

4.3. Regression results and discussion

The results (see table 5) show that the regression model is significant and explains 64% of the relationship between the CRD level and the explanatory variables and this indicate that the model is suitably well specified.

The coefficients for global financial crisis; foreign ownership; bank age; investment in information technology systems; bank profitability and listing age are highly significant (p□0.05) and the signs on the coefficients of these variables are in line with the hypothesized direction.

The empirical evidence suggests that: global financial crisis measured by a dummy variable equal to 1 for years 2008 & 2009 and 0 for years 2006 & 2007 is positively related to CRD level and this conforms to the expectation of hypothesis 1. Foreign ownership measured a dummy variable equal to 1 if bank i in year t is allowing foreign ownership and

equal to zero otherwise is positively related to CRD level and this conforms to the expectation of hypothesis 2. Bank age measured by the number of years for the bank since started in business until each year of the study period is positively related to CRD level and this conforms to the expectation of hypothesis 3 and in line with the results of El-Bannany (forthcoming) in the UAE. Investment in information technology systems measured by natural logarithm of total cost of hardware and software of computing systems for bank i in year t is positively related to CRD level and this conforms to the expectation of hypothesis 4. Bank profitability measured by the return on its equity is negatively related to CRD level and this conforms to the expectation of hypothesis 5. Listing age measured by a dummy variable equal to 1 if the bank is listed in Dubai Financial Market and 0 if not in each year of the study period is not related to CRD level and this contrast the expectation of hypothesis 6.

Table 5. The regression results: dependent variable LGCRDit; Number of observations 56

Regressor	Coefficient	t-ratio	Probability
Intercept	0.579	5.738	0.000
Global Financial Crisis (GFC_t)	0.323	6.621	0.000
Foreign Ownership (FOR_{it})	0.218	3.722	0.001
Bank Age (AGE_{it})	0.005	2.472	0.017
Investments in IT Systems (LGITit)	0.254	3.346	0.002
Bank Profitability (ROEit)	-0.596	-2.067	0.044
Listing Age ($LISTAG_{it}$)	-0.024	-1.537	0.131

R-SQUARED = 0.776 R-BAR-SQUARED = 0.738
F (8,47) = 20.365 Sig. F. = 0.000
N = 56

5. Conclusions

This study investigates the relationship between CRD level and Six independent variables over the period 2006-2009 using data for the UAE banks.

The independent variables are global financial crisis; foreign ownership; bank age; investment in information technology systems; bank profitability and listing age. Global financial crisis hypothesis presuppose that the occurrence of the crisis should encourage the banks to disclose more information about credit risk to show the capability of the banks to overcome it. Foreign ownership hypothesis assumes that allowing of foreign ownership might lead to increasing in the level of disclosing information about credit risk hoping to retain and attract more the foreign investors. The bank age hypothesis assumes that eldest banks are motivating to disclose more information about credit risk than youngest ones for reasons i.e. competing in the market. Investment in information technology systems hypothesis is expected a positive impact on the credit risk disclosure level because of using of more advanced computer-based means help in reducing the cost of disclosing information to the interested users. Bank profitability hypothesis assumes that the motivation to disclose information about credit risk for more profitable banks is lower than less profitable bank because the management of the first ones believe that there is no need for that. Listing age hypothesis presuppose that youngest rather than eldest in listing at Dubai financial market will disclose more information as e.g. marketing tool to improve their public image.

The results show that global financial crisis, foreign ownership, bank age, investment in information technology systems and bank profitability variables have a significant impact on the level of credit risk disclosure. In addition the results show that listing age has no impact on the level of credit risk disclosure.

There are some limitations to this study. First, more evidence is needed on the determinants of CRD level before any generalization of the results can be made. Second, the empirical tests were conducted only on the UAE bank over the period 2006-2009 and hence the results of the study cannot be assumed to extend beyond this group of banks or to different study periods. Finally, theories such as leadership styles and business culture might be considered for further research as possible theories for explaining changes in the level of CRD.

References:

1. Abdolmohammadi, M. (2005). Intellectual capital disclosure and market capitalization', Journal of Intellectual Capital, 6/3: 397–416.
2. Abraham, S. and Cox, P. (2007). Analysing the Determinants of Narrative Risk Information in UK FTSE 100 Annual Reports. The British Accounting Review, 39:227-248.
3. Ariffin, N., Archer, S. and Abdel Karim, R. (2009). Risks in Islamic banks: Evidence from empirical research. Journal of Banking Regulation, 10/2: 153–163.
4. Barnes, E. and Walker, M. (2006). The Seasoned-Equity Issues of UK Firms: Market Reaction and Issuance Method Choice. Journal of Business Finance and Accounting, 33(1/2): 45-78.

5. Bischof, J. (2009). The Effects of IFRS 7 Adoption on Bank Disclosure in Europe. Accounting in Europe, 6/2: 167–194.
6. Bodla, B. and Verma, R. (2009). Credit Risk Management Framework at Banks in India. The Icfai University Journal of Bank Management, VIII/1: 47-72.
7. Boolaky, P. (2006). Measuring De jure Harmonisation: A content analysis of the accounting standards of three countries: South Africa, Mauritius and Tanzanian and International Financial Reporting Standards. Journal of Applied Accounting Research, 8/2: 110 – 146.
8. Cabedo, J. and Tirado, J. (2004). The disclosure of risk in financial statements. Accounting Forum, 28:181–200.
9. Changliang, Z., Yukun, L., Zhaojun, W. and Runchu, Z. (2010) 'Adaptive non-parametric comparison of regression curves', Communications in Statistics: Theory & Methods, 39/7:1299–1320.
10. Collin, P. and Joliffe, A. (1992). Dictionary of Accounting. London: Peter Collin.
11. Cooke, T. (1989). Disclosure in the Corporate Annual Reports of Swedish Companies. Journal of Accounting and Business Research, 19: 113–24
12. Crouhy, M., Galai, D. and Mark, R. (2000). A Comparative Analysis of Current Credit Risk Models. Journal of Banking & Finance, 24: 59 -117.
13. Daniel, E. and Storey, C. (1997). On-line Banking: Strategic and Management Challenges. Long Range Planning, 30/6:890-98.
14. Deumes, R. (2008). Corporate Risk Reporting: A Content Analysis of Narrative Risk Disclosures in Prospectuses. Journal of Business Communication, 45/2: 120-157.
15. El-Bannany, M. (Forthcoming). A model to explain intellectual capital disclosure in UAE banks. Int. J. Learning and Intellectual Capital, Vol. X, No. Y, xxxx.
16. El-Bannany, M. (2008). A Study of Determinants of Intellectual Capital Performance in Banks: the UK Case. Journal of Intellectual capital, 9/3: 487-498.
17. El-Bannany, M. (2007). A Study of the Determinants of Social Disclosure Level in UK Banks. Corporate Ownership & Control, 5/1: 120-130.
18. El-Bannany, M. (2002), "Investment in information technology systems and other determinants of bank performance in the UK and Egypt", unpublished PhD thesis, Liverpool John Moores University, Liverpool.
19. Frolov, M. (2006). Bank Credit Risk Disclosure in Japan. Journal of Banking Regulation, 7: 221-242.
20. Fuller, J. and Jensen, M. (2002). Just Say No to Wall Street: Putting a Stop to the Earnings Game. Journal of Applied Corporate Finance, 14/4: 41-46.
21. Garcia-Meca, E., Parra, I., Larran, M. and Martinez, I. (2005). The Explanatory
22. Factors of Intellectual Capital Disclosure to Financial Analysts. European Accounting Review, 14/1: 63-94.
23. Gupta, M. (1998). Strategic Implications of Technology on Operations of the Banking Industry. Production and Inventory management Journal, Second Quarter: 1-5.
24. Hamid, F. (2004). Corporate Social Disclosure by Banks and Finance Companies: Malaysian Evidence. Corporate Ownership & Control, 1/4: 118-130.
25. Haniffa, M. and Cooke, T. (2002). Culture, Corporate Governance and Disclosure in Malaysian Corporations. Abacus, 38/3: 317-349.
26. Holden, K. and El-Bannany, M. (2004). Investment in Information Technology Systems and other determinants of Bank Profitability in the UK. Applied Financial Economics, 14:361-65.
27. Hussey, R. (1995). A Dictionary of Accounting. Oxford: Market House Books Ltd.
28. Johnson, R. & Wichern, D. (2008). Applied Multivariate Statistical Analysis, International ed., 6/e, Pearson Higher Education, London.
29. Juta, S. and Ingrida, J. (2009).An Assesment and Management of Credit Risk in Baltic States' Banks. Journal of Business Management, 2: 93-100.
30. Kamath, B. (2008). Intellectual capital disclosure in India: content analysis of 'TecK' firms', Journal of Human Resource Costing & Accounting, 12/3: 213–224.
31. Khambata, D. and Hirche, S. (2002). Off-balance-sheet credit risk of the top 20 European commercial banks. Journal of International Banking Regulation, 4/2: 107–122.
32. Konishi, N. and Ali, M. (2007). Risk Reporting of Japanese Companies and its association with Corporate Characteristics. Int. J. Accounting, Auditing and Performance Evaluation, 4/3: 263-285.
33. Linsley, M. and Shrives, P. (2006). Risk disclosure: A study of Risk Disclosures in the Annual Reports of UK Companies. The British Accounting Review, 38: 387-404.
34. Linsley, M., Shrives, P. and Crumpton, I. (2006). Risk disclosure: An exploratory study of UK and Canadian banks. Journal of Banking Regulation, 7/3-4: 268-282.
35. Lu, S. and Lee, K. (2009). Measurement and Comparison of Credit Risk by a Markov Chain: An Empirical Investigation of Bank Loans in Taiwan. International Research Journal of Finance and Economics, 30: 108-131.
36. Lucas, H. (1997). Information Technology for Management, 6th edition. London: The McGraw-Hill Companies, Inc.
37. McAnally, M. (1996). Banks, Risk, and FAS105 Disclosures. Journal of Accounting, Auditing and Finance, 11/3: 453-90.
38. Milne, M. and Adler, R. (1999). Exploring the reliability of social and environmental disclosures content analysis. Accounting, Auditing & Accountability Journal, 12 /2: 237 – 256.
39. Naser, K., Al-Khatib, K. (2000), "The extent of voluntary disclosure in the board of directors' statement: the case of Jordan", in Sale, J.T. (Eds),Advances in International Accounting, Elsevier, Amsterdam, Vol. 13 pp.99-118.
40. Njanike, K. (2009). The Impact of Effective Credit Risk Management on Bank Survival. Annals of the University of Petroşani, Economics, 9/2: 173-184.
41. Palfi, C. and Mureşan, B. (2009). Survey on Weaknesses of Banks Internal Control Systems. Journal of International Finance and Economics, 9/1: 106-116.
42. Skinner, D. (1997). Do Options Markets Improve Informational Efficiency? Contemporary Accounting Research, 14/2: 193–201.
43. Skinner, D. (1994). Why Firms Voluntarily Disclose Bad News. Journal of Accounting Research, 32/1: 38-60.
44. Sprinthall (2007). Basic Statistical Analysis, 8/E, Pearson Higher Education, London.
45. Suresh, N., Anil, S. and Gowda D.(2009). Credit Risk Management in Commercial Banks. Curie, 2/4: 72-94.
46. Vogelvang, B. (2005). Econometrics: Theory and Applications with Eviews (Prentice Hall, New Jersey).