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## **Disclosure of Voluntary Accounting Ratios by Malaysian Listed Companies**

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### **Abstract**

*Accounting ratios are believed to be of fundamental importance in financial analysis, and therefore are useful addition to financial reports. This paper examines the reporting of voluntary accounting ratio by Malaysian companies in corporate annual reports. Drawing on agency and signaling theories, this paper explores whether associations exist between company performance and voluntary disclosure of accounting ratios. In particular, associations are tested between the extent of ratio disclosure and company performance (namely profitability, liquidity, leverage, and company efficiency), size and industry. Six hypotheses are tested using data collected from 2003 annual reports of 100 Malaysian listed companies. This paper provides evidence that the extent of voluntary ratio disclosure is low; and size, industry as well as liquidity significantly influence the reporting of ratios in corporate annual reports. The implications of these findings are discussed.*

**Keywords:** Accounting ratios, disclosure, financial report, Malaysia

## INTRODUCTION

In line with the increasing sophistication of business operations, voluntary disclosure in corporate annual reports is becoming more important to the business community in making decisions. Voluntary disclosure serves many roles to users of financial reports. According to Stanga (1976), good disclosures, among others will foster a healthy relationship between a company and professional analysts; tend to lessen fluctuations in security prices, and help to eliminate insider profit and the related legal problems. Many companies nowadays voluntarily disclose information for different reasons. Some contended that firms provide voluntary disclosures in an effort to distinguish their products from those of their competitors (see Tariq 2001), while others argued that companies voluntarily disclose accounting information to raise additional capital (Craven and Marston 1999). In Malaysia, disclosure of voluntary information in the annual reports is encouraged by the Malaysian Accounting Standards Board (MASB). MASB 1(Presentation of Financial Statements) encourages the inclusion of financial review and additional information in annual accounts. The standard states that (MASB 1, Para 9):

“Enterprises are encouraged to present, outside the financial statements, a financial review by management which describes and explains the main features of the enterprise’s financial performance and financial position.....”

One of the significant voluntary items disclosed in an annual report is non-mandatory accounting ratios. Accounting ratios are widely used for many purposes. Generally, they are used to assess the ability of a firm to pay it debts, and to evaluate a business and its managerial success. According to Thomas and Evanson (1987), the information from ratio analysis, especially in the form of trend analysis, can be used to forecast the efficiency and profitability of a company as well as to determine their financial position,

and possibly, to avoid business failures. Whittington (1980) classified accounting ratios into normative and positive uses. From the normative point of view, a firm's accounting ratio is typically compared with its standard (usually the industry's benchmark) while under the positive accounting theory, an accounting ratio is used in estimating empirical relationships (usually for predictive purposes). Although ratios can be a powerful tool in analysing companies, they must be used with discretion and caution, particularly in making comparison among companies and across countries. This is due to the difference in accounting methods and estimates made by companies as well as the existence of non-recurring items. The use of different definitions of a particular ratio by different companies may also affect ratio analysis. Therefore, to be able to act as a useful tool in assessing and comparing company performances, and not to mislead users, standardization of guidelines is important.

As far as disclosure is concerned, Gibson and Boyer (1980) argued that a lack of authoritative standardized guidelines would result in companies presenting ratios that are most favourable to their position. In Malaysia, presently, there is no regulatory body that is responsible for outlining either the contents of statistical ratios or the format of its presentation. Due to the lack of guidelines, a study conducted by Mokhtar, Mustafa and Muhd Kamil (2004) reported that some Malaysian companies present comprehensive ratio statistics while others do not. The study also shows that there are differences in the choice of ratios for presentation and methods of computation. In addition, Mokhtar et al. (2004) examined if the reporting of ratios is influenced by firm size, leverage, asset-in-place, type of auditors and industry sector.

Drawing on agency and signalling theories, it is argued that the reporting of voluntary ratio disclosure is associated with the performance of a company. Companies with good performance are likely to disclose more information to signal their good quality to investors, and accounting ratios can be one form of voluntary disclosure. Since no studies have been conducted in Malaysia to examine the influence of performance on ratio disclosure, this study attempts to fill the missing gap. The current study is based on a study by Watson, Shrives and Marston (2002) in the UK. Essentially, this study extends the work of Mokhtar et al. (2004), examines particularly the influence of company performance on ratio disclosure. Mokhtar et al. (2004) observed if company specific variables (namely firm size, leverage asset-in-place type of auditors and sectors of the company) influence ratio disclosure. However, this study takes a step further by examining if performance measures (profitably, leverage, liquidity and efficiency) have any association with voluntary ratio disclosure. The association of selected control variables (company size and industry) on the extent of ratio disclosure is also examined.

The objectives of this study are summarised below:

1. To examine the extent of voluntary accounting ratio disclosure in corporate annual reports of Malaysian listed companies.
2. To examine whether there is any association between voluntary ratio disclosure and company performance (profitability, leverage, liquidity and efficiency), size and industry.

Considering the objectives above, this paper is organized as follows. In the next section, this paper will review previous literature relevant to this study. Following that there will be a section discussing the hypothesis development and research methodology. Next, the results will be presented and discussed, followed by a conclusion.

## LITERATURE REVIEW

Accounting ratios are important tools in financial analysis. Ratios are used mainly to assess the ability of a firm to pay its debts, to assess firm performance and managerial success, and to value a company. In ratio analysis, Palepu, Healy and Bernard (2003) stated that an analyst may compare ratios of a particular firm over several years; compare ratios of two or more firms in the same industry or compare ratios to some absolute benchmark. In company valuation for example, past and present financial ratios are used to forecast the performance of a company. Barnes (1987) argued that accounting ratios are almost always used predictively and he classified them into:

1. Ratios used by accountants and analysts to forecast future financial variables, e.g. estimated future profits by multiplying predicted sales by the profit margin, and
2. Ratios used by researchers in statistical model mainly for predictive purposes such as corporate failures, credit ratings, the assessments of risks and the testing of economic hypotheses in which inputs are financial ratios.

Recognizing that some of the users of accounting ratios are interested in predicting business failures, a substantial number of studies have been conducted to gather evidence that accounting ratios are useful in predicting business failures (see Beaver 1966; Altman 1968). In addition, there are also studies aimed to extend the evidence relating to the usefulness of accounting ratios and their ability to provide information to assist the decision making process (see Houghton and Woodliff 1987; Thomas and Evanson 1987; Lewellen 2004). Even though ratios are known to be useful, companies do not normally disclose them voluntarily in the annual reports (see Gibson 1982, Watson et al. 2002, and Mokhtar et al. 2004). Most of the time, analysts and other users of financial information would calculate the ratios on their own.

Although there have been considerable efforts to include accounting ratios (among other items) in measuring the extent of voluntary disclosure in annual reports (see Cooke 1989b; Raffournier 1995; Chau and Gray 2002; Agca and Onder 2007 and Hossain and Taylor 2007), only a handful of them particularly addressed the issue of ratio disclosure. In the US, Gibson (1982) revealed that ratios were only disclosed in the management discussion sections of the annual reports, and a majority of companies disclosed only one ratio, which is the dividend per share. This indicates that not much effort was made by firms to explain their financial results by disclosing financial ratios in the annual reports. Gibson (1982) urged companies to do a more effective job by using financial ratios to explain issues such as liquidity, leverage and profitability. Gibson argued that the lack of ratio disclosure would place outsiders in a great disadvantageous position when analysing financial results because several financial ratios considered important, were not disclosed.

In another study, Williamson (1984) found that three of the eleven selected ratios (i.e. return on equity, current ratio, and return on sales) were more likely to be disclosed by firms. He also noted that firms selectively report those ratios that are above the means of the industry. Surveying companies in Sweden, Cooke (1989a) found that liquidity ratios were reported in relatively few cases, whereas a large number of companies disclosed returns on capital employed and returns on shareholders' equity. In addition to the above studies, Watson et al. (2002) investigated voluntary disclosure of ratios in corporate reports of companies in the UK. They provided evidence of the association between ratio disclosure and company performance, size and industry. They also found that while most companies disclose ratios, the practice of ratio disclosure varied widely,

with different companies disclosing different ratios and calculating them in different ways. Thus, they suggested a standardisation of practice to enable users to forecast financial performances of companies with greater ease.

In Malaysia, a study conducted by Mokhtar et al. (2004) on financial ratio disclosure (both mandatory and voluntary) shows that there are variations in the extent of disclosure by Malaysian listed companies. The study revealed that the most frequently reported ratio was earnings per share (EPS), followed by dividends per share and net tangible assets per share. Since EPS and dividends per share are mandatory ratios, the findings are expected. Mokhtar et al. (2004) argued that the level of voluntary disclosure of financial ratios was still low. In addition, they concluded that firm size is significantly and positively associated with the extent of financial ratios disclosed in the annual reports. Although the motivation for disclosure can be explained by various theories (Ahmed and Courtis 1999), for the purpose of this study, reference will be made to agency and signaling theories. Agency theory suggests that where there is a separation of ownership and control of a firm. The potential for agency costs exists because of the conflict of interest between the principal and the agents. Jensen and Meckling (1976) argued that agency costs are borne by managers and therefore, managers may be motivated to provide voluntary information to reduce such costs. The theory predicts that agency costs will vary with different corporate characteristics such as size, performance and listing status of a company.

The motivation for firms to voluntarily disclose accounting ratios can also be explained by signaling theory. As companies disclose ratio to signal their reporting quality, then it would be expected that certain company attributes would be associated with



disclosure. Thus, in explaining the relationship between ratio disclosure and company performance, signaling theory can be referred to.

## **HYPOTHESIS DEVELOPMENT**

This study proposes to test the association between voluntary ratio disclosure and company performance, size and industry. Four measures of performance are adopted, namely profitability, leverage, liquidity and efficiency. The discussion on how the hypotheses are developed follows.

### **Company profitability**

Advocated by agency and signaling theory, previous studies have established that there is a positive relationship between profitability and disclosure. Such a relationship exists because companies are motivated to signal to investors that their performance is sound (e.g. Ahmed and Courtis 1999). Besides, it has been posited that managers of very profitable firms will disclose detailed information in order to support the continuance of their positions and compensation arrangements (Inchausti 1997). It is also argued that management with good news is likely to disclose more information than management with bad news (Naser 1998). Based on the above argument, it would appear that a positive association might exist between profitability and the extent of ratio disclosure.

Nevertheless, previous studies have provided mixed results on the association between profitability and disclosure in corporate annual reports. Significant positive relationship could be found, for example in the works of Singhvi and Desai (1971), Beattie and Jones (1992), Wallace, Naser and Mora (1994). However, Inchausti (1997) has found

no relationship between disclosure and profitability on the study of Spanish companies.

On the other hand, some studies reported a negative association between disclosure and profitability (e.g Belkoui and Kahl 1978; Wallace and Naser 1995). Based on agency and signaling theories, this study hypothesises that the extent of voluntary disclosure of ratios is positively associated with the profitability of a company. The null hypothesis to be tested is:

**H<sub>1</sub>:** *There is no significant association between the extent of voluntary accounting ratio disclosure and company profitability.*

Based on the works of previous researchers (e.g. Singhvi and Desai 1971; Beattie and Jones 1992; Watson et al. 2002), this study measures profitability by calculating operating profit margin (ratio of net income to sales).

### **Leverage**

Leverage describes a company's financial structure and measures the long-term risks of a company. From the perspective of agency theory, it is suggested that there is a positive relationship between leverage and disclosure. As debt contract and monitoring incur cost in order to confine management behaviour, managers tend to reduce such cost by disclosing relevant information voluntarily and publishing them in their financial statements (Jensen and Meckling 1976). Nevertheless, if leverage of a firm reaches a very high level, disclosure may be less likely. This may be due to management fear of unfavourable forecasts and pressure from lenders because of the increasing risk (Watson et al. 2002). Likewise, signaling theory may suggest a possible relationship between leverage and disclosure, even though the direction of relationship is inconclusive. Ross (1977) argued that an increase in financial leverage would send a

positive signal because it denotes an expression of confidence by managers of a firm's future. On the other hand, Myers and Majluf (1984) argued that an unexpected increase in leverage would send a negative signal. They claim that this signals to the investor a smaller than expected cash flow.

The foregoing discussion implies that both agency and signaling theories are inconclusive as to the direction of association between leverage and disclosure. Likewise, findings on the association between leverage and disclosure showed mixed results. A study conducted by Belkoui and Kahl (1978) for example showed a negative relationship between financial leverage and disclosure. Meanwhile, Chow and Wong Boren (1987) found that leverage could not explain the extent of voluntary disclosure. However, some studies found a positive and significant impact of leverage on voluntary disclosure (e.g. Hossain, Tan and Adams 1994; Raffournier 1995; Ahmed and Courtis 1999). Accordingly, the second hypothesis to be tested, stated in its null form is:

**H<sub>2</sub>:** *There is no significant association between the extent of voluntary accounting ratio disclosure and leverage of a company.*

This study adopts the commonly used measure of leverage that is the ratio of debt to equity (see, for example, Wallace et al. 1994; Chow and Wong Boren 1987).

### **Liquidity**

Liquidity ratios are used to examine the ability of a company to meet its short-term financial obligations. These ratios are especially used to predict failure and bankruptcy (e.g. Beaver 1966; Altman 1968; Barnes 1987). A higher ratio will indicate a better position for the company to meet its short-term financial obligations. Signaling theory

suggests that a positive relationship may exist between voluntary ratio disclosure and liquidity. It is argued that companies in a secured financial position will wish to signal to investors about their position. On the contrary, agency theory predicts that the higher the agency costs, the lower the liquidity will be. This is because low liquidity is associated with high debt in a company's capital structure. Thus, the higher the liquidity is, the less the disclosure will be.

Findings of previous studies on the association between liquidity and disclosure are so far inconsistent. A positive relationship was found by Belkaoui and Kahl (1978); however, the results were insignificant. Conversely, a negative relationship between liquidity and disclosure was found by Wallace et al. (1994). They suggested that firms whose liquidity is low may increase their disclosure in order to provide greater details of their weak performance as part of their accountability to annual report users. Based on the foregoing discussion, the third hypothesis, stated in its null form is:

**H<sub>3</sub>:** *There is no significant association between the extent of voluntary accounting ratio disclosure and company liquidity.*

Consistent with most studies (e.g. Belkaoui and Kahl 1978; Wallace et al. 1994), this study measures liquidity by the ratio of current assets to current liabilities.

### **Efficiency**

Greater efficiency will often lead to better performance and growth. Efficiency indicates how effective the management of a company is in utilizing the assets at its disposal. Thus, consistent with signaling theory where managers are expected to signal their quality, it is argued that a company that is highly efficient is more likely to disclose

more information to highlight good news than those that are less efficient. Thus, a positive relationship between company efficiency and the extent of ratio disclosure is expected. Based on the above discussion, this study hypothesises that there is a positive relationship between the efficiency of a company and ratio disclosures. The hypothesis to be tested is:

**H<sub>4</sub>:** *There is no significant association between the extent of voluntary accounting ratio disclosure and company efficiency.*

Efficiency can be measured in different ways. For example, Watson et al. (2002) in their study on voluntary ratio disclosures in UK measured efficiency by using sales per employee. This study assumes that efficiency is associated with the growth of the company. Based on the work of Ku-Ismail (2003), this study measures efficiency by calculating the percentage change of net sales from that of the previous year.

### **Size of a company**

Numerous studies found that size has a positive relationship with the extent of voluntary disclosures (e.g. Singhvi and Desai 1971; Buzby 1975; Cooke 1989b). Several reasons have been argued to support the relationship between company size and the level of voluntary disclosures. In terms of propriety cost, small companies may involve higher cost for disclosing voluntary information compared to larger companies. It is also argued that companies that are more closely watched by the government may improve their reporting due to the pressure from the government agencies (Buzby, 1975). Thus, large firms that face greater public scrutiny will disclose more in an attempt to reduce agency costs.

Studies on voluntary disclosures show that there is a positive association between company size and voluntary disclosure. Such studies include Singhvi and Desai (1971), Chow and Wong Boren (1987), Cooke (1989b) and Mokhtar et al. (2004). Based on previous findings and agency theory, this study hypothesises that there is a positive relationship between company size and the extent of ratio disclosure. The hypothesis to be tested is:

**H<sub>5</sub>:** *There is no significant association between company size and the level of ratio disclosure.*

This study measures size by the total market capitalization of the company in which it has been employed in many studies (e.g. Naser 1998; Mokhtar et al. 2004).

## **Industry**

Industry classification is also chosen as one of the variables in this study. Companies in industries that are highly regulated are argued to have high motivation to disclose information in order to reduce agency cost of complying with legislation. From the perspective of signaling theory, such relationship may also be observed. It is argued that companies may wish to show they are complying with the industry's best practice by disclosing certain ratios. Several studies appear to support this argument. For example, Wallace et al. (1994) suggest that an industry influences the disclosure culture of a company. In addition, Stanga (1976) states that when formulating their disclosure, companies may "follow the leader" instead of trying to satisfy users' informational needs. This is because if one company in an industry discloses information upon receiving it, investors will assume that other companies in the same industry will also receive the information. Investors will make inferences from non-disclosure, thus inducing others to disclose the information. Thus, from signaling theory perspective, non-disclosure may be viewed as a signal of 'bad' news.

Evidence from previous studies shows that the association between industry and disclosure varies. For example, Cooke (1991) in his study of Japanese corporations found that manufacturing companies disclose a significantly higher level of voluntary disclosure in their corporate reports than other companies. Likewise, Raffournier (1995) in his study of Swiss companies found that manufacturing companies disclosed more than other companies.

In the UK, Watson et al. (2002) found that industry is an important predictor of ratio disclosure. Particularly, companies in the media and utilities industries provide greater disclosure. However, in Malaysia a study conducted by Mokhtar et al. (2004) found no relationship between the industry and financial ratio disclosure. Although the evidence is inconclusive, this study attempts to examine if such association exists. The null hypothesis to be tested is:

**H<sub>0</sub>:** *There is no significant between the type of industry and the extent of voluntary accounting ratio disclosure.*

## **RESEARCH METHODS**

### **Sampling and data collection**

Since previous studies show that size of a company is associated with high disclosure, it is felt that ratio disclosure are more likely to be found in annual reports of large companies. Therefore, companies listed on the Main Board of Bursa Malaysia are selected for the survey. A sample of 100 companies is selected from a list of top companies in 2003 (according to market capitalization and by sectors). The sample size is assumed sufficient because it satisfies the rule of thumb proposed by Roscoe (1975) who suggested that a sample size larger than 30 companies and less than 500 is

appropriate for most studies. Twenty top companies according to market capitalization are selected from each of the five selected sectors, which are manufacturing<sup>1</sup>, properties, construction, plantation and others<sup>2</sup>. This study excludes companies that are classified under the finance sector due to additional reporting regulations imposed on them.

Subsequently, the companies' annual reports are examined for the reporting of voluntary accounting ratios. Each individual ratio reported is recorded and classified into five categories, which are investment, profit, leverage, liquidity and efficiency ratios. Mandatory accounting ratios that are to be disclosed according to the accounting standards are ignored. In Malaysia, the MASB requires the disclosure of earnings per share and dividends per share; thus, these ratios are excluded from the analysis. In order to construct the disclosure index, first, each company is given a score based on the number of ratios disclosed. A score of 1 is given for each ratio disclosed. A disclosure index is calculated by dividing the total number of accounting ratios disclosed by the maximum score obtained by a company in the sample.

### **Model specification and measurement of independent variables**

An ordinary least square (OLS) regression test is conducted in order to test the hypotheses. The model is represented by the following equation:

$$\text{VARI} = \alpha_0 + \beta_1 \text{PRO} + \beta_2 \text{LIQ} + \beta_3 \text{LEV} + \beta_4 \text{EFF} + \beta_5 \text{SIZE} + \beta_6 \text{MAN} + \beta_7 \text{PROP} + \beta_8 \text{CON} + \beta_9 \text{PLNT} + \varepsilon$$

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<sup>1</sup> Companies that are included in the manufacturing industry are those listed under the consumer and industrial products sectors.

<sup>2</sup> Companies listed under IPC, technology, hotel, mining and trading & services sectors are categorised as others.



Where,

VARI	= Voluntary Accounting Ratio Disclosure index of company <i>i</i>
PRO	= Profitability of the company, measured using operating profit margin
LIQ	= Liquidity of the company, measured by ratio of Current Asset to Current Liabilities
LEV	= Leverage of the company, measured by ratio of total debt to equity capital
EFF	= Efficiency of the company, will be measured by % change in sales the previous year
SIZE	= Size of the company, measured by Market capitalization.
MAN	= Dummy variable taking the value 1 for the Manufacturing Sector and 0 otherwise
PROP	= Dummy variable taking the value 1 for the Properties Sector and 0 otherwise
CON	= Dummy variable taking the value 1 for the Construction Sector and 0 otherwise
PLNT	= Dummy variable taking the value 1 for the Plantation Sector and 0 otherwise
$\varepsilon$	= Error term

In order to reduce the errors of the distribution and the potential effect of size, market capitalization is transformed into its natural log (see Ahmed and Nicholls 1994; Wallace and Naser 1995).

## **RESULTS AND DISCUSSION**

Upon reviewing the 2003 annual reports of sampled companies in Bursa Malaysia, it was found that 86 out of 100 companies voluntarily disclosed accounting ratios. The overall distribution of accounting ratio disclosure is indicated in Table 1. The number of ratios ranks from zero to 14 with a mean of 3.53. In term of disclosure index the mean is 0.252. This shows that on average companies disclose between 3 to 4 types of ratios, which is considerably low. Subsequently, the finding is consistent with that of Mokhtar et al. (2004) who showed that a majority of companies disclosed between 2 to 4 ratios.

**Table 1**  
Frequency of companies disclosing voluntary accounting ratios

No of accounting ratios disclosure	Disclosure Index (VARI)	Frequency	Percentage
NOT DISCLOSED	0.00	14	14%
1	0.07	15	15%
2	0.14	16	16%
3	0.21	17	17%
4	0.29	10	10%
5	0.36	9	9%
6	0.43	4	4%
7	0.50	5	5%
8	0.57	2	2%
9	0.64	1	1%
10	0.71	1	1%
11	0.79	1	1%
12	0.86	2	2%
13	0.93	1	1%
14	1	2	2%
	<b>Total</b>	100	100%
<b>Mean</b>	<b>0.252</b>	<b>3.53</b>	

Table 1 also indicates that 14 companies did not voluntarily disclose accounting ratios and only 2 companies voluntarily disclosed 14 ratios. Comparing the results with that of Mokhtar et al. (2004), there was only a slight improvement in the results. Mokhtar et al. (2004) found that only 1 company out of 180 companies disclosed 14 ratios in their 2001 annual reports. However, if the results are compared with those of other studies (such as by Watson et al. 2002 and Gibson 1982), it is observed that, Malaysian listed companies selectively employed and reported different types of ratios to express important financial information in the corporate annual reports. The fact that there are no standards and guidelines that promote and assist the reporting of ratios may explain the phenomenon.

From the summary depicted in Table 2, it is observed that investment ratios are the most common types of ratio disclosure, followed by profitability and efficiency ratios. The least frequent ratios are those related to liquidity of a company. Investment ratios

are common because such information is obviously of direct interest and relevant to shareholders (see Watson et al. 2002). Upon observing the individual ratios, it is observed that the most frequently disclosed ratio is net tangible assets per share. The finding is consistent with that of Mokhtar et al. (2004) who found that net tangible assets per share is the most frequently disclosed voluntary ratio. Table 2 also shows the number of ratios being disclosed with respect to each ratio component. A majority of companies disclosed only one ratio within each of the components.

**Table 2**  
Distribution of ratio disclosure by type of ratio

Number of ratios disclosed	TYPES OF RATIOS DISCLOSED				
	<i>Investment</i>	<i>Profitability</i>	<i>Leverage</i>	<i>Liquidity</i>	<i>Efficiency</i>
Disclosed 1 ratio	49	27	22	8	39
Disclosed 2 ratios	15	16	5	2	8
Disclosed 3 ratios	9	6	1	-	1
Disclosed 4 ratios	5	3	-	-	4
Disclosed 5 ratios	-	2	-	-	-
Disclosed 6 ratios	-	1	-	-	-
<b>Total</b>	<b>78</b>	<b>55</b>	<b>28</b>	<b>10</b>	<b>52</b>

#### **Association between the extent of ratio disclosure and explanatory variables**

In examining the association between voluntary ratio disclosure and selected explanatory variables, the dependent variable is represented by the disclosure index (represented by VARI in the equation). It is observed from Table 3 that the score ranges between 0 and 1, with a mean score of 0.252. This score is considered low, and since the disclosure items are all voluntary in nature, it is not surprising that the mean score is far from 1. Table 3 also presents the descriptive statistics of the continuous independent variables.

**Table 3**  
Descriptive statistics of the dependent variables and explanatory variables

	VARI	PRO	LIQ	LEV	EFF	SIZE
Mean	0.252	-148.333	3.186	68.639	0.190	14.077
Median	0.214	11.360	1.905	35.415	0.159	14.077
Std. Deviation	0.231	1621.849	5.095	112.262	0.272	1.246
Minimum	0.000	-16203.840	0.300	0.000	-0.997	11.306
Maximum	1.000	54.970	41.680	892.840	0.752	17.207

The Pearson's correlation coefficients among variables are revealed in Table 4. It is shown that the highest correlation coefficient among the independent variables is 0.442. This implies that there is no severe multicollinearity problem in the regression procedure. As cited by Ku-Ismail and Abdullah (1998), a model is said to suffer a multicollinearity problem only when the coefficient is equal to or greater than 0.9.

**Table 4**  
Pearson Correlation Coefficients among Variables

	VARI	PRO	LIQ	LEV	EFF	SIZE	MAN	PROP	CON	PLNT
VARI	1.000									
PRO	0.018	1.000								
LIQ	0.114	0.761**	1.000							
LEV	-0.088	0.059	-0.150	1.000						
EFF	0.051	0.442**	-0.238*	-0.048	1.000					
SIZE	0.368**	0.047	-0.131	0.044	0.011	1.000				
MAN	0.158	0.050	-0.121	-0.049	-0.064	0.261**	1.000			
PROP	-0.199*	0.050	-0.045	0.104	-0.243*	-0.168	-0.250*	1.000		
CON	-0.144	0.048	-0.122	0.158	0.056	0.232**	-0.250*	-0.250*	1.000	
PLNT	0.267**	0.052	0.222*	-0.210*	0.334**	-0.099	-0.250*	-0.250*	-0.250*	1.000

\*\* Significant at 0.01

\* Significant at 0.05

Table 5 reveals the summary of the regression results. The adjusted  $R^2$  and F values of .211 and 3.941, respectively, imply that the model is significant. The model can explain 21.1 percent of the variation in the extent of voluntary ratio disclosure. The results indicate that all the variables have coefficients of the expected sign except for efficiency in which the association is in the opposite direction. However, the association is not statistically significant.

**Table 5**  
Summary of the regression results

	<b>Adjusted <math>R^2 = 0.211</math></b>	<b>F= 3.941</b>	<b>Sig. =0.000</b>
	<b>Coefficients</b>	<b>t</b>	<b>P values</b>
(Constant)	-0.910	-3.275	0.002
<b>PRO</b>	0.000	1.279	0.204
<b>LIQ</b>	0.012	1.700	0.093*
<b>LEV</b>	0.000	-0.233	0.816
<b>EFF</b>	-0.075	-0.799	0.426
<b>SIZE</b>	0.076	4.112	0.000**
<b>MAN</b>	0.105	1.595	0.114
<b>PROP</b>	0.007	0.101	0.920
<b>CON</b>	0.066	0.944	0.347
<b>PLNT</b>	0.196	2.680	0.009**

\*\* Significant at 1% level

\* Significant at 10% level

Where,

PRO = Firm profitability, measured by ratio of net income to sales

LIQ = Liquidity of company, measured by ratio of current assets to current liabilities

LEV = Leverage of company, measured by ratio of total debt to equity capital

EFF = Efficiency of company, measured by percentage change from previous year's sale

SIZE = Company size, measured by the natural log of market capitalization

MAN = Dummy variable taking the value 1 for manufacturing sector, and 0 otherwise

PROP = Dummy variable taking the value 1 for properties sector, and 0 otherwise

CON = Dummy variable taking the value 1 for construction sector, and 0 otherwise

PLNT = Dummy variable taking the value 1 for plantation sector, and 0 otherwise

The results show that there is an association between the level of disclosure and firm size, liquidity and industry. The  $\beta$  is 0.076, thus indicate that the level of disclosure is positively associated with the size of a company at  $p < 0.001$ . This implies that large companies are more likely to disclose more ratios than their smaller counterparts.

Where variable PLNT is concerned, the  $\beta$  is 0.196 at 1 percent significant level ( $p < 0.01$ ), thus indicates that plantation companies disclose more ratios than those companies in other sectors. As shown in Table 5, the extent of ratio disclosure is positively associated with liquidity at a 10 percent significant level ( $p < 0.1$ ). This suggests that companies with strong liquidity tend to voluntarily disclose more accounting ratios than those with weak liquidity.

In terms of performance measures, only liquidity was found to have an association with the extent of voluntary ratio disclosure. This study provides evidence that high liquidity companies are more likely to disclose additional accounting ratios than companies with relatively low liquidity. The results support the argument that those companies in a secured financial position will wish to signal this fact to investors (Watson et al. 2002). This reason is likely to be true because liquidity has always been used to predict bankruptcy (see Beaver 1966; Altman 1968). In addition, Malaysia has just gone through a period of economic downturn. In order to gain investors' confidence, companies would be more likely to provide detailed disclosure especially those that have high liquidity ratios. With respect to size, the finding is consistent with the argument that large companies attract greater attention from the public, and thus they are likely to disclose more voluntary information. The other reason might be that large companies are in more need of funds than the small ones. Thus, in order to convince the public to invest in the company, it has to publicize more financial information at least to meet the demands of the public. The results are also consistent with many voluntary disclosure studies, which provide evidence that size has a positive association with voluntary disclosure (see Singhvi and Desai 1971; Inchausti 1997; Raffournier 1995).

One of the reasons that might explain why companies in certain industries disclose more voluntary information than companies in other industries is the extent of regulation associated with the industry. Highly regulated industries are argued to supply more voluntary information in order to meet the regulation requirements. Based on the analysis of results, the evidence provided in this study may support the argument. This is because listed Malaysian plantation companies are subject to the requirements of MASB standards to publish certain production figures in their interim reports. Since plantation companies are used to producing these interim production statistics, they would voluntarily extend the reporting in their annual reports in which ratios are one form of such disclosure. Another reason that might explain the finding is provided by Gibbins, Ricardson, and Waterhouse (1990). They suggested that the decision to make voluntary disclosure is often based on internal and external antecedent such as firm and industry norms. This means that if an industry has a history of disclosures, companies in the industry will develop and pursue such culture accordingly. The argument is supported by Cooke (1991) who argued that the industry sector is likely to affect disclosure because of historical or bandwagon reason.

## **CONCLUSION**

This study attempted to examine the extent of voluntary accounting ratio disclosures in corporate annual reports of Malaysian listed companies. Annual reports of 100 companies for the year 2003 were scrutinised. The disclosure of ratios with respect to profitability, investment, liquidity, leverage and efficiency were analysed for each company in the sample. Subsequently, this study examined the association between the extent of voluntary accounting ratio disclosure and each of the selected company's characteristics, namely performance, size and industry. Four measures of performance

were adopted in this study. They were profitability, liquidity, leverage and efficiency. With respect to the extent of voluntary accounting ratio disclosure, this study found that on average, Malaysian companies voluntarily disclose between 3 to 4 types of accounting ratios. The highest number of ratios disclosed is 14 where only two companies achieved that figure. On the other extreme, fourteen companies do not disclose any of the ratios. The finding suggests that the level of voluntary disclosure is still low. This may be due to the absence of accounting standard and guidelines on ratio disclosure. With regard to the association between disclosure and selected company characteristics, size and liquidity of a company appear to have a positive association with the level of disclosure at 1 percent and 10 percent level, respectively. Other performance variables (i.e. profitability, leverage and efficiency) do not appear to have any significant influence on the level of disclosure. As far as the industry is concerned, plantation companies appear to disclose more ratios compared to companies in other industries.

As a summary, it is observed that there is a lack of effort taken by Malaysian companies in using financial ratios to explain their financial results in their corporate annual reports. Analysts and other users of annual reports may not gain much because effective comparison could not be made due to the variation and lack of reporting among firms. In order to make the most of voluntary ratio disclosure, there should be a standardization of disclosure practice. Regulators should encourage companies to disclose more accounting ratios and at the same time standardise the reporting and method of calculating accounting ratios. This would help users of financial information compare the financial performance of companies with greater ease and confidence. However, in comparing companies within the same country as well as across countries,



ratios should be treated with caution due to the difference in accounting methods and estimates made by companies. One may argue that since countries around the globe are moving towards a standardised set of accounting standards, the problem of using ratios in comparing companies' performance may be greatly reduced, if not eliminated. On the other hand, one may believe that the convergence of global accounting standards will not solve the problem because companies are still allowed to use alternative accounting treatments in some cases, and estimates are still at their discretion. Given the conflict of opinions, the next question that should be addressed is: How useful would the published accounting ratios be to the users of financial statements in comparing firms within a country and across countries in an environment where the accounting standards are converged? Perhaps, future research on ratio disclosure could be directed towards this issue.

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