



## **Do Personnel Stability, Family Business and Auditor Influence Financial Restatement?**

**Kai-Ling Chen<sup>1</sup>, Shen-Ho Chang<sup>2</sup>, Teng-Shih Wang<sup>3\*</sup>**

<sup>1</sup>Department of Leisure Recreation and Travel Management, Toko University, Taiwan, <sup>2</sup>Department of Accounting, Feng Chia University, Taiwan, <sup>3</sup>Executive Officer, Finance Division, Taoyuan Metro Corporation, Taiwan. \*Email: [t.swang0617@gmail.com](mailto:t.swang0617@gmail.com)

### **ABSTRACT**

This paper explores how the interaction of four conditions (chief director stability, top management stability, family business and firms with Big4 auditor) results in restatements. This paper uses qualitative comparative analysis, which is a relatively new method applied in accounting research to examine the cause of the restatements systematically. The results show firms not audited by Big4 and family business are more possible to restate the financial reports due to accounting type errors. The results also imply that non family business audited by Big4 or family controlled firms not audited by Big4 have more chance to restate the financial reports due to material accounting errors. Last family business not audited by Big4 has more chance to restate the financial reports voluntarily.

**Keywords:** Personnel Stability, Qualitative Comparative Analysis, Restatement

**JEL Classifications:** M40, M41

### **1. INTRODUCTION**

Accounting restatements have recently increased dramatically. The erosion in the quality of financial reporting caused by the proliferation of financial restatements has caused attentions among academics, practitioners, and regulators (Desai et al., 2006). Restatement announcements will cause market capitalization losses and substantially reduce public confidence in the business community and capital markets (GAO, 2002). Prior research proves that the stock prices of restating firms fall, on average, by somewhere between -6 percent (Dechow et al., 1996) and -10 percent (Palmrose et al., 2004) when the restatement is first made public.

The reliability, transparency, and uniformity of the financial reports assist investors to make decisions. Financial statement credibility may diminish if the restatement raise questions about management integrity. Top management has a duty to correct inaccurate, incomplete, or misleading financial statement disclosures. Sutton and Callahan (1987) mention that leaders intertwine with the images of organizations. The key determinant of business performance is the stability of top managements. Businesses with

higher levels of top management turnover would lead to the lack of experienced personnel and reduce the effectiveness of internal control. A breach in the firm's internal control system may induce the financial restatement (Kinney and McDaniel, 1989). We are motivated to investigate whether the personnel instability increase the level of financial restatements.

Prior research has examined the relation between accounting restatements and executive turnover (Beneish, 1999; Desai et al., 2006; Karpoff et al., 2008; Hennes et al., 2008). The research objective of these studies is to examine whether the announcement of restatement events affect the executive turnover and the longest of their research windows is only 6 months prior to the restatement. We want to complement the restatement research. Our objective is to understand whether the personnel instability (Chairman of the Board, CEO, CFO and CIO) will induce the earnings restatement and which type of restatement. To meet the goal, we use change of Chairman of the Board, CEO, CFO and CIO (3 years prior to the restatement to the restatement announcement) as the proxy of personnel stability. We also add two other important factors including family controlled firms and Big4 audit firms to examine the correlation with restatements.

We collect sample from Taiwan Economic Journal (TEJ) database during 2002-2011 using the qualitative comparative analysis (QCA) to examine our research issues. Woodside et al. (2013) mention that the assessment of the results needs the development of the structure of processes and causes that bring about the results. We adopt QCA to provide evidence on the relationship between change of top management and accounting restatement. Unlike more quantitative methods that are based on correlation, QCA seeks to establish logical connections between combinations of causal conditions and an outcome (Mendel, 2013). Restatements can be affected by multiple and interdependent factors. One of the key advantages of QCA is that it allows for combining various conditions to produce the outcome. QCA is which will be helpful in making inferences regarding complex causation in studies.

The results show that firms not audited by Big4 and family business are more possible to restate the financial reports due to accounting type errors based on earnings restatement sample. The results also find that non family business audited by Big4 or family controlled firms not audited by Big4 have more chance to restate the financial reports due to material accounting errors. Last family business not audited by Big4 has more chance to restate the financial reports voluntarily.

Building on previous studies, we investigate financial restatements with three contributions. First, we use QCA which is an innovative research method to understand the financial restatement issues. QCA focuses on what combinations of conditions lead to a given outcome that can exactly apply to financial restatement study. Different from QCA, regression analysis only gives us the magnitude and direction of effect of a variable, net of other variables included in the model. The factors of restatement usually include more than conditions. Therefore, QCA opens new avenues of research in studying the causes of restatement at the macro-level. Second, financial restatements represent a unique opportunity to study the accountability of top management for organizational outcomes and firm performance. We provide the solution to understand the effect of personnel stability, on financial restatements. Only few researches ever discuss this issue. We use this innovative method to compensate this line of researches. Last, we not only discuss the relationship between personnel instability and restatements but also consider another two important factors (Big4 auditor and family business) to explore the characteristics of the restating firms.

The remainder of the paper is organized as follows. Section 2 summarizes prior research. Section 3 describes sample selection procedures and research method. Section 4 presents our empirical results and Section 5 concludes the results.

## 2. LITERATURE REVIEW

### 2.1. Characteristics of Restating Firms

Several studies have examined the characteristics of restatements. Previous research shows that firms that make restatements are smaller and less profitable (Kinney and McDaniel, 1989). DeFond and Jiambalvo (1991) report that companies growing more slowly, receiving more uncertainty-qualified audit opinions,

and having more debt are more possible to restate the earnings. Richardson et al. (2002) argue that restating firms have high market expectations for future earnings growth, higher levels of outstanding debt, a string of consecutive positive earnings growth, and consecutive positive quarterly earnings surprises.

Agrawal and Chadha (2005) investigate whether corporate governance mechanisms are associated with the probability of companies announcing a restatement. They find that companies with independent directors reduce the likelihood of restatement. Peterburgsky (2012) find that firms headed by CEOs with non-profit experience are more likely to restate financial statements than other firms. Richardson et al. (2002) examine factors related to the financial restatement. The results show that restating firms restating firms have higher levels of debt, and longer strings of consecutive positive earnings growth than others.

### 2.2. Consequences of Restatement

From previous research, market reactions to the announcement of a restatement and all find adverse consequences (GAO, 2002; Palmrose et al., 2004). From previous studies, the estimated stock price decline after the restatement. Gleason et al. (2008) prove that restatements not only adversely affect shareholder wealth but also induce share price declines among non-restating firms in the same industry. These share price declines seem to reflect investors' accounting quality concerns. Wu (2002) finds a strongly negative short-term market reaction to restatement announcements, a significant downward pattern in the six-month period leading up to the restatement announcements, and a negative post-announcement drift for up to 4 months.

Feldmann et al. (2009) find evidence that audit fees are higher for restatement firms compared with a non-restatement firms. We propose that the higher audit fees reflect a cost of both an increase in perceived audit risk and a loss of organizational legitimacy.

### 2.3. Restatement and Personnel Stability

Prior research has examined the relation between accounting restatements and executive turnover (Beneish, 1999; Desai et al., 2006; Karpoff et al., 2008; Hennes et al., 2008). Hennes et al. (2008) examine executive turnover within the time period beginning six months prior to, and ending 6 months after, the announcement of a restatement related to an accounting irregularity. Srinivasan (2005) suggests that directors experience significant labor market penalties. In the three years after the restatement, director turnover is 48% for firms that restate earnings downward, 33% for a performance-matched sample, 28% for firms that restate upward, and only 18% for technical restatement firms. Prior literature suggests that changing top management is a response to a legitimacy crisis. Leone and Liu (2010) document that CEO and CFO turnover is unusually high when restatements are reported. Hennes et al. (2008) report that in roughly 80% of the cases in which an irregularity is disclosed, either the CEO or CFO is terminated.

Several reasons account for the high turnover rates. First, firing senior executives is a way to restore financial reporting credibility (Farber 2005; Desai et al., 2006). Second, auditors will be forced

to resign if the senior managers involved in the scandal are not fired (Hennes et al. 2008). Third, the SEC is less likely to take an enforcement action, and may even reduce the penalties, if those involved in the irregularity are fired. Generally, the most direct way to mitigate problems associated with intentional financial misstatements is to terminate top managements that are responsible for the wrongdoing.

In Taiwan, the financial reports are signed with the seal of the Chairman of the Board, CEO and CFO. Ting (2013) proves that the CEO turnovers affect the shareholder wealth due the power level of CEO. The chairman of board, CEO and CFO are regarded as most responsible for financial disclosure. Hence, they are the first to be blamed when restatement is announced. However, the previous study always views top management turnover as the result of the financial restatement. No studies discuss whether the top management instability will lead to the financial restatement using the longer observation periods.

#### 2.4. Voluntary versus Mandatory Restatement

Prior literature has explored how managers' reputational and career concerns affect their voluntary disclosure decisions. Kothari et al. (2009) conclude that managers are incentivized to delay releasing bad news relative to good news because the favorable disclosures will decrease the firm's risk significantly. Wang and Huang (2014) show that voluntary restatement is associated with internal control deficiencies, particularly when companies of voluntary restatements suffer higher restatement severity. The results imply that voluntary restatement decisions may interpret as signals of internal control quality.

#### 2.5. Family Business and Restatement

Family firms have better earnings quality than non-family firms in common-law countries and highly developed markets. Sue et al. (2013) imply that the severity of the conflict between ultimate and minority shareholders, and a lack of integrity, explain the propensity for financial restatements among family firms in a regime with weak investor protection and concentrated ownership structures.

#### 2.6. Big4 and Restatement

Reynolds and Francis (2000) show that clients audited by Big4 are treated more conservatively. Big4 auditors are more likely to issue a going concern report. Choi et al. (2007) suggest a negative association between auditor office size and the absolute value of abnormal accruals. Francis and Yu (2009) argue that Big4 auditors provide higher quality audits than smaller one due to the in-house experience. In conclusion, these results report that clients audited by Big4 are less likely to adopt aggressive accounting policies to meet management's earning target. Thus, Big4 auditors have systematically higher audit quality than smaller offices.

### 3. RESEARCH SAMPLE AND METHODS

#### 3.1. Sample Selection

Restating firms are collected from the TEJ during year 2002~2011. Table 1 summarizes our restatement sample selection. To be included in our sample, a firm must announce an earnings

**Table 1: Sample selection**

Year/month	Number of restating firm
200212	30
200312	21
200412	33
200512	31
200612	33
200712	41
200812	32
200912	31
201012	26
201112	14
Total	292

restatement and reference an accounting error, an irregularity, or some type of investigation into accounting matters. This procedure yields a total of 292 restating firms.

#### 3.2. Research Method

This research adopts QCA method to exam the relationship between top management stability, family business, firms with Big4 auditor and earnings restatement. QCA method is an analysis of set relations. QCA employs a set-theoretic approach in examining cause-effect relationships. This research seeks to understand which configurations of causal factors actively play a role in leading financial restatement. QCA is chosen as the analytical tool to explore the interactions change of Chairman of the Board, top management (CEO, CFO and CIO) turnover rate, family business and Big4 audited firms which lead to earnings restatement. By comparing configurations, it is possible to identify the causal conditions which give rise to the restatement, and also find out how these different factors fit together to generate the outcome (restatement).

QCA provides two measures to assess the degree to which the empirical evidence is consistent with the configuration identified: Consistency and coverage (Ragin, 2006). Woodside (2013) stress the importance of achieving high consistency over the high coverage. Consistency assesses the degree to which cases sharing a combination of conditions agree in displaying the outcome in question. Consistency scores below 0.75 indicate absence of empirical evidence to support the configuration identified (Ragin, 2006). Coverage is a measure of how important a causal combination is to the outcome.

The four causal conditions including change in Chairman of the Board director, change of top management (CEO, CFO and CIO), family business and Big4 audited firms. Scores of 1 and 0 indicate full membership (presence or complete development) and non-membership (absence or complete underdevelopment), respectively. QCA provides following advantages (Cárdenas, 2012). Statistically, QCA first overcomes the limitations of regression analysis that assumes linear causation and typically requires large N samples. Second, it moves beyond anecdotal evidence to assess cause-effect relationships empirically. Third, researchers can measure the degree of existence or nonexistence of a practice, and thereby reduce the complexity of phenomena. More importantly, QCA allows one to identify interaction between causal conditions, and fifthly, it studies the possibility of multiple paths leading to the same outcome.

## 4. EMPIRICAL RESULTS

The results of descriptive statistics report in Table 2. The table contains statistics for our 2002-2011 that had announced earnings restatement. Furthermore, we also distinguish all sample into two subsample NonACC\_error and ACC\_error samples. The NonACC\_error firms appear to have bigger size, higher debt ratio, longer operating cycle, larger operating leverage and smaller financial leverage.

Table 3 panel A presents the analysis of truth table for restating firms with accounting type error and not with accounting type error. Panel B shows that the overall consistency of the configuration

associated with restatement is 0.89 and coverage is 0.64. The combinations of no change of Chairman of the Board, CEO and CFO and firms not audited by Big4 increase the level of restatements related to accounting errors. The raw coverage is 0.15. Firms with the no change of Chairman of the Board CEO and CFO, and family controlled firms are positively related to the accounting errors restatement. The raw coverage is 0.23. The results imply that companies audited by Big4 or nonfamily control business have less chance to restate the financial reports due to accounting errors. It is consistent with the fact that the Big4 auditors have national training programs, standardized audit programs, and firm-wide knowledge sharing practices which will reduce the chance of clients' restatement.

**Table 2: Descriptive statistics**

Error Type	Statistics	Size	Debt ratio	Operating cycle	Operating leverage	Financial leverage
NonACC_error	p25	14.96	0.35	26.52	0.50	0.97
	p50	15.98	0.46	68.03	1.69	1.02
	p75	16.80	0.65	154.12	2.81	1.13
	Mean	16.00	0.49	147.24	2.01	0.89
	SD	1.53	0.21	281.63	23.30	1.09
ACC_error	p25	13.95	0.28	44.40	0.20	0.95
	p50	14.96	0.43	86.85	1.39	1.01
	p75	15.60	0.60	148.28	3.55	1.16
	Mean	14.86	0.44	1170.52	1.57	4679.71
	SD	1.34	0.21	10606.08	77.96	57304.60
Total	p25	14.05	0.31	38.58	0.23	0.95
	p50	15.30	0.44	84.71	1.58	1.02
	p75	16.20	0.61	153.23	3.03	1.15
	Mean	15.23	0.46	835.23	1.71	3205.57
	SD	1.50	0.21	8702.34	65.45	47425.63

Variable definition: Size is defined as firm size measure as natural logarithm of total assets. Debt ratio is defined as firm debt ratio measure as total debt divided by total assets. Operating cycle is defined as firm operating cycle measure as operating cycle days. Operating leverage is defined as firm operating leverage measure as sales revenue subtraction variable cost and expense divided by operating income. Financial leverage is defined as firm financial leverage measure as roe divided by roa

**Table 3: Truth table analysis for ACC\_error and NonACC\_error firms**

Panel A: Truth table										
ChBord	Conditions						Consistency			
	CEO	CFO	CIO	Big4	Family	Num	Raw	PRI	SYM	
0	0	0	0	0	1	8	1	1	1	
0	0	0	0	0	0	7	1	1	1	
1	1	1	0	0	0	6	1	1	1	
1	1	1	1	0	1	5	1	1	1	
0	1	1	1	1	0	5	1	1	1	
0	0	1	1	0	1	5	1	1	1	
0	1	1	1	0	1	4	1	1	1	
1	1	0	0	0	0	3	1	1	1	
1	1	1	0	1	1	2	1	1	1	
1	1	0	0	1	1	2	1	1	1	
1	0	1	1	0	0	2	1	1	1	
0	1	1	1	0	0	2	1	1	1	
0	1	1	0	0	1	2	1	1	1	
0	0	1	0	0	1	2	1	1	1	
0	0	0	1	0	1	2	1	1	1	
1	1	1	0	0	1	1	1	1	1	
1	1	0	1	0	0	1	1	1	1	
1	0	1	1	1	0	1	1	1	1	
0	1	0	1	0	1	1	1	1	1	
0	1	1	0	1	1	5	0.8	0.8	0.8	
0	0	0	1	1	1	19	0.79	0.79	0.79	
0	0	0	0	1	1	16	0.75	0.75	0.75	
0	0	0	1	0	0	8	0.75	0.75	0.75	
1	0	0	0	1	1	4	0.75	0.75	0.75	

Panel B: The analysis of truth table			
Results	Coverage		Consistency
	Raw	Unique	
~ChBoard*~CEO*~CFO*~Big4	0.15	0.08	0.92
~ChBoard*~CEO*~CFO*Family	0.23	0.17	0.82
~ChBoard*CIO*~Big4*Family	0.05	0.01	1.00
CEO*CFO*~Big4*Family	0.05	0.03	1.00
CEO*CFO*~CIO*Family	0.06	0.04	0.90
ChBoard*CEO*~CFO*~Big4*~Family	0.03	0.01	1.00
ChBoard*~CEO*CFO*CIO*~Family	0.02	0.02	1.00
~ChBoard*CEO*CFO*CIO*~Family	0.04	0.04	1.00
ChBoard*~CFO*~CIO*Big4*Family	0.03	0.03	0.83
~ChBoard*~CEO*~Big4*Family	0.11	0.00	1.00
~ChBoard*CFO*~Big4*Family	0.08	0.00	1.00
ChBoard*CEO*~CIO*~Big4*~Family	0.06	0.00	1.00
ChBoard*CEO*CFO*~CIO*~Big4	0.04	0.00	1.00
Solution coverage	0.64		
Solution consistency	0.89		

Table 4: Truth table analysis for material ACC\_error and Non material ACC\_error firms

Panel A: Truth table									
ChBord	Conditions						Consistency		
	CEO	CFO	CIO	Big4	Family	Num	Raw	PRI	SYM
1	1	0	0	0	0	3	1	1	1
1	1	1	0	1	1	2	1	1	1
1	1	0	1	1	1	1	1	1	1
1	0	1	1	1	0	1	1	1	1
0	1	0	1	1	0	1	1	1	1
0	1	0	1	0	1	1	1	1	1
0	1	0	0	0	1	1	1	1	1
1	1	1	0	1	0	9	0.89	0.89	0.89
0	0	1	0	1	0	6	0.83	0.83	0.83
1	1	1	1	0	1	5	0.8	0.8	0.8
0	0	0	0	1	0	8	0.75	0.75	0.75
0	0	1	1	1	0	4	0.75	0.75	0.75

  

Panel B: The analysis of truth table			
Results	Coverage		Consistency
	Raw	Unique	
~ChBoard*~CEO*~CIO*Big4*~Family	0.10	0.10	0.10
~ChBoard*CEO*~CFO*~Big4*Family	0.02	0.02	0.02
~CEO*CFO*CIO*Big4*~Family	0.04	0.04	0.04
ChBoard*CEO*CFO*~CIO*Big4	0.09	0.09	0.09
ChBoard*CEO*~CFO*~CIO*~Big4*~Family	0.03	0.03	0.03
~ChBoard*CEO*~CFO*CIO*Big4*~Family	0.01	0.01	0.01
ChBoard*CEO*CFO*CIO*~Big4*Family	0.04	0.04	0.04
ChBoard*CEO*~CFO*CIO*Big4*Family	0.01	0.01	0.01
Solution coverage	0.34		
Solution consistency	0.86		

Table 4 panel A presents the analysis of truth table for restating firms with material accounting type error and non-material accounting type error. Panel B shows that the overall consistency of the configuration associated with restatement is 0.86 and coverage is 0.34. The combination of no change of Chairman of the Board, CEO and CIO, firms audited by Big4 and non-family business increases the level of restatements related to material accounting errors. The raw coverage is 0.10. Firms with no change of Chairman of the Board CEO and CFO, firms not audited by Big4, and family controlled firms are positively related to the restatement of material accounting errors. The raw coverage is 0.02. The results imply that non family business audited by Big4 or family controlled firms not audited by Big4

have more chance to restate the financial reports due to material accounting errors.

Table 5 panel A presents the analysis of truth table for voluntary or mandatory restating firms. Panel B shows that the overall consistency of the configuration associated with restatement is 0.89 and coverage is 0.49. The combinations of no change of Chairman of the Board and CIO, firms not audited by Big4 and family business increase the possibility of voluntary restatements. The raw coverage is 0.10. The results imply that family business not audited by Big4 have more chance to restate the financial reports voluntarily. Financial reports audited by higher ranking auditors are regarded as better in quality and more credible.

**Table 5: Truth table analysis for voluntary or mandatory restating firms**

Panel A: Truth table									
Conditions							Consistency		
ChBord	CEO	CFO	CIO	Big4	Family	Num	Raw	PRI	SYM
1	1	1	1	0	1	5	1	1	1
1	1	0	0	0	0	3	1	1	1
0	1	1	0	0	0	3	1	1	1
1	1	1	0	1	1	2	1	1	1
1	0	1	1	0	0	2	1	1	1
0	1	1	1	0	0	2	1	1	1
0	0	1	0	0	0	2	1	1	1
0	0	0	1	0	1	2	1	1	1
0	1	0	0	0	1	1	1	1	1
0	1	0	0	0	0	1	1	1	1
0	0	1	1	0	0	1	1	1	1
1	1	0	0	1	0	8	0.88	0.88	0.88
0	0	0	0	0	0	7	0.86	0.86	0.86
1	1	0	0	0	1	6	0.83	0.83	0.83
1	1	1	1	0	0	5	0.8	0.8	0.8
0	0	1	1	0	1	5	0.8	0.8	0.8
0	0	0	0	0	1	8	0.75	0.75	0.75

  

Panel B: The analysis of truth table			
Results	Coverage		Consistency
	Raw	Unique	
~ChBoard*~CIO*~Big4*~Family	0.10	0.04	0.92
CEO*~CFO*~CIO*~Big4	0.09	0.04	0.91
CFO*CIO*~Big4*~Family	0.08	0.04	0.90
ChBoard*CEO*~CFO*~CIO*~Family	0.09	0.06	0.91
~ChBoard*~CEO*CIO*~Big4*Family	0.05	0.03	0.86
ChBoard*CEO*CFO*CIO*~Big4	0.08	0.04	0.90
ChBoard * CEO*CFO*~CIO*Big4*Family	0.02	0.02	1.00
~ChBoard*~CFO*~CIO*~Big4	0.12	0.00	0.82
~ChBoard*~CEO*~CFO*~Big4*Family	0.07	0.00	0.80
Solution coverage	0.49		
Solution consistency	0.89		

However, the literature provides mixed evidence in this respect (Depoers, 2000; Alsaed, 2006). Our finding provides another explanation that family business not audited by Big4 would voluntarily disclose the restatement information.

## 5. CONCLUSION

The literature investigating the characteristics of restating firms has grown substantially over the past several years. This study extends that literature by examining whether personnel instability, family business and auditor choice will cause the type of financial restatement. We adopt QCA method to investigate how the interaction of personnel stability, family controlled business and auditor choice affects the restatement. We separate the restatement sample into three conditions to observe the various effects including accounting type error and non-accounting type error, material accounting error and non-material accounting error and voluntary and mandatory. The results show that firms not audited by Big4 and family business are more possible to restate the financial reports due to accounting type errors. The results also imply that non family business audited by Big4 or family controlled firms not audited by Big4 have more chance to restate the financial reports due to material accounting errors. Last family business not audited by Big4 has more chance to restate the financial reports voluntarily.

Overall, our evidence on the characteristics of restating firms is useful to both academics and regulators concerned with the costs financial restatement. Investors should invest firms audited by Big4 firms whose risks of financial restatement are less because the quality of financial report is higher for firms audited by Big4 than smaller office. This finding poses a challenge to the government of how to enhance the audit quality of smaller audit firms to decrease the level of restatement. The instability of Chairman of the Board is also a signal that companies may restate the financial reports because the Chairman of the Board should account for this announcement. This finding is consistent with the theory that the financial restatement represents a serious threat to organizational legitimacy. As a result, firms are likely to act strongly to change the Chairman of the Board.

Our conclusions and implications of the empirical results might not be able to generalize to other capital markets, because different market and legal regimes operate in Taiwan. We suggest that future studies can expend this line of research to other capital markets.

## REFERENCES

- Agrawal, A., Chadha, S. (2005), Corporate governance and accounting scandals. *Journal of Law and Economics*, 48(2), 371-406.
- Alsaed, K. (2006), The association between firm-specific characteristics

- and disclosure: The case of Saudi Arabia. *Managerial Auditing Journal*, 21(5), 476-496.
- Beneish, M.D. (1999), Incentives and penalties related to earnings overstatements that violate GAAP. *The Accounting Review*, 74(4), 425-457.
- Cárdenas, J. (2012), Varieties of corporate networks: Network analysis and fsQCA. *International Journal of Comparative Sociology*, 53(4), 298-322.
- Choi, J., Kim, F., Kim, J., Zang, Y. (2007), Audit office size, audit quality and audit pricing. Working Paper, Seoul National University, City University of Hong Kong, Hong Kong Polytechnic University, and Singapore Management University.
- Dechow, P.M., Sloan, R.G., Sweeney, A.P. (1996), Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research*, 13(1), 1-36.
- DeFond, M.L., Jiambalvo, J. (1991), Incidence and circumstances of accounting errors. *Accounting Review*, 66, 643-655.
- Depoers, F. (2000), A cost-benefit study of voluntary disclosure: Some empirical evidence from French listed companies. *European Accounting Review*, 9(2), 245-263.
- Desai, H., Hogan, C.E., Wilkins, M.S. (2006), The reputational penalty for aggressive accounting: Earnings restatements and management turnover. *The Accounting Review*, 81(1), 83-112.
- Farber, D.B. (2005), Restoring trust after fraud: Does corporate governance matter? *The Accounting Review*, 80(2), 539-561.
- Feldmann, D.A., Read, W.J., Abdolmohammadi, M.J. (2009), Financial restatements, audit fees, and the moderating effect of CFO turnover. *Auditing: A Journal of Practice & Theory*, 28(1), 205-223.
- Francis, J.R., Yu, M.D. (2009), Big4 office size and audit quality. *The Accounting Review*, 84(5), 1521-1552.
- Gleason, C.A., Jenkins, N.T., Johnson, W.B. (2008), The contagion effects of accounting restatements. *The Accounting Review*, 83(1), 83-110.
- General Accounting Office, 2002. Financial statement restatements: trends, market impacts, regulatory responses, and remaining challenges, GAO-03-138.
- Hennes, K., Leone, A., Miller, B. (2008), The importance of distinguishing errors from irregularities in restatement research: The case of restatements and CEO/CFO turnover. *The Accounting Review*, 83(6), 1487-1519.
- Karpoff, J.M., Lee, D.S., Martin, G.S. (2008), The consequences to managers for financial misrepresentation. *Journal of Financial Economics*, 88(2), 193-215.
- Kinney, W.R., McDaniel, L.S. (1989), Characteristics of firms correcting previously reported quarterly earnings. *Journal of Accounting and Economics*, 11(1), 71-93.
- Kothari, S.P., Ramanna, K., Skinner, D.J. (2009), What Should GAAP Look Like? A Survey and Economic Analysis.
- Leone, A.J., Liu, M. (2010), Accounting irregularities and executive turnover in founder-managed firms. *The Accounting Review*, 85(1), 287-314.
- Mendel, J.M. (2013), The essence of fuzzy set qualitative comparative analysis (fsQCA). In: *Soft Computing: State of the Art Theory and Novel Applications*. New York: Springer Berlin Heidelberg. p25-37.
- Palmrose, Z.V., Richardson, V.J., Scholz, S. (2004), Determinants of market reactions to restatement announcements. *Journal of Accounting and Economics*, 37(1), 59-89.
- Peterburgsky, S. (2012), In search of responsible CEOs: The case of CEOs with non-profit experience. *Journal of Business Research*, 65(9), 1374-1383.
- Ragin, C.C. (2006), Set relations in social research: Evaluating their consistency and coverage. *Political Analysis*, 14(3), 291-310.
- Reynolds, J.K., Francis, J.R. (2000), Does size matter? The influence of large clients on office-level auditor reporting decisions. *Journal of Accounting and Economics*, 30(3), 375-400.
- Richardson, S.A., Tuna, A., Wu, M. (2002), Predicting earnings management: The case of earnings restatements. *Min, Predicting Earnings Management: The Case of Earnings Restatements* (October 2002).
- Srinivasan, S. (2005), Consequences of financial reporting failure for outside directors: Evidence from accounting restatements and audit committee members. *Journal of Accounting Research*, 43(2), 291-334.
- Sue, S.H., Chin, C.L., Chan, A.L.C. (2013), Exploring the causes of accounting restatements by family firms. *Journal of Business Finance & Accounting*, 40(9-10), 1068-1094.
- Sutton, R.I., Callahan, A.L. (1987), The stigma of bankruptcy: Spoiled organizational image and its management. *Academy of Management Journal*, 30(3), 405-436.
- Wang, Y.F., Huang, Y.T. (2014), Types of restatement decisions and ex-ante red flags of internal control quality. *Global Journal of Business Research*, 8(1), 1-8.
- Woodside, A.G. (2013), Moving beyond multiple regression analysis to algorithms: Calling for a paradigm shift from symmetric to asymmetric thinking in data analysis and crafting theory. *Journal of Business Research*, 63, 483-472.
- Woodside, A.G., Camacho, A.R., Lai, W.H. (2013), Sense making, dilemma, and solutions in strategic management. *International Journal of Business and Economics*, 12(2), 91-95.
- Wu, M. (2002), Earnings restatements: A capital market perspective. Working Paper, New York University.