CHAPTER 4
RESEARCH FINDINGS

4.0 Introduction

This chapter discusses in detail the results from the data analysis techniques described in the previous chapter. Data obtained in this study were analyzed using SPSS 16.0 for windows. Descriptive statistic and multiple regressions were the main statistical techniques used in this study. This chapter is organized as follows: Section 4.1 begins with the summary of the pre-analysis data screening before further data analysis can be conducted. Section 4.2 consists of reliability test result of each variable in the study. Section 4.3 provides factor analyses. Section 4.4 presents the descriptive analysis that covers characteristics of responding firms and descriptive analysis of research variables. Lastly, Section 4.5 focuses on the hypotheses testing by reporting on the results of the regression analyses.

4.1 Pre-Analysis Data Screening

Before perform further data analysis, several pre-analysis data screening were conducted to obtain the goodness of data. Since many of statistical analysis assume the normality of distribution of scores, normality test is essential in this study. Normality test conducted include skewness, kurtosis, M-estimators and histogram in order to ensure that all the tested variables fulfill the criteria for normal distribution. The skewness and kurtosis test indicate that the value of the tested variables is between -2 and +2 where the variables are almost all negative skewed except imitation tendency in organization field. M-estimators values are similar to the variables' mean, 5% trimmed mean and

median. Addition to that, box-plot analysis shows that there are no more outliers for all the variables. These tests proved that the variables are normally distributed. Therefore, as the variables are in interval type and each of them proven was normally distributed, parametric test is used for further data analysis. The normality test results are provided in the Appendix A. The discussions in subsequent sections focus on scale reliability test and principal component factor analysis to further ascertain the goodness of data.

4.2 Reliability Test

Reliability test is conducted to examine the items that make up the measurement scales measuring the same underlying constructs (Hair et al., 2010). A test of scale's internal consistency was done using Cronbach's alpha coefficient. Reliability test results show all the Cronbach's alpha coefficient exceeded .70. The result was found to satisfactorily meet the minimum acceptable level of Cronbach's alpha coefficient that is 0.70 suggested by Hair et al. (2010). Therefore, these indicated that items involved adequately measure a single construct for each tested research variables in this study. The reliability of each of the constructs or dimensions is provided in Table 4.2.

Table 4.2: Cronbach Alpha Values of Variables

Variables	Number of items	Cronbach's Alpha
Preparedness for IFRS convergence	8	.914
Coercive forces from stakeholders	7	.836
Imitation tendencies in organizational field	5	.836
Participation in professional bodies	6	.826
Internal barriers	7	.910

4.3 Factor Analysis

Factor analysis was performed to reduce the large number of related variables prior of using them in the multiple regression in this study. Prior to conduct factor analysis, the suitability of data for factor analysis was assessed. First, the KMO and Bartlett's test and factor loadings for each measurement items are examined. The results of factor analysis indicated that measurement of items construct was significant at level .05 and the KMO value is greater than 0.6 suggested by Pallant (2007). Next, an inspection of the correlation matrix revealed the presence of many coefficients of .30 or above, suggesting that factor analysis is considered suitable. (Pallant, 2007).

A principal components analysis (PCA) with varimax rotation was performed to determine the theoretical factors of related key drivers and barriers. Maximum likelihood method with varimax rotation was used because it reduces the number of variables that have high loadings on each factor (Pallant, 2007).

Firstly, PCA was performed on the dependent variable of preparedness for IFRS convergence. One item was deleted after several run of factor analysis. This item was "Has engaged external consultant for IFRS convergence." Therefore, one component factor was extracted with eigenvalue more than one and explained 63.44% of the variations. The Bartlett's test of Sphericity is significant and the KMO is adequate (KMO= .911). Table 4.3(a) shows the results of the loading for preparedness for IFRS convergence.

Table 4.3 (a): Component Matrix[a] on preparedness for IFRS convergence

Survey items		Component
		1
1.	Has a development plan	.832
2.	Staffs are aware of the potential impacts	.799
3.	Evaluated accounting policy changes and consequences changes	.853
4.	Made preliminary assessment	.881
5.	Internal financial reporting system changes	.839
6.	Has continuous IFRS training plan	.765
7.	Budget allocated	.622
8.	Communicated to shareholders	.751

Extraction Method: Principal Component Analysis.

a. 1 component extracted.
KMO = .911
Bartlett's Test of Sphericity of sig = .000
Total Variance explained = 63.442%

Secondly, PCA was conducted on key drivers as shown in Table 4.3(b). Four component factors were extracted for key drivers with eigenvalues exceeding one, explaining a total of 67.85% of the variance, with component 1 contributing 18.99%, component 2 contributing 11.41%, component 3 contributing 10.35% and component 4 contributing 7.11%. Factorability of the data was considered suitable due to the significant value of Bartlett's test of Sphericity and the value of KMO is .829.

The interpretation of these components was basically consistent with the three types of institutional isomorphism proposed by Dimaggio and Powell (1983). As can be seen from Table 4.3(c), Component 1 essentially represents normative influences from participation in accounting professional bodies.

Meanwhile, Component 2 and Component 4 essentially represent coercive isomorphism except that Component 2 represents coercive isomorphism from regulatory forces while component 4 represents coercive forces from other stakeholders that demand financial information from company. Thus, it is appropriate to combine items in these two components into one component so called coercive forces from stakeholders. This action was justified when taking into consideration the results of the internal consistency, measured by Cronbach alpha. With or without items in Component 2 combined with component 4, Cronbach alpha was not significantly different and still above .80.

Finally, Component 3 was named as mimetic isomorphism that basically looks at the imitation tendencies in organization field.

Table 4.3 (b): Rotated Component Matrix[a] on drivers

Survey items		Components			
		1	2	3	4
1.	Technical updates and pronouncements issued	**.878**			
2.	Professional accounting bodies provide training courses	**.842**			
3.	Staffs are member of professional bodies	**.698**		.323	
4.	IFRS implementation guideline issued by MASB	**.678**		.336	
5	Actively participate in the MASB consultation process	**.421**			.354
6	Prevent qualified audit opinion		**.856**		
7	Prevents sanctions from regulatory bodies		**.851**		
8	Prevent restatement of financial statements		**.822**		
9	Comply with all the reporting requirements		**.654**		
10	Follow practices and policies of industry peers			**.832**	
11	Refer to practices and policies of leading organization			**.747**	
12	Follow practices of multinational corporations			**.707**	
13	The roles of external auditors	.377		.506	
14	Adopting IFRS give benefits to company	.475		**.502**	
15	Fulfill the needs of international trading partners	.357		**.444**	.430
16.	Fulfill the needs of overseas business operations				**.915**
17.	Enable overseas subsidiaries adopt single set of standard				**.849**
18.	Fulfill the needs of international investors				**.743**

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser N
a. Rotation converged in 6 iterations.
KMO = .829
Bartlett's Test of Sphericity of sig = .000
Total Variance explained = 67.851%

Lastly, PCA was performed to determine the numbers of factors on internal barriers.

Table 4.3(d) shows the loadings for internal barriers. The results imply that Bartlett's test

of Sphericity is significant and KMO measure is adequate. As a result, one factor of

internal barriers was extracted and explained 65.39% of the variations.

Table 4.3 (c): Component Matrix[a] on internal barriers

Survey items		Component
		1
1.	Inadequate knowledge and skills of staffs	.783
2.	Lack of training courses	.873
3.	Lack of internal technological resources	.840
4.	Lack of support from top management	.744
5.	Inadequate time to understand new standard	.834
6.	High costs involved	.703
7.	Lack of communication to management and staffs	.868

Extraction Method: Principal Component Analysis.
a. 1 component extracted.
KMO = .891
Bartlett's Test of Sphericity of sig = .000
Total Variance explained = 65.394%

4.4 Descriptive Analysis

4.4.1 Characteristics of Responding Firms

To obtain descriptive statistics for general background information of the firms, test of frequencies is used. This test shows the results of the demographic profile of responding firms. The summarized results are presented in Table 4.4.1. Table 4.4.1 covers the profile of the responding firms that constitutes a broad spectrum of business activities.

Majority of the responding firms are from manufacturing (41); followed by construction and real estate (33); Others (25); Services (17); agriculture (14); IT / Communication (9); Banking / Finance (7); and oil and gas (4). These firms are mainly come from private sector (117) and the others firms are in the sector of multinational (31) and government agency (2). It is not surprise to find majority of responding firms from

manufacturing industries as manufacturing industry is a main industry in Malaysia economy. Interestingly, there are large respondents from construction and real estate. One possible explanation for this may be due to the reason that construction and real estate industry are much affected by the IC 15 that will be implemented in 2012 due to IFRS convergence.

The firm with annual revenue greater than RM100 million was 66%. Majority of firms have annual revenue of RM100 million to RM499 million (42%). In term of the number of employees, majority of the firms have a total number of employees of 500 or less (53.3%). In addition to that, it is shown that majority of the responding firms were audited by big four auditors that constitutes 67.3%. Such higher percentage is normal considering that big four audit firms have large audit market share for the Malaysian public listed companies.

Table 4.4.1 *Profile of the Responding Firms*

Variables	Frequency (n= 150)	Valid Percent (%)
Industry:		
Agriculture	14	9.3
Banking / Finance	7	4.7
Real estate / construction	33	22.0
IT / Communication	9	6.0
Services	17	11.3
Oil and Gas	4	2.7
Manufacturing	41	27.3
Others	25	16.7
Sector:		
Multinational Organization	31	20.7
Private Organization	117	78.0
Government / Government Agency	2	1.3
Number of employees:		
Less than 500 employees	80	53.3
500 - 1,499 employees	35	23.3
1,500 - 2,499 employees	19	12.7
2,500 - 4,999 employees	4	2.7
5,000 - 7,499 employees	6	4.0
10,000 – 15,000 employees	2	1.3
More than 15,000 employees	4	2.7
Annual Revenue:		
Less than RM25 million	14	9.3
RM25 million - RM99 million	37	24.7
RM100 million - RM499 million	63	42.0
RM 500 million - RM999 million	14	9.3
RM1,000 million - RM4,999 million	12	8.0
More than RM5,000 million	10	6.7
Auditor Type:		
Big 4 audit firm	101	67.3
Non Big 4 audit firm	49	32.7

4.4.2 Descriptive Analysis of Research Variables

Table 4.4.2(a) shows some descriptive for the research variables used in this study. The table provides summary of descriptive statistics such as minimum, maximum, mean and

standard deviation for each variables. The details of descriptive statistics for each variable are shown in Appendix B.

Table 4.4.2(a): *Summary of Descriptive Statistics of Research Variables*

Variables	Mean	Std. Deviation	Minimum	Maximum
Preparedness for IFRS convergence	3.4450	0.81955	1.25	5.00
Coercive forces from stakeholders	3.9171	0.76139	1.71	5.00
Imitation tendencies in organization field	3.5707	0.78215	1.80	5.00
Participation in professional bodies	3.4678	0.70253	1.50	5.00
Internal barriers	2.8362	0.90175	1.00	4.86

The mean scores of preparedness for IFRS convergence is 3.45 in a five-point Likert type scale. The score indicates that responding firms are neither agreeing nor disagreeing that they are taking action plans for IFRS convergence. Further analysis of the means values of each items of action plans taken reveals that respondents attached the highest level of agreement score of 3.70 on the awareness of company staffs on the potential implications of IFRS convergence. This is followed by evaluation of the accounting policies changes and consequences changes to the financial statements that score 3.67. However, the lowest level of agreement score of 2.71 was achieved for budget allocation on IFRS convergence.

The moderate mean score implies that the preparedness of companies for IFRS convergence may be impeded by some extents of internal barriers that indicated by mean score close to 3.0 that show some extent of internal barriers exist. This result is not

surprise considering that many countries have faced challenges in the transition of IFRS implementation. For example, the survey done in Australia's top 200 corporations indicated that many respondents were not well prepared for the transition of IFRS adoption (Jones & Higgins, 2006).

Whereas, the mean scores achieved for coercive forces from stakeholders is 3.92. This score is close to 4 which they slightly agree that coercive forces from stakeholders influence their preparedness to implement IFRS. Based on the detail analysis of mean score for coercive forces in Appendix B, the higher mean scores achieved by the coercive forces from regulation are more than 4.0 compare to the mean scores of coercive forces from other external stakeholders that are close to 3.5. Hence, the coercive influence from regulators play a crucial role in the implementation of IFRS by companies.

As for imitation tendencies to adopt IFRS, the mean score of 3.57 imply that responding firms are neither agreeing nor disagreeing that the influences of imitation tendencies in organization field are key drivers to implement IFRS. Meanwhile, the influences of professional bodies show a mean score of 3.47. Based on the survey result, the roles of external auditor achieve the highest mean score of 3.85 for normative isomorphism. This shows that external auditors play an important role in the IFRS convergence process.

For internal barriers to implement IFRS, the mean score shows 2.84, that is close to 3.0, which indicates that there are some extent of internal barriers impedes the preparedness

of companies to implement IFRS. From the mean value analysis in Appendix B, inadequate knowledge of staffs achieves the highest mean score of 3.08. Further analyses on the preparedness of IFRS convergence according to the type of industries are shown in Table 4.4.2 (b) below.

Table 4.4.2 (b)*: Summary of mean scores and standard deviation for the preparedness for IFRS convergence according to types of industries*

Types of Industries	Mean	Std. Deviation
Agriculture	3.4107	0.92434
Banking / Finance	3.6786	0.80963
Real estate / construction	3.3788	0.91935
IT / Communication	3.6667	0.75519
Services	3.7059	0.71526
Oil and Gas	3.8750	0.58630
Manufacturing	3.3476	0.76675
Others	3.3200	0.84246

From the table 4.4.2 (b), it can be clearly seen that the highest mean value of the preparedness for IFRS convergence is oil and gas industry which is close to 3.88. This is followed by services industry that has a mean value of 3.71. On the other hand, manufacturing and other industries score a slightly lower mean value that is close to 3.40. This result is justifiable considering that they are not much affected by the new IFRS standards.

4.5 Pearson-Moment Correlations

Correlation analysis was used to examine the strength and direction of the linear relationship between variables. Table 4.5 displays a correlation matrix using the Pearson product-moment coefficient for all variables.

From Table 4.5, preparedness for IFRS convergence shows a significant positive coefficient with coercive forces from stakeholders (r = .431, p < .01), imitation tendency (r = .510, p < .01), participation in professional bodies (r = .602, p < .01). As expected, internal barriers (r = -.388, p < .01) show a significant negative correlation with preparedness for IFRS convergence. However, the correlations results indicate that types of industries and auditors do not show significant relationships with the preparedness of companies for IFRS convergence.

Results also show that some dimensions of drivers and barriers are significantly correlated with each others, suggesting multicollinearity is likely to exist. However, according to Pallant (2007), r = .90 and above indicating that variables are highly correlated. From Table 4.5, none of the correlation coefficients is greater than .90.

Table 4.5: *Correlation Coefficients of Variables*

Variables	1	2	3	4	5	6	7
1.Preparedness	1						
Control:							
2. Industry	-.018	1					
3. Auditor	.160	-.011	1				
Drivers:							
4. Coercive	.431**	-.227**	.039	1			
5. Imitation	.510**	-.139	-.008	.560**	1		
6. Normative	.602**	-.032	.063	.441**	.646**	1	
7. Barriers	-.388**	.088	-.100	-.097	-.235**	-.332*	1

** .Correlation is significant at the 0.01 level (2-tailed).
* .Correlation is significant at the 0.05 level (2-tailed).

4.6 Hypothesis Testing

The roles of the independent variables in predicting the dependent variable can be examined by conducting multiple regression analysis. In order to examine the key drivers and internal barriers influencing the preparedness of companies for to IFRS convergence, hierarchical multiple regression analysis was performed to examine the effect of coercive forces, imitation tendencies and participation in professional bodies as well as internal barriers with preparedness of IFRS convergence whereas two control variables such as types of industries and auditors were included. This will include testing of Hypotheses 1 to 4.

Prior to conduct multiple regressions, assumption test was performed to ensure assumptions presented in Section 3.10.1 are fulfilled. From the test, the result shows that assumption 1: ratio of cases to independent variable is not violated as there are 146 cases used in this study that meets the common ratio of observations to independent variables of 15: 1. In regards to assumption 2: normality, linearity and homoscedasticity, the residual scatterplot proves that the scores are evenly distributed and the residual normal plot shows the scores distributed linear along the regression line. This indicated that assumption 2 is fulfilled. The details of residual scatterplot and residual normal plot are included in Appendix C.

According to Tolerance and VIF test, multicollinearity does not exist if the Tolerance level is more than .1 and VIF is less than 10 (Pallant, 2007). The collinerity statistics proves that all the independent variables are not significantly related to each other as the

Tolerance level is greater than .1 and the VIF level is less than 10. Table 4.6 (a) below presents the results of multicollinearity test from hierarchical multiple regression analysis (from step 3). As a result, assumption 3 is fulfilled on the basic that multicollinearity and autocorrelation do not exist.

Table 4.6 (a): *Tolerance and VIF Test*

Variable	Collinearity Statistics	
	Tolerance	VIF
Types of Industries	.930	1.075
Types of auditors	.982	1.018
Coercive forces from stakeholders	.644	1.554
Imitation tendencies in organizational field	.482	2.074
Participation in professional bodies	.527	1.896
Internal barriers	.869	1.151

From Table 4.6(c), Mahalanobis Distance statistical test indicates that the maximum value of Mahalanobis Distance is 18.42. With the alpha value of 0.001 and four independent variables, the critical value of Chi Square table is 18.47. As the maximum value of 18.04 is lower than the critical value of 18.47, this means there are no possible multivariates outliers exist. Overall, assumption 4 with no multivariate outliers exist is not violated. Table 4.6(b) below shows the Mahalanobis Distance Test result and table 4.6(c) presents the extreme values for Mahalanobis Distance.

Table 4.6 (b): *Mahalanobis Distance Test for Multivariate Outlier*

Model	Mean	Std. Deviation	Minimum	Maximum
Mahalanobis	5.960	3.182	1.369	18.417

Table 4.6 (c): *Extreme Values for Mahalanobis Distance*

		Case Number	Value
Mahalanobis Distance	Highest	65	18.4173
		95	16.5717
		136	15.5890
		25	14.1053
		6	14.0836
	Lowest	1	1.36957
		9	1.37531
		3	1.51337
		40	1.57672
		34	1.75345

In summary, all the variables are normally distributed and the assumptions of multiple regression analysis are not violated, thus the data used in this study is suitable for further statistical analysis.

With control variables of types of industries and external auditors, hierarchical multiple regression analysis is performed to investigate the relationship between drivers and preparedness for IFRS convergence as well as the effect of internal barriers for such relationship. The preparedness for IFRS convergence is considered as dependent variable. First, two control variables of industry types and auditor types are entered. Second, four variables of drivers are entered. Third, one variable of internal barriers is entered. Results are shown in Table 4.6(d). Details of hierarchical multiple regressions are included in Appendix D.

Industry types and auditor types were entered at Step 1, explaining 2.6% of the variance in preparedness for IFRS convergence. After entry of the three drivers scale at Step 2, the total variance explained by the model as a whole was 42.4%, $F(5,144) = 21.200$, $p < .0001$. Lastly, the entry of internal barriers scales at Step 3, the total variance explained by the model as a whole was 46.4%, $F(6,143) = 20.650$, $p < .0001$.

Table 4.6(d): *The Result of Hierarchical Multiple Regressions*

		Step 1	Step 2	Step 3
Controls	Industry	-.016	.056	.076
	Auditor	.160	.128*	.110
Drivers	Coercive forces from stakeholders		.167*	.191*
	Imitation tendencies		.151	.135
	Participation in professional bodies		.424*	.354*
Barriers	Internal			-.215*
F for the regressions		1.944	21.200*	20.650*
Adjusted R^2		.013	.404	.442

Dependent Variable: Preparedness for IFRS convergence
Note: *$p < 0.05$

Statistic results in Table 4.5(d) show a positive and significant relationship between coercive drivers from stakeholders ($\beta = .167$ for step 2, $\beta = .191$ for step 3, $p < .05$) and the preparedness for IFRS convergence at the significant level of .05. Thus, Hypothesis 1 is considered supported. With the support of H1, the results establish that when coercive forces from stakeholders increases, the preparedness of public listed companies for IFRS convergence will also increase.

Meanwhile, imitation tendencies in organization field ($\beta = .151$ for step 2 and $\beta = .135$ for step 3, $p > .05$) were found no significant positive betas at the significant level of

.05. The results indicate that an imitation tendency in organization field is not associated significantly with the preparedness of companies for IFRS convergence. Thus, Hypothesis 2 is not supported.

From the result, the factor of normative drivers from participation in accounting professional bodies (β = .424 for step 2 and β = .354 for step 3, p < .05) has significant and positive betas, indicating that there are positive and significant relationships between participation in professional bodies and the preparedness of companies for IFRS convergence. The results clearly indicate support for H3. Participation in professional bodies seems to exert positive and significant influence on the preparedness of companies for the IFRS convergence.

In contrast, the factor of internal barriers (β = -.215 for step 3, P < .05) has a negative beta at the significant level of .05 that indicate internal barriers has negative and significant relationships with the preparedness of companies for IFRS convergence. Hence, Hypothesis 4 is supported. The results show that the internal barriers impede the preparedness of companies for IFRS convergence.

Additionally, statistic results show that types of industry (β = -.016 for step 1, P > .05) do not have any significant betas. The relationship between types of industry and preparedness for IFRS convergence is not significant. Thus, the results indicate that types of industries do not really have impact on drivers and barriers to influence the preparedness of companies for IFRS convergence. Such results imply that companies in

agriculture, banking and finance and real estate industry have not really felt different

drivers and barriers to implement IFRS compare to other industries.

Similarly, types of auditor (β = .160 for step 1, P > .05) has no significant and positive

beta, indicating that big 4 auditors do not significantly affect drivers and barriers that

influence the preparedness of companies for IFRS convergence.

Table 4.6(e): *Summary of Hypotheses Testing Results*

Hypothesis	Descriptions	Results
H1	There is a positive association between coercive forces from stakeholders and the preparedness of companies for IFRS convergence.	β = .167 for step 2, β = .191 for step 3, (p < .05) **Support H1**
H2	There is a positive association between imitation tendencies of companies in organization field and the preparedness of companies for IFRS convergence.	β = .151 for step 2, β = .135 for step 3, (p > .05) **Not Support H2**
H3	There is a positive association between the participation in accounting professional bodies and the preparedness of companies for IFRS convergence.	β = .424 for step 2, β = .354 for step 3, (p < .05) **Support H3**
H4	There is a negative association between internal barriers and the preparedness of companies for IFRS convergence.	β = -.215 for step 3, (P < .05) **Support H4**

4.7 Summary

Results from the regression analysis show mixed support for the hypotheses proposed.

Based on the regression results, the results indicate that a significant and positive

relationship found between coercive forces and preparedness of companies for IFRS convergence. Similarly, there was significant and positive relationship found between normative forces and preparedness for IFRS convergence. In contrast, the results show no significant and positive relationships found between imitation tendencies and preparedness of companies for IFRS convergence. While for internal barriers, results support that there is a negative and significant relationship between internal barriers and the preparedness of companies for IFRS convergence. Lastly, no support is found for any relationships involving control variables of types of industries and auditors with the preparedness for IFRS convergence.

Overall, the outcomes from the above results are able to provide sufficient evidence to answer a few research questions set out in this study. The interpretations of the results are subject to a number of limitations of the research. These issues and results will be discussed details in the following chapter.