
Fair value hierarchy in financial instruments disclosure – do audit committee and internal audit matter?

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Abstract: This paper investigates the influence of audit committee (AC) and internal audit (IA) on fair value hierarchy (FVH) in financial instruments disclosure under the amendments made in March 2009 to IFRS 7 in Mauritius. Specific data on FVH was collected from the annual reports of the top 30 listed companies for the period 2010–2013. A disclosure index was then constructed, and the impact of AC and IA is investigated. Banks and insurance companies still need to improve the disclosure of FVH (particularly level 3 hierarchies) by 20%–25%. The existence of AC and the competence of its member(s) are statistically significant whereas its independence is moderately significant. The presence of IA function is positive but moderately significant whereas independence and competence are positively related but insignificant. This paper informs regulator(s), practicing accountants/auditors and professional associations on the effective influence of AC and IA on disclosure practices of FVH in financial instruments.

Keywords: amended IFRS 7; disclosure; fair value hierarchy; Mauritius; audit committee; internal audit.

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1 Introduction

In March 2009, the International Accounting Standard Board (IASB) amended IFRS 7 based on Statement of Financial Accounting Standards No. 157 *Fair Value Measurements* which was issued by the US Financial Accounting Standards Board (FASB). The amended IFRS 7 was called 'Improving disclosures about financial instruments'. One of the amendments was to enhance disclosures about fair value

measurements using the three-level hierarchy (TLH). In this respect, the IASB has amended paragraphs 27 of IFRS 7 and added paragraphs 27A and 27B, to improve disclosures on fair value hierarchy in financial instruments. These amendments to IFRS 7 became effective on 1 January 2009. However, companies were encouraged to implement them as from 2009 in any country (Mauritius) where IFRS is mandatory, companies had to comply with these disclosure amendments. The TLH includes Level 1, Level 2 and Level 3 measurements and disclosures. Level 1 and Level 2 measurements include observable and indirectly observable inputs such as quoted prices of identical or comparable assets or liabilities from active markets. Level 3 measurements include unobservable inputs computed by using models based on management assumptions and judgments. With the options available to the requirements of fair value measurement to disclose a fair value hierarchy, management still has some discretion in regard to measurement-bases and disclosure extent, hence indicating an inherent agency risk.

Past studies have:

- 1 Examined the significance of disclosure requirements of financial instruments based on IAS 32 and IAS 39, or specifically SFAS 157 (Rajgopal, 1999; Chalmers and Godfrey, 2000, 2004; Chalmers, 2001; Norkhairul, 2003; Lopes and Rodrigues, 2007; Abraham and Cox, 2007; Bischof, 2009; Saleh et al., 2010; Song et al., 2010).
- 2 Assessed compliance with the original IFRS 7 issued in 2005.

There is no study that has investigated the impact of governance mechanism on this new disclosure requirement, despite the severe criticism that fair value measurement has significantly contributed to the global financial crisis and crucial role of audit committee (AC) and internal audit (IA) in disclosure practices (Fiechter and Meyer, 2010a). Drawing from past studies and corporate governance code, this study uses AC and IA as the potential drivers of compliance with amended IFRS 7. Both extent literature and the code of corporate governance of Mauritius emphasise on the crucial role played by AC and IA on compliance and disclosure practices by companies. In a bid to inform the literature on the impact of these two governance mechanisms, my study not only investigates the existence, but also, the independence and competence of AC and IA as well as their interaction on compliance with amended IFRS 7.

Using data of the top 30 listed companies on the Port-Louis Stock Exchange, the paper analyses their level of compliance with fair value measurement disclosure and then investigate the impact of AC and IA matter. It begins by:

- 1 measuring the disclosure level with these specific disclosure requirements by constructing a disclosure index (Cooke, 1989; Chalmers and Godfrey, 2004)
- 2 reports the disclosure gap
- 3 investigates the impact of ACs and IA on the disclosure level.

The findings from this study will, for the first time, provide evidence on the influence of AC and IA on the fair value three measurement disclosure using the TLH. They should be useful to both theory and practice by informing assurance providers, regulators and standard setters on disclosure level, and disclosure gap and provide insight to professional association of directors on the rigor of the AC role in ensuring effective financial reporting including compliance with international standards.

Mauritius is chosen for this study for a number of reasons. First, it is an emerging economy in Africa with remarkable economic records. Second, it is the first adopter of IFRS in the region (Boolaky, 2012) even before South Africa. Third, as an emerging international financial services centre (IFSC), foreign investors expect and regulators require the country to comply with international best practice. Fourth, the emergence of the Port-Louis Stock Exchange on the international capital market makes compliance with IFRSs a necessary evil. Fifth, financial instruments, be they financial assets or liabilities, are being used by all these companies and the inherent valuation risk that they carry could impact on the financial position reported by management. Sixth, Mauritius was not severely hit by the global financial crisis and no banks or insurance companies closed during that period. On the contrary, the country was doing economically well. Therefore, Mauritius, as one of the first adopters of IFRSs, is an interesting case to investigate how preparers have coped with amended disclosure requirement of fair value measurement. For the purpose of this study, the top listed companies have been chosen because they represent the key sectors of the economy, significantly contributed to growth and are required to comply with IFRSs as per the Companies Act 2001. All of them deal with financial instruments of various kinds.

Content analysis (categorical approach) is used to gather data specific to the amended disclosure requirements on fair value measurement for 2010 to 2013. Drawing from Cooke (1989) and Chalmers and Godfrey (2004), an unweighted disclosure index is then constructed to score disclosure level of fair value measurement using the TLH. The results suggest that although the banking sector and the insurance sector have a disclosure score of 0.81 and 0.80, respectively, they still need to improve the disclosure of fair value hierarchy particularly Level 3 by 20%–25% to be fully compliant. The results suggest that the manufacturing sector leads to a disclosure index of 0.82. Using multiple regression technique, existence, competence and independence of AC and IA are regressed against the fair value disclosure. Firm size, performance and debt are used as control variables. Audit firm is not used as a determinant because all listed companies are audited mainly by the *Big Four*. The findings suggest that although the existence of AC is found to be positively significant, the magnitude of the independence of the AC is stronger. On the other hand, the existence of IA is found to be moderately significant. The competence of the AC is also a significant determinant of disclosure of fair value measurement (coefficient 0.634). Neither the independence nor competence of IA has a significant influence on fair value disclosure. A year fixed effect regression is also performed to determine the effect on the determinants across time. The results are not reported because no significant change is identified across time.

This study contributes to the literature in a number of ways. Firstly, it informs the IASB on the level compliance with fair value measurement under the amended IFRS 7 in a jurisdiction which is one of the first mandatory adopters of IFRS. Secondly, it is the first work that has investigated specifically on this new piece of amended disclosure in a jurisdiction which is among the emerging IFSC. Thirdly, it also informs regulators and standard setters which of the three-level of disclosure requirement is more followed by preparers of accounts. The findings are important to practice from both the regulatory and standard-setting perspective. They inform regulators on:

- 1 disclosure of fair value measurement using the TLH

- 2 standard-setters on the complexities of the amended disclosure requirements for fair value measurement
- 3 preparers of accounts and assurance providers on the key audit area(s) on accounting for financial instruments.

They are also important information to directors as to their rigor of their roles in the AC and the significance of the IA on disclosure. Overall practitioners (auditors and preparers of accounts) can use the findings to identify specific professional training on this area of disclosure requirements. Investors can use the findings for investment decision purpose. Academics could use the findings as references for study in other country.

The rest of this paper is organised as follows. Section 2 is about IFRS adoption in Mauritius. Section 3 describes the amended fair value disclosure measurement. Section 4 reviews the literature and develops hypotheses using underpinning theories. Section 5 is on the research method and design. Section 6 reports and interpret the findings. The paper concludes in Section 7.

2 Accounting and IFRS in Mauritius

From 1980 to 1989, large companies in Mauritius prepared their balance sheet and profit and loss account and statement of sources and applications of funds according to the UK statements of standard accounting practices (SSAPs) purely on a voluntary basis and arguably, because the accounting and audit professionals were educated and trained only on the UK GAAP (Boolaky, 2012). In 1989, the Mauritius Accounting and Auditing Standards Committee (MAASC) was setup to develop and issue local accounting and auditing standards known as Mauritius Auditing and Accounting Standards (MAAS) (Boolaky, 2007). The MAAS was mainly a copy of the UK GAAP (Boolaky, 2007). A move to the adoption of international accounting standards (IAS) was made after consultation with the country's Society of Chartered Accountants and other interested parties such as the Ministry of Finance (Boolaky, 2012). In 2001, the government decided to fully adopt IFRS and made it mandatory under the Companies Act 2001.

Accounting for financial instruments is still a problem area in many developing countries and late adopters of IFRS where disclosure of financial instruments is less transparent (Bischof, 2009; Boolaky, 2010, 2012). Mauritius is an experienced-adopter and user of IFRS, with a strong regulatory framework and backed up with a strong accountant per head of listed companies. While the audit report of these companies are unmodified, a few companies became in the loop of the media (including the closure of one bank, queries on another and receivership of an insurance company), this paper postulates that it is worth investigating if listed companies in Mauritius really have a high level of compliance with fair value disclosure under the amended IFRS 7.

3 Fair value accounting

In response to the criticisms during and post the global financial crisis (Picker et al., 2013), the IASB's, in March 2009, amended IFRS 7 and issued 'Improving disclosures about financial instruments' (Amendments to IFRS 7 *Financial Instruments: Disclosures*). According to the amended IFRS 7, business entities are required to disclose

the fair values based on a 'TLH'. Level 1 and Level 2 measurements include observable and indirectly observable inputs such as quoted prices of identical or comparable assets or liabilities from active markets. Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs, IFRS 7: 27B). Level 3 measurements open doors for financial statements' preparers own incentives, assumptions and judgements. This is, evidently, an inherent agency risk to disclosure. To counteract this risk, companies must have in place a monitoring mechanism to mitigate this risk by ensuring that the financial statements comply with IFRSs. At this end, the board puts in place good governance mechanisms to watch out for disclosures in general and in particular, those which are subject to manipulation, hence fair value measurement disclosures based on the TLH. Among the governance mechanisms are the ACs and IA. Controlling for size, performance and gearing, this paper investigates the impact of AC and IA on disclosure of fair value by listed companies in Mauritius for the period between 2010 and 2013.

4 Theoretical construct, literature review and hypotheses

4.1 Theories

Disclosure of financial information can be understood from a number of theoretical perspectives, namely:

- 1 Verrecchia disclosure theory (VCT) (Verrecchia, 2001)
- 2 information economics theory (IET) (Zhang, 1996)
- 3 agency theory (AT) (Jensen and Meckling, 1976)
- 4 contingency theory (CT) (Nnadi and Soobaroyen, 2015)
- 5 institutional theory (IT) (DiMaggio and Powell, 2002; Carpenter and Feroz, 2001).

Extant literature has abundantly utilised VCT, CT, IT and even AT as the theories underpinning disclosure practices. These theories provide distinct yet related rationalisations for discretionary accounting policies and practices including disclosure practices. This paper develops a conceptual framework by drawing from the AT to explain the risk of asymmetric information and how far corporate governance mechanisms influence disclosure.

4.1.1 Agency theory

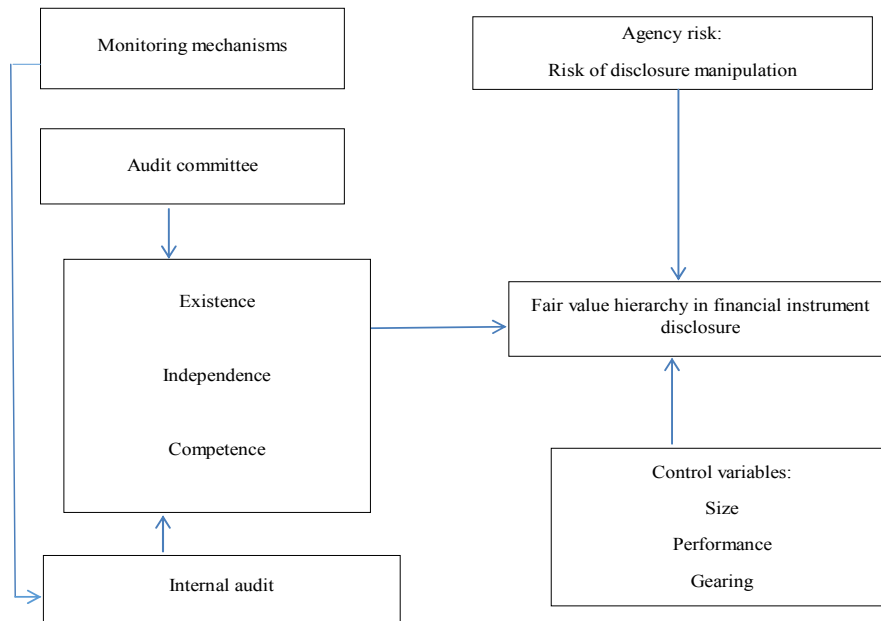
Initiated by Berle and Means (1932) and later addressed by Jensen and Meckling (1976), AT is based on the concept of separation of ownership and control. For example, Jensen and Meckling (1976) suggest that an agency relationship is a contract between the principal (shareholders or debt holders) and the agent (management) to perform some services on behalf of the principal. In this relationship, an agency problem emerges if both the principal and the agent are utility maximisers, hence, incurring both parties an agency cost, i.e., monitoring and bonding costs. AT is most pointed in describing the governance mechanisms that solve the agency problem. AT is concerned to solve the

contracting problems that may occur in a particular agency relationship (Eisenhardt, 1989). The first type is the agency problem that arises when:

- 1 the expectations of both the principal and agent conflict, i.e., moral hazard
- 2 it is costly for principal to verify the agent's actions, i.e., adverse selection.

The second problem is risk sharing if both parties take different actions because of different risk sharing. The principal and agent may take different actions due to their different risk sharing. According to Dharwadkar et al. (2000) and Denis (2001), the agency problem(s) can be minimised using 'bonding, monitoring and incentive mechanisms'. Monitoring mechanism needs to be effective. There are a number of potential monitoring tools for a firm's top management, such as AC and IA. Given the incentives in fair value measurement disclosure, this paper posits that there is an inherent risk that management does not fully disclose on financial instruments' fair value, hence the presence of moral hazard. As such, it is important to monitor the disclosure practices so as to mitigate this opportunistic behaviour. Corporate governance monitoring mechanisms, in this paper, AC and IA are suitable. Figure 1 describes the conceptual framework that explains the agency risk on the disclosure and the influence of the AC and IA.

Figure 1 Conceptual framework: monitoring agency risk of disclosure



4.2 Literature and hypotheses

Fürst et al. (2009) investigate risk disclosure requirements as per IAS 39 and IFRS 7 issued in 2005, but not as recommended in the amended IFRS 7. Other researchers (see Chalmers and Godfrey, 2004; Bischof, 2009; Saleh et al., 2010) argue that the level of

fair value hierarchy varies because not all financial instruments may be relevant to a company. For example, even in the case of banks, Fiechter and Meyer (2010b) and Fiechter (2011) contend that fair value measurement and reporting varies. This view was echoed by Song et al. (2010) that disclosure Level 1 and Level 2 fair values is greater than Level 3 fair values.

Lopes and Rodrigues (2007) suggest the higher the gearing level, the higher the agency cost. Opponents to this hypothesis (see Abd-Elsalam and Weetman, 2003) contend that companies with high gearing level keep their information more private. Nobes (1998) while agreeing with Abd-Elsalam and Weetman (2003) also argue that that companies that sourced finance other than from banks are more likely to comply with international standards (Tarca et al., 2005). Lin et al. (2010) and Hassan et al. (2008) infer debt-to-total asset is one, among the other firm's characteristics, associated with the disclosure quality (see Lin et al., 2010).

AT explains the link between corporate governance structure and reporting practices (Lopes and Rodrigues, 2007). The same view is resonated in Song et al. (2010). While AT emphasises the importance of the role of independent directors in transparency and accountability, the AC has a crucial role to play in the quality of reporting of a company. Effective ACs are more apt to enhance transparency on the financial report. According to Levitt (1999), ACs that lack expertise in the basic principles of financial reporting are less aggressive in querying the quality of financial reporting. He further argues that AC members who are qualified, committed and independent are better guardian of public interest. According to SOX Act 2002, in the US ACs are empowered to ensure corporate accountability and protect investor's interest. In the context of Mauritius, the Stock Exchange Commission also expects AC to have similar power in order to gain confidence of investors and especially foreign investors. In this capacity, ACs are required to oversee, among others, the integrity of financial report. On a similar note, Rezaee and Riley (2010) also contend that AC should review the external auditor's opinion on the truth and fairness of the financial statements. Bedard et al. (2004) theorise that ACs must have qualified members with the authority and resources to protect stakeholders' interest by ensuring reliable financial reporting thus explaining the reasons for AC members to be independent and at least one member with sufficient financial expertise.

This paper also argues that existence as well as its independence and competence of ACs are also essential to positively influence the disclosure practices of a company (Hassan et al., 2008). They further contend that an AC will lead a company to be more transparent. Fraser and William (2007) argue that the committee ensures that financial reporting complies with accounting standards and maintain a high level disclosure (Bedard et al., 2004). In other words, effective AC would discourage discretionary disclosure practices. Based on the foregoing discussion, this paper proposes that there is a positive association between AC and disclosure. Three hypotheses are therefore tested using three main features of an AC:

- H1 There is a positive association between existence of AC and disclosure of fair value measurement.
- H2 There is a positive association between independence of the AC and disclosure of fair value measurement.
- H3 There is a positive association between competence of the AC and disclosure of fair value measurement.

Past studies have investigated the antecedents of firm-level features including governance mechanisms (Carcello and Neal, 2003; DeZoort et al., 2002; Francis, 2004; Tirta and Sholihin, 2009) on financial reporting. It is the chief financial officer (CFO) whose primary responsibility is financial reporting and because of the propensity to creative reporting being likely, good governance requires the appointment of an IA to monitor day-to-day and periodic financial reporting of the business entity. In the context of this paper the, the CFO decides on the valuation model for fair value estimates and content of disclosures. As such, it gives opportunity to earnings management and disclosure manipulation. According to Chong et al. (2012), during the global financial crisis, managers (mainly of banks) use fair value accounting to manage earnings (Heflin and Valencia, 2012). This opportunistic behaviour can be monitored by using the IA function, in addition to the AC. For example, if a company has an IA, it will lead to greater compliance because preparers of financial reports know that they will be audited or can be audited at any time. The argument in this paper is that IA should, therefore, deter opportunistic behaviour of discretionary disclosure practices. Moreover, level of disclosure can increase if the internal auditor is independent and competent. This paper proposes that there is a positive relationship between IA and disclosure practices. On that basis, the following hypotheses are tested:

- H4 There is a positive association between existence of IA and disclosure of fair value measurement.
- H5 There is a positive association between independence of IA and disclosure of fair value measurement.
- H6 There is a positive association between competence of IA and disclosure of fair value measurement.

5 Research design

5.1 Data

Data was -collected from the top 30 listed companies' annual reports for the years 2010 to 2013. Table 1 group the companies by sectors.

Table 1 Distribution of sample by sectors

	<i>No.</i>	<i>%</i>
Banks	3	6
Insurance	3	6
Building and construction	8	16
Hotels	6	12
Manufacturing	12	24
Retail/distribution	12	24
Others	6	12
Total	50	100

Note: Sixty listed companies.

Table 2 Fair value measurement disclosure

Paragraph	Description of disclosure requirements	Scoring disclosure
27A	<p>To make the disclosures required by paragraph 27B, an entity shall classify fair value measurements using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy shall have the following levels:</p> <ol style="list-style-type: none"> a Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1). b Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices) (Level 2). c Inputs for the asset or liability that are not based on observable market data (unobservable inputs) (Level 3). <p>The level in the fair value hierarchy within which the fair value measurement is categorised in its entirety shall be determined on the basis of the lowest level input that is significant to the fair value measurement in its entirety. For this purpose, the significance of an input is assessed against the fair value measurement in its entirety. If a fair value measurement uses observable inputs that require significant adjustment based on unobservable inputs, that measurement is a Level 3 measurement. Assessing the significance of a particular input to the fair value measurement in its entirety requires judgement, considering factors specific to the asset or liability.</p>	1
27B	<p>For fair value measurements recognised in the statement of financial position an entity shall disclose for each class of financial instruments:</p> <ol style="list-style-type: none"> a The level in the fair value hierarchy into which the fair value measurements are categorised in their entirety, segregating fair value measurements in accordance with the levels defined in paragraph 27A. b Any significant transfers between Level 1 and Level 2 of the fair value hierarchy and the reasons for those transfers. Transfers into each level shall be disclosed and discussed separately from transfers out of each level. For this purpose, significance shall be judged with respect to profit or loss, and total assets or total liabilities. c For fair value measurements in Level 3 of the fair value hierarchy, a reconciliation from the beginning balances to the ending balances, disclosing separately changes during the period attributable to the following: <ol style="list-style-type: none"> 1 Total gains or losses for the period recognised in profit or loss, and a description of where they are presented in the statement of comprehensive income or the separate income statement (if presented). 2 Total gains or losses recognised in other comprehensive income. 3 Purchases, sales, issues and settlements (each type of movement disclosed separately). 4 Transfers into or out of Level 3 (e.g., transfers attributable to changes in the observability of market data) and the reasons for those transfers. For significant transfers, transfers into Level 3 shall be disclosed and discussed separately from transfers out of Level 3. d The amount of total gains or losses for the period in (c)(1) included in profit or loss that are attributable to gains or losses relating to those assets and liabilities held at the end of the reporting period and a description of where those gains or losses are presented in the statement of comprehensive income or the separate income statement (if presented). e For fair value measurements in Level 3, if changing one or more of the inputs to reasonably possible alternative assumptions would change fair value significantly, the entity shall state that fact and disclose the effect of those changes. The entity shall disclose how the effect of a change to a reasonably possible alternative assumption was calculated. For this purpose, significance shall be judged with respect to profit or loss, and total assets or total liabilities, or, when changes in fair value are recognised in other comprehensive income, total equity. An entity shall present the quantitative disclosures required by this paragraph in tabular format unless another format is more appropriate. 	1 1 1 1 1
Total scores		5

Note: IFRS 7 amended in March 2009.

A compliance index is constructed using the disclosure of fair value measurement using Levels 1, 2 and 3 hierarchies. Then, the variables of interests are regressed against the disclosure index. Table 2 is a list of the disclosure requirements for fair value measurement under new paragraph 27 as per amended IFRS 7.

Data related to the independence and competence of the AC and IA is collected from the annual reports. The number of non-executive directors deflated by the total number of members on the AC is used to measure independence. Competence is determined by the presence of a qualified accounting and finance professional on the committee. The section on corporate governance of the annual reports of the listed companies is scrutinised to determine the professional qualifications of the AC members. In case this information is not provided, Google is used to source the information. If a member is a qualified accountant, a score of '1' is allocated and '0' otherwise. The independence of the internal auditor is determined by looking at the reporting line in the corporate structure found in the annual reports. If the internal auditor reports to either the board or the AC it is considered independent and '1' is allocated and '0' if not. Similar to AC member's competence, the internal auditor's qualifications is used as proxy. '1' is allocated if the internal auditor is a qualified professional from either a professional accounting body or internal auditing professional body.

5.2 Content analysis and disclosure index

Content analysis is used to collect data that are only relevant to the disclosure of fair value measurement from the financial reports (Holsti, 1969; Barrett, 1976; Cooke, 1989; Wood and Marginson, 2004; Chalmers and Godfrey, 2004; Lopes and Rodrigues, 2007). A disclosure checklist is developed based on the requirements for fair value disclosure (Cooke, 1989; Lopes and Rodriguez, 2007; Chalmers and Godfrey, 2004) to construct the disclosure index.

The disclosure index is determined by comparing actual disclosure level against expected (Cooke, 1989). Because fair value measurement has TLH of disclosure, this is considered as three categories of disclosures and then the information required to be disclosed under each level is considered as disclosure elements (Dunne et al., 2004; Marshall and Weetman, 2002). Dunne et al. (2004) argues that this approach is suitable when measuring disclosure practices. Unweighted indices are used because the data are not from surveys but secondary data from annual reports. The reliability of the data is also assessed using Cronbach alpha test which resulted in 0.81, which indicates reliability a comfort zone.

5.3 Construction of disclosure index

The disclosure index is constructed using the five categories of disclosures in paragraph 27B. As suggested by Lopes and Rodriguez (2007), it assists to gather the information in a systematic manner. Disclosure is identified by adopting a dichotomous procedure consistent with Cooke (1989) and Raffournier (1995). An item is scored '1' if disclosed, otherwise '0' is given. Items of information included in the index were identified through a scrutiny of paragraphs 27A and 27B in IFRS 7. A scoring sheet is then developed in order to measure the extent of information disclosed (see Table 1).

The total compliance score (TCS) for a company is computed as follows:

$$T = \sum_{i=1}^m di$$

where

di is 1 if an item i is disclosed, and 0 otherwise

m is the maximum number of items ($m = 5$).

Similar to Chalmers and Godfrey (2004), the paper uses a simple sum of scores assuming that each item is equally important for all user groups. Past studies have criticised the use of weighted sum of scores on the ground of biasness (Hodgson, 2004). We further recognise that because our sample comprises companies from different industry, it is not necessary that all the disclosure requirements are relevant to each and every company in the study. We therefore adjust our scoring model (Cooke, 1989; Raffournier, 1995) so that a company is not penalised for not disclosing an item if that item is not relevant to its circumstance. Lopes and Rodrigues (2007) model is then adopted:

$$M = \sum_{i=1}^n di$$

where di is the disclosure item and n the number of items applicable to that company ($n \leq 31$). The adjusted index is computed as T/M .

The disclosure gap is recorded as one-disclosure index.

5.4 Regression model

A pooled regression is conducted to investigate the impact of AC and IA on the disclosure level of fair value measurement in financial instruments. The equation below depicts the relationship between the disclosure index and the independent variables. Moreover, the equation is also estimated as a *fixed effects* model. Prior studies suggest that disclosure practices vary among sectors (Chalmers and Godfrey, 2004; Hassan et al., 2008; Fiechter, 2011). Because the companies represent different sectors, sector dummy variables are used to capture the impact of sector on disclosures. To keep additional controls for omitted variables that could affect compliance with the new disclosures, year specific dummy variables are included to control for systematic time period effects (BooLaky and Soobaroyen, 2017). For brevity, the year and sector dummies are not reported in the tables. Secondly, the fixed effects results are not reported because there are no significant changes in the magnitude of the variables. The characteristics of firms which are used as control variables are drawn based on extant literature. They are size, performance and debt level. The independent variables are existence, independence and competence of AC and, existence, independence and competence of IA. The regression model is expressed as:

$$TCS_{it} = \alpha_0 + \alpha_1 AC_{it} + \alpha_2 IA_{it} + \alpha_3 IA * AC_{it} + \alpha_4 \sum CONTROLS_{it} + fixed\ effects + error$$

where

<i>TCS</i>	firm TCS
<i>AC</i>	1 for AC, 0 otherwise.
<i>IA</i>	1 for IA department or internal auditor, 0 otherwise
$\sum CONTROLS$	SIZE = natural log turnover
<i>PERFOR</i>	earnings before interest and tax (EBIT)
<i>DEBT</i>	total debt/total equity
<i>i</i>	firm
<i>t</i>	year

Fixed effects are:

- 1 sector dummies a vector of dummy variables indicating industry belonging
- 2 year dummies a vector of dummy variables indicating year.

They are not reported for terseness.

5.5 Variable description

The dependent variable is the total disclosure score. The actual disclosures made are scaled against the total that the company is required to disclose as follows: TCS = firms' actual disclosure / total required disclosure (Cooke, 1989). The results from the above yield the disclosure score which is used as the dependent variable in this study.

Table 3 Expected relationships between dependent and independent variables

<i>No.</i>	<i>Hypothesis</i>	<i>Variable proxies</i>	<i>Expected relationship</i>
Variables of interest			
1	AC: audit committee existence	1 if exist, 0 if not	+ve
2	IA: internal audit existence	1 for yes and 0 for no	+ve
3	IA * AC: interaction between IA and AC		Unknown
Control variables			
	Size	Log of total sales	+ve
	Performance	Earnings before tax on total assets	+ve
	Shareholders/creditors	Debt/equity	No prediction

Table 4 Disclosure hierarchy for fair value measurement of financial instruments

Disclosure items	Paragraph 27B	Bank	Insurance	Construction	Hotels	Ret. and dis.	Manufacturing	Others	Max.	Min.	Median	Mean	STD	t-test
1	A	1	0.8	0.78	0.79	0.84	0.93	0.91	1	0.78	0.84	0.86	0.084	0.0674
2	B	0.75	0.8	0.73	0.8	0.78	0.81	0.83	0.83	0.73	0.8	0.79	0.035	0.2063**
3	C	0.75	0.8	0.79	0.8	0.78	0.78	0.71	0.8	0.71	0.78	0.77	0.033	1.004***
4	D	0.75	0.8	0.74	0.8	0.81	0.79	0.85	0.85	0.74	0.8	0.79	0.037	0.2884**
5	E	0.8	0.8	0.76	0.79	0.8	0.81	0.77	0.81	0.76	0.8	0.79	0.018	0.1608**
	Total disclosure score	4.05	4	3.8	3.98	4.01	4.12	4.07	4.12	3.8	4.01	4	0.102	0.2520**
	Total expected score	5	5	5	5	5	5	5	5	5	5	5	0	
	Disclosure index	0.81	0.8	0.76	0.8	0.8	0.82	0.81	0.82	0.76	0.8	0.8	0.02	
	Disclosure gap	0.19	0.2	0.24	0.204	0.2	0.18	0.19	0.18	0.24	0.2	0.2	0.98	

5.5.1 *Variables of interest*

AC: a dichotomous variable is also used with a score of '1' given to firms with AC and '0' otherwise. Because the study investigates the characteristics of the AC, its independence and competence of are also measured using a dichotomous metric. For independence, the percentage of non-executive directors on the committee is used whereas for competence (ACC) '1' if there is a financial expert on the AC and '0' otherwise. Similarly, IA is assigned '1' if the company has either an IA department or a full time internal auditor and '0' otherwise. To measure independence (IAI), if the IA reports to the board, it is assigned '1' and otherwise '0'. Competence is measured using qualifications. '1' if qualified from a professional accounting or auditing body and '0' otherwise. Table 3 describes the expected relationship between the dependent and independent variables.

5.5.2 *Control variables*

The log of turnover, performance and debt level are used to control for the effect of companies' size, performance and debt level on compliance with the amended disclosure requirements of IFRS 7 on fair value measurement. This is because:

- 1 both large companies and highly performing companies are expected to be more transparent and compliant
- 2 highly geared company may either be more or less transparent (Stefaniak et al., 2009).

6 **Findings and discussion**

6.1 *Descriptive statistics*

The overall disclosure score is reported in Table 4 by sectors. The entities in each sector are scored on a maximum of five items as listed in column 1 of Table 4. On the total disclosure score, the manufacturing sector leads with a compliance index of 0.82, followed by the banking with 0.81 though the banks lead in the disclosure as per paragraph 27B.1.A. Three sectors are in the third position in terms of disclosure of fair value measurement, namely: insurance, hotels and retail and distribution.

Construction scores a disclosure of 0.76. This result suggests that, in Mauritius, banks and insurance sectors to which fair value measurement of financial instruments are far more relevant need to enhance disclosure by 20% in order to be fully compliant with the disclosure requirements recommended in the amended IFRS 7 of March 2009.

Compliance gap is reported at the bottom line in Table 4. When comparing compliance level across sectors, the finding suggests that there is still a compliance gap of 20% as regard disclosure under paragraph 27B. The mean disclosure score for item 27B.1.A is 0.86 which indicated a lower gap compared to the overall disclosure score. Banking sector is 100% compliant with paragraph A but only 75% to paragraphs B–D. This implies that for each class of financial instruments, the level in the fair value hierarchy in which the fair value measurements are categorised in their entirety, separating fair value measurements according to the levels defined in paragraph 27A. However, banks are less transparent in regard to the disclosure of and reasons for

significant transfers between Level 1 and Level 2 of the fair value hierarchy. Similarly, there is a need to enhance disclosure on the reconciliation statement as well as transfers into and out of Level 3 required under item C of paragraph 27B. Likewise, item D and E are not fully compliant. This finding that not all banks in Mauritius have fully disclosed the level of fair value hierarchy, for example, transfers between Level 1 and Level 2 fair value hierarchy and transfer within Level 3 agree with those of Song et al. (2010). With regard to disclosure E, the compliance gap is 20%. It suggests that there is still a need to improve disclosure for fair value measurements in Level 3, if changing one or more of the inputs to reasonably possible alternative assumptions would change fair value significantly. In the insurance sector, the gap is 20% across all five disclosures (A, B, C, D and E) of paragraph 27B. This finding aligns with those of Heflin and Valencia (2012) who suggest that management uses their discretion over the fair value hierarchy that reflects the significance of the inputs used in making the measurement, especially Level 3 estimates, hence the propensity to disclose less.

6.2 Empirical results

Pearson correlation result is reported in Table 5. Table 5 reports that there are correlations between the dependent and the independent variables. For example, total turnover has a highest positive correlation with the compliance score followed by return on assets. The results also reveal that the variable of interest, i.e., AC and IA are also correlated with the dependent variable. Collinearity tests (tolerance factor and VIF) were also run and both were within acceptable limits (greater than 0.1 and greater than 9, respectively) (Hair et al., 2006). The results are not reported for terseness.

Table 5 Correlations

	<i>Compliance score</i>	<i>Log of turnover</i>	<i>ETTA</i>	<i>DEBT</i>	<i>AC^a</i>	<i>IA^b</i>
Compliance score	1.000					
Log of turnover	.676	1.000				
ETTA	-.262	-.158	1.000			
DEBT	.186	.712	.135	1.000		
AC	.181	.347	-.221	.162	1.000	
IA	.158	-.175	.355	.158	.031	1.000

Notes: Log of turnover is the natural log of revenue, ETTA is earnings before tax on total assets, DEBT is the debt to equity ratio, AC is the audit committee and IA is internal audit.

^aThis variable is divided into three: existence, independence and competence.

^bThis variable is as well divided into existence, independence and competence.

6.3 Regression results

Table 6 reports the regression results. The overall model fit is 52.4%, measured by the adjusted R-squared. Similar to Hassan et al. (2008), both firm size ($t = 6.919$, $p < .01$) and debt level ($t = 3.578$, $p < .01$) have a positive influence on disclosure of fair value measurement of financial instrument under the TLH contrary to performance.

Table 6 Regression results

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Coefficients	T values	AC = IND	T values	AC = COM	T values	IA = IND	T values	IA = COM	T values
Constant	15.679	0	15.679	0	15.679	0	15.679	0	15.679	0
Log of turnover	1.029	4.919***	1.029	4.919***	1.029	4.919***	1.029	4.919***	1.029	4.919***
Return on assets	0.081	0.252	0.081	0.252	0.081	0.252	0.081	0.252	0.081	0.252
Gearing	0.519	2.964***	0.519	2.964***	0.519	2.964***	0.519	2.964***	0.519	2.964***
Audit committee	0.235	2.003**	0.112	1.376*	0.298	2.201**	-	-	-	-
Internal audit	0.211	1.413*	-	-	-	-	0.098	0.296	0.088	0.217
AC * IA	0.329	2.989**	-	-	-	-	-	-	-	-
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.621		0.438		0.411		0.237		0.289	
N	300		300		300		300		300	

6.3.1 Reporting the impact of AC

Findings on the impact of AC agree with Fraser and William (2007), who also contend AC ensures compliance with up-to-date standards fair value reporting (see also, Song et al., 2010). AC in the listed companies of Mauritius exerts a strong positive impact on compliance ($t = 2.017$, $p < .05$) and as such mitigates the risk of value manipulation (Abbott et al., 2007). This finding supports Hypothesis 1.

The independence of AC is only moderately significant ($t = 1.068$, $p < .10$) thus partly supporting Hypothesis 2. This suggests that there should be more independent members on the committee to assist in enhancing disclosure practices. Moreover, the findings also reveal that competence, hence presence of a financial expert, on the AC is highly significant ($t = 2.906$, $p < .05$), thus, supporting Hypothesis 3. This suggests that having a financial expert on the AC will definitely push for further disclosure to ensure both compliance with the IFRS and enhance transparency.

6.3.2 Reporting impact of IA

Until now, there is apparently no study on the impact of IA on disclosure of fair value measurement and in particular in developing and emerging economies. Findings from this study will inform the literature on this front. The results suggest that IA has only a moderate impact ($t = 1.413$, $p < 0.10$ level), thus, partly supporting Hypothesis 4. In Mauritius, IA has been less effective in driving companies to comply with international standards. The reason could be due to the fact that IA has other priorities in the companies. Both independence ($t = .278$, $p > .05$) and competence ($t = .981$, $p > .05$) of IA is positively but not statistically significantly associated with compliance to the amendments made to IFRS 7. This explains that IA independence is less in many companies, thus restraining them from positively contributing towards greater transparency. Hypotheses 5 and 6 are therefore rejected. Overall, the above findings suggest that the governance mechanisms such as AC

7 Conclusions

This paper investigates the influence of AC and IA on fair value hierarchy in financial instruments disclosure as recommended in the amendments to IFRS 7 in March 2009. Because of the criticisms levelled against IFRS during the global financial crisis, the IASB considers it important to make some amendments to IFRS in order to enhance disclosures of financial instruments until IFRS 9 would be released. This study has, for the first time, addressed this issue in a specific context, that is, Mauritius. Most of the mainstream studies have investigated firm related variables as predictors of compliance with IFRSs 7 and IASs 32 and 39. The limited number of studies that are currently available on the amended IFRS 7 was mainly about banks, although companies outside the banking sector are affected by these amendments given that they also use financial instruments (both financial assets and liabilities). This study postulates that large firms including non-financial firms have financial assets and liabilities and, as a result, have to comply with any change(s) made to the relevant IFRSs. This study has compiled and reported the disclosure level with regard to fair value hierarchy in financial instruments disclosure and provided empirical evidence on its determinants. To determine the

disclosure level, categorical content analysis is used and then a disclosure index constructed. As far as the variables of interest are concerned, AC and IA have been investigated to determine their impact on compliance.

Findings from the study confirm that firms' size and debt level influence disclosure level. The larger a firm is and the higher the gearing level is, the more that firm would comply with the amended disclosure requirements. Secondly, this study also reveals that AC and IA have a crucial role with regard to disclosure but the impact on each item in paragraph 27B varied. The influence of the AC is highly significant. IA is also positively but not significantly associated with compliance and disclosure requirements of paragraphs 27A and 27B. These findings have policy implications at firms' level as well as investment implications and regulatory implications at national and international levels. Firms whose compliance level is low need to revisit their disclosure practices to identify how to enhance disclosures. This finding also informs management about the necessity to strengthen the IA with necessary human resource back-up to be able to monitor compliance with IFRS. Firms of the same industry could also compare the disclosure level and identify their shortcomings. Regulators could use the findings to compare disclosure level in their own jurisdictions. The International Accounting Standing Board could as well use the findings to update its own database on compliance with specific standards. With regard to investment, investment analysts could use the findings to advise potential investors on their investment choices. As suggested in the literature, investors would invest in countries where there are greater transparencies.

As in any study, this study has some limitations that should be acknowledged. The conclusions drawn can be generalised only in the context of Mauritius because the dataset used is about only one country. Moreover, the number of issues raised by the assurance providers on compliance with the amended disclosure requirements and meetings with the AC including minutes of the meetings were not accessible.

Notwithstanding the foregoing limitations, one of the primary contributions of this study is its investigation of how IA and AC including their independence and competence have influenced disclosure of fair value hierarchy in financial instruments. In the light of the empirical evidence provided in this study, future research can focus on other countries and the results compared.

References

- Abd-Elsalam, O.H. and Weetman, P. (2003) 'Introducing international accounting standards to an emerging capital market: relative familiarity and language effect in Egypt', *Journal of International Accounting, Auditing and Taxation*, Vol. 12, No. 1, pp.63–84.
- Abraham, S. and Cox, P (2007) 'Analysing the determinants of narrative risk information in UK FTSE 100 annual reports', *The British Accounting Review*, September, Vol. 39, No. 3, pp.227–248.
- Barrett, M. (1976) 'Financial reporting practices: disclosure and comprehensiveness in an international setting', *Journal of Accounting Research*, Vol. 14, No. 1, pp.10–26.
- Bedard, J., Chtourou, S.M. and Courteau, L. (2004) 'The effect of audit committee expertise, independence, and activity on aggressive earnings management', *Auditing*, Vol. 23, No. 2, pp.15–37.
- Berle, A.A. and Means, G.C. (1932) *The Modern Corporation and Private Property*, The MacMillan Company, New York.

- Bischof, J. (2009) 'The effects of IFRS 7 adoption on bank disclosure in Europe', *Accounting in Europe*, Vol. 6, No. 2, pp.167–194.
- Boolaky, P.K. (2007) 'Corporate governance in the financial services sector of small island economies: a case study of Mauritius', *Journal of Corporate ownership and Control*, Vol. 4, No. 3, pp.266–278.
- Boolaky, P.K. (2010) 'Investigating the relationship between the elements of the IFRS conversion cost in the context of small island economies (Mauritius)', *International Journal of Managerial and Financial Accounting*, Vol. 2, No. 3, pp.228–239.
- Boolaky, P.K. (2012) 'Accounting development and international financial reporting standards in small island economies: the case of Mauritius between 1960 and 2008', *Journal of Accounting in Emerging Economies*, Vol. 2, No. 1, pp.4–29.
- Boolaky, P.K. and Soobaroyen, T. (2017) 'Adoption of international standards on auditing (ISA): do institutional factors matter?', *International Journal of Auditing*, Vol. 21, No. 1, pp.59–81.
- Carcello, J.V. and Neal, T.L. (2003) 'Audit committee independence and disclosure: choice for financially distressed firms', *Corporate Governance: An International Review*, Vol. 11, No. 4, p.289.
- Carpenter, V.L. and Feroz, E.H. (2001) 'Institutional theory and accounting rule choice: an analysis of four US state governments' decisions to adopt generally accepted accounting principles', *Accounting, Organizations and Society*, Vol. 26, Nos. 7–8, pp.565–596.
- Chalmers, K.G. (2001) 'The progression from voluntary to mandatory derivative instrument disclosures – looks who's talking', *Australian Accounting Review*, Vol. 11, No. 1, pp.34–44.
- Chalmers, K.G. and Godfrey, J.M. (2000) 'Practice versus prescription in the disclosure and recognition of derivatives', *Accounting Review*, Vol. 10, No. 2, pp.40–50.
- Chalmers, K. and Godfrey, J.M. (2004) 'Reputation costs: the impetus for voluntary derivative financial instrument reporting', *Accounting, Organizations and Society*, Vol. 29, No. 2, pp.95–125.
- Chong, J.T., Jennings, W.P. and Phillips, G.M. (2012) 'Five types of risk and a fistful of dollars: practical risk analysis for investors', *Journal of Financial Service Professionals*, Vol. 66, No. 3, pp.68–76.
- Cooke, T.E. (1989) 'Voluntary corporate disclosure by Swedish companies', *Journal of International Financial Management & Accounting*, Vol. 1, No. 2, pp.171–195.
- Denis, D.K. (2001) 'Twenty-five years of corporate governance research ... and counting', *Review of Financial Economics*, Vol. 10, No. 3, pp.191–212.
- DeZoort, F.T., Hermanson, D.R., Archambeault, D.S. and Reed, S.A. (2002) 'Audit committee effectiveness: a synthesis of the empirical audit committee literature', *Audit Committee Effectiveness: A Synthesis of the Empirical Audit Committee Literature*, Vol. 21, p.38.
- Dharwadkar, R., George, G. and Brandes, P. (2000) 'Privatization in emerging economies: an agency theory perspective', *The Academy of Management Review*, Vol. 25, No. 3, pp.650–669.
- DiMaggio, P.J. and Powell, W.W. (2002) 'Institutional isomorphism and collective rationality in organizational fields', *Strategy: Critical Perspectives on Business and Management*, Vol. 1, No. 1983, p.283.
- Dunne, T., Helliar, C., Power, D., Mallin, C., Ow-Yong, K. and Moir, L. (2004) 'The introduction of derivatives reporting in the UK: a content analysis of FRS 13 disclosures', *Journal of Derivatives Accounting*, Vol. 1, No. 2, pp.205–219.
- Eisenhardt, K.M. (1989) 'Agency theory: an assessment and review', *Academy of Management Review*, Vol. 14, No. 1, pp.57–74.
- Fiechter, P. (2011) 'The effects of the fair value option under IAS 39 on the volatility of bank earnings', *Journal of International Accounting Research*, Vol. 10, No. 1, pp.85–108.
- Fiechter, P. and Meyer, C. (2010a) *Big Bath Accounting Using Fair Value Measurement Discretion during the Financial Crisis*, Working paper, University of Zurich.

- Fiechter, P. and Meyer, C. (2010b) 'Big bath accounting using fair value measurement discretion during the financial crisis', in *American Accounting Association Annual Meeting*, January, San Francisco.
- Francis, J.R. (2004) 'What do we know about audit quality?', *The British Accounting Review*, Vol. 36, No. 4, pp.345–368.
- Fraser, I. and William, H. (2007) 'Embedding risk management: structures and approaches', *Managerial Auditing Journal*, Vol. 22, No. 4, pp.392–409.
- Fürst, B., Henselmann, K. and Klein, M. (2009) *Marktpreisrisiko-Reporting bei Nichtfinanzinstituten nach IFRS 7, Empirische Befunde zum Einsatz von Value at Risk and Sensitivitätsanalysen bei kapitalmarktorientierten Unternehmen*, Working papers in Accounting Valuation Auditing, No. 5, pp.2–44.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2006) *Multivariate Data Analysis*, Upper Saddle River.
- Hassan, M.S., Mohd-Saleh, N. and Che Abdul Rahman, M.R. (2008) *Determinant of Financial Instruments Disclosure Quality among Listed Firms in Malaysia*, 10 July, SSRN [online] <https://ssrn.com/abstract=1157788> or <http://dx.doi.org/10.2139/ssrn.1157788>.
- Heflin, F. and Valencia, A. (2012) *Opportunistic Behavior Using Level 3 Fair Values under SFAS 157*, Working paper, Florida State University.
- Hodgson, D.E. (2004) 'Project work: the legacy of bureaucratic control in the post-bureaucratic organization', *Organization*, Vol. 11, No. 1, pp.81–100.
- Holsti, O.R. (1969) *Content Analysis for the Social Sciences and Humanities*, Vol. 8, No. 1, Addison-Wesley, Reading, MA and Indonesia.
- Jensen, M.C. and Meckling, W.H. (1976) 'Theory of the firm: managerial behaviour, agency costs and ownership structure', *Journal of Financial Economics*, Vol. 3, No. 4, pp.305–360.
- Levitt, A. (1999) *Remarks to the Committee for Economic Development* [online] <http://www.sec.gov/news/speech/speecharchive/1999/spch278.htm> (accessed 26 September 2016).
- Lin, P., Grace, D., Krishnan, S. and Gilsdorf, J. (2010) 'Failure to communicate', *The CPA Journal*, Vol. 80, No. 1, pp.63–65.
- Lopes, P.T. and Rodrigues, L.L. (2007) 'Accounting for financial instruments: an analysis of the determinants of disclosure in the Portuguese stock exchange', *The International Journal of Accounting*, Vol. 42, No. 1, pp.25–56.
- Marshall, A. and Weetman, P. (2002) 'Modelling transparency in disclosure: the case of foreign exchange risk management', *Journal of Business Finance & Accounting*, Vol. 34, Nos. 5–6, pp.705–739.
- Nnadi, M. and Soobaroyen, T. (2015) 'International financial reporting standards and foreign direct investment: the case of Africa', *Advances in Accounting*, Vol. 31, No. 2, pp.228–238.
- Nobes, C.W. (1998) 'Towards a general model of the reasons for international differences in financial reporting', *Abacus*, Vol. 34, No. 2, pp.162–187.
- Norkhairul, H.B. (2003) *Voluntary Disclosures level: A Study on Disclosures level: A Study on Disclosure of Derivatives, Financial Instruments, Company Size and Foreign Activity Level*, unpublished Master of Accounting dissertation, Universiti Kebangsaan Malaysia
- Picker, R., Leo, K., Loftus, J., Wise, V., Clark, K. and Alfredson, K. (2013) *International Financial Reporting Standards*, 3rd ed., Wiley, Milton, Queensland.
- Raffournier, B. (1995) 'The determinants of voluntary financial disclosure by Swiss listed companies', *European Accounting Review*, Vol. 4, No. 2, pp.261–280.
- Rajgopal, S. (1999) 'Early evidence on the informative-ness of the SEC's market risk disclosures: the case of commodity price risk exposure of oil and gas producer', *Accounting Review*, July, Vol. 74, No. 3, pp.251–280.
- Rezaee, Z. and Riley, R. (2010) *Financial Statement Fraud: Prevention and Detection*, 2nd ed., John Wiley & Sons, New York.

- Saleh, N.M., Hassan, M.S., Jaffar, R. and Shukor, Z.A. (2010) 'Intellectual capital disclosure quality: lessons from selected Scandinavian countries', *IUP Journal of Knowledge Management*, Vol. 8, No. 4, pp.39–60.
- Song, C.J., Thomas, W.B. and Yi, H. (2010) 'Value relevance of FAS no.157 fair value hierarchy information and the impact of corporate governance mechanisms', *The Accounting Review*, Vol. 85, No. 4, pp.1375–1410.
- Stefaniak, C.M., Robertson, J.C. and Houston, R.W. (2009) 'The causes and consequences of auditor switching: a review of the literature', *Journal of Accounting Literature*, Vol. 28, p.47.
- Tirta, R. and Sholihin, M. (2009) 'The effects of experience and task-specific knowledge', in Watts, R.L. and Zimmerman, J.L. (Eds.): *Positive Accounting Theory*, 1986, Prentice/Hall International, Inc., New Jersey.
- Verrecchia, R.E. (2001) 'Essays on disclosure', *Journal of Accounting and Economics*, Vol. 32, Nos. 1–3, pp.97–180.
- Woods, M. and Marginson, D. (2004) 'Accounting for derivatives: an evaluation of reporting practice by UK banks', *European Accounting Review*, Vol. 13, No. 2, pp.373–390.
- Zhang, Z. (1996) 'AFTA and APEC, with policy implications for Vietnam's trade and FDI', *Development Policy Review*, Vol. 14, No. 3, pp.273–298.