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Financial Ratios Communication

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Abstract

This study examines the relationship between ownership concentration and the extent of financial ratio disclosures (EFRD) in the 2007 annual reports of Australian listed firms. Using agency theory as theoretical background, it is suggested that firms with more concentrated ownership structures are less likely to provide voluntary disclosure of financial ratios information. The univariate tests demonstrate that profitable firms, those firms audited by Big4 auditors and firms belonging to financial services industry communicate more financial ratio information. OLS regressions show that more dispersed shareholding firms' are significantly associated with EFRD. Profitable and larger firms audited by independent and Big4 audit firms additionally reported more extensive financial ratio information.

Key words: ownership concentration, financial ratio disclosures, Australia

1. INTRODUCTION

The purpose of this study is to examine the impact of ownership structure on the extent of financial ratio disclosures within the annual reports of ASX listed firms. The annual reports of 300 firms listed on Australian Stock Exchange (ASX) are gathered and analysed. The objective is to derive insights on the reporting practices of financial ratios by Australian companies. Communication of information such as financial ratios enhances the understanding of the financial statements of potential investors. Financial ratios enable these investors to make more informed investment decisions.

A financial ratio disclosure index is developed based on past literature (Horngren *et al.* 2006; Mitchell 2006; Morton and Harrison 2009; Peirson and Ramsay 2000; Stickney *et al.* 2004; Subramanyam and Wild 2009; Watson *et al.* 2002; Wild *et al.* 2007; Hoggett *et al.* 2006) to capture differences in disclosure patterns. There are five key sub-categories of ratios examined:. Share Market Measure (SMM), Profitability (PROF), Capital Structure (CS), Liquidity (LIQ) and Cash Flow (CF).

The provision of relevant and imperative views that reflect companies' performance is in line with government initiatives in promoting Australia as a promising business destination. Besides having economic strength which ranked among the 20 largest in the world (Department of Foreign Affairs and Trade Australia 2008), Australia also rated fourth in the 2009 Global Corporate Governance ratings (Governance Metrics International 2009). In addition, sophisticated information facilities and financial services offered to investors is another form of support provided by the Australian government. *Austrade*, the Australian Trade Commission, was created to assist international companies to develop trade and investment connections with Australia.

In balancing all incentives and support initiated by the government, it is now the companies' task to accomplish their role in promoting Australian companies to the potential investors, both locally and internationally. One possible way in promoting companies' strong financial position is to disclose financial ratios in annual reports. Communicating this simple and quick tool possibly will be able to attract investors' attention to seek detail information.

The establishment of relationship between ownership concentration and financial ratio communication within Australian annual reports is important due to several factors. The Australian Securities Exchange (2008) conducted a study examining the attitudes, knowledge and behaviour of retail share market investors in Australia. From the survey, they find that 6.7 million people or 41% of Australian adults (18 years and above) are involved in the share market, a decrease from 55% and 46% in 2004 and 2006 respectively. In comparison, the percentage is 45% in the U.S, 21% in Switzerland, 18% in the U.K and Sweden, and 14% in Germany. These figures imply that the share ownership in Australia is a significant issue.

Further, in relation to the investor' education background, the ASX's study evidence that 46% and 42% of post graduates and degree holder respectively owned shares in 2008, with 46% of them having more than $100,000 household income. However, 46% of the direct investors are perceived not to be very knowledgeable, with only 5% rated they are knowledgeable. It seems that half of Australian investors are non-sophisticated participants. Thus providing them analysis tool like financial ratios possibly enhances their understanding. As suggested by Smith and Taffler (1992), sophisticated users are more likely to understand accounting language compared to unsophisticated users.

In a different study, Smith and Smith (1971) link the communication theory with the financial reporting function, specifically in relation to notes to the accounts. They find that notes to the financial statements are only understandable by certain groups of sophisticated readers. There is evidence that less than 20% of the U. S. adult population having sufficient education to understand this information. Chang *et al.* (1983) surveys 4000 individual investors, 900 institutional investors and 900 financial analysts in the U.S., UK and New Zealand. They conclude that financial statement considered as most important source of information. However, sophisticated users (institutional investors and financial analyst) rank financial statements as more important than non-sophisticated users (individual investors).

In relation to financial ratio disclosures, Watson *et al.* (2002) argues that the financial ratio information is valuable to financial statements users in providing a useful tool to assess and compare a company's performance. The disclosure of financial ratio can be viewed as a new information or readily available old information. They assumed that it does not matter whether the ratio is new or old information; thus they considered disclosure of all ratios. In

fact, they argue that the inclusion of old items possibly aid users understanding, provides economies on their time and reduces cost of obtaining information elsewhere. In Australia particularly, there are two recent studies carried out. Mitchell (2006) uses early 1990s data including the voluntarily earnings per share ratio because it was not mandated during that period. Applying signalling theory, the findings of this research suggest that companies selectively communicate financial ratio that is favourable. On the other hand, Morton and Harrison (2009) utilise a different perspective of measuring financial ratio disclosure. They calculate the level of disclosure using content analysis based on number of pages taken up by any disclosure of financial ratio.

Lacking of discussion on the users sophistication in previous research leads this study with the aim to link ownership concentration and financial ratio disclosures on the basis that Australian investors are semi-sophisticated users. They need to be communicated with not so-called complex and technical information about firms' financial condition. Possible understanding of financial ratios maybe more vital and relevant for them than an understanding of greater detail of accounting jargon and reporting principles. Thus, this study aims to answer the following question:

Is ownership concentration a determinant of the extent of financial ratio disclosure in Australia?

2.0 THEORETICAL POSITION AND HYPOTHESIS DEVELOPMENT

Many studies in the past examine the association between the financial reporting practices with agency theory (Taylor *et al.* 2008; Barako *et al.* 2006; Lakhal 2005; Ho and Wong

2001). Jensen and Meckling (1976) suggest a possible conflict arises when agents perform their duties on behalf of the principals. Agents (managers) are expected to act and make decision to the best interest of principals (shareholders).

Jensen and Meckling (1976) outline three components of agency cost: monitoring cost, bonding costs and a residual loss. Monitoring costs are exercised by the principals to monitor the agents' behaviour in aligning their interest, such as audit fees. On the other hand, bonding costs are incurred by the agents themselves to bond their actions, so that is in line with principals' concern. Cost of financial reporting is an example of bonding cost to ensure the principal are informed about agents' decisions and actions. Further, any misalignment of interests between agents and principals possibly would incur a residual loss.

One possible problem with conflicting agency relationship is information asymmetry. This is the situation where the agents have great advantages in possessing and utilising inside information for their own benefit than the principals. This situation occurs because the managers are dealing with day to day operations of the firms and they have the first hand information, whether good or bad, especially about the company. In reducing the information asymmetry problem, voluntary disclosure as defined by Meek *et al.* (1995, p. 555) as "disclosure in excess of requirements-represent free choices on the part of company managements to provide accounting and other information deemed relevant to the decision need of users of their annual reports" might be useful. It is argued that by disclosing voluntary information to users, the information asymmetry problem is reduced (Healy and Palepu 2001).

A number of prior studies have investigated various determinants of companies' voluntary disclosure practices. For example, studies conducted in the US (Leftwich *et al.* 1981; Botosan 1997); US, UK and Continental Europe (Meek *et al.* 1995); Australia (McKinnon and Dalimunthe 1993; Singh and Mitchell Van der Zahn 2008; Guthrie *et al.* 2006; White *et al.* 2007); New Zealand (Whiting and Miller 2008; Hackston and Milne 1996; McNally *et al.* 1982); Hong Kong (Leung and Horwitz 2004; Gul and Leung 2004; Ho and Wong 2001) and Malaysia (Hossain *et al.* 1994; Haniffa and Cooke 2002; Mohd Ghazali and Weetman 2006) provide empirical evidence on various aspects of voluntary disclosure.

However, limited focus has been given to the unique voluntary disclosure of financial ratio by previous researchers (Morton and Harrison 2009; Mitchell 2006; Watson *et al.* 2002; Courtis 1996; Horrigan 1965). The examination of this specific voluntary disclosure aspect is believed essential in gaining insights of the determinants of such disclosure practices. Thus, this study aims to contribute to the accounting knowledge by filling the gap of previous studies.

A financial ratio is defined as a mathematical relation between two quantities (Subramanyam and Wild 2009). Financial ratio analysis is useful for several reasons: providing insights of the underlying firms' financial condition (Subramanyam and Wild 2009), a signalling tool (Mitchell 2006), accessing and comparing company's performance (Watson *et al.* 2002) and serving as an alternative to possible misleading influence of the absolute dollar figures (Courtis 1996). In addition, financial ratios are used in predictive studies (Altman 1968; Beaver 1966; Neophytou and Molinero 2004).

The disclosure of financial ratios in the annual reports is driven by several motives. First, the disclosures can enhance the understanding of stakeholders by providing them a quick and simple tool highlighting the firms' performance. Assessment of firm performance can be further enhanced if the ratio data is presented using graphs or tables (Courtis 1996) that depict changes over time. Secondly, communicating financial ratio information can provide users of financial statements with new information that is not comprehensively presented in any single media (Watson *et al.* 2002). This information would be more meaningful for non-sophisticated users in evaluating and making informed investment decisions.

Further, some ratios are not possible to be calculated by readers because of the non-availability of inside information (Gibson 1982). Therefore, providing ratios such as account receivables turnover in the annual report could offer important insights of firms' financial health position to stakeholders. Alternatively, disclosure of financial ratios would efficiently reduce the time and cost of obtaining and processing information (Watson *et al.* 2002) elsewhere. Graham *et al.* (2005) suggests that among the reasons why companies choose to provide voluntary information is the reduction of the cost of capital and to provide important information to investors that is not included in the mandatory financial statements. Arguably, when company disclose financial ratio in the annual report, the management is communicating the importance of financial ratio information to be provided to the stakeholders. By providing such voluntary disclosure, managers must believe that the benefits outweigh its cost (Watson *et al.* 2002).

Study conducted by Morton and Harrison (2009) uses the annual reports preceding and after the introduction of IFRS in Australia. However, their study finds very similar results for both periods. It appears that the decision of communicating financial ratio in the annual reports is

consistent between years. In line with this finding, the current study only considers the reporting of financial ratio in the 2007 annual reports. The 2007 is chosen to respond the suggestion by Mitchell (2006) to carry out study with more recent time period.

Watson *et al.* (2002) investigates the accounting ratios in the top 313 firms in the U.K. Dichotomous measure is used to examine the level of disclosure of five major categories. However, no specific ratios are discussed in their paper. Similarly, Morton and Harrison (2009) did not investigate specific ratios in their study. They only discuss the exclusion of earnings and dividend per share ratios. On the other hand, Mitchell (2006) explains ten specific ratios examined in his study, classify into five major categories. This limited number of ratios might not reflect the real state of financial statement analysis studies. Hence, the current study aims to provide insight on the disclosure of more comprehensive financial ratio, by developing a disclosure index consisting of 43 ratios, which has been extensively discussed by seminal authors.

In addition, all the three studies discuss the importance of the financial ratio communication in the annual reports. Morton and Harrison (2009) raise a question of why companies' still disclose ratios in their annual reports, despite the easiness of calculation and availability of sources of similar information. Watson *et al.* (2002) argues even the ratio is available elsewhere, the provision of this old or readily information in the annual reports might enhance the understandability of users. While Mitchell (2006) posits that the communication of financial ratio in the annual reports is to signal companies' favourable performance and thus attract users' attention. However, none of these studies provide a discussion from the view point of users' sophistication. This issue is critically important because the aim of

financial reporting is to assist users in making informed investment decision. Therefore, this study is conducted to highlight the research gap discussed above.

The significant role of ownership concentration in influencing financial disclosure practices is clearly evident in previous studies worldwide (Eng and Mak 2003; Haniffa and Cooke 2002; Chau and Gray 2002; Hossain *et al.* 1994). It is argued that agency problems may be reduced in companies with a more concentrated ownership structure and suggests that firms with higher concentration of ownership structure may disclose less information to shareholders. Chau and Gray (2002), Lakhal (2005), Oliveira *et al.* (2006) and Hossain *et al.* (1994) find a negative relationship between share ownership concentration and voluntary disclosures in a variety of countries including Hong Kong, Singapore, France, Portugal and Malaysia. Mitchell (2006) advocates that firms with dispersed shareholding more likely having higher costs of equity, and therefore have greater incentives to disclose. He suggests reporting of financial ratios highlights critical relationships and reduces the costs associated with high shareholder dispersion. It is thus expected that ownership concentration influences the voluntary disclosure of financial ratio. Overall, the preceding discussions led to the following hypothesis:

H_1: *The extent of financial ratio disclosures (EFRD) is negatively associated to the ownership concentration*

3.0 EMPIRICAL TESTS

3.1 Sample selection

A sample of 300 firms listed on Australian Stock Exchange (ASX) is stratified randomly selected. 75 companies are selected from each of four major industry classifications: Resources, Manufacturing, Services and Financials. The 2007 annual reports are then gathered and analysed. The 2007 annual report is chosen because it represents the period after the adoption of International Financial reporting Standards (IFRS) in Australia which aims to enhancing the quality of reporting. This period also exhibits the post-implementation of Corporate Law Economic Reform Program (CLERP 9) focusing on how to strengthen the financial reporting framework.

3.2 Measurement of variables

In testing the hypothesis, various determinants of financial disclosure practices, as suggested by theory and confirmed in prior papers, are controlled for. These are discussed in this section.

3.2.1 Dependent variable

The dependent variable of this study is the Extent of Financial Ratio Disclosures (EFRD). EFRD is the proxy to measure the extensiveness of financial ratio disclosures in companies' annual reports. A disclosure index comprising 43 item of ratios most commonly discussed by seminal authors (Hoggett *et al.* 2006; Horngren *et al.* 2006; Hoskin 1994; Maxwell *et al.* 1998; Mitchell 2006; Peirson and Ramsay 2000; Stickney *et al.* 2004; Subramanyam and Wild 2009; Watson *et al.* 2002) is developed (see Appendix 1). The ratios are then

categorised into five major categories- *Share Market Measure (SMM)*, *Profitability (PROF)*, *Capital Structure (CS)*, *Liquidity (LIQ)* and *Cash Flow (CF)* ratios. Earnings per share (EPS) is excluded since it is the sole financial ratio required to be disclosed by the Australian Accounting Standards Board (AASB 2006). Each voluntarily ratio item disclosed is scored as one (1) if communicated in the annual report for each company; otherwise zero (0). The EFRD scores is computed by summing up all items communicated divided by maximum possible number of financial ratios that could be disclosed (43).

3.2.2 Independent variable

Prior studies have adopted different measures of ownership concentration. For example Setyadi (2009) and Chen (2001) use top one; Depoers (2000) utilises top 3 while Cheung *et al.* (2008) and Haniffa and Hudaib (2006) measure top 5 shareholding. Studies conducted in Malaysia by Hossain *et al.* (1994), Haniffa and Cooke (2002) and Mohd Ghazali and Weetman (2006) calculate shareholding of top 10 shareholders. In Australia, McKinnon and Dalimunthe (1993); Birt *et al.* (2006); Mitchell (2006); Taylor *et al.* (2008) and Morton and Harrison (2009) analysed top 20 shareholding. In line with studies carried in Australia by previous researchers, the ownership concentration (OC) score is measured as a total shareholding of Top 20 shareholders. OC is treated as continuous variable by dividing number of shares owned by top twenty shareholders by the total number of shares issues.

3.2.3 Control variables

Five control variables are employed: There are: Firm size (FSIZE) - natural log of total assets (Hossain *et al.* 1994; Taylor *et al.* 2008); Non-audit fess (NAF) - Ratio of non-audit related

fees to total audit fees (Frankel *et al.* 2002; Habib and Azim 2008); Industry (IND) - Dummy variable for four major categories of industry - Resources, Manufacturing, Services and Financials (Tower *et al.* 1999); Profit/ Loss firm (PLF) - (1 for profit firm and 0 for loss firm) and Audit type (AUDTYPE) - Dichotomous variable for type of auditor; 1 for Big4, 0 for Non-Big4 (Barako *et al.* 2006).

4.0 RESULTS

Table 1 presents the descriptive result for the EFRD and five key sub-categories. Overall, the communication of financial ratio in the annual reports is low. On average, the sample of Australian firms only communicates 5.3% of the 43 ratios investigated. The result also portrays two-tiers of reporting level, dominated by the first three sub-categories (Share Market Measures, Capital Structure and Profitability) ranging from 7.4% to 9.0%. On the other hand, the other two categories (Liquidity and Cash Flow) communicate less than 1% of ratios.

Table 1: Descriptive Statistics for EFRD

	Extent of financial ratio disclosure	Share Market Measures	Profitability	Capital Structure	Liquidity	Cash Flow
Mean (%)	5.3	9.0	7.4	7.9	0.9	0.2
Median (%)	2.3	9.1	0	0	0	0
SD (%)	5.6	9.6	10.8	12.5	4.6	1.7
Min. (%)	0	0	0	0	0	0
Max. (%)	30.2	36.4	55.6	57.1	42.9	22.2

Legend: SD is standard deviation; n=300.

Table 2 provides further evidence on the disclosure level of 43 ratios; consist of eleven (11) of Share Market Measures, nine (9) each of Profitability and Cash Flow; and seven (7) each of Capital Structure and Liquidity sub-categories. Overall, the communication level of the

specific ratio can be classified into three categories: satisfactory (more than 10%), moderate (less than 10%); and silent (zero communication). 10% cut-off point is use because on average, none of the sub-category providing more than 10%. In summary:

- Satisfactory: 8 ratios with SMM(4); CS(2) and PROF(2)
- Moderate: 24 ratios with SMM(4); CS(4); PROF(7); LIQ (6) and CF(3)
- Silent: 11 ratios with SMM(3); CS(1); LIQ(1) and CF(6)

Figure 1 shows that out of 43 investigated ratios, 19% of them are satisfactorily communicated by the sample firms. More than half (56%) of the ratios are moderately reported and 25% of them are not communicated at all.

Figure 1: EFRD by specific ratio

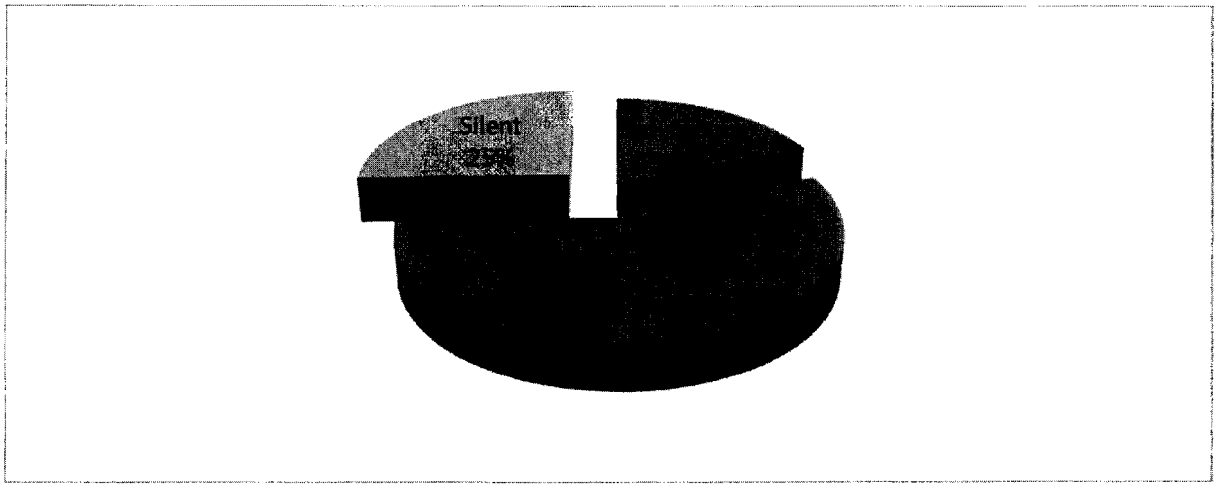

Table 2: Extent of Financial Ratio Disclosures by Specific Ratio

Categories (% disclosure score)	Ratio	% disclosure score
1. Share Market Measure (9.0%)	1.Total shareholder return (TSR)	27.0
	2.Net tangible assets per share (NTAB)	25.7
	3. Dividend payout	20.7
	4.Dividend yield	18.3
	5.Net assets per share (NAB)	3.7
	6.Market capitalisation	1.7
	7.Price-to-earnings (P/E)	1.0
	8.Earnings yield	1.0
	9.Price-to-book	0
	10.Book value per ordinary share	0
	11.Market-to-book ratio	0
2. Capital Structure (7.9%)	1.Gearing	26.7
	2.Times interest earned	15.3
	3.Total debt/equity	7.0
	4.Capitalisation ratio	2.7
	5.Equity ratio	2.0
	6.Liabilities/ Assets	1.3
	7.Long Term debt/equity	0
3. Profitability (7.4%)	1.Return on equities (ROE)	21.7
	2.EBITDA/ Revenue	15.0
	3.Gross profit margin	7.3
	4.Total expenses/revenue	7.0
	5.Return on assets (ROA)	5.3
	6.Net profit margin	5.0
	7.Pre-tax profit margin	4.0
	8.Return on sales	0.7
	9.Sales turnover	0.3
4. Liquidity (0.9%)	1.Current ratio	3.0
	2.Inventory turnover	1.0
	3.Quick ratio	0.7
	4.Days to sell inventory	0.7
	5.Accounts receivable turnover	0.3
	6.Collection period	0.3
	7.Payment period	0
5. Cash Flow (0.2%)	1.Operation index	1.0
	2.Cash flow adequacy	0.3
	3.Cash flow ratio	0.3
	4.Repayment long term borrowings	0
	5.Dividend payment	0
	6.Reinvestment	0
	7.Debt coverage	0
	8.Cash flow to revenue	0
	9.Cash flow return on assets	0
Overall EFRD		**5.3**

Univariate tests have been conducted to examine the relationship between EFRD and several categorical variables. According to Table 3, the findings indicate that the EFRD is significantly different between profit (with mean of 7%) and loss (with mean of 1.2%) firms. This result implies that profit making firms communicate more financial ratio in their annual reports as compared to the loss firms. In addition, the t-test analysis also confirms that firms audited by Big 4 audit firms (KPMG Peat Marwick, Ernst & Young, Deloitte & Touche and PriceWaterhouse Coopers) report more extensive financial ratio information compared with non-Big4 clients.

Table 3: T-test EFRD with Profit/ Loss Firms and Audit Firm Type

	N	Mean (%)	EFRD Mean Difference (%)	t-stats	Sig.
Profit/Loss firms					
Loss	88	1.2	-5.8	-12.657	0.000*
Profit	212	7.0			
Audit firm type					
Non-big4	108	2.4	-4.5	-8.473	0.000*
Big4	192	6.9			

Legend: *,**,*** Highly significant at the 0.01 level, Significant at the 0.05 level, Moderately significant at the 0.1 level respectively (2-tailed); EFRD is Extent of financial ratio disclosure; Big4 audit firms are KPMG Peat Marwick, Ernst & Young, Deloitte & Touche and PriceWaterhouse Coopers; Non-big4 audit firms are all others

An ANOVA test is carried out to ascertain the association between EFRD and industry sectors. As shown in Table 4, Resources sector communicates the least EFRD (mean of 3.1%), while Manufacturing, Services and Financials sectors provide almost double EFRD than Resources. A further Tukey HSD test confirms Resources sectors reports significantly lower EFRD than Services and Financial firms.

Table 4: ANOVA EFRD with Four Industry Categories

		EFRD		
	N	**Mean (%)**	**F**	**Sig.**
Industry			6.706	0.000*
Resources	75	3.1		
Manufacturing	75	5.1		
Services	75	6.1		
Financials	75	6.9		

Legend: *,**,*** Highly significant at the 0.01 level, Significant at the 0.05 level, Moderately significant at the 0.1 level respectively (2-tailed); EFRD is Extent of financial ratio disclosure; Industry4 are the four major categories of industry (Tower *et al.*, 1999) namely Resources, Manufacturing, Services and Financials.

Table 5 displays the correlation matrix between EFRD and predictors variables. EFRD appears to be not associated with ownership concentration. However, several control variables such as firm size, industry, profit/loss firms and type of auditors are related to EFRD for both Pearson and Spearman correlations. As the correlation coefficients between the variables is below critical limit of 0.80 (Hair *et al.* 2006), the multicolinearity is not a concern of this study.

Table 5: Correlations between dependent, independent and control variables

	EFRD	OC	FSIZE	NAF	IND	PLF	AUDTYPE
EFRD	1	-.003	.625*	-.035	.246*	.477*	.387*
OC	.011	1	.088	.129**	.027	.184*	.082
FSIZE	.635*	.132**	1	.175*	.21**	.52**	.49**
NAF	.066	.127**	.230*	1	-.011	.091	.21**
IND	.261*	.021	.190*	-.008	1	.36**	.019
PLF	.554*	.186*	.555*	.121**	.360*	1	.27**
AUDTYPE	.397*	.087	.518*	.224*	.019	.279*	1

Legend: *, **, *** Correlation is highly significant at the 0.01 level, significant at the 0.05 level, moderately significant at the 0.1 level respectively (2-tailed); EFRD= Extent of Financial Ratio Disclosure; OC= Ownership Concentration; FSIZE= Firm Size; NAF= Non audit fees, IND= Industry; PLF= Profit/ Loss Firms, AUDTYPE= Big4nonBig4

Table 6 presents the multiple regressions finding for the dependent variable (EFRD) and the possible predictor variables. The result reveals that the model is statistically significant (1%) with F-value of 42.083. The adjusted R^2 is 0.452, indicating that 45.2% of the variation in the EFRD can be explained by the model.

Table 6: Multiple Regression Results for EFRD

		EFRD	
Adjusted R square		0.452	
Observations		300	
F Statistics		42.083	
Significance		0.000*	
Variables	Coefficients	t-stat	P-value
Intercept	-0.161	-6.974	0.000*
OC	-0.024	-1.665	0.095***
FSIZE	0.011	8.451	0.000*
NAF	-0.036	-3.472	0.001*
PLF	0.023	3.555	0.000*
IND	0.04	1.535	0.126
AUDTYPE	0.016	2.665	0.008**

Legend: *,**,*** Highly significant at the 0.01 level, Significant at the 0.05 level, Moderately significant at the 0.1 level respectively; 1-tailed and 2-tailed test is used for directional and non-directional association respectively; EFRD is Extent of financial ratio disclosures; OC is Ownership concentration; FSIZE is Firm size; NAF is Non-audit fees; PLF is Profit/ loss firm; IND is Industry; AUDTYPE is type of auditor (Big4-NonBig4).

The regression result confirms that ownership concentration has a moderate and significant (p-value < 10%) association with EFRD as expected. It seems that companies with more dispersed shareholding communicate more financial ratio in the annual reports. Thus, H_1 is supported. This result is consistent with Mitchell (2006). In addition, several control variables also contribute valuable insights on the reporting policy of financial ratio. Firm size, auditors' independence (measures as NAF) and profit/loss firms are highly significant (p-value < 1%) predictors in determining the level of FRDs. The results indicate that profitable and larger firms; with more independent auditors disclose more financial ratio information. Lastly, the type of auditor (Big4 versus Non-Big4) also significantly influences the firms' decision to

report financial ratio. Consistent with univariate tests, Big4 clients present more financial ratios than their counterparts in the annual reports. However, this study fails to provide evidence to impact of industry sectors on the EFRD.

5.0 DISCUSSIONS AND CONCLUSIONS

This study provides a cross sectional evaluation of the extent of financial ratio disclosures (EFRD) within the 2007 annual reports of 300 Australian listed firms. The examination of EFRD and its five key sub-categories is based on the 43-items disclosure checklist. The findings show the level of EFRD is low in absolute figure. On average, companies only communicate 5.3% of the 43 financial ratios examined in this study. Possible reasons explaining this situation is that management of the company may feel that the financial ratio is not a critical issue to be addressed in the annual reports. On the other hand, financial ratio could be easily calculated by anybody with some basic knowledge. Thus, provision of financial ratios in the annual reports might do not add values to the readers. Further, financial analyst also could provide the financial ratios that relevant and important to potential investors. Again, the communication of this information in the annual reports seems less important. As suggested by Raja Ahmad (2009), possible reasons for non-communication of corporate philanthropic donations include: no giving, materiality, strategic motive, charitable exhaustion, fear of shareholders anger, hiding pet charities, expectation gap, cost benefit, no mandatory requirement and absence of clear reporting guideline.

The findings also suggest that *Share Market Measure*, *Capital Structure* and *Profitability* sub-categories are the most popular categories of ratio communicated in the annual reports. *Share Market Measure* sub-category consists of eleven ratios that related to the share market

environment generally. Most of the ratios under this category utilised share market information such share price and number of shares issued. On the other hand, *Capital Structure* sub-category consists of eight ratios, which dealing with sources of capital such as debt and equity of the firms. *Profitability* sub-category represents the ratios that measure the level of profitability of the firms. It focuses on the revenues and profit level and nine ratios are included in this sub-category.

One possible reason for the situation is that these categories are directly related to the stakeholders such as shareholders and future investors (Watson *et al.* 2002; Mitchell 2006). These categories of ratios portray the performance of the firm and how efficient the firm's managing their sources of capital. These are among important and useful elements in making investment and evaluation decisions. Another reason is that these ratios have been ranked as important ratios, either by the users or the preparers in the previous studies. From the users' point of view, Al-Ajmi (2008) surveys the perceptions of credit and financial analysts of the usefulness financial ratios. Both credit analysts and financial analysts rank cash flow based ratios lower than non-cash-based ratios. It appears that investors consider the information in the cash flow statement as less important in comparison with the balance sheet and the income statement.

In addition, Whittred and Zimmer (1986) and Cotter (1998) note that leverage and interest cover are the most commonly used covenants in public and private debt contracts. Hence, maintaining these ratios are important in ensuring companies continuously having sufficient funds. By providing these financial ratios in the annual reports, it appears that company believe that these ratios are important to be communicated to the shareholders. Overall, it can

be concluded that the level of financial ratio in Australian annual reports is consider low. The level of disclosure also varies among individual ratio, and similar patterns also observed among the five key sub-categories of financial ratio. The findings are consistent with the previous studies and several possible reasons leading to this situation are identified.

Ownership concentration is a possible variable tested in this study to examine the level of EFRD. The statistical results reveal that there is a negative and moderate association between the ownership concentration and the EFRD. It appears that voluntary disclosure of financial ratios mitigates the agency problems when the company has dispersed shareholding. This results is consistent with prior study like McKinnon and Dalimunthe (1993) in Australia, Hossain, Tan, and Adams (1994) in Malaysia, Lakhal (2005) in France and Oliveira, Rodrigues, and Craig (2006) in Portugal.

In addition, ASX (2006) notes Australian shareholders owning more overseas shares, increasing the number of companies held in a portfolio, having more mixture of large and small companies in their portfolio and increasing the number of shares bought and sold in 2006 as compared to previous years. Having actively involved in share market possibly motivates them seeking important and relevant information such as financial ratios in making informed investment decisions.

As a control variable, firm size is found positively and significantly correlated with EFRD. In regression analysis, firm size also has positive and significant association with EFRD. There are several possible reasons contributing to this result. Higher political visibility as argued by agency theory is one of possible reason by bigger companies provide more financial ratios in

their annual reports. In addition, bigger firms appear to have higher agency cost, and by providing free financial ratios in their annual reports possibly could lower the agency problems. Other possible reason is that bigger firm normally have better disclosure practices because they have lower cost accumulating information and they realised the benefit they could gain if providing relevant information like financial ratios to the readers. Bigger firms also provide more financial ratios because they need greater financing. By providing the relevant information, possibly they could attract the potential investors. This result is consistent with previous studies such as Ho and Wong (2001), Watson *et al.* (2002), Gul and Leung (2004), Wallace *et al.* (1994), Hossain *et al.* (1994) and Singhvi and Desai (1971).

The next control variable utilised is non-audit fees (NAF), which represents the total of non-audit fees to the total of audit fees. This variable measures the independence of company's auditor while providing audit services and non-audit services at the same time. Both regression results indicate that the more independent the auditor, the more financial ratios with higher quality provided in the annual reports. One possible reason leading to this situation is that more independent auditors possibly would advice firms to provide more and better quality of financial ratios because they are aware the benefits and usefulness of the tool.

Another audit-related variable tested is auditor type (AUDTYPE), classified as Big4 and non-Big4 audit firms. Both univariate and multivariate tests reveal that companies audited by Big4 audit firms provide more financial ratios. One possible reason is that Big4 audit firms is providing quality services in providing advice and suggestions to their clients in term of providing relevant and important information to stakeholders.

Profit/ loss firms (PLF) classified companies into profit making or loss firms for the year. The results show that this variable is a significant predictor for both univariate and multivariate analysis for EFRD. It appears that profit firms provide more financial ratios in their annual reports. One possible reason is that they wanted to show that they are performed well, and trying to attract potential investors in order to gain additional capital. Profit firms also could be associated with political visibility as suggested by agency theory. The result is consistent with pervious study conducted by Labelle (2002) who argues that firms with good performance are more likely to invest in quality disclosure. This is because profit making firms are better placed to invest in governance practices that can be subsequently be disclosed.

The final control variable included in this study is industry (IND) category. The sample companies are classified into four major industry category including Resources, Manufacturing, Services and Financials. However, only univariate tests provide significant differences between industries in determining EFRD. The analysis shows that Financials and Services sectors are providing more financial ratios as compared to Resources sector. In contrast, Collett and Hrasky (2005) examine the relationship between a firm's decision to make voluntary corporate disclosures and industry classification. They find that resource industry firms are significantly more likely to disclose corporate governance information than others.

To conclude, the findings of this study suggest the level of financial ratio disclosures in the Australian annual reports as low, with some exception for *Share Market Measures*, *Capital Structure* and *Profitability* sub-categories. The communication of 19%, 56% and 25% of the

43 listed ratios are considered 'satisfactory', 'moderate' and 'silent' respectively. The univariate tests demonstrate that profitable firms, audited by Big4 audit firms and firms attached to Financials industry communicate more financial ratios. Regression result indicates that more dispersed shareholding firms significantly linked to the EFRD. Profitable and bigger firms audited by independent and Big4 audit firms also found associated with the decision to report more extant of financial ratios.

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