CHAPTER 4: RESEARCH RESULTS

4.1 SUMMARY STATISTICS OF FIRMS

TABLE 2A

Compliance of the 75% ruling

Independent variable	Total number of companies	Companies that complied with ruling		Companies that did not comply with ruling	
Firm size		Number	%	Number	%
Large	289	287	99.3	2	0.7
Small	102	101	99.0	1	1.0
Total	391	388	99.2	3	0.8
Financial leverage					
High	210	207	98.6	3	1.4
Low	181	181	100	0	0
Total	391	388	99.2	3	0.8
Industry membership					
Consumer products	48	47	97.9	1	2.1
Industrial products	80	79	98.8	1	1.2
Construction/ infrastructure	34	34	100	0	0
Trading & services/ technology	86	85	98.8	1	1.2
Finance	42	42	100	0	0
Properties/ hotels	76	76	100	0	0
Plantation/mining	25	25	100	0	0
Total	391	388	99.2	3	0.8

Table 2A shows the percentage of firms in the sample complying with the 75% ruling according to firm size, financial leverage and industry membership. An exceptionally high number (388) and percentage (99.2%) of these companies had complied with this ruling. This generally indicates that this ruling has been effective in getting the companies to attribute the bulk of their total revenue to reportable segments. The differences in the compliance percentages between large and small firms, firms with high and low leverage and those in different industries are very marginal.

TABLE 2B

Compliance of the primary segment disclosure requirements

Independent variable	Total number of companies	Companies that complied with requirements		Companies that did not comply with requirements	
Firm size		**Number**	**%**	**Number**	**%**
Large	289	229	79.2	60	20.8
Small	102	74	72.5	28	27.5
Total	391	303	77.5	88	22.5
Financial leverage					
High	210	157	74.8	53	25.2
Low	181	146	80.7	35	19.3
Total	391	303	77.5	88	22.5
Industry membership					
Consumer products	48	30	62.5	18	37.5
Industrial products	80	57	71.3	23	28.8
Construction/ infrastructure	34	26	76.5	8	23.5
Trading & services/ technology	86	65	75.6	21	24.4
Finance	42	37	88.1	5	11.9
Properties/ hotels	76	68	89.5	8	10.5
Plantation/mining	25	20	80.0	5	20.0
Total	391	303	77.5	88	22.5

Table 2B and Table 2C summarize the percentage of compliance of the sample of Main Board companies in Bursa Malaysia with regard to the primary segment disclosure and for both the 75% ruling and primary segment disclosure respectively. They generally reveal that a larger proportion of large firms and low leverage firms comply with the primary segment disclosure requirements.

The percentage of small firms that has complied with segment disclosure requirements in Malaysia have increased over the years from 63.5% in 1989/1990 (Tan and Ngan, 1991) to 67.2% in 1999 (Chow, 2001) to 72.5% in 2002/2003 (the current study). One possible explanation for this could be that

small firms are more convinced that greater transparency of financial information would increase the amount of relevant information for investors to make better decisions. This could in turn persuade to accept a lower rate of return, thus yielding a lower cost of capital to the company.

The percentage of large firms that have complied with segment disclosure requirements in Malaysia has leapfrogged from 54.3% in 1989/1990 (Tan and Ngan, 1991) to 78.4% in 1999 (Chow, 2001) and 79.2% in 2002/2003 (current study). A possible explanation could be that new legislation in the Companies Act requiring compliance with MASBs has a greater effect on large companies than small companies.

The preliminary findings on leverage did not agree with Chow (2001) which had 80.6% and 67.2% of high and low leverage firms respectively complying with segment disclosure requirements whereas for the current study, it was 74.8% and 80.7% compliance for high and low leverage firms respectively. Chow's sample consists of both Main Board and Second Board firms. The Second Board companies could possibly consist of a higher percentage of high leverage firms as compared with Main Board companies.

Table 2B and 2C also reveal that firms in the properties/hotels industry have the highest compliance rate for primary segment disclosure. This corresponds with the findings of Tan and Ngan (1991) and Chow (2001). This is followed by firms in the finance industry, plantation/mining, construction/infrastructure, trading and services/technology and industrial products. Firms in the consumer product industry recorded the lowest compliance rate. This also agrees with the findings of Chow (2001).

These findings will be further analyzed below.

TABLE 2C

Compliance of both the 75% ruling & the primary segment disclosure

Independent variable	Total number of companies	Companies that complied with ruling		Companies that did not comply with ruling	
Firm size		**Number**	**%**	**Number**	**%**
Large	289	228	78.9	61	21.1
Small	102	73	71.6	29	28.4
Total	391	301	77.0	90	23.0
Financial leverage					
High	210	155	73.8	55	26.2
Low	181	146	80.7	35	19.3
Total	391	301	77.0	88	23.0
Industry membership					
Consumer products	48	30	62.5	18	37.5
Industrial products	80	56	70.0	24	30.0
Construction/ infrastructure	34	26	76.5	8	23.5
Trading & services/ technology	86	64	74.4	22	25.6
Finance	42	37	88.1	5	11.9
Properties/ hotels	76	68	89.5	8	10.5
Plantation/mining	25	20	80.0	5	20.0
Total	391	301	77.0	90	23.0

4.2 UNIVARIATE ANALYSES

TABLE 3

Pearson Chi-square tests results

Independent variable	Dependent variable	Pearson Chi-square	
		Value	Asymp. Sig. (2-sided)
Industry	Compliance with 75% ruling in MASB 22	2.882	0.823
Size		0.082	0.744
Leverage		2.606	0.106
Industry	Compliance with primary segment disclosure	17.227	0.008*
Size		1.934	0.165
Leverage		1.941	0.164
Industry	Both 75% ruling & primary segment compliance	17.995	0.006*
Size		2.282	0.131
Leverage		2.577	0.108

Table 3 presents the results of the Chi-square test for independence or related ness to analyze the relationship between independent variables and dependent variables. The results show the Pearson Chi-square test has a value of 17.227 with a significance of 0.008 for the relationship between industry membership and primary segment disclosure compliance. This value is well below the alpha level of 0.05. The results show a significant relationship between industry membership and compliance with primary segment disclosure. There is no statistical significant relationship between large and small firms as regards primary segment disclosure compliance. Primary segment disclosures also do not differ between firms with high and low financial leverage.

The above statistics also indicate that compliance of the 75% ruling does not differ significantly between firms of large and small size, high and low financial leverage and industry membership.

The results of the Kruskal-Wallis test are shown in Table 4 below. Similarly the results show a significant relationship between industry membership and compliance with primary segment disclosure. There is no statistical significant

relationship between large and small firms as regards primary segment disclosure compliance.

TABLE 4

Kruskal-Wallis Test

Independent variable	Dependent variable	Chi-square	Asymp. Sig.
Industry	Compliance with 75% ruling in MASB 22	5.695	0.458
Size		0.163	0.687
Leverage		5.164	0.023*
Industry	Compliance with primary segment disclosure	18.156	0.006*
Size		1.680	0.195
Leverage		2.020	0.155
Industry	Both 75% ruling & primary segment compliance	17.909	0.006*
Size		2.276	0.131
Leverage		2.570	0.109

The results of Pearson Chi-square tests and Kruskal-Wallis tests are consistent with each other. They suggest that significant relationship exists between industry membership and compliance with primary segment disclosure.

4.3 TESTING OF THE HYPOTHESES

4.3.1 The firm size hypothesis

No support is found for this hypothesis. The results of this study are consistent with Tan and Ngan (1991) but are in contrast with those of McKinnon and Dalimunthe (1993), Mitchell et al. (1995) and Chow (2001). A potential explanation for the non-significant result may be related to the interpretation of non-disclosure. Verrecchia (1983) has noted that non-disclosure is usually interpreted as bad news and therefore can have an adverse effect on the value of the firm. Small firms may have generally perceived that the costs of non-disclosure are higher than the cost of disclosure.

4.3.2 The leverage hypothesis

No support was found for this hypothesis in this study. This is consistent with the findings of Chow and Wong-Boren (1987), McKinnon and Dalimunthe (1992), Hossain and Adams (1995) and Aitken et al. (1997) but is in contrast with Bradbury (1992) and Mitchell et al. (1995).

McKinnon and Dalimunthe (1992) contends that a possible explanation for this non-significant result may be due to the lack of full cross-guarantees among companies in the same group. They argue that this issue is of importance to this hypothesis because it can influence the information utility of segment disclosure to lenders and creditors. Where full cross-guarantees are available to members of a group, lenders' claims against a subsidiary would extend to every member of the group. Hence segment information about the group as a whole would assist the creditor to forecast about the levels of returns, risks and growth prospects of the whole group. However where cross-guarantees are limited or not existent, the claims of debt suppliers against a subsidiary are restricted to that one subsidiary or a limited number of companies in the group. Such information would have limited use to creditors. However, due to time and cost constraints, this study did not examine the use of cross-guarantees among members of the same group.

4.3.3 Industry membership hypothesis

There was significant support for this hypothesis in this study. The results are consistent with the findings of Tan and Ngan (1991) and that of Chow (2001). All three studies reveal that the property/hotel sector recorded the highest rate of compliance. Tan and Ngan (1991) argue that firms in these sectors are generally less diversified and could have easily controlled and identified their segments.

The lowest rate of compliance was recorded for companies in the consumer product sector followed by the industrial sector, which was consistent with Chow (2001). Tan and Ngan (1991) contend that companies in these sectors are likely

to encounter greater difficulty on data segmentation. Chow (2001) argues that the relatively higher intensity of competitive rivalry among companies in these sectors are likely to affect their willingness and readiness to reveal segment information.