GOODWILL IMPAIRMENT: THE CASE OF HONG KONG

DUNG MANH TRAN

(BEs, MBA – NEU, VIETNAM)

A thesis submitted in fulfilment of the requirement for the degree of

Doctor of Philosophy in Management

Macquarie Graduate School of Management

Macquarie University

SYDNEY, AUSTRALIA

TABLE OF CONTENTS

List of Tables	vi
List of Figures	viii
Certification	ix
Acknowledgements	X
Abstract	xi
Chapter 1: Introduction	1
1.1. Rationale of the Study	1
1.2. Research Objectives and Questions	6
1.3. Structure of the Thesis	9
Chapter 2: Literature Review and Background of Goodwill	12
2.1. Introduction	12
2.2. Historical Review of Legal Goodwill Conceptualisation	14
2.3. Historical Review of Accounting Goodwill Conceptualisation	18
2.4. A Brief Review of Accounting Goodwill Conceptualisation	34
2.5. Is Goodwill an Asset?	37
2.5.1. Generally Accepted Definition of Assets	37
2.5.2. Does Goodwill Match the Definition?	38
2.6. Practice of Avoiding and Altering Goodwill Recognition	41
2.6.1. Pooling-of-Interests Accounting – Avoidance of Goodwill Recognition	43
2.6.2. In-Process Research and Development – Altering the Recorded	46
Value of Goodwill	
2.7. Measurement of Purchased Goodwill	50
2.8. Goodwill Adjustment Subsequent to Recognition	51
2.8.1. Lump Sum Write-Off	51
2.8.2. Ad-hoc Write-Off	52
2.8.3. Systematic Write-Off	53

Chapter 3: Technical Requirements of Goodwill Impairment in Hong Kong	57
3.1. Introduction	57
3.2. Goodwill Reporting Arrangements and Practices in Hong Kong	59
3.2.1. Pre-Regulation of Goodwill Arrangements and Practices	60
3.2.2. Post-Regulation of Goodwill Arrangements and Practices (from March 1984 to December 2000)	61
3.2.3. Post-Regulation of Goodwill Arrangements and Practices (from January 2001 to December 2004)	62
3.2.4. Adoption of IFRS Impairment Testing	64
3.3. Technical Requirements of Goodwill Impairment in Hong Kong	66
3.3.1. Identifying the Cash Generating Unit	66
3.3.2. Allocating Goodwill to Cash Generating Unit	71
3.3.3. Measuring Recoverable Amount of Cash Generating Unit	74
3.3.4. Determining Impairment Loss for Goodwill	89
3.3.5. Timing of Impairment Test for Goodwill	91
3.3.6. Reversal of Impairment Loss for Goodwill	93
3.3.7. Disclosures	94
3.4. Conclusion	97
Chapter 4: Data and Research Methodology	100
4.1. Introduction	100
4.2. Data Description	101
4.3. Measures of Compliance Levels and Disclosure Quality	116
4.4. Measures of Discount Rates	122
4.4.1. The Capital Asset Pricing Model	122
4.4.2. Goodwill Intensity	126
4.5. Measures of Audit Quality	127
4.6. Conclusion	130

54

2.9. Conclusion

Chapter 5: Compliance Levels and Disclosure Quality of Goodwill	132
Impairment of First-time Adopters	
5.1. Introduction	132
5.2. Relevant Literature Review	135
5.3. Assessment of Compliance Levels and Disclosure Quality of Goodwill	144
Impairment	
5.3.1. Cash Generating Unit Allocation	144
5.3.2. Business Segments and Cash Generating Units	148
5.3.3. Cash Generating Unit to Segment Ratio	151
5.3.4. Method Employed	153
5.3.5. Discount Rate	157
5.3.6. Growth Rate	163
5.3.7. Forecast Period	167
5.4. Conclusion	171
Chapter 6: Compliance Levels and Disclosure Quality of Goodwill Impairment of Hong Kong-Listed Firms	173
	173
Impairment of Hong Kong-Listed Firms	
Impairment of Hong Kong-Listed Firms 6.1. Introduction	173 175
Impairment of Hong Kong-Listed Firms 6.1. Introduction 6.2. Issue of the Study 6.3. Assessment of Compliance Levels and Disclosure Quality of Goodwill	173
Impairment of Hong Kong-Listed Firms 6.1. Introduction 6.2. Issue of the Study 6.3. Assessment of Compliance Levels and Disclosure Quality of Goodwill Impairment	173 175 176
Impairment of Hong Kong-Listed Firms 6.1. Introduction 6.2. Issue of the Study 6.3. Assessment of Compliance Levels and Disclosure Quality of Goodwill Impairment 6.3.1. Cash Generating Unit Allocation	173 175 176
Impairment of Hong Kong-Listed Firms 6.1. Introduction 6.2. Issue of the Study 6.3. Assessment of Compliance Levels and Disclosure Quality of Goodwill Impairment 6.3.1. Cash Generating Unit Allocation 6.3.2. Business Segments and Cash Generating Units	173 175 176 176 180
Impairment of Hong Kong-Listed Firms 6.1. Introduction 6.2. Issue of the Study 6.3. Assessment of Compliance Levels and Disclosure Quality of Goodwill Impairment 6.3.1. Cash Generating Unit Allocation 6.3.2. Business Segments and Cash Generating Units 6.3.3. Cash Generating Unit to Segment Ratio	173 175 176 176 180 183
Impairment of Hong Kong-Listed Firms 6.1. Introduction 6.2. Issue of the Study 6.3. Assessment of Compliance Levels and Disclosure Quality of Goodwill Impairment 6.3.1. Cash Generating Unit Allocation 6.3.2. Business Segments and Cash Generating Units 6.3.3. Cash Generating Unit to Segment Ratio 6.3.4. Method Employed	173 175 176 176 180 183 185
Impairment of Hong Kong-Listed Firms 6.1. Introduction 6.2. Issue of the Study 6.3. Assessment of Compliance Levels and Disclosure Quality of Goodwill Impairment 6.3.1. Cash Generating Unit Allocation 6.3.2. Business Segments and Cash Generating Units 6.3.3. Cash Generating Unit to Segment Ratio 6.3.4. Method Employed 6.3.5. Discount Rate	173 175 176 176 180 183 185 188

Chapter 7: Discount Rate Analysis	204
7.1. Introduction	204
7.2. Technical Background	206
7.3. Discount Rate Analysis	210
7.3.1. Appropriateness of Discount Rate	210
7.3.2. Discount Rate Variance	217
7.4. Conclusion	227
Chapter 8: Audit Quality Assessment	229
8.1. Introduction	229
8.2. Literature Review	232
8.3. Assessment of Audit Quality	239
8.3.1. Method Employed	239
8.3.2. Cash Generating Unit Allocation	242
8.3.3. Business Segments and Cash Generating Units	245
8.3.4. Cash Generating Unit and Segment Ratio	248
8.3.5. Discount Rate	250
8.3.6. Growth Rate	253
8.4. Conclusion	256
Chapter 9: Conclusion	258
9.1. Introduction	258
9.2. Major Findings	259
9.2.1. A Feature of Lax Compliance in Early Years After Adoption of Accounting Standards	259
9.2.2. Tendency of Understated Observed Discount Rates	260
9.3.3. Heterogeneity of Audit Quality among Big 4 Auditors	262
9.3. Implications	263
9.4. Final Conclusion	264
References	266

LIST OF TABLES

Table 2.1: Aspect of Understanding Goodwill Theories	35
Table 4.1: Overview of Unmatched Sample	104
Table 4.2: Overview of Matched Sample	106
Table 4.3: Summary of Final Sample Selection of Discount Rate	109
Table 4.4: Overview of Research Sample of Discount Rate	110
Table 4.5: Overview of Research Sample of Audit Quality	113
Table 4.6: Number of Firms Audited by Sector	114
Table 4.7: Descriptive Statistics of Firms by Auditor	115
Table 5.1: CGU Allocation Compliance by Sector	147
Table 5.2: Business Segments and CGU Aggregation by Sector	150
Table 5.3: Analysis of Controlled Entities, Business Segments and CGUs	152
Table 5.4: Method Employed to Determine Recoverable Amount of CGUs	156
Table 5.5: Discount Rate Methodology	161
Table 5.6: Discount Rate Disclosures	162
Table 5.7: Growth Rate Methodology	165
Table 5.8: Growth Rate Disclosures	166
Table 5.9: Disclosure of Forecast Period Method by Sector	169
Table 5.10: Disclosure of Forecast Period by Sector	170
Table 6.1: CGU Allocation Compliance by Sector	179
Table 6.2: Business Segments and CGU Aggregation by Sector	182
Table 6.3: Analysis of Controlled Entities, Business Segments and CGUs	184
Table 6.4: Method Employed to Determine Recoverable Amount of CGUs	187
Table 6.5: Discount Rate Methodology	191
Table 6.6: Discount Rate Disclosures	192
Table 6.7: Growth Rate Methodology	195
Table 6.8: Growth Rate Disclosures	196
Table 6.9: Disclosure of Forecast Period Method by Sector	199
Table 6.10: Disclosure of Forecast Period by Sector	200
Table 7.1: Number of Defined CGUs by Industry Sector	213
Table 7.2: Firm Goodwill Intensity by Industry Sector	216
Table 7.3: Analysis of Discount Rate Variance by Industry Sector	220

Table 7.4: Industry Sector Dollar of Goodwill by Discount Rate Variance	223
Table 7.5: Discount Rate Variance and Goodwill Intensity	226
Table 8.1: Method Employed to Determine Recoverable Amount of CGUs	241
Table 8.2: CGU Allocation Compliance by Auditor	244
Table 8.3: Business Segments and CGU Aggregation by Auditor	247
Table 8.4: Ratio of CGU to Business Segments	249
Table 8.5: Analysis of Discount Rates Used to Test Impairment	252
Table 8.6: Analysis of Growth Rates Used to Test Impairment	255

LIST OF FIGURES

Figure 1.1: Structure of the Thesis	8
Figure 3.1: The Impairment Test	77
Figure 3.2: Goodwill Impairment Testing Process	91

CERTIFICATION

This thesis is submitted in fulfilment of the degree of PhD at Macquarie Graduate School of Management, Macquarie University. It is wholly my own work, except when general and specific references are acknowledged. I hereby certify that this document has not been submitted for a higher degree to any other university or institution.

Signed

Dung Manh Tran

September, 2011

ACKNOWLEDGEMENTS

My gratitude goes to those who have supported me during my time at Macquarie Graduate School of Management (MGSM). Without their contribution, completing this thesis would not have been possible.

I would like to express my sincere thanks to Professor Tyrone M. Carlin, Acting Dean, Faculty of Economics and Business, The University of Sydney. His assistance, support and encouragement were crucial to the successful completion of this thesis and to my professional growth.

To Dr Nigel Finch, Senior Lecturer, The University of Sydney, many thanks for his valuable comments and assistance during the research process.

To Associate Professor Guy Ford, Deputy Dean of MGSM, I would like to express my thanks for his useful suggestions and support in completing this thesis.

Thanks also to other academic and administrative staff at MGSM for their support and for providing equipment during my study there.

I would like to thank the Vietnamese government for their funding of my research at MGSM.

Last but not least, my heartfelt thanks go to my wife, my children and my parents for their love, understanding and moral support while I undertook research at MGSM.

ABSTRACT

This thesis focuses on goodwill impairment implemented and practised in the first three years after Hong Kong's adoption of the International Financial Reporting Standards (IFRS). Three issues – compliance, discount rate and audit quality with respect to goodwill impairment testing – are the focus of analytical and empirical attention.

Understandably, one of the most controversial issues that has been discussed in financial reporting is goodwill. Goodwill impairment is argued to be one of the most difficult issues in practice. This thesis commences with a review of literature relating to goodwill with regard to its conceptualisation, techniques to avoid or alter its recognition, ways to measure and adjust it, and a description of key technical requirements of goodwill impairment in the context of Hong Kong. These issues are demonstrably reviewed in this thesis.

This study focuses on filling the gap in knowledge of compliance, discount rate and audit quality in relation to goodwill impairment. To do so, detailed annual reports of listed firms collected from the Main Board of the Hong Kong Stock Exchange in the period from 2005 to 2007, were drawn upon. Employing analytical procedures and the Capital Asset Pricing Model (CAPM), the study provides persuasive evidence on the issues of compliance, discount rate and audit quality with respect to goodwill impairment.

The thesis concludes that the rates of non-compliance and poor quality of disclosure pertaining to goodwill impairment conducted by Hong Kong firms reduced in the first three years after Hong Kong's adoption of IFRS. However, non-compliance levels and poor disclosure quality were still high. The sample firms had a tendency to

understate discount rates in comparison with independently estimated discount rates in all three years of the investigation. In addition, audit quality among the Big 4 auditors is proved to be heterogeneous rather than homogeneous.

The thesis concludes that a big gap exists between the standard requirements of goodwill impairment and practice. In the context of Hong Kong, this research demonstrates that the efficacy of this standard is low. It is therefore likely that the application of goodwill impairment in practice will continue to cause concern for policy makers and standard setters.