Understanding Financial Derivatives Usage by Directors and Its Impact on Corporate Governance Policies in Vietnam

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School of Business and Governance

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I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

I certify that to the best of my knowledge and belief it does not contain any material previously published or written by another person without due reference in the text.

Candidate:

THI HONG LIEN TRAN

Date: 1 July 2018
Abstract

**Purpose:** Directing and controlling a company to achieve its strategic and tactical goals requires a complex network of relationships with stakeholders which means boards need to have directors with adequate competencies and skills. Do directors of boards have the required level of knowledge and does such knowledge have potential impacts on corporate governance policy? This thesis examines these questions in the context of financial derivatives in the emerging economy of Vietnam to add to the literature on individual directors’ understanding of the use of such controversial instruments.

**Methodology:** This thesis used a mixed methods approach, with a survey of 119 directors followed by qualitative interviews with 19 directors of public corporations in Vietnam using insights from the theory of planned behaviour combined with the model of board roles and attributes, and stakeholder theory.

**Findings:** Directors’ knowledge of financial derivatives is relatively low and strongly affected by their education and working experience. In addition, directors’ knowledge is associated with critical factors that impact their intention to use financial derivatives, which is the direct predictor of their future behaviour in deciding to use the instruments. Such an interaction among knowledge, intention and behaviour is a concern to the directors who were experienced in financial issues; directors worry about threats to corporations when directors lack knowledge while having positive attitudes and high levels of intention. Financially experienced directors suggested appropriate corporate risk management policy and director training as two key solutions to these threats. The interviews also uncovered emerging themes about business culture, the government’s
role and the market for financial derivatives which have impacted directors’ knowledge and corporate policies.

**Research Limitations and Implications:** Key limitations include the use of single country and cross-sectional data combined with a relatively small sample size and potential self-reporting bias. The main implications include the need for enhanced collaboration and cooperation among key stakeholders including the government, boards, individual directors and relevant training organisations. The government should lead by setting up a legal and regulatory framework for financial derivatives. Boards should clarify their corporate risk management policy, choose members to ensure the necessary competencies are available and accept continuous training. Individual directors should be aware of and take part in self-learning and training to be suitable for their position. Finally, training organisations should customise their courses for directors to suit directors’ time constraints and their strategic level leadership.

**Originality:** This thesis was the first to investigate individual board director behaviour in Vietnam and to analyse directors’ understanding of financial derivatives and their related decision making in an emerging economy.

**Keywords:** Theory of Planned Behaviour, Stakeholder Theory, Board Directors, Financial Derivatives, Corporate Governance, Risk Management, Vietnam, Mixed Methods
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Finally, there are many other people I have not named whose contribution has helped to complete this thesis.
Dedication

This thesis is dedicated to my mother and father, sisters and brothers, and niece and nephews.
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
</tr>
<tr>
<td>BIDV</td>
<td>Bank for Investment and Development of Vietnam</td>
</tr>
<tr>
<td>CBOT</td>
<td>Chicago Board of Trade</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CME</td>
<td>Chicago Mercantile Exchange Group</td>
</tr>
<tr>
<td>CMX</td>
<td>Chicago Mercantile Exchange</td>
</tr>
<tr>
<td>COSO</td>
<td>Committee of Sponsoring Organizations of the Treadway Commission</td>
</tr>
<tr>
<td>ERM</td>
<td>Enterprise Risk Management</td>
</tr>
<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>LIFFE</td>
<td>London International Financial Futures and Options Exchange</td>
</tr>
<tr>
<td>NYM</td>
<td>New York Mercantile Exchange</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>PBC</td>
<td>Perceived Behavioural Control</td>
</tr>
<tr>
<td>PhD</td>
<td>Doctor of Philosophy</td>
</tr>
<tr>
<td>SSC</td>
<td>State Securities Commission (Vietnam)</td>
</tr>
<tr>
<td>SWAP</td>
<td>Swap contract</td>
</tr>
<tr>
<td>TPB</td>
<td>Theory of Planned Behaviour</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>VND</td>
<td>Vietnam Dong</td>
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</table>
# Table of Contents

Abstract........................................................................................................................................1
Acknowledgments ............................................................................................................................iii
Dedication .........................................................................................................................................vi
Abbreviations .................................................................................................................................vii
Table of Contents ............................................................................................................................viii
List of Figures ....................................................................................................................................xv
List of Tables ......................................................................................................................................xv
List of Exhibits ...............................................................................................................................xv

## Chapter 1 Introduction..................................................................................................................1

1.1. Introduction ................................................................................................................................1

1.2. Corporate Governance, Board of Directors and Financial Derivatives ..................................4
   1.2.1. Corporate Governance ........................................................................................................4
   1.2.2. Directors: Roles, Responsibilities and Competencies .........................................................5
   1.2.3. Financial Derivatives and Directors' Knowledge ...............................................................8

1.3. Vietnam: Corporate Governance and Emerging Financial Derivatives Market ..................11
   1.3.1. Corporate Governance in Vietnam ......................................................................................11
   1.3.2. The Future of Derivatives Markets in Vietnam .................................................................12
   1.3.3. Pressure on Directors ..........................................................................................................13

1.4. Motivation and Benefits of the Study .......................................................................................14

1.5. Research Objective and Questions, Theoretical Framework and Research Approach ..........16
   1.5.1. Pragmatism ..........................................................................................................................17
   1.5.2. Stakeholder Theory in Corporate Governance ....................................................................17
   1.5.3. Theory of Planned Behaviour .............................................................................................18
   1.5.4. Model of Board Attributes and Roles ................................................................................19
   1.5.5. Quantitative Inquiry ............................................................................................................20
   1.5.6. Qualitative Inquiry .............................................................................................................20

1.6. Key Research Findings .............................................................................................................21

1.7. Thesis Structure .......................................................................................................................25

1.8. Conclusion ...............................................................................................................................26

## Chapter 2 Literature Review ........................................................................................................27

2.1. Corporate Governance and Associated Theories ....................................................................28
   2.1.1. The Development of Corporate Governance ......................................................................28
   2.1.1.1. The History of Corporations and Their Nature .................................................................28
   2.1.1.2. Developments in Corporate Governance ........................................................................31
      The 1970s .................................................................................................................................32
      The 1980s ...............................................................................................................................33
      The 1990s ...............................................................................................................................34
      The 2000s ...............................................................................................................................35
   2.1.1.3. Definitions and Areas of Interest .......................................................................................37
   2.1.1.4. Corporate Governance Models .........................................................................................42
      The Anglo-Saxon Model ...........................................................................................................43
      The Germanic Model ...............................................................................................................45
      The Latin Model .......................................................................................................................46
      The Japanese Model ...............................................................................................................46
Chapter 3 Corporate Governance in Vietnam .................................................. 97

3.1. Corporate Governance – Country Assessment ........................................ 97
3.2. Corporate Governance in Vietnam .......................................................... 99
3.3. Analytical Overview of the Development of Corporate Governance in Vietnam ...... 101
   3.3.1. Securities Markets Development ..................................................... 102
   3.3.2. Equitisation of State-owned Enterprises and Formation of Public Companies ... 103
3.4. Typical Features of Corporate Governance of Public Companies in Vietnam .......... 105
   3.4.1. Leading Role of the Government .................................................... 105
   3.4.2. Active Participation of International Institutions .................................. 109
   3.4.3. Passiveness of Businesses ............................................................. 111
   3.4.4. Discussion .................................................................................... 113
3.5. Fraud and the Forging of Documents at Vietinbank ...................................... 115
3.6. Financial Derivatives in Vietnam ............................................................... 118
3.7. Conclusion .............................................................................................. 126

Chapter 4 Methodology ..................................................................................... 128

4.1. Philosophy ............................................................................................... 128
   4.1.1. Positivism – Post-positivism ............................................................ 130
   4.1.2. Constructivism – Interpretive Social Science ..................................... 131
   4.1.3. Pragmatism .................................................................................... 132
4.2. Methodology ............................................................................................ 133
Chapter 5 Survey Results

5.1. Data Description and Variate Creation

5.1.1. Data Description
  5.1.1.1. Sample and Responses
  5.1.1.2. Participants

5.1.2. Variate Factor Analysis
  5.1.2.1. Knowledge
  5.1.2.2. Attitude
  5.1.2.3. Risk Propensity
  5.1.2.4. Subjective Norm
  5.1.2.5. Perceived Behavioural Control

5.2. Directors’ Understanding of Using Financial Derivatives from Descriptive Analysis
5.3. Association between Directors’ Understanding with Attitude and Other Variables ................................................. 200
  5.3.1. Associations between Personal and Corporate Features and Variates ......................................................... 200
    5.3.1.1. Knowledge ................................................................................................................................................ 200
    Difference among Highest Level of Qualifications ................................................................. 201
    Difference among Qualification Specialisations .............................................................. 202
    Difference among Major Areas of Working Experience ................................................. 203
    Difference between Directors’ Company Primary Industry ........................................ 204
    Difference between Directors’ Company Scale (Number of Employees) ...................... 204
  5.3.1.2. Risk Propensity ......................................................................................................................................... 204
  5.3.1.3. Attitude ....................................................................................................................................................... 205
  5.3.1.4. Subjective Norm ......................................................................................................................................... 205
  5.3.1.5. Perceived Behavioural Control .............................................................................................................. 205
  5.3.1.6. Intention ..................................................................................................................................................... 206
  5.3.2. Variate Correlations ...................................................................................................................................... 207
5.4. Extensive Impact of Directors’ Knowledge of Financial Derivatives ................................................................. 214
5.5. Connecting Directors’ Knowledge and Attitude with Corporate Policy .............................................................. 216
5.6. Conclusion ............................................................................................................................................................ 217

Chapter 6 Interview Results ........................................................................................................................................... 219

6.1. Directors’ Understanding of the Use of Financial Derivatives: An Explanation ........................................ 219
  6.1.1. Perceived Benefits and Risks of Using Financial Derivatives ................................................................. 220
    6.1.1.1. Benefits ................................................................................................................................................ 220
    6.1.1.2. Risks .................................................................................................................................................... 221
  6.1.2. Reasons for Directors’ Poor Understanding of Financial Derivatives Use ................... 223
    6.1.2.1. Working Experience not in Finance .................................................................................................. 224
    6.1.2.2. No Urgent Demand .............................................................................................................................. 226
    6.1.2.3. No Training and Insufficient Knowledge at the Top ..................................................................... 226
6.2. Influence of Directors’ Knowledge on Attitude and Other Variables ................................................................. 227
  6.2.1. Positive Attitude ........................................................................................................................................... 227
    6.2.1.1. Benefits ................................................................................................................................................ 227
    6.2.1.2. Demand for Changes in the Market .................................................................................................. 228
  6.2.2. Strong Intention .......................................................................................................................................... 229
  6.2.3. Risk Propensity .......................................................................................................................................... 230
  6.2.4. Limited Supply of Capable Human Resources for Financial Derivatives Market ......... 231
6.3. Gaps and Risks ....................................................................................................................................................... 232
  6.3.1. Reasons for Worry about the Gaps ................................................................................................. 232
  6.3.2. Reasons not to Worry about the Gaps ................................................................................................. 233
6.4. Business Culture ..................................................................................................................................................... 234
  6.4.1. Low Levels of Trust in Employees ................................................................................................. 235
  6.4.2. Low Care about Avoiding Losses, Focusing on Making Money ............................................. 237
6.5. The Government’s Role in Establishing a Financial Derivatives Market ......................................................... 237
  6.5.1. Setting up a Legal Framework ............................................................................................................... 238
  6.5.2. Developing Underlying Markets ................................................................................................. 239
  6.5.3. Disseminating Knowledge and Training ...................................................................................... 240
  6.6.1. Suppliers and Products .................................................................................................................. 241
  6.6.2. Users and Purposes for Using Financial Derivatives ........................................................................ 243
    6.6.2.1. Export/Import Businesses ............................................................................................................. 243
    6.6.2.2. Companies with Borrowing Requirements ............................................................................. 243
  6.6.3. Market Development Predictions ................................................................................................. 245
  6.6.4. Reasons for not Using Financial Derivatives ................................................................................. 246
    6.6.4.1. Scale of Business ....................................................................................................................... 247
    6.6.4.2. Offering Prices Too High ......................................................................................................... 247
6.6.4.3. Nature of Business Cycles .................................................. 248
6.6.5. The Most Popular Types of Financial Derivatives in Vietnam .................. 248
  6.6.5.1. Coffee Futures ................................................................... 248
  6.6.5.2. Currency and Interest Rate Financial Derivatives ......................... 249
  6.6.5.3. Securities Derivatives ....................................................... 250
6.7. Expected and Emerging Themes .................................................. 250
6.8. Conclusion .............................................................................. 251

**Chapter 7 Analysis of Results** ..................................................... 253

7.1. Combination of Qualitative and Quantitative Elements to Address Research Questions 253
  7.1.1. Directors’ Understanding of Using Financial Derivatives .................. 254
    7.1.1.1. Current Status ................................................................... 254
    7.1.1.2. Reasons for Directors’ Insufficient Understanding of Financial Derivatives 257
    7.1.1.2.1. Weak Market Forces ..................................................... 257
    7.1.1.2.2. Lack of Legal Framework ................................................. 257
    7.1.1.2.3. Nature of the Business .................................................... 258
    7.1.1.2.4. Lack of Training ............................................................ 258
    7.1.1.2.5. Unrelated Experience .................................................... 258
    7.1.1.2.6. Business Culture .......................................................... 259
  7.1.2. Association between Directors’ Knowledge and Attitude to Financial Derivatives 259
    7.1.2.1. Linking Directors’ Knowledge, Attitude, and Intention to Use Financial Derivatives and Corporate Governance Policies on Risk Management .............. 261
    7.1.2.2. Mechanisms Connecting Directors’ Knowledge, Attitude, Intention and Corporate Governance Policies ................................................................. 264
  7.1.3. Key Stakeholders in Board Directors’ Consideration of Using Financial Derivatives and their Roles .................................................. 266
7.2. Directors’ Recommended Ways to Improve Their Knowledge of Financial Derivatives 271
  7.2.1. Combination of Financial Derivatives Experts in Boards of Directors .... 271
  7.2.2. Training .............................................................................. 272
  7.2.3. Self-learning and Actual Practice ................................................. 273
  7.2.4. Outside Consultancy .............................................................. 275
7.3. Corporate Policy on Financial Derivatives as Suggested by Directors .......... 276
  7.3.1. Risk Management Framework ................................................ 276
  7.3.2. Delegation of Approval Authority ............................................. 280
  7.3.3. Ethics ................................................................................. 281
  7.3.4. Outside Consultancy .............................................................. 281
7.4. Implications .............................................................................. 283
  7.4.1. Implications for Theories ........................................................ 283
  7.4.2. Implications for Government Authorities ...................................... 284
  7.4.3. Implications for Corporate Boards ............................................. 285
  7.4.4. Implications for Directors ....................................................... 287
  7.4.5. Implications for Training Organisations ..................................... 290
7.5. Conclusion .............................................................................. 291

**Chapter 8 Contributions and Conclusion** .................................... 292

8.1. Contribution to Knowledge ....................................................... 292
8.2. Contribution to Theory and Practice .......................................... 296
8.3. Contribution to Methodology .................................................... 297
8.4. Limitations and Recommendations for Future Research ................. 299
8.5. Conclusion .............................................................................. 301

References ..................................................................................... 305
List of Figures

Figure 1.1. Thesis Research Process – Quantitative and Key Research Findings ...........................................22
Figure 2.1. Typical Board Roles ......................................................................................................................71
Figure 2.2. Relationships between Input Variables, Board Behaviour and Output .....................................74
Figure 2.3. A Framework for the Influence of the Board of Directors .......................................................77
Figure 3.1. Money Flow in Vietinbank Scandal 2014 .....................................................................................116
Figure 4.1. Qualitative – Mixed Methods – Quantitative Continuum* .........................................................134
Figure 4.2. The Theory of Planned Behaviour .............................................................................................138
Figure 4.3. Model of Board Attributes and Roles .......................................................................................142
Figure 4.4. The Thesis Research Paradigm ................................................................................................145
Figure 4.5. Proposed Quantitative Research Model ....................................................................................153
Figure 5.1. Mean Scores of Knowledge Items ............................................................................................188
Figure 5.2. Significant Associations between Main Variates and Directors’ Personal and Corporate Features ..............................................................................................................................207
Figure 5.3. The Supported Research Model ................................................................................................215
Figure 7.1. Coordination of Quantative and Qualitative Methods in Answering the Research Questions ..................................................................................................................................................254
Figure 7.2. Illustration of Coffee Futures Transactions by Local Coffee Exporters ....................................264
Figure 7.3. Process Leading from Directors’ Insufficient Knowledge to a Risk Management Policy ..................................................................................................................................................................266
Figure 7.4. Impact of Government Regulators on Financial Derivatives Market Development ................269
Figure 7.5. Corporate Risk Management Policy Recommended by Director Interviewees .....................282
Figure 8.1. Attitude – Behaviour – Culture Model .........................................................................................295
List of Tables

Table 2.1. A Taxonomy of Systems of Corporate Governance ........................................... 44
Table 2.2. Alternative Views of Organisations, Human Nature and Governance .................. 48
Table 2.3. Four Perspectives on Boards of Directors ................................................................. 64
Table 4.1. Basic Beliefs (Metaphysics) of Alternative Inquiry Paradigms .............................. 129
Table 4.2. List of Interviewees ..................................................................................................... 168
Table 5.1. Participants’ Qualification Specialisation, Primary Area of Working Experience, Age and Gender .................................................................................................................. 179
Table 5.2. Summary of the Factor Analysis to Form Variates ................................................. 187
Table 5.3. Summary of Knowledge Item Scores and Frequency ............................................. 184
Table 5.4. Descriptive Statistics of Differences in Knowledge of Director Qualification Groups: Finance and Accounting versus Others ................................................................. 187
Table 5.5. Descriptive Statistics of Differences in Knowledge of Director Working Experience Groups: Finance and Accounting versus Others ........................................................................... 190
Table 5.6. Summary of Attitude Item Scores and Frequency ................................................... 195
Table 5.7. Summary of Risk Propensity Item Scores and Frequency ........................................ 196
Table 5.8. Summary of Subjective Norm Item Scores and Frequency ...................................... 197
Table 5.9. Summary of Perceived Behavioral Control Item Scores and Frequency................. 198
Table 5.10. Summary of Intention Item Scores and Frequency ................................................. 199
Table 5.11. Hypotheses of Relationships among the Main Variables ...................................... 208
Table 5.12. Hypotheses, Further Correlations and Conclusions ............................................. 214

List of Exhibits

Exhibit 1.1. Exchange Rate: ABN Amro vs. Incombank ......................................................... 119
Exhibit 1.2. Fuel Hedging: Jetstar Pacific Airlines ................................................................. 122
Exhibit 1.3. Vietnamese Coffee Industry .................................................................................. 123
Exhibit 4.1. Predetermined Interview Questions ..................................................................... 164
Exhibit 4.2. Emerging Interview Questions ............................................................................. 166
Chapter 1 Introduction

1.1. Introduction

As one of the most popular types of commercial organisation in human society, corporations wield significant influence within nations and transnationally. Hence, the effective and ethical governance of these entities warrants significant attention.


The board of directors has been a central feature of corporate governance since the beginning of modern joint stock companies. The board consists of those people who direct a company and is effectively the top of the corporate hierarchy. However, a board’s effectiveness in exercising this responsibility has been challenged (Hamilton
Boards have been studied from various perspectives such as board attributes and characteristics (Madhani 2015b, Shaukat, Qiu, and Trojanowski 2016, Yatim, Iskandar, and Nga 2016), board structure (Choudhuri 2017, Farag and Mallin 2016, Mehrotra 2016), board diversity (Adams et al. 2015, Ben-Amar, Chang, and McIlkenny 2017, Buse, Bernstein, and Bilimoria 2016, Cumming, Leung, and Rui 2015, Hillman 2015) and board human capital (Lajili 2015, Mishra, Devi, and Gupta 2015, Volonté and Gantenbein 2016). Khanna, Jones, and Boivie (2014) investigated board directors from human capital and cognition perspectives and found that directors’ general human capital, their prior experience and their education can be a source of competitive advantage by making them more effective at monitoring management and providing advice, depending on the information processing load they need to undertake in their other board appointments.

Boards have been a focus in corporate failures in recent decades. Since the 1970s, serious concerns and scandals linked to the practice of corporate governance have emerged after a series of spectacular corporate failures and scandals in leading corporations, such as Barings (UK), Allied Irish Bank (Ireland), Enron (US), WorldCom (US), Tyco (US), Marconi (UK), Swissair (Switzerland), Royal Ahold (Netherlands) and Parmalat (Italy) and more recent cases such as King Fisher Airlines in India (Berger, Imbierowicz, and Rauch 2016, Kaur 2014, Yeoh 2016, Ravi 2016,). Several elements have been identified as the root causes for the scandals, such as corporate overexpansion; over-dominant Chief Executive Officers (CEOs); greed, hubris and desire for power; failure of internal controls; and ineffective boards (Hamilton and Micklethwait 2006). Consequently, boards of directors are increasingly expected to be responsible for risk governance including board-level risk committees,
empowered chief risk officers, the use of risk appetite statements, and establishing a robust risk culture (Gontarek 2016).

One of the most popular risk management tools is financial derivatives. Even though it is costly to develop a derivatives market, financial derivatives transactions have increased due to competition between exchanges and countries racing to become global financial centres. The strong emphasis on profit-making and a lack of internal risk control make derivatives risky to society as demonstrated by major corporate collapses. In addition, the sophistication and information asymmetry in modern finance has led to overpriced derivatives that cancel out the benefits (Su and Si 2015). Souza Murcia, Murcia, and Pfitscher (2017) called derivatives “mass destruction” to Brazilian company Sadia, with a net loss of approximately US$1 billion in 2008, due to both internal governance and external regulatory problems such as the board of directors’ failure to specify and assign a specific division in an inherently weak control system to control risk in the derivatives transactions. Furthermore, even hedging products have become financial speculations when their transaction value far surpasses the scale of the protected assets. In China, the stock index futures bubble burst created a stock market crash in 2015 (Yang 2017).

This thesis is set in the context described above. The following sections provide an overview of the literature, motivation, research methodology and findings as well as the overall structure of the thesis.
1.2. Corporate Governance, Board of Directors and Financial Derivatives

1.2.1. Corporate Governance

Corporate governance issues and concerns emerge when there is a separation between ownership and management (Cordery and Howell 2017, Gourevitch and Shinn 2005, Mingardi 2015, Pargendler 2016, Solomon 2007, Swan 2000, Tricker 2012), which occurred even earlier than Berle and Means’ 1933 suggestion (Acheson et al. 2015), and which relates to the development of corporate governance which can be traced back to the formation of joint stock companies in the seventeenth century.

Currently, there are several definitions of corporate governance, emerging from different disciplinary perspectives, including agency theory, stewardship, institutional theory, resource dependency, and the stakeholder point of view. Originally, corporate governance dealt with issues related to the maximisation of profits for shareholders. That primary focus has gradually expanded to include a wider range of stakeholders (Smith, Russell, and Tennent 2017, Kooskora 2006, Ayuso et al. 2014, Loi 2016) as corporations have come to be viewed as “social institutions” (Berle and Means 1933).

This thesis investigates corporate governance from the stakeholder point of view and adopts the following definition: “corporate governance is defined as the system of checks and balances, both internal and external to companies, which ensures that companies discharge their accountability to all their stakeholders and act in a socially responsible way in all areas of their business activities” (Solomon 2007, 14).

Different approaches emphasise different aspects of corporate governance. The focus could be on ensuring the basis for an effective corporate governance framework (OECD 2004, Haxhi and Aguilera 2016), or on board roles and operations (Tricker...
a narrower focus could be on shareholders and ownership, directors and monitoring, management and performance (Monks and Minow 2004, Cremers, Khanna, and Gordon 2017). All of these approaches include common related parties, and all consider the board of directors to be a vital element of effective corporate governance.

1.2.2. Directors: Roles, Responsibilities and Competencies

The directors’ primary roles include supporting and exercising oversight over the CEO, determining the direction of strategy, and ensuring that the corporation’s affairs are conducted in an ethical, legal and socially responsible fashion (Lorsch and MacIver 1989, 75-6). Directors’ duties vary depending on the particular role they assume, such as insiders, business experts, support specialists, or influential members of the community (Markarian and Parbonetti 2007). Their job constitutes the widely-known duties of boards of directors in general including a linking role, coordinating role, control role, strategic role, maintenance role and support role (Hung 1998). Corporate boards perform different tasks at the same time, according to the characteristics of the company and its environment (Rindova 1999). These well-specified roles of directors are supported by current research (Alabede and Muff 2015, Caiazza and Simoni 2015, Brandes, Dharwadkar, and Suh 2016, Mehta and Coomar 2016, García Lara et al. 2017).

Directors’ capability to undertake the roles depends on their level and exercise of corporate power, based on their legal authority, confidence in expressing their ideas and views, their control of the agenda and discussion process, and their knowledge of the matter under discussion (Lorsch and MacIver 1989). There is a process that enables directors’ knowledge to contribute to creating corporate value; the starting point is that
Directors have the knowledge necessary for the corporation and the next step is to put such knowledge to work in the board’s processes, such as in decision making. Board processes are the key to understanding board effectiveness (Leblanc 2005, Nielsen and Huse 2010a). Jonnergård and Svensson (1995) demonstrate that board behaviour is the mechanism that transforms board inputs (tenure, background, attitudes) into output (board performance, board policies).

Directors’ abilities influence the board’s performance via the mechanism in which the attributes of individual directors and of the board as a whole interact with the corporation’s characteristics to form board responsibilities, which then result in the board’s eventual actions (Cravens and Wallace 2001, 3). To improve board processes, the board needs to have members with appropriate expertise in different areas and with strong communication skills (Finkelstein and Mooney 2003).

What are the crucial competencies that directors of boards should have?

The competencies needed differ according to the type of director, such as board chair or inside executive member or outside director. Technically, members of the board of directors must have a minimum knowledge of accountancy, corporate law and the industry, and have corporate directing experience because board structures are operated by people (Van den Berghe and Levrau 2004). Outside directors are chosen first and foremost on the basis of their expertise and familiarity with the organisation (Provan 1980), which is expressed in their breadth of experience and knowledge, their contacts outside the firm, and their independence from the CEO and other top executives, and especially their business experience (Kesner 1988).

After comprehensive research on board directors’ competencies, Dulewicz, Gay, and Taylor (2007) suggest a relatively comprehensive list of desirable features, including
integrity, a critical faculty, perspective and vision ability, willingness to change, listening ability and good judgement. Directors’ core competencies are those critical for success and the competencies listed do not cover all those required to carry out their role, but are pointers for success as a director (Tricker and Lee 1997).

The Institute of Directors (United Kingdom) also specifies what knowledge directors need to have including knowledge specific to boards (corporate governance, board roles, relationships and processes, board standards of good practice, corporate finance and accounting principles and practices), and specific to the company and the business environment (political, economic, social and cultural issues, key trends and development, public affairs and communication) (Tricker and Lee 1997, 92). Effective boards require capable individuals who contribute wide company experience, financial expertise and have credibility with shareholders (Long, Dulewicz, and Gay 2005).

Financial expertise is essential to understand the complex workings of the firm and the risks associated with the firm’s policies, but many bank boards have lacked sufficient financial expertise to identify and control exposure to risk in the years preceding the 2007–2008 global financial crisis (Srivastav and Hagendorff 2016). When there is a shortfall of knowledge, many directors remain silent to save face, which makes them ineffective (Lorsch and MacIver 1989). In reality, boards of directors do often lack in-depth know-how in auditing, risk management and communication (Hilb 2005a).

Globally, the demand for skilled directors is increasing while the supply is decreasing (Brown and Brown 1999, Linck, Jeffry and Yang 2009), so training for directors in professionalism and in the complexity of board tasks is in great demand (Van den Berghe and Levrau 2004). However, people have become less interested in learning, and there is a limit to their acquisition of knowledge if there is no incentive that exerts
pressure on them (Shen 2003). Incentives are definitely available as shown in the Centro case in Australia. The Australian Securities and Investment Commission pursued a case against seven directors and the Chief Financial Officer of Centro Properties Group (CNP) and Centro Retail Group (CER) in 19 October 2009, and won in court on 27 June 2011. The Federal Court found that the seven directors had breached their duties when they signed off on financial reports that disclosed short-term liabilities as non-current and failed to disclose a post-balance event, because directors should understand the company financial position and be able to communicate accurately to the market (Australian Securities and Investment Commission 2011). This case raised concerns about directors’ financial and accounting literacy not only in Australia (Australian Department of Families, Housing, Community Services and Indigenous Affairs 2012, Clayton Utz 2011, Wood 2011) but also in South Africa (Deloitte & Touche 2014).

In conclusion, directors’ expertise, especially financial knowledge, is essential for effective board decisions. It is the source of legitimacy and power that determines a director’s contribution to board deliberations. Because of the importance of this expertise, this thesis investigates board directors’ understanding of one aspect of finance: financial derivatives. While there have been some studies on the topic in developed countries such as the United States and the Netherlands, a dearth of research on emerging economies leads to this thesis focusing on Vietnam, a developing country.

1.2.3. Financial Derivatives and Directors’ Knowledge

A derivative can be defined as “A sale of a promise to provide an agreed asset: (1) at an agreed price, and (2) at an agreed future time, which may be settled by choosing from agreed alternatives”; the promised asset can be cash or commodities, and the
agreed price can be referenced to any standard of measure (Swan 2000, Kolb and Overdahl 2010). The agreed settlement alternatives may be expressed or implied by market practice (Kolb and Overdahl 2010). Derivatives are used for financing future activities, securing supplies and managing risk and speculation, as well as being something to sell (Swan 2000). Typical forms of financial derivatives are forwards, futures, options and swaps; in addition to these, there are other structured products (Kolb and Overdahl 2010).

Since their initiation, commodities and financial derivatives have experienced intermittent prohibition and acceptance, until finally they have been recognised and enforced by laws across different countries. There have been recurring moves to eliminate derivatives markets through legislative action (Kolb and Overdahl 2010). However, derivatives are now recognised, regulated and legislated as a part of normal business in many countries and jurisdictions such as Australia, China, Japan, United Kingdom and the United States, which demonstrates their great attractiveness to the business world.

For the public at large, financial derivatives have long been the most mysterious and least understood of all financial instruments (Gordon, Hayt, and Marston 1996, Klein 1996, Schwimmer 1994, Kolb and Overdahl 2010, Masheane 1998, Swan 2000). While some financial derivatives are fairly simple, others are very complicated and require considerable mathematical and statistical knowledge to understand fully (Kolb and Overdahl 2010). The very nature of these financial derivatives makes them potentially subject to misuse, accident or mischief (Kolb and Overdahl 2010). Derivatives are still in their early stages in the corporate environment in Vietnam, as were stocks before 1929 in developed nations, and are likely to cause trouble until
regulations and training are implemented so that the marketplace can better understand and manage these products (Zask 1996).

In addition to hedging and speculation, two more uses of financial derivatives are tax optimisation and arbitrage including regulatory arbitrage, accounting or perception arbitrage, and funding arbitrage (Murphy 2008, Hull 2014). Hedging adds value to a firm by reducing expected taxes or financial distress costs, by mitigating the effect of underinvestment, or by allowing a firm to increase its debt capacity and take advantage of debt tax-shields without an increase in risk (Allayannis, Lel, and Miller 2012).

Speculators are important for market liquidity and formation (the risk purchasing side) (Swan 2000).

To make sure that derivatives are used in a prudent manner, we need the education, involvement and the support of senior management and directors (Seltzer 1996). Four factors common to all derivatives scandals are: exceptionally large wagers based on faulty strategies or the wild speculative activities of rogue traders; significant exogenous shocks that are difficult to predict and extremely rare; dysfunctional risk management systems and the lack of access to reliable sources of liquidity when needed most (Kolb and Overdahl 2010, 313).

The 2007–2008 financial crisis originated, among many causes, from sub-prime market failures and was exacerbated by financial engineering using financial derivatives (Griffith 2012, Robinson and Hronsky 2012). This raised the question of whether directors, especially independent non-executive directors, understand strategic models and sophisticated securitised instruments and the risks their companies can face (Tricker 2012). The three best-known failings that lead to derivative losses are failings of knowledge, accountability and judgement (Zask 1996).
Lack of knowledge or not properly understanding derivatives is a matter of the board and management who usually do not have time to study the instruments and their companies’ position before threats appear (Zask 1996). The biggest risk in using financial derivatives originates from the people in charge; however, their weakness can be improved (Zask 1996).

Grant and Marshall (cited in Marsden and Prevost 2005) note that since the widely publicised derivatives losses of the early 1990s one of the most important aspects of derivatives control among large UK companies is board-level approval. In their survey of derivatives usage among private and public New Zealand companies, Prevost, Rose and Miller (cited in Marsden and Prevost 2005) found that the board played an important role in the decision to use derivatives. Boards should approve all the purposes and uses of derivatives, limits and control procedures (Little 1999). In the United States, directors have been found guilty of breaching their duty of care by failing to supervise executive management and not becoming aware of the essentials of hedging in a way to allow the business to be monitored effectively (Seltzer 1996).

1.3. Vietnam: Corporate Governance and Emerging Financial Derivatives Market

1.3.1. Corporate Governance in Vietnam

Two securities exchanges for listed companies were formed in Vietnam in 2000 and 2005, with a third exchange (UPCoM) for unlisted public corporations formed in 2009. These exchanges have sharply boosted the number of listings and contributed greatly to the development and growth of public companies across the country. During this development process, the equitisation of state-owned enterprises (SOEs) is the principal mechanism to create joint stock public corporations, including listed
companies inside and outside of the VN30\(^1\) baskets, and it demonstrates the role of the government in market formation (Lien and Holloway 2014).

The Vietnamese government has actively developed an enhanced and more complete corporate governance framework, and international institutions in the country have strongly supported these developments, but the passive attitude and nature of the companies themselves is slowing down the embedding of improved corporate governance practices (Lien and Holloway 2014).

1.3.2. The Future of Derivatives Markets in Vietnam

In mid-April 2013, the State Securities Commission (SSC) of Vietnam announced its plan to issue a decree on financial derivatives at the end of the year. This was a signal for the opening of a new financial market in Vietnam. According to experience from other emerging economies, the derivatives markets usually start with index derivatives and then single-stock derivatives (Bhaumik and Bose 2009, Fernandez 2006, Lien and Mei 2008, Martins, Singh, and Bhattacharya 2012, Nair 2011). Vietnam has finished its preparation for an index derivatives market: in early 2012 the country’s two stock exchanges issued new indices (VN30-Index and HNX30-Index) in addition to the long-standing VNI-Index and HNX-Index. There are now four indices, and the index derivatives market is likely to open. The new market operators are likely to promote the participation of individual investors and institutional investors.

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\(^1\) A basket of 30 stocks with the largest market capitalisation (80% total market capitalisation) and the greatest liquidity (60% of total market trading value) in Ho Chi Minh City Stock Exchange.
1.3.3. Pressure on Directors

Lel (2012) conducted an exhaustive survey and tests to find that corporate governance at both company and country levels significantly influences the decision by firms to use currency derivatives, and to what extent. Strongly governed firms tend to use derivatives to hedge currency exposure and overcome costly external financing, while weakly governed firms appear to use derivatives mostly for managerial reasons. Derivative contracts are particularly appealing to managers for speculation because of the leverage they can provide, and because the complexity of interpreting the consequences of their use on firms’ operations and limited disclosure requirements in many countries means managers may feel less constrained by investor scrutiny (Lel 2012).

Lel’s explanation is strongly supported by research by Buckley and Van Der Nat (2003) into non-executive directors’ knowledge and attitude to financial derivatives in 80 companies in the Netherlands, South Africa, the United Kingdom and the United States. The results indicate that only one third of directors have appropriate knowledge of derivatives risks and operations, but highly favour the use of the instruments; directors rely heavily on management, auditors and audit committees when making a decision. A similar conclusion was reached by Schwimmer (1994).

The situation that directors favouring financial derivatives are less constrained is problematic because accounting manipulation, intentionally misstating a company’s financial information “to favourably represent the entity’s financial performance” by its managers (Trussel 2003, 616), and derivatives as complementary income-smoothing instruments have been confirmed by Attia’s (2012) analysis of previous literature. In other words, derivatives can be as dangerous as accounting manipulations;
and if directors are concerned about manipulation, they should apply the same level of concern to financial derivatives. Therefore, if directors, especially non-executive directors, do not understand what executives are using derivatives for, they cannot impose the appropriate level of controls to ensure accounting outcomes that best benefit relevant stakeholders.

Directors’ lack of understanding of derivatives occurs in most developed countries, as the surveys by Schwimmer (1994) and Buckley and Van Der Nat (2003) suggest. Does the same situation exist in Vietnam? Is this lack of understanding reflected in current corporate governance policies on risk management, especially for derivatives? Answers to these questions are useful for financial market developers and the companies themselves, especially in emerging economies.

1.4. Motivation and Benefits of the Study

There is a plethora of studies on boards of directors, but Tricker (2012, 79) has pointed out that “current research misses a focus on personal behaviour rooted in basic values (morality, honesty, integrity, decency, concern for others, respect and trust)”. Tricker added that future research needs to investigate the “black box” that is the boardroom, and to focus on board-level activities, directors’ behaviours and board leadership. He also suggests that the implementation of corporate governance below board level goes to the heart of corporate governance (Tricker 2012), which significantly widens the field for future research on corporate governance.

In addition, Vietnam is still an under-researched location in world studies of corporate governance; it has not appeared in books and journal papers in the field such as “A Survey of Corporate Governance” (Shleifer and Vishny 1997), “Law and Finance” (Porta et al. 1998), Corporate Governance in Asia: A Comparative Perspective
(OECD 2001), “Corporate Governance in Asia: A Survey” (Claessens and Fan 2003) and Corporate Governance and Accountability (Solomon 2007). This reflects that research on corporate governance in Vietnam is quite limited. Hence, a thorough investigation into corporate governance practices and policies of listed companies in Vietnam is of interest to different stakeholders and an effective contribution to the literature.

Access to the studied subjects is the typical barrier faced by researchers (Stiles and Taylor 2001) because board directors are very busy people (Lorsch and MacIver 1989). Hence, there is a dearth of publications about the “black box” of board processes (Tricker 1993a). Applying a general decision making model, the theory of planned behaviour (Ajzen and Fishbein 1997, 2000, Ajzen 2002, 1991, Madden, Ellen, and Ajzen 1992), this thesis aims to shed light on the relationship between directors’ knowledge, attitude and intention to use financial derivatives and the consequences of this relationship in the context of Vietnam, an emerging economy.

This thesis contributes to a deeper understanding of corporate governance and directors’ behaviour and voices on financial derivatives in Vietnam. How have directors and CEOs, especially from non-financial companies, prepared for new financial derivatives market promotion and accompanying pressure? How should they protect their companies in a new market context? What kind of policies do they think are needed?

In summary, there are gaps in the current literature on corporate governance on:

- a comprehensive understanding of fundamental corporate governance issues in Vietnam
• the current awareness and understanding of financial derivatives by directors of boards in Vietnam
• the relationship between directors’ understanding of financial derivatives and directors’ intention and readiness to use the instruments for business purposes.

This thesis addresses these gaps to benefit regulators, directors, corporations and other investors in derivative markets.

The thesis is a timely contribution as the government of Vietnam officially launched its first securities derivatives market in August 2017 (State Securities Commission of Vietnam 2017a). Therefore, the findings could be used as a baseline for future longitudinal studies not only in Vietnam but also in other developing markets.

1.5. Research Objective and Questions, Theoretical Framework and Research Approach

This thesis analyses how directors of boards in Vietnam understand the use of financial derivatives (both the upside and downside), their attitudes to using derivatives, and the subsequent effects on corporate governance. It aims to answer the following questions:

RQ 1. What is the level of perceived knowledge of directors of boards in Vietnam about the benefits and risks associated with using financial derivatives?

RQ 2. Does directors’ perceived level of knowledge affect their attitude towards using financial derivatives?

RQ 2a. Does such perceived level of knowledge and attitudes impact boards’ policies on risk management, especially on financial derivatives?

RQ 2b. What is the mechanism channelling the impact of directors’ perceived knowledge on the board’s policies?
RQ 3. Who are the key stakeholders in the board of directors’ consideration of using financial derivatives for corporate purposes and what are their roles?

To investigate directors’ understanding about financial derivatives and the relationship between this and their intention to use them, a mixed methods approach, using both qualitative and quantitative methods, was used because of the mix of research questions. The sequence was a survey instrument (quantitative) followed by personal semi-structured interviews (qualitative) conducted with directors in Vietnam.

1.5.1. Pragmatism

Pragmatism is the attitude of not being committed to any one system of philosophy of reality; its worldview arises out of actions, situations and consequences rather than antecedent conditions, and focuses on the problem in question for which researchers use all approaches available to understand (Creswell 2009). For that purpose, mixed methods research that combines quantitative and qualitative components in accordance with the researchers’ free choice is used (Creswell 2009, 10-11). Pragmatism argues that quantitative and qualitative methods are compatible, hence a combination of these methods in one piece of research is feasible (Teddlie and Tashakkori 2003, 7).

This thesis follows the pragmatist approach in answering the research questions. A combination of the quantitative and the qualitative approaches is intended to explore and explain directors’ understanding about using financial derivatives and the effect of that understanding.

1.5.2. Stakeholder Theory in Corporate Governance

Among the proliferation of corporate governance theories such as agency, institutional, resource dependence, managerial hegemony and stewardship, stakeholder theory
agrees with the others that corporate governance consists of structures and processes that ensure companies are controlled and directed (Solomon 2007). However, the stakeholder approach extends the scope of corporate governance to cover more than just shareholders and management and executives. The stakeholders also include regulators, employees, institutional investors and society in general.

Stakeholder theory supports pragmatism and pluralism (Freeman, Wicks, and Parmar 2004), accepting a collection of interacting, reinforcing and contradictory theories of business strategy instead of absolute objective definitions (Hitt, Freeman, and Harrison 2001, Hutton 1997). Therefore, a mixed methods approach does come under this theoretical framework.

The advantage of using stakeholder theory in this thesis as an explanatory lens is that value is created for the powerless stakeholders as well as for the company as a whole, by dealing with stakeholders on the basis that their partially shared interest is recognised in avoiding loss-making trade-offs (Freeman 2009).

1.5.3. Theory of Planned Behaviour

Originating in psychology, the theory of planned behaviour predicts personal intentions on the basis of the antecedents of beliefs, attitudes, subjective norms and perceptions of behavioural control, and the impact of intentions on behaviour (Ajzen 2011, 1115). In the theory of planned behaviour model, “attitude” is the kind of favourable or unfavourable feeling about the behaviours, “subjective norm” is the perceived social pressure, and “perceived behavioural control” is the perceived ease or difficulty of performing the behaviour. They are respectively affected by “behavioural beliefs” (beliefs about the likely consequences or other attributes of the behaviour), “normative beliefs” (beliefs about the normative expectations of other
people) and “control beliefs” (beliefs about the presence of factors that may further or hinder the performance of the behaviour). All are predictors of behavioural intention (Ajzen 2002, 665).

### 1.5.4. Model of Board Attributes and Roles

The effectiveness of boards in conducting the three roles of service, strategy and control depends on the board’s attributes, which include composition, characteristics or personality, structure and process. Characteristics refer to the directors’ experience, functional background, independence, age, education, values, experience, stock ownership, and similar variables that influence their interest in and performance of their board tasks (Zahra and Pearce 1989). In other words, board characteristics and individual directors’ attributes have a potential impact on board process and decision making in general. Although board personality may persist for some time, a considerable change in board composition and its members’ backgrounds can transform it (Zahra and Pearce 1989). The attributes of individual directors create the human capital. The human capital theory emphasises the role of education and training in improving people’s knowledge and skills, which increase productivity at work (Tan 2014).

Guided by the pragmatism approach, this thesis uses a combination of stakeholder theory, theory of planned behaviour and the model of board attributes and roles as the theoretical lenses in explaining the data and the phenomena to answer the set of research questions. The model of board attributes and roles supplements the theory of planned behaviour to create a more comprehensive model of directors’ decision making processes; the stakeholder theory allows the consideration of context features.
in influencing the directors’ decisions. The research is operationalised through the two component inquiries described below.

1.5.5. Quantitative Inquiry

Board members’ knowledge is crucial for their individual contribution and general board performance. With appropriate knowledge, directors can raise their voice, influence others and suggest solutions to problems. In turn, this level of knowledge is normally derived from directors’ education and experience, and influenced by the industry they are in and the nature of the corporation. This concept applies to all kinds of knowledge, including understanding how to use financial derivatives which is the focus of this study.

Financial investment and other savings decisions are where theory of planned behaviour applies, and in addition to the three normal factors (attitude, subjective norm and perceived behavioural control), past experience (range of previous investment or reading of financial news) affects intention (East 1993). Since knowledge contributes to directors’ decision making, it is added to the theory of planned behaviour model to see how it interacts with other factors determining directors’ intention to use financial derivatives. Taking into account these factors, hypotheses were formed to test during the quantitative inquiry phase. The resulting data were processed using the SPSS Statistics 23 program.

1.5.6. Qualitative Inquiry

The purpose of the qualitative inquiry of this research was to seek an explanation for the quantitative results from the first two research questions and answers to the remaining questions.
All the interviews were semi-structured, with some predetermined questions followed by others emerging from answers to these questions. Structured interviewing is used to collect data that can be coded for pre-specified categories, while unstructured interviewing expands the understanding of complicated behaviours for which pre-categorisation could limit the investigation (Fontana and Frey 1994, 366). One general question may be enough to activate a long and information-rich conversation (O'Neal and Thomas 1995).

The 19 interviewees (3 females and 16 males) were from various industries including securities, fund management, steel manufacturing, commodities import-export, banking, paper manufacturing and petroleum extractions, and all had expertise and lengthy experience in finance. The interview data were coded during the analysis phase to ensure the anonymity of the participants.

Selection of interviewees with expertise in finance had been an integral part of the research proposal with the aim of collecting deeper insight into the survey results, and only directors with financial expertise agreed to be interviewed. The qualitative data were processed using the NVivo 11 program.

1.6. Key Research Findings

Figure 1.1 below is a scheme of the quantitative inquiry and its findings with the mean scores of all variables in the large red rectangle frame on a five-point Likert scale in brackets, and summate scores for two variables in the green boxes. The results are from 119 completed questionnaires, a response rate of 19.07 per cent.

Board directors’ less-than-expected understanding about financial derivatives was clear from the survey results. Similarly, the survey also demonstrated directors’
generally positive attitude to the derivative instruments, their strong belief in support from related people, low confidence in their ability to control the use of such instruments, and their strong intention to use financial derivatives, as summarised in Figure 1.1.

**Figure 1.1. Thesis Research Process – Quantitative and Key Research Findings**

Further analysis demonstrated that Knowledge was significantly correlated with Risk Propensity, Subjective Norm, Attitude and Perceived Behavioural Control. These four factors were correlated with Intention to use financial derivatives. Knowledge was not directly correlated with Intention; potentially its effect is channelled through Risk Propensity, Attitude, Subjective Norm and Perceived Behavioural Control to arrive at Intention (see Figure 1.1). These factors have implications for corporate governance policies.

Following the survey, face-to-face interviews investigated the deeper explanations for the survey results and suggested solutions for the problematic issues that emerged from
the survey. Interviewees agreed with the survey results, particularly the reasons for the directors’ insufficient knowledge, positive attitude, risk neutrality and strong intention. The only mismatch was the interviewees believed the real level of understanding might be lower than around 2.5 on the five-point scale that was reflected in the survey results.

Interviewees were directors with expertise in finance, and they had a balanced view of the benefits and risks associated with financial derivatives. The main benefits of financial derivatives perceived by the interviewees were protection, insurance, risk mitigation and management, a longer-lasting business, value added to the business, and achieving enhanced goals in investments and profit. The major risk was related to significant technical complexity. Some secondary risks were: major potential losses, minimal protection from the existing legal framework, an inappropriate purpose of use, underlying asset risks and risks raised by counterparties in transactions.

The interviewees accepted that directors without financial expertise (who account for a majority of the board director community in Vietnam) perceive that there are more benefits than risks, as the survey revealed, so company high risk exposure is possible. Most of the interviewees were concerned about the gaps between knowledge, attitude and intention (as seen in Figure 1.1.) causing missed opportunities, strategic error, wrong corporate direction and high costs, while others were not so apprehensive, because of the long time lag between intention and action.

Those interviewees who were concerned suggested that directors set up appropriate corporate policies on financial derivatives, introduce a risk management framework, provide delegation of authority to approve, develop an ethics policy, use an outside consultancy, have a board membership mix of knowledgeable people and non-experts and develop a comprehensive reporting mechanism. In addition, they recommended
ways to improve directors’ knowledge of financial derivatives by having a combination of financial derivatives experts on boards of directors, enhanced training, self-learning and experienced practice, and greater use of outside consultants.

Interviewees supported an intuitive recognition that expert knowledge is at the root of the gaps between knowledge, attitude and intention, so they suggested ways of filling the gaps by enhancing directors’ knowledge of financial derivatives and corporate policy on these instruments in particular, and on risk management in general.

Three additional themes emerged from the interviews: business culture, the government role and the market for financial derivatives. Low attention to preserving wealth, over-focus on making money, and distrust of employees all hinder directors and owners from establishing a clear corporate risk management policy and framework. The government’s major role is evident in subsections of the three most popular types of financial derivatives, in market developments and especially in corporate scandals. The directors interviewed concluded with a call for the government to set up a more effective legal framework for financial derivatives, to develop the underlying markets and to take part in disseminating knowledge and training, especially for directors.

This study is an application of the mixed methods research approach of a survey supplemented by face-to-face interviews to research the complex issue of board directors and decisions related to financial derivatives. By using a mix of survey and interview research methods, a more comprehensive set of empirical data on the research problem is provided.
1.7. Thesis Structure

The thesis consists of eight chapters. Chapter 1 is an introduction of the background, motivation and benefits of the thesis, followed by research objectives, questions and methodologies, and key research findings. Chapter 2 is an in-depth review of literature about corporate governance and its principal theories, directors’ roles and competencies, and financial derivatives’ history, nature and practical uses in business. The chapter identifies gaps in the current literature, including the lack of research on individual directors’ competencies, especially their knowledge of specific areas such as financial derivatives, in both developed and emerging economies. To clarify the context of such a gap in a specific country, Chapter 3 reviews the issue of corporate governance in Vietnam, its developments and fundamental characteristics including the leading role of the government, the active participation of international organisations and the passive nature of local businesses.

Chapter 4 presents philosophies, theories and methodologies and has a detailed discussion of the research objectives, research questions, sampling, data collection and data analysis of the two component inquiries, the qualitative and the quantitative. The results and findings of the quantitative component are presented in Chapter 5 and the qualitative component in Chapter 6. Chapter 5 presents directors’ general knowledge of financial derivatives and associations with directors’ personal attributes, corporate characteristics and components that predict their intention to use the instruments. Chapter 6 presents explanations by directors with financial expertise of the overall results in Chapter 5 and expands these to identify additional emerging themes raised by the interviewees. The chapters are then linked together to form an overall analysis in Chapter 7, which shows how all the research questions were answered by each part of the study, and offers solutions to problems and implications for theories and various
stakeholders, including the government, boards of directors, directors themselves and training organisations. Chapter 8 sets out the thesis contributions to knowledge, theory and methodology; its limitations and recommendations for future research; and then concludes with final observations.

1.8. Conclusion

Motivated by the desire to fill the gap in the literature on board directors’ decision making process and Vietnamese corporate governance, this thesis studied directors’ intention to use financial derivatives and the influencing factors. Directors’ knowledge of the instruments was measured and assessed, impacts on the intention and the precedents were tested and potential impacts on corporate governance policies were analysed. Directors’ considerations of financial derivatives were put into the context of Vietnam to investigate the effect of various stakeholders. A mixed methods approach was applied with a combination of survey and personal interviews with directors under the theoretical lenses of pragmatism, stakeholder theory and the theory of planned behaviour, supplemented by the model of board attributes and roles.

The next chapter details and analyses the literature for this thesis and specifies the gaps that emerged during the analysis.
Chapter 2 Literature Review

Introduction

This literature review aggregates theoretical issues on the main topic of board director behaviours in corporate governance, using principal sources for management, finance and business. In the world of corporate governance, the board of directors is a key mechanism (McNulty 2013). Together with the evolution of corporate governance, research on boards has a wide range of topics. The two most popular topics are board diversity (gender, ethnicity, demographics) (Gray and Nowland 2017, Alazzani, Hassanein, and Aljanadi 2017, Reguera-Alvarado, Fuentes, and Laffarga 2017) and board characteristics (size, independence, duality, interlock) (Kaur Virk 2017, Titova 2016, Unda 2015). When studies on board structure had ambiguous findings, researchers focused more on the “substance” of the board, in which board processes and directors are the central elements (McNulty 2013). There is evidence that process is the mediator between board structure and board strategy (Barroso-Castro, Villegas-Periñan, and Dominguez 2017), which brings to light hidden facts about directors (Brown 2015). To understand such processes, sociology and psychological approaches have been applied (McNulty 2013). In addition to studying boards of directors as a group (Wildenauer 2015), studies on individual directors have proliferated with an emphasis on directors’ expertise, experience, education and other characteristics (Tseng and Jian 2016, Rousseau and Stroup 2015, Ji and Di 2016, von Meyerinck, Oesch, and Schmid 2016).

This literature review starts with the history of corporations, the emergence and development of corporate governance, the main areas of interest and major models. This is relevant for the study of the context of corporate governance in Vietnam, the
context that determines the conduct of board directors in that country. To establish a full framework for further study of director behaviour, six corporate governance theories are reviewed; they explain and give guidance on relationships among the principal parties in corporate governance, of which the board of directors is a crucial component. The review then examines the role of boards, and highlights what competencies individual directors are required to have. How are directors’ competencies called on in decisions on financial derivatives? To answer this, Sections 2.5 and 2.6 summarise the nature of financial derivatives and their necessity for business, and consider directors’ knowledge of these instruments. Based on this review gaps in the current literature become apparent.

2.1. Corporate Governance and Associated Theories

2.1.1. The Development of Corporate Governance

Corporate governance has emerged as a serious academic and professional topic over the last 30 years. However, its history and practice is at least 400 years old, starting when corporate entities acquired a life of their own apart from that of individuals (Tricker 2000a, b, 2011, Dalton et al. 2007, Hooghiemstra and Van Manen 2004), and with the separation of ownership and management (Berle and Means 1933, Smith 1937).

2.1.1.1. The History of Corporations and Their Nature

The joint stock entity for trading was first chartered in 1600 in Britain, and in the Netherlands in 1602 (Solomon 2007, Tricker 2011). The modern form of a joint stock company was enshrined in law in 1844 by the British Joint Stock Companies Act, and
the Limited Liability Act of 1855, which separated corporate liabilities from those of all shareholders including executive directors (Solomon 2007).

The limited liability company, which triggered the number and scale of corporate expansion, was a significant development in Victorian times (Handy 1993, Gamble and Kelly 2001). Through capital accumulation, corporations reached a scale at which they became dominant social organisations. At the same time, the nominal control over these entities was distributed among a large number of small shareholders and actual control lay in the hands of executive management who directed daily operations (Berle and Means 1933).

At the end of the nineteenth century, corporations were used not only for capital-raising but also for centrally managing the assets and liabilities of several companies, such as their subsidiaries (including family firms and entrepreneurial manufacturing businesses) (Tricker 2011). The chain connecting assets and owners lengthened significantly when derivative instruments such as warrants, options and futures were devised and marketed. Tricker was concerned about the appropriateness of the nineteenth-century concept of corporations based on ownership power, raising the question “Who is now to exercise power over those companies?” (Tricker 1996b, 2).

The Second World War (1939–1945) interrupted corporation development, but it also set in motion an economic boom over the next three decades through government subsidy packages across Europe, Japan and North America. It was not until the 1970s, when corporate scandals in the United States and the United Kingdom prompted attention for the first time on corporate governance (Clarke 2004), was there any serious concern raised about corporate behaviour and direction.
What is the nature of a company or a corporation? Is business simply a more organised criminal entity than the mafia, as Pitelis and Clarke (2004) put it? In the early days, people were concerned whether corporations were persons or not. Corporations were considered to have no souls and no bodies, so could not be treated like persons (Dalton et al. 2007). But in legal terms, corporations are considered “legal persons”. In the United States, in 1878, those legal persons were even allowed by the Supreme Court to participate in the political process (Monks 2004). However, they are not persons, without philosophy, ethics or human characteristics; they are a legal creature whose dynamic and purpose is the maximising of profit (Monks 2004).

The next question is about who benefits from the existence of the corporation. Corporations have a contractual relation with capital contributions as the basis of income claims (Winfrey 1996, 236). They focus on corporate profits and shareholder gains while acting within legal boundaries as natural persons (Handy 1993, Winfrey 1996), but they are artificial creations existing under specific legal conditions (Demb 1996, Jensen and Meckling 1976). As a legal institution, corporations are created and changed by the exercise of the political power of actor groups such as owners, managers and employees, and even by state intervention in the economic and social relationship with participants’ conflicting objectives (Vilanova 2007, Aguilera and Jackson 2010, Jensen and Meckling 1976). Vilanova (2007) suggests the concept of a short-term salient stakeholder who simultaneously possesses the attributes of legitimacy, power and urgency and suffers the most from corporate decisions. Such

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2 The typology of stakeholders is based on the possession of three attributes: power (the stakeholder’s ability to influence the firm), legitimacy (the legitimacy of the stakeholder’s relationship with the firm based upon contract or legal title) and urgency (the degree to which managerial delay in attending to the claim is unacceptable to the stakeholder). Managers pay more attention to a “definitive” stakeholder, who holds simultaneously the three attributes, than to a latent one (with only one attribute) (Vilanova 2007).
stakeholders win more commitment from managers. In a specific corporation, the salient stakeholder changes over time in accordance with a dynamic conflict-solving process and firms are run for the benefit of the salient stakeholder group.

Whoever the corporate beneficiaries are, Berle and Means (1933) saw corporations as dominant social organisations. Demb and Neubauer (1992b) enhanced this idea in their observation that corporations’ major decisions have significant social and economic implications. Corporate groups with a rich diversity of objectives and complex ownership structures experienced abuses (Tricker 2011) in the final quarter of the twentieth century and raised the issue of effective corporate governance. Corporate governance is material for individual asset performance (Solomon 2007, 74) and poor corporate governance may lead to fraud and even collapses, such as the South Sea Company stock speculation and bubble burst in the eighteenth century (Tricker 2011, 6).

2.1.1.2. Developments in Corporate Governance

Corporate governance has undergone major developments in each decade from the 1970s onwards (Tricker 1996a). Corporate governance developments appeared in response to a critical business reality, such as demand for capital with limited liability for individuals in the nineteenth century, dominant shareholders in the 1930s and director remuneration and collapses in the 1980s (Tricker 2000a, 5). These developments were reactive rather than proactive, and all were responses to negative business events and scandals. In the “Golden Age” of the post-war period of the 1950s and 1960s, corporations enjoyed a boom, with excellent performance in productivity, growth, technology and general social welfare, so people did not focus on any need for corporate governance reform (Cadbury 2000).
The economy and businesses are cyclic and crisis is unavoidable (Sismondi 1991, Marx, Paul, and Paul 1930). Clarke (2004) summarised the cycle: rising personal wealth in early years of the twentieth century and economic growth in the 1920s, speculation “fever” in 1928-29 and then the Wall Street crash and market collapse. Ade-Ajayi (2004, 185) demonstrated the boom and bust cycle for the 1990s in both the United States and the rest of the world. The technology revolution added unrealistic expectations to the extended boom time of the 1990s and caused pressure that cut down profit margins. In that context, to acquire cheaper finance and new markets, businesses reduced oversight of their governance obligations and duties, which caused more pressure and a growing sense of crisis. Ade-Ajayi (2004) referred to the boom time as lacking imperatives for good international governance practices, especially in emerging economies. Corporate governance systems mirror market fluctuations, focusing on promoting new opportunities (wealth creation) as well as on risk management as a method of wealth protection (Clarke 2004).

Having most relevance to current corporate governance approaches, the decades from the 1970s to the 2000s are reviewed in more detail below.

**The 1970s**

In the 1970s, crisis and recessions returned to the developed economies after 30 years of economic miracle, and exposed corporate scandals such as in Maxwell publishing (UK) and Penn Central (US), which initiated the United States’ Securities and Exchange Commission (SEC) and the United Kingdom’s Department of Trade and Industry (DTI) investigations into the two companies’ effectiveness of management and the competency of board directors (Clarke 2004). There was a growing debate about the model for boards (either two-tier or one-tier style), about corporate
Director-level research was initiated at the Oxford Centre for Management Studies and early research on corporate governance was conducted by the Corporate Policy Group at Nuffield College, where the terminology “corporate governance” was coined by Bob Tricker (Tricker 1993b, 171).

**The 1980s**

The media, one of the three components of US politics (Monks 2004), denounced the business world in the 1980s as “Liars’ Poker”, “The Predators’ Ball”, “Barbarians at the Gate”, “The House of Nomura”, or “The Money Machine” (Bartlett 1991). The 1980s was a decade of corporate abuses with insider trading, stock manipulation, failure to disclose, and close links with regulators and the underworld such as at Drexel, Burnham, Lambert (US) in 1986, Rothwells Ltd (Australia) in 1989 and Nomura Securities (Japan) in late 1980s which were neglected because of corporations’ commercial success (Tricker 2011). In Western countries, the 1980s was the Reagan and Thatcher era of deregulation, privatisation, market-driven capitalism, mergers, acquisitions and corporations as commodities (Tricker 1996a). It was also the era of the poison pill, greenmail, hostile takeovers, and golden and silver parachutes (Howard 1996) as well as the junk bond and white knight (Tricker 1993c). Hostile takeovers transferred wealth from stakeholders such as employees and suppliers to shareholders and increased overall social costs (Auerbach 1991). An unprecedented conflict broke out between shareholder associations and institutions such as the United Shareholder Association and the Council for Institutional Investors and their responsibilities to communities and other stakeholders (Tricker 1996a, 199) and whether there should be an audit committee of independent outside directors (Tricker 2011).
managements through the proxy, votes and petitions for regulatory change. However, management was at a great advantage and shareholders had to wait for another scandal to set off another crisis (Thompson and Davis 1997).

The fiduciary duties of a board of directors, its accountabilities and its relations with management were under scrutiny, and prompted an urgent demand for boards to adopt a more strategic role and a more value-added involvement (providing foresight, managing uncertainty, change and adaptation, developing strategies, and assisting the firm’s ability to continually leapfrog its competition) (Tricker 1993c, Howard 1996).

Tricker (1993c, 1) noted “At the beginning of the 1980s corporate governance was not a subject for serious academic study and the phrase could not even be found in the professional literature; by the end of the decade both were commonplace”.

**The 1990s**

The hostility of the 1980s was followed in the 1990s by the “dot.com” bubble, speculation, greed and insider trading and risky strategies of empire building by financial operations instead of a focus on physical operations (Taylor 2003). In contrast to the 1980s, corporate failures and collapse could no longer be ignored; for example, Maxwell of Maxwell Publishing (UK) died in infamy in the early 1990s after an investigation uncovered his illegal and secret channelling of money from his companies’ pension funds to save other at-risk companies (Tricker 2011), even though all previous audit reports showed healthy financial conditions (Clarke 2004). The Asian financial crisis of 1997–1998 expanded corporate governance issues outside the Western world into other less developed economies, after a series of systemic corporate governance failures, especially in China, Korea, Malaysia, Singapore, Taiwan and Thailand (Clarke 2004).
The 1980s’ unanswered call for changes in corporate governance was met by a series of codes of best practices, starting with the United Kingdom’s Cadbury Report in 1992 (Cadbury 1993), which was followed by other UK codes and principles, and subsequently additional codes and reports in Australia, Canada, Hong Kong, South Africa and the United States (Tricker 1996a). The wave of reform processes was continued by the OECD Principles of Corporate Governance (1999), which focused on the framework and institutions for corporate governance at the national level (“Corporate Governance Update” 1996) and the Commonwealth Association for Corporate Governance 1999 guidelines for boards (“Research Report: Principles for Corporate Governance in the Commonwealth” 2000). Besides the involvement of the OECD, world corporate governance included new participants, such as the World Bank, the International Monetary Fund and the Asian Development Bank (Clarke 2004).

Corporate governance attracted wider interest; there was a growing debate about corporate governance reform, relationships with major shareholders, board strategic directions and the role of directors (Pye 2002). The amount of research on corporate governance in the 1990s reached a new height; however, this research did not touch on the chemistry or behaviour of board members and lacked analysis of real-life situations or activities, owing to limited access to relevant information (Tricker 1996a, 200).

The 2000s

The 2000s opened with a series of scandals in US corporations (Enron, Worldcom, Tyco, Adelphia and Global Crossing), in Australian corporations (HIH and OneTel) (Taylor 2003, Clarke 2004), and in Royal Dutch/Shell Group (Taylor 2006). A world
financial crisis started in the United States in 2007 with Lehman Brothers, American Insurance Group and Merrill Lynch, and quickly spread to other countries (Conyon, Judge, and Useem 2011). Debate about the causes of the 2008 financial crisis has not concluded; however several scholars agree that the crisis was triggered by a real estate bubble together with the misuse of financial derivatives. It revealed weak corporate boards of directors, the malfunction of major elements of the US governance system (accounting, auditing, and rating agencies), inadequate regulation, high incentives for CEOs and insufficient risk management practices (Conyon, Judge, and Useem 2011, Clarke 2004, Aguilera and Jackson 2010). Jain and Jamali (2016) quoted Serwer (2009) to call the 2000s the “Decade from Hell”. Senior management, boards and other related parties were under pressure to regain the public’s trust (Taylor 2003). The oversight function of boards had not been performed appropriately (Taylor 2006).

This decade resulted in more widespread introductions of corporate governance codes and reports.3 While the United Kingdom and other Commonwealth countries preferred codes of best practice, principles and a “comply or explain” approach, the United States introduced a more rule-based regulation system (Tricker 2011, Clarke 2004) with laws such as Sarbanes-Oxley Act 2002. Governance compliance needs to respect differences between companies and boards across different nations (Cadbury 2000); rigid laws and rules proposed as result of these crises may in the future create further difficulties because of their inflexibility (Tegner 1993) and following the letter of the law could lead to a CEO hegemony that changes the corporate role in society (Monks 1998). Besides profit maximisation, there are other important goals for corporations

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3 Higgs Report (January 2003), Smith Report (July 2003), Tyson Report (June 2003), Revised UK Combined Code (July 2003), Myners Report (December 2004), Revised UK Combined Code (June 2006) and the UK Corporate Governance Code (June 2010).
such as involving owners, commitment to stakeholders’ satisfaction and long-term firm valuation (Monks 1994).

In the first decade of the third millennium, academic studies of corporate governance have proliferated in many disciplines (including economics, management, finance, law and accounting) with increased academic rigour (Durisin and Puzone 2009). However, they have not touched corporate governance’s internal working mechanisms and personal behaviour, and they lack an effective overall theoretical framework. Tricker calls on future research to discover the “black box” of the boardroom and to focus on board-level activities and directors’ behaviour (Tricker 2012).

Since the mid-1970s, the history of corporate governance has been a history of crises, corporate scandals, and responses from governments, institutions and companies. The focus has shifted from investors’ and shareholders’ interests to the public interest (Pitelis and Clarke 2004). Jain and Jamali (2016) quoted a Rockefeller study (2010) predicting that the decade 2010 to 2020 will be the “Doom Decade”, with authoritarian leadership dominated by elites, and by social and environmental disasters.

Corporate governance has become a major stream in academic research, an interdisciplinary field dealing with governance issues (Filatotchev and Boyd 2009), expanding from single to cross-jurisdiction comparisons, from normative board structures and codes of best practices to director behaviour in its interpersonal, political and sociological context (Tricker 2000a, 5).

2.1.1.3. Definitions and Areas of Interest

Corporate governance has been defined at three different levels: national macro-level, corporate micro-level and technical level.
At the national level, “corporate governance is the distribution of income, power, and authority through politics that creates the public policy regime to reflect preferences of related parties” (Gouvevitch and Shinn 2005, 57). A national corporate governance system includes a legal and regulatory system (company law, securities law, stock exchange regulations) and institutions (a central bank and commercial banks, the ministry of finance, and state securities commission).

At the micro-level, Tricker, the seminal researcher of modern corporate governance, defines corporate governance as “the exercise of power over the modern corporation” (Tricker 1994a, 1) and other entities4 (Tricker 1995). The power is over the direction of the enterprise, supervision of executive actions, accountability and state regulation of the corporation (Tricker 1994b) with the purpose of value creation, which requires board directors to be both critical and creative in resolving conflicts of interest (Montagnon 2004) and to be excellent people with effective strategies to ensure consistent value creation (Keenan 2004). When wealth is measured in earnings, a corporate governance system is a particular configuration of internal and external mechanisms that condition the generation and the distribution of residual earnings in corporations (Shleifer and Vishny 1997 in Van Essen, Engelen, and Carney (2013). Risk management is another constituent of corporate governance (Clarke 2004). Value creation is achieved through the effective use of resources, and corporate governance organises resource allocation, resolves conflicts (Daily, Dalton, and Canella Jr. 2003 in Martin et al. (2016) and assigns responsibilities within and across firms through strategic choice (Aguilera, Florackis, and Kim 2016).

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4 Tricker (1995, 187) opens out corporate governance to cover a wide range of organisations including public, listed companies, groups of subsidiary and associate companies, networks of strategic alliances, private family companies, government business enterprises, major international partnerships, non-profit educational, medical, cultural and other charitable entities.
A number of practitioners and academics focus more specifically on the corporate environment when defining corporate governance. For them, corporate governance is a system for directing and controlling companies within their legal, ownership and public contexts (Cadbury 2000), with a focus on not only the key relationship between the owners and the managers (Cadbury 2002), but also between the internal and external checks and balances that ensure corporate accountability and social responsibility to related stakeholders (Solomon 2007, Filatotchev and Boyd 2009, Demb and Neubauer 1992b).

At the technical level, corporate governance comprises the mechanisms which influence managerial discretion and govern CEO conduct (Wirtz 2011), such as mechanisms for monitoring and ratifying managerial decisions and efficient decision making in general (Donnelly and Mulcahy 2008, Winfrey 1996). A narrower focus on finance sees corporate governance as the ways finance suppliers assure their returns (Shleifer and Vishny 1997, 737) by overseeing management’s roles and responsibilities (Westphal and Zajac 2013).

Aguilera and Jackson (2010) provide a good summary of views on corporate governance from different perspectives, such as economics (a nexus of contracts among owners without obligations to society), legal (rights and responsibilities of corporate actors and rules to regulate firm decision making), sociology (the structures, processes and institutions within and around organisations that allocate power and control resources among participants) and politics (the system promoting growth, protecting investors, generating employment and fostering equality of opportunities).
In academic terms, corporate governance consists of concepts, theories and practices which are implemented within boards by their directors, and by shareholders, top management, regulators and auditors, and other stakeholders (Tricker 1993c, 2).

Definitions of corporate governance also vary in terms of whom it cares for, what are the main aspects and what are the influencing factors. The common components of corporate governance are institutional investors, predatory companies, insiders, regulators (Tricker 1994c), society and the press (Demb and Neubauer 1992b). They are informal and formal structures, processes and mechanisms (Westphal and Zajac 2013). In demanding that corporations be accountable, Monks and Minow (1991) were emphasising the special power of institutional investors.

What are the main areas of interests in corporate governance during the exercise of power over corporate resources? Different approaches to reform emphasise different aspects of corporate governance codes and practices: OECD (2004) focuses on ensuring a sound basis for an effective corporate governance framework;\(^5\) Demb and Neubauer (1992b) emphasise the need to deal with paradoxes in corporate governance;\(^6\) and Tricker (2012) stresses six areas for board improvement.\(^7\) Other areas of interest are shareholders and ownership, directors and monitoring, management and performance (Monks and Minow 2004), stakeholders, remuneration, market for control, regulation, communication and disclosure (Padgett 2012), institutional investors (Mallin 2013) and self-governance\(^8\) (Ostrom 1992). Some

\(^{5}\) 1. Enhancing the rights of shareholders and key ownership functions, 2. The equitable treatment of shareholders, 3. The role of stakeholders, 4. Disclosure and transparency, 5. The responsibilities of the board (OECD 2004).


\(^{7}\) 1. Clarification of the board role, 2. The board’s access to information and understanding of the organisation, 3. Enhancing good relations between boards and management, 4. Effective board oversight of company strategy, 5. Appropriate management development, and 6. Succession and risk management (Tricker 2012).

\(^{8}\) Ostrom (1992) deduces eight design principles for successful self-governance that are applicable for corporate self-governance: clear boundaries, rules, collective choice arrangements, monitoring procedures, sanctions, conflict-resolving mechanisms, protection from external challenges and multiple-layer activities.
global issues are: empowering shareholders, rules and regulations for risk management, CEO and chair duality, norms for directors’ responsibility and self-regulation, avoiding “too big to govern” phenomena and improving credit-rating and financial reporting (Conyon, Judge, and Useem 2011).

Whatever the details, there are two major areas of corporate governance: conformance (providing accountability, and monitoring or supervising) and performance (strategy formulation and policy making) (Tricker 1995, 188). The two areas correspond to the two roles of corporate governance: wealth creation (performance) and wealth protection (conformance).

Modern corporate governance is mainly about public joint stock corporations, the best value-creating and appropriating organisation in history (Pitelis 2004). What is value and how is it created? The value may be the labour cost of production or the perceived utility realised by the firm’s activities through specialisation, the division of labour, resource combination, teamwork and learning (Pitelis 2004). The derivative shareholder value forms in the context that the owners are best suited to be “residual claimants”.9 Wealth is the realised value in the exchange of commodities in markets for a profit and affected by scarcity and the cost of production (Pitelis 2004, 217). Monks (2002), an experienced and well-known institutional investor, suggested a divergent view of wealth creation and the role of corporate governance. He said that being monitored is more likely to enable boards to generate value for corporate owners by deploying the skill and application of managements, and effective corporate governance at least can prevent value destruction.

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9 Pitelis (2004, 213) quotes Alchian and Demsetz (1972): To avoid infinite regress monitoring situation in any team effort, it is best if the monitor is self-monitored, by becoming a residual claimant of any surplus left, after expenses to the other members of the team are paid. The owners are best suited to be “residual claimants”, this triggers the need for “shareholder” value.
To sum up, corporate governance is a combination of mechanisms, stakeholders and processes, both internal and external to corporations, aimed at ensuring appropriate use of power over the corporations to make and protect values for related parties. This thesis investigates corporate governance from the stakeholder point of view, and adopts the following definition: “corporate governance is defined as the system of checks and balances, both internal and external to companies, which ensures that companies discharge their accountability to all their stakeholders and act in a socially responsible way in all areas of their business activities” (Solomon 2007, 14).

2.1.1.4. Corporate Governance Models

Descriptive corporate governance analysis at the national level divides the world into major groups, or models, according to the particular similarities they share.

The first classification is to divide countries according to their board structure, which falls into two main groups: one-tier (one common board, in the United Kingdom and the United States) and two-tier (executive board and supervisory board, in continental Europe) (Psaros 2009). These two groupings have been given various names: the British American system and the Continental system (Sykes 1994); the market-centric model and the relationship-based model (Bhasa cited by Psaros 2009, 228); a market-based, agency-led shareholder value model and a relational, communitarian stakeholder model (Martin et al. 2016). Bhasa (cited by Psaros 2009, 228) added the transitional model (Central and Eastern European, newly independent states of the former Soviet Union) and the emerging model (India, Taiwan). Martin et al. (2016) argued for two more categories: strategy-led enlightened shareholder value model and

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10 The taxonomy was based on the following criteria: equity ownership; shareholder time frame; capital markets; investor protection; management; potential agency costs; management time frame; takeovers as a control on poorly performing companies (Bhasa cited by Psaros 2009, 228).
an employee-ownership model.\textsuperscript{11} Whatever the structures are, they all recognise two functions of the board: the supervisory function and the managerial function (Psaros 2009).

When legal tradition is used to classify corporate governance models, the two main models are common law and civil law (including families of French, German and Scandinavian) (Porta et al. 1998, Shleifer and Vishny 1997). The models are different in approaches to investor protection, and this affects the concentration of ownership and market development.

Weimer and Pape (1999, 152-4) produced a detailed and relatively comprehensive classification of national corporate governance models that has been cited by other authors such as Keenan and Aggestam (2001, 261). The classification includes four models: the Anglo-Saxon system, the Germanic system, the Latin system and the Japanese system, which cover the categories in the previous paragraphs, presented in Table 2.1. As the Weimer and Pape classification is more relevant to this thesis, the following sections summarise fundamental characteristics of each of the four models.

\textbf{The Anglo-Saxon Model}

Australia, Canada, the United Kingdom and the United States are representatives of the Anglo-Saxon model. The model is characterised by a one-tier board of directors, market and shareholder orientation and the company as an instrument to achieve maximum profit for shareholders, the high importance of the stock market, an active external market for corporate control, low ownership concentration, highly

\textsuperscript{11}There are two core questions to be answered: whose rights and interests are, or should be, paramount in a firm's corporate governance approach? and how do a firm's governance structure and approach create an appropriate balance between control to ensure the benefits to investors and to benefit other stakeholders (Martin et al. 2016, 24).
performance-dependent executive compensation and short-termism (Weimer and Pape 1999, 154). State-owned enterprises in these countries have lost their ground since the 1980s (Grosman, Okhmatovskiy, and Wright 2016).

Table 2.1. A Taxonomy of Systems of Corporate Governance

<table>
<thead>
<tr>
<th>Market/network-oriented system of corporate governance</th>
<th>Market-oriented</th>
<th>Network-oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country class</td>
<td>Anglo-Saxon</td>
<td>Germanic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Latin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Japan</td>
</tr>
<tr>
<td>Countries</td>
<td>USA, UK,</td>
<td>Germany, the</td>
</tr>
<tr>
<td></td>
<td>Canada,</td>
<td>Netherlands,</td>
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<tr>
<td></td>
<td>Australia</td>
<td>Switzerland,</td>
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<tr>
<td></td>
<td></td>
<td>Sweden, Austria,</td>
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<tr>
<td></td>
<td></td>
<td>Denmark, Norway,</td>
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<tr>
<td></td>
<td></td>
<td>Finland</td>
</tr>
<tr>
<td></td>
<td></td>
<td>France, Italy,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spain, Belgium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Japan</td>
</tr>
<tr>
<td>Concept of the firm</td>
<td>Instrumental,</td>
<td>Institutional</td>
</tr>
<tr>
<td></td>
<td>shareholder-</td>
<td>Institutional</td>
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<tr>
<td></td>
<td>oriented</td>
<td>Institutional</td>
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<tr>
<td></td>
<td></td>
<td>Institutional</td>
</tr>
<tr>
<td>Board system</td>
<td>One-tier (executive and non-executive board)</td>
<td>Two-tier (executive and supervisory board)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Optional (France), in general one-tier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Board of directors; office of representative directors; office of auditors; de facto one-tier</td>
</tr>
<tr>
<td>Salient stakeholder(s)</td>
<td>Shareholders</td>
<td>Industrial banks</td>
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<tr>
<td></td>
<td></td>
<td>(Germany), employees, in general oligarchic group</td>
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<tr>
<td></td>
<td></td>
<td>Financial holdings, the government, families, in general oligarchic group</td>
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<tr>
<td></td>
<td></td>
<td>City banks, other financial institutions, employees, in general oligarchic group</td>
</tr>
<tr>
<td>Importance of stock market in the national economy</td>
<td>High</td>
<td>Moderate/high</td>
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<tr>
<td></td>
<td></td>
<td>Moderate</td>
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<tr>
<td></td>
<td></td>
<td>High</td>
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<tr>
<td>Active external market for corporate control</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
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<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Ownership concentration</td>
<td>Low</td>
<td>Moderate/high</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High</td>
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<tr>
<td></td>
<td></td>
<td>Low/moderate</td>
</tr>
<tr>
<td>Performance-dependent executive compensation</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Time horizon of economic relationships</td>
<td>Short term</td>
<td>Long term</td>
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<tr>
<td></td>
<td></td>
<td>Long term</td>
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<tr>
<td></td>
<td></td>
<td>Long term</td>
</tr>
</tbody>
</table>

Source: Adapted from Weimer and Pape (1999, 154)

Short-termism – a focus on financial indicators – is the most common problem of the Anglo-Saxon model (Clarke 2004, Tricker 1994c) and has the potential to lead to a
series of corporate governance weaknesses (Sykes 1994). This originates from the Anglo-Saxon culture that encourages simplicity and linear thinking (Goyder 1993) and the notion that ownership is the basis of power (Tricker 1993a, 60) and management-ownership as central to corporate affairs (Cadbury 2002).

Even considering their sharing of culture and a tradition of law, people in the United Kingdom more widely recognise the importance of corporate governance than do those in the United States, and investors in the United Kingdom are more concerned about well-governed companies (Montagnon 2004).

**The Germanic Model**

This model is adhered to by Austria, Denmark, Finland, Germany, the Netherlands, Norway, Sweden and Switzerland. It is characterised by orientation to the market but with an institutional concept of companies; two-tier boards of directors with the participation of shareholders together with that of industrial banks and employees; moderate to high importance of the stock market; no active external market for corporate control; moderate to high ownership concentration; low performance-dependent executive compensation and long-term economic relationship (Weimer and Pape 1999, 154).

These countries follow the civil law/Roman prescriptive regime (Tricker 1993a, 60). Long-termism is common with loyal and knowledgeable owners (Tricker 1994c), who see their companies existing in partnership with labour and the wider society (Cadbury 2002). The two-tier board is compulsorily applied to big companies (for example in

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12 Britain and America suffer from four main corporate governance weaknesses: absentee corporate owners, the inappropriate terms on which investment institutions employ fund managers, counter-productive remuneration and incentives for senior management, and excessive reliance on the takeover threat for management accountability, so that corporations fail to meet the main requirement of either owners or management (Sykes 1994, 189).
the Netherlands, those companies with more than 100 employees and worth more than US$45 million) (Van Hamel et al. 1998a) and is intended to ensure these standards are followed.

The Latin Model

The Latin model includes Belgium, France, Italy and Spain. Firms are considered institutions with relationships with surrounding parties. Boards of directors may have one or two tiers, but one tier is more popular. Other stakeholders besides shareholders are financial holdings, the government, families and oligarchic groups. The stock markets have a moderate level of importance, with highly concentrated ownership, no active external market for corporate control, moderate performance-dependent executive compensation and long-term economic relationships (Weimer and Pape 1999, 154). The system lacks a monitoring structure to make corporate insiders accountable, and external auditors and the internal control committees are not effective (Melis 2005).

The Japanese Model

In Japan, companies are institutions in a bigger society. They use one-tier boards although nominally there are boards of directors and offices of representative directors. Members of boards include city banks, financial institutions, employees and oligarchic groups in general. The stock market is highly important but there is no active external market for corporate control and low to moderate ownership concentration. Executive compensation is only slightly dependent on corporate performance, and in general the economic relationships are long term (Weimer and Pape 1999, 154).

As in the Keiretsu network, cross-holdings of equity, cross-directorships and other ties of loyalty form the basis of power (Tricker 1993a, 60) and people consider holding
shares both a symbol and a strategy for long-term business networking (Psaros 2009, 222) that helps to reduce transaction costs (Gourevitch and Shinn 2005, 31).

There are two dynamic economic regions missing from almost all corporate governance categorisations identified above: China and other Asian countries. Those countries possess distinctive corporate governance systems that are reviewed below.

**The Chinese Model**

In China, business is considered a succession of contracts or ventures with the core lying in family and informal obligation networks (Tricker 1994c). Besides the family-centric business culture, state-owned enterprises account for an important part of the economy and their corporate governance influences the national system (Jiang and Kim 2015). The Chinese model is characterised by large controlling shareholders, especially the government agencies, and a very limited role for independent directors; pay is not an important incentive for state-owned enterprise managers because they aim at promotion in the political system; debtors and institutional investors do not assume a monitoring role; a CEO is without control in a weak legal environment, there is a weak market for corporate control or for management talent; and political connections are the real goals of corporate social responsibility (Jiang and Kim 2015).

**The Asian Model (with the Exception of China and Japan)**

Except for China and Japan, other countries in East and South East Asia use the Asian model, although they are not entirely homogenous (Thome and McAulay 1992). Typical characteristics are a family-run business (Psaros 2009, 233), reliance on relationships and trust (Tricker 2012, Roche 2005), outside investors kept in the dark and hired managers having no voice (Gourevitch and Shinn 2005). Public companies are still dominated by families, such as in Hong Kong, Singapore, Taiwan and other
ASEAN countries, and minority public investors need support from the regulatory authority to gain power in governance (Tricker 1993a, 60).

2.1.2. Theories of Corporate Governance

Corporate governance literature has identified a range of different issues and perspectives through several theoretical lenses, including agency, transaction costs economics, stewardship, resource dependency, stakeholders, managerial hegemony and class hegemony (Stiles and Taylor 2001). On the basis of disciplinary foundation, organisation, human nature and motivation, governance challenges and governance prescription, Knapp, Dalziel, and Lewis (2011, 297) distinguished three main theories: agency theory, stewardship theory and social categorisation as in Table 2.2. The theories encompass different dimensions, such as the role of corporate governance in organisations and the roles and purposes of boards, theoretical origins, units of analysis, focal dimension, details of board activities, levels of empirical support and limitations on application (Clarke 2007).

2.1.2.1. Agency Theory

Schiell and Martins (2016), in a systematic review of cross-country corporate governance research, concluded that 52 of the 89 studies used an agency theoretical framework. It is widely accepted that agency theory is the most prevalent theoretical lens used in corporate governance research (Bebchuk, Cohen, and Ferrell 2009, Claessens and Fan 2003, Clarke 2007, Mallin 2013, Monks and Minow 2004, Psaros 2009, Solomon 2007, Tricker 2012), with its representative, Anglo-American corporate governance, normally treated as the world model of best practice (Aguilera and Jackson 2010).
Table 2.2. Alternative Views of Organisations, Human Nature and Governance

<table>
<thead>
<tr>
<th>Disciplinary foundation</th>
<th>Organisation</th>
<th>Human nature and motivation</th>
<th>Governance challenges</th>
<th>Governance prescriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agency</strong></td>
<td><strong>Stewardship</strong></td>
<td><strong>Social categorisation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>Psychology and sociology</td>
<td>Socio-cognitive psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nexus of contracts between principals and agents</td>
<td>Locus of relationships between principals and stewards</td>
<td>Network of interdependent and malleable social categories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-centred:</td>
<td>Organisation-centred:</td>
<td>Category-centred:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Individualistic</td>
<td>- Cooperative</td>
<td>- Social</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Extrinsic</td>
<td>- Intrinsic</td>
<td>- Extrinsic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Economic wealth</td>
<td>- Self-actualisation</td>
<td>- Sense-making and affiliation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal conflict, adverse selection, information asymmetry, moral hazard</td>
<td>Distance from the firm, distrust</td>
<td>Category-oriented biases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design controls that enforce compliance</td>
<td>Empower stewards through trust, collaboration and service</td>
<td>Manage views of category membership</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Knapp, Dalziel, and Lewis (2011, 297)

Based on the separation of ownership and management (Berle and Means 1933, Smith 1937), agency theory was introduced by Jensen and Meckling in 1976 (Dalton et al. 2007). In an agency relationship between the principals and the agents involving some delegating of authority, the agents tend not to act in the best interest of the principals when both are utility maximisers. Methods for reducing such divergence include incentives, monitoring, and bonding costs, which all incur agency costs (for example monitoring expenditures by the principal, the bonding expenditures by the agent and the residual loss to the principal’s welfare) (Jensen and Meckling 1976). In corporations, the agency relationship is between the shareholders (owners) and the board of directors and senior management (Van Ees, Gabrielsson, and Huse 2009).

Corporate governance problems emerge because of the separation between ownership and management (Solomon 2007, Swan 2000, Tricker 2012, Gourevitch and Shinn 2012).
There are agency dilemmas between managers and shareholders and investors\(^\text{13}\) (Clarke 2004): the potential consequences of unresolved imbalances are illegal and/or unethical events such as fraudulent accounting, insider trading, unauthorised transactions and ultimately corporate failure (Gourevitch and Shinn 2005, Hogan 1997, Tricker 2012). Remedies for such dilemmas are usually: control over senior management through incentive and monitoring structures and systems (Westphal and Zajac 2013) and structures such as shareholder general meetings and board of directors (Letza, Sun, and Kirkbride 2004, Hendry and Kiel 2004, Westphal 1999), ownership structure, and efficient capital and labour markets (Hung 1998). Accountability is the essence of corporate governance (Filatotchev and Boyd 2009).

Agency theory focuses on shareholders and boards as fixed entities (Tricker 2012, 61) and it is criticised mainly on the grounds of its assumption of the homogeneity of human nature and narrow scope of agent and principal groups of the agency relationship. Its view of people as self-interested and untrustworthy is too pessimistic (Tricker 1994b, 2000c) and does not cover complex human nature (Muth and Donaldson 1998). Stakeholders may in fact assume more than one role and each may be a residual claimant (Aguilera, Florackis, and Kim 2016). Large owners and top management may cooperate instead of opposing each other, and employers versus employees may be sources of conflict (Clarke 2004). In a similar vein, managerial motivations are more complex (Donaldson 1995), and there can be conflict between loyalty to the focal company’s shareholders and other financial interests (Muth and

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\(^{13}\) Such as freedom to take risks vs. effective monitoring; controlling power vs. taking advantage of others; liquidity and diversity in the portfolios vs. resource commitment, accurate accounting information vs. misleading performance measures and distorted incentives for managers (Clarke 2004).
Donaldson 1998), which are under the influence of group interactions, corporate and ethnic cultures and inter-personal relationships and power (Tricker 1994b).

The other limitation of agency theory is that it excludes more active participation by consumers, employees and other economic groups, and also excludes corporate responsibility to society (Institute of Directors 1995), with the reasoning that admitting this responsibility compromises efficiency (Brennan 2006). The agency theory focus is too narrow (Dalton et al. 2007, Clarke 2004) on wealth and economic efficiency (Keay 2011) and can be challenged (Anderson, Melanson, and Maly 2007) because of the mixed and weak supporting evidence for its assumed universal linkage between corporate governance and performance (Filatotchev and Boyd 2009, Donaldson and Davis 1994), in spite of investors’ belief in this concept (Cadbury 2000).

The theory needs to be adapted to a new world context (Colli and Colpan 2016) and, with caution, brings other stakeholders into consideration (Parmar et al. 2010).

2.1.2.2. Institutional Theory

Organisations are set in an institutional context and constrained both formally (by laws and regulations) and informally (by norms and conventions) (Judge, Li, and Pinsker 2010, Hung 1998). Organisations follow enduring and influential norms and beliefs, myths and symbols in order to gain legitimacy and social acceptance (Judge, Li, and Pinsker 2010, Donaldson 1995). This characteristic is called isomorphism (coercive, mimetic or normative), or similarity of structure, thought and action, within institutional environments (Judge, Li, and Pinsker 2010, Aguilera and Jackson 2010) and symbol management (Westphal and Zajac 2013). Structures and practices, once institutionalised at the societal, industrial or organisational level, can promote related
responses, thus furthering the process of institutionalisation (Luoma and Goodstein 1999).

Under institutional theory, business groups are the product of, and the efficient response to, a specific institutional environment (Colli and Colpan 2016). There are three levels of organisational structure: the technical (the technostructure), managerial (the top management), and institutional (the board), of which the board is a mediating structure between the organisation and the larger society (Mizruchi 1983). External institutions affect the board’s ability to direct and control the firm (Chakrabarty and Bass 2014), and their efforts to maintain the status quo of the organisation (Hung 1998). Board members learn and persuade each other that certain corporate governance structures and policies are efficient; they adopt symbolic practices, and tend to imitate each other (Van Ees, Gabrielsson, and Huse 2009).

Unfortunately, institutional theory is not well supported by empirical research. For example, it predicts that organisational structures will converge as they reflect the normative and cultural systems in society, but in fact variation is increasing (Donaldson 1995).

2.1.2.3. Stakeholder Theory

Contrary to agency theory, the stakeholder view sees that managers are not always opportunistic and that they deserve sufficient autonomy to influence corporate decisions for the key stakeholders’ benefit (Vilanova 2007).

The stakeholder idea appeared in the 1970s in the United Kingdom, was obscured in the 1980s (Tricker 2000b) and re-emerged in the 1990s with the Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA) inquiry – Tomorrow’s
Company, which called for an inclusive approach to corporations (Tricker 1996a). The approach urged that directors hold open dialogue with the investment community, and focus on long-term goals; this also recognised the potential of all people being in contact, of building a learning organisation, and new relationships between society, partners and government (“Corporate Governance Reports Précis” 1996). It is more a philosophy of relationships than a predictive theory (Tricker 2000c).

Originating in 1960s at Stanford Research Institute (now SRI International), the concept of stakeholders covers whoever affects or is affected by the company’s goals, whose support is important for their achievement, meaning a company needs to ensure in the first place that its objectives are of the kind that do attract this support (Hitt, Freeman, and Harrison 2001, Phillips, Freeman, and Wicks 2003). The stakeholder groups are management, the board of directors, controlling shareholders, minority shareholders and other stakeholders such as creditors, financial institutions, employees, trade unions, public interest groups and general society (World Bank 2006, Weimer and Pape 1999). They channel influence over the firm’s decisions by means such as political influence and use of the media (Filatotchev and Boyd 2009). In the context of a publicly listed company, the board is concerned with four main groupings of people and organisations: the business, government, regulation and other stakeholders (Tegner 1993).

The assumptions under stakeholder theory are that values are a part of doing business and that business and ethics are connected (Freeman, Wicks, and Parmar 2004, Freeman 2009). Stakeholder theory supports pragmatism and pluralism (Freeman, Wicks, and Parmar 2004), accepting a collection of interacting, reinforcing or contradicting theories of business strategy instead of absolute objective definitions (Hitt, Freeman, and Harrison 2001, Hutton 1997).
How does the theory explain value creation? Attending to the powerless ones among stakeholders is an opportunity to create value for them and for companies, and dealing with stakeholders through their partial sharing of interests is a way to avoid trade-offs and value-destroying (Freeman 2009). Stakeholder-oriented strategies will distribute both benefits and harm between different groups to ensure their long-term support even when the results are not favourable for them (Hitt, Freeman, and Harrison 2001). The sharing of both favourable and unfavourable conditions among stakeholders creates trust and cooperation. This facilitates socially efficient exchange, leading to better outcomes (Amess and Howcroft 2001) and to the improvement of everyone’s circumstances (Freeman, Wicks, and Parmar 2004), such as higher profits and greater shareholder wealth (Donaldson and Davis 1994).

Being descriptive, instrumental and normative (Hung 1998), stakeholder theory has gained support in both academia and practice. The number of academic articles on stakeholders has grown exponentially and the business press regularly discusses stakeholders (Demb and Neubauer 1992a). The participation of strategic stakeholders in the control system can increase the capability of firms to adjust to changes in their environment (Turnbull 1997). Stakeholder participation may be related to efficiency (Aguilera and Jackson 2010) and increasing interest in corporate social responsibility might also reflect recognition of the significance of stakeholder engagement (Aguilera, Florackis, and Kim 2016). Stakeholders’ expectations of corporate performance define the corporate life space for the company (Demb and Neubauer 1992a). Corporations are complex social systems (Goergen et al. 2010) and limited liability companies have to meet society’s expectations and play by the rules as a compensation for the privilege (of limited liability) (“Corporate Governance Update” 1996, Tricker 2011).
Stakeholder theory is an unlimited source of managerial prescriptions (Phillips, Freeman, and Wicks 2003) and directs managers’ operations to ensure the purpose of firms and the associated responsibility to stakeholders (Freeman, Wicks, and Parmar 2004). Lorsch and MacIver (1989) and Westphal and Zajac (2013) found corporate directors engaging constituencies such as journalists, security analysts and institutional fund managers even when they were not required to do so by law, by means of symbolic management, ingratiation and rendering of favours. This behaviour is at variance with Berle’s belief that only regulations and enforcement can direct corporate interests to someone other than shareholders (Vinten 2001). The King Report (1994) in South Africa (Solomon 2007), the American Law Institute Corporate Governance Project Principles (Winfrey 1996), the UK Companies Act 1985 (Cadbury 2002) and the Royal Society Inquiry (Goyder 1993) all require and follow a stakeholder approach. Even 29 states in the United States had adopted non-shareholder stakeholder statutes by 1991 (Luoma and Goodstein 1999) and in Pennsylvania, the 1990 Act allows actions regardless of any groups for the best corporate interest (Monks and Minow 1995). Sheridan and Kendall (1992) and Demb (1996) are supporters of stakeholders in their definition of corporate governance. The most developed structures of the stakeholder model are found in German two-tier boards of directors (Monks and Minow 1995).

The theory is, however, under challenge from several scholars. The theory lacks clarity about who stakeholders are and imposes the impossible task of balancing conflicting

14 “Stakeholders’ participation in corporate decision-makings, long-term contractual associations between the firm and stakeholders, trust relationships and business ethics are the main proposals for stakeholding management” (Letza, Sun, and Kirkbride 2004, 243).

15 Sheridan and Kendall (1992) note corporate governance is to achieve the goal of the owners, care for employees, past, present and future, environment and the local community, customers and suppliers and is to comply with all the applicable legal and regulatory requirements. Demb (1996) defines corporate governance as a process to make corporations responsive (or accountable) to the rights and wishes of stakeholders.
interests among stakeholders (Keay 2011). Tricker (2000a) considered stakeholder theory to be naïve and unachievable because he understood the theory as meaning that companies are responsible for everyone affected by their activities. However, this is not the core idea of stakeholder theory as proposed by Freeman. Sternberg (1997) vigorously attacked stakeholder theory in that it is fundamentally misguided, incapable of providing better performance, and incompatible with all substantive objectives and corporate governance, and that it undermines both private property (denying the owners’ rights) and accountability. Other authors agree with Sternberg: stakeholder theory does not explicitly take into account the possibility that the absence or ineffectiveness of external institutions can strain the ability of boards to direct and control firms (Chakrabarty and Bass 2014), and it does not provide a comprehensive research framework that links corporate governance with the broader context of different organisational environments (Filatotchev and Boyd 2009). However, Turnbull (1997) strongly opposed this view. Also, Phillips, Freeman and Wicks reviewed and rejected some critical distortions (such as the theory is an excuse for managerial opportunism, cannot provide a sufficiently specific objective function for the corporation, and is primarily concerned with distribution of financial outputs or sees all stakeholders equally) and misinterpretations (the theory requires change to current laws, is socialism and refers to the entire economy, is a comprehensive moral doctrine or applies only to corporations) (Phillips, Freeman, and Wicks 2003).

Aguilera and Jackson (2010) predicted that market-oriented and shareholder-centred systems may get closer to stakeholder-oriented systems in the context where democratic financial markets are made accountable to the public interest.
2.1.2.4. Management Hegemony

The development of firms from a factory-level organisation with one group of owner-controllers through a national corporation to a multidivisional company with semi-autonomous units produces a group of highly specialist managers (Pitelis 2004). Managerism may form when there is collective action by owners and workers or when firms are lobbyists, whose goals are controlled by managers who gain power in politics (Gourevitch and Shinn 2005). Other sources of management hegemony are: diluted ownership, information asymmetry between non-executive directors and top management, reduced dependence on shareholders thanks to retained earnings, board members being handpicked by management, and the presence of executives on the board (Hendry and Kiel 2004). Where the ownership is so widely spread, management who can select their successors have control (Berle and Means 1933).

The theory is mainly concerned with internal workings and institutional forces within firms (Chakrabarty and Bass 2014, Hung 1998). The tenet of managerial hegemony is that boards are a legal fiction dominated by management (Hendry and Kiel 2004) and “ornaments on the Christmas tree” (Mace 1971).

Management hegemony is slightly different from class hegemony, in which directors perceive themselves as an elite group, and behave in an elite way, dominating both the company organisation and its external linkages (Tricker 2012). In more detail, boards as a means of perpetuating the powers of the ruling capitalist elites reflect a shared commitment among the ruling capitalists to control social and economic institutions and wealth; they are chosen from the most influential, prestigious individuals, excluding other social groups, to protect the values and interests of the ruling capitalists (Zahra and Pearce 1989).
2.1.2.5. Resource Dependency Theory

In contrast to institutional theory, which argues that companies act in accordance with the norms of the surrounding context in order to gain legitimacy, the central idea of resource dependency theory is that corporations are in their environment and need to acquire resources from that environment to survive (Pfeffer and Salancik 1978), and that corporate internal operations such as selection of managers and changes and strategies are influenced by the external environment (Pfeffer and Salancik 1978). Organisations within the environment are independent actors who try to maintain discretion in order to contain uncertainty as well as adapting to alter the external constraints through mergers, joint ventures, trade associations, cartels or politics (Pfeffer and Salancik 1978), or they try to balance survival and autonomy (Parkinson 1993). Corporate policy is a product of negotiation between a company’s leadership and major actors in the environment (Ong, Wan, and Ong 2003). Resources can be physical, human and organisational; valuable, rare, inimitable and non-substitutable resources such as flexibility and good timing contribute to corporate sustainable competitive advantages (Zhang 2010). Other resources are prestige, legitimacy, financing, industrial/functional/geographic knowledge, and diversity (Terjesen, Sealy, and Singh 2009).

Boards of directors play a crucial role in the theory. The theory specifies board function (Chakrabarty and Bass 2014), which includes the interlocking of directorates that connects firms with their competitors and stakeholders (Hendry and Kiel 2004, Hung 1998) in order to exert control and coopt resources (Muth and Donaldson 1998). This interlocking is also called “resource picking” and it combines with capacity building to form two major ways of acquiring competitive advantage (Markarian and Parbonetti 2007). Boards assume the advisory and strategic role (Li and Aguilera 2008) via a “co-
optative” mechanism using personal and professional networks (Hendry and Kiel 2004, Van Ees, Gabrielsson, and Huse 2009) and a dense web of board members that allows the firm to acquire strategic information from outside (Colli and Colpan 2016). Board directors supply companies with advice and counsel, legitimacy, and communication channels, depending on whether they are “insiders”, “business experts”, “support specialists” or “influentials” (Terjesen, Sealy, and Singh 2009, Carter et al. 2010).

Resource dependency theory is also challenged by scholars. Parkinson (1993) recognised resource dependency theory’s focus on the exercise of power in organisations through a series of political processes that replace rational actions with manipulative ruses. However, organisations are not as political as this, and they are more rational instruments for doing work (Parkinson 1993). There is little evidence that board appointments are typically made in order to reduce resource dependence as a cooptation strategy when the interlocked individuals serve their home organisation rather than the focal company, a tendency that would even increase dependency and reduce organisational autonomy (Westphal and Zajac 2013). The theory does not take into account the effect of the absence or ineffectiveness of external institutions on a board’s ability to supply resources for the firm (Chakrabarty and Bass 2014). Another limitation is that it accepts the managerial dominance premise and leads to complex structural relationships among corporations (Ong, Wan, and Ong 2003).

2.1.2.6. Stewardship Theory

Similarly to stakeholder theory, stewardship theory removes some restrictive assumptions of the agency approach (Filatotchev and Boyd 2009). It assumes that behaviours are rational and legal, and ignores the dynamics of boards, inter-personal
perceptions of roles and the effect of board leadership (Tricker 1994b). This perspective recognises a range of non-financial motives for managerial behaviour (Hendry and Kiel 2004), such as the desire for recognition and achievement, conformity to work ethics and authority, and performance-driven self-satisfaction (Muth and Donaldson 1998).

Stewardship theory is based on assumptions that are the opposite of agency theory. The theory is rooted in the original belief (central to company law) that directors can be trusted (Tricker 2011, Castro et al. 2009), are just and honest (Tricker 1994c), and managers are loyal to companies (Muth and Donaldson 1998). Managers contribute “knowledge, expertise, and commitment to the firm” in a self-directed manner (Chakrabarty and Bass 2014, 370). Because managers voluntarily do a good job, there is no need for an executive rewards strategy (Psaros 2009).

As in other theories, the boards of directors assume a central role. Stewardship theory emphasises the performance function or the strategic role of a governing board (Hung 1998). The re-allocation of corporate control from owners to professional managers is positive for managing complexity and profit maximisation because of the board’s depth of knowledge, expertise, information, experience and commitment (Muth and Donaldson 1998). As result, boards, as a strategic asset, seek collaboration and partnership with management, and a balance between collaboration and monitoring (Anderson, Melanson, and Maly 2007). This finding demonstrates a potential for seeing stewardship as complementary to agency theory.

The theory has won support in capitalist environments with a close relationship between managers and owners, such as family businesses in which family members act as responsible “stewards” for the other family members (Colli and Colpan 2016).
Executive-dominated boards will lead to higher corporate performance and shareholder returns (Donaldson and Davis 1994). However, some scholars have pointed out weaknesses in the theory. Tricker (2000c) thought the theory too simple in the context of the rich complexity of modern corporate networks and strategic alliances. The theory has not taken into account the absence or ineffectiveness of external institutions that might impair the board’s ability to facilitate and empower the managers of the firm (Chakrabarty and Bass 2014). Popular themes in this research stream have been how CEO characteristics (tenure and experience), social ties, demographic similarity, and timing of directors’ appointments affect power and politics in the upper echelon of the organisation (Van Ees, Gabrielsson, and Huse 2009).

Taking a further step, some researchers advocate using a mix of theories for empirical investigation: “A multitheoric approach to corporate governance is essential for recognizing the many mechanisms and structures that might reasonably enhance organizational functioning” (Daily, Dalton, and Cannella quoted by Clark 2007, 26). Studies that combine two or more theories are not uncommon. Luoma and Goodstein (1999) explored how stakeholder theory was applied to corporations via institutional theory and demonstrated how the two theories together can provide intellectual resources that help researchers gain insight into the rules and norms governing stakeholder representation on corporate boards of directors. Donaldson (1990) addressed the corporate governance topic by two rival theories, agency theory and stewardship theory, and saw that each theory may be valid within its own domain. The combination of theories accommodated seemingly antithetic propositions and hence resisted attempts at falsification.

All theories of corporate governance highlight the importance of the position of the board of directors. The following section discusses board roles.
2.2. Roles of the Board of Directors

Since the forming of joint stock companies, a board of directors of no less than three people has been supposed to “manage” the corporation’s affairs (Lorsch and MacIver 1989, Mace 1971).

Although there is a common opinion that board directors are just “ornaments on the Christmas tree” (Mace 1971) or only for public ceremonial purposes (Cadbury 2002), board directors do play a role in controlling corporations (Mizruchi 1983, Lorsch and MacIver 1989). The practical role comes from directors’ power, based on their legal authority, confidence in expressing their ideas and views, their control of the agenda and discussion process, and their knowledge of the matter under discussion (Lorsch and MacIver 1989).

In terms of structure, Van den Berghe and Levrau (2004) and Cadbury (2002) considered boards of directors to be the bridge between the shareholders, the management and the standing of the company in the community. However, directors are often associated with criminality, fraud, negligence and minimum standards rather than wealth creation (Hilmer 1994).

What do people expect boards to be? Tricker (2011) suggested that boards add value to the company. To do so, they need to balance monitoring and entrepreneurial roles (Sheridan and Kendall 1992) and be proactive (Anderson, Melanson, and Maly 2007) and creative in thinking of growth opportunities (Tuggle, Schnatterly, and Johnson 2010). Boards need cohesiveness (Forbes and Milliken 1999), and to have a critical chair to facilitate and give enough time for open and frank discussion (Demb and Neubauer 1992a).
Board roles are varied as shown through different lenses in a summary by Zahra and Pearce (1989, 293) detailed in Table 2.3. Academic research on boards is wide-ranging but still overlooks important points. Researchers have not touched on board-level activities, board leadership, directors’ behaviour rooted in basic values (morality, honesty, integrity, decency, concern for others, respect and trust) and corporate governance below board level (Tricker 2012); they have omitted the role of directors in theoretical and practical insights (Tricker 2011). The following section reviews the role of individual directors in corporate governance.

2.2.1. Directors’ General Duties

Most studies focus usually on the roles, responsibilities and duties of the board of directors as a whole, not on individual directors. Individual directors’ roles can be extrapolated from the collective roles of boards.

The role of the board is set out in a variety of regulations, including statutes, laws and self-regulatory codes of practice (Brennan 2006). The general roles are: establishing a vision, mission and values, setting strategy and structure, delegating to management and exercising responsibility to shareholders and other interested parties (Institute of Directors 1995, Berenbeim 1996, Lorsch and MacIver 1989); risk management (Brown and Brown 1999); control over the activities of the organisation (Stiles and Taylor 2001, Cadbury 2002); securing of (financial) resources, advising and counselling top management, and representing the company to the public (Demb and Neubauer 1992a, b). Boards have both conformance and performance functions (Tricker 1993a).
Table 2.3. Four Perspectives on Boards of Directors

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Legalistic</th>
<th>Resource Dependence</th>
<th>Class Hegemony</th>
<th>Agency Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Board role</strong></td>
<td>1. Representing and protecting shareholders’ interest. 2. Managing the corporation without interference in day-to-day operations.</td>
<td>1. Boards are a cooperative mechanism to extract resources vital to company performance. 2. Boards serve a boundary spanning role. 3. Boards enhance organisational legitimacy.</td>
<td>Boards perpetuate the power and control of the ruling capitalist elite over social and economic institutions.</td>
<td>The primary role of boards is to monitor actions of agents (executives) to ensure their efficiency and to protect principals’ (“owners”) interests.</td>
</tr>
<tr>
<td><strong>Theoretical Origins</strong></td>
<td>Corporate law</td>
<td>Organisational Theory and Sociology</td>
<td>Marxist Sociology</td>
<td>Economics and Finance</td>
</tr>
<tr>
<td><strong>Variables of interest</strong></td>
<td>Composition Characteristics Process</td>
<td>Composition Characteristics</td>
<td>Composition</td>
<td>Characteristics Process Strategic contribution</td>
</tr>
<tr>
<td><strong>Company performance criteria</strong></td>
<td>Survival Growth Profitability</td>
<td>Growth in resources Goal achievement Relative market position</td>
<td>Oligopolistic market power Profitability</td>
<td>Survival Low operating costs Profitability</td>
</tr>
<tr>
<td><strong>Empirical support</strong></td>
<td>Moderate</td>
<td>Strong</td>
<td>Limited</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Source: Adapted and updated from Zahra and Pearce (1989, 293)
In the literature, six board roles are identified, derived from the different theories of corporate governance: linking role (providing valuable resources and information, and inter-firm connections), coordinating role (negotiating and compromising with different stakeholders), control role (monitoring management and corporate performance), strategic role (taking decisions on strategic change), maintenance role (maintaining the status quo of the organisation) and support role (supporting the decisions of professional management) (Hung 1998). Bezemer et al. (2007) emphasises the service task\textsuperscript{16} of non-executive directors in the Netherlands, which resembles the linking role and coordination role (Hung 1998). Westphal (1999) identifies three board roles: an administrative role, a role in managing resource dependence and a role enhancing organisational legitimacy. These classifications have been ratified by a number of authors (Keenan 2004, Stiles and Taylor 2001, Machold and Farquhar 2013, Melkumov, Breit, and Khoreva 2015, Zhang 2010, Zona and Zattoni 2007, Mace 1971, McNulty and Pettigrew 1996).

The roles of boards are the roles and duties of their members, the individual directors. Boards and directors have to make a trade-off between these roles because of time limits (Van den Berghe and Baelden 2005). Therefore, certain roles have to be given a degree of priority, depending on the context such as the type of firm, CEO tenure, and directors’ specific positions. For example, CEO leadership development is more important at the beginning of CEO tenure, but a shift to control of managerial opportunism is more suitable when the CEO’s tenure progresses (Shen 2003). Engaged and active directors are good for entrepreneurial firms, but they should do more monitoring in autonomous corporations (Van den Berghe and Baelden 2005). Even

\textsuperscript{16}There are two parts of the service task: an external service task (acquiring access to resources through external relations of non-executives) and an internal service task (provision of advice and counselling to executive directors relying on the knowledge and cognitive capabilities of non-executives) (Bezemer et al. 2007).
within the area of supervision, a board’s role varies from doing nothing to keeping alert, challenging or getting in the way, being a nuisance or supportive (Van Hamel et al. 1998b, 287). Board involvement in strategy can increase from (passive) legalistic to (more active) review and (most active) partnership (Stiles and Taylor 1996) with the top level of a strategic board (Howard 1996).

Demb and Neubauer (1992a, b) and the Institute of Directors (1995) have identified the paradoxes and dilemmas in a director’s job; these complement each other to form a more complete picture of the difficulties for directors in balancing one aspect against another: commerce versus the broader society; long term versus short term; closeness versus detachment; involvement versus independence; authority versus powerlessness; and driving versus monitoring.

Courts apply two broad principles against which to assess the conduct of directors: duty of care (to act in a reasonable, prudent and rational way) and fiduciary duty (to act honestly and in good faith) (Bezemer et al. 2007, Lorsch and MacIver 1989). Directors’ conduct is also judged according to the business judgement doctrine (Lorsch and MacIver 1989).

Boards take active decision making roles in a crisis such as the sudden death of the CEO or president or unsatisfactory management performance (Mace 1971). Although board directors may appear to be inactive, they have the power to determine decision making premises (the limit on operations, selecting, evaluating or and removing the management), so they have real control power even when they are selected by

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17 Demb and Neubauer (1992a, b) list three paradoxes: legal authority for board versus actual exercise of power by management, independent judgment versus in-depth knowledge and intimacy, and collective group strength versus strong independent personalities. The Institute of Directors (1995) specifies four classic directorial dilemmas: entrepreneurial versus controlling, internally knowledgeable versus objective, short-term local issues versus broad international trend, and commercial needs versus responsibility to employees, business partners, and society as a whole.
management (Mizruchi 1983). Boards can influence any activity where managers require their resources or expertise (Desai 2016). Those who have mistakenly assumed that boards are powerless did so because they misinterpreted Berle and Means’ concept of management; they read “a board of directors and the senior officers of the corporation” as a management of officers only, separated from the board of directors (Mizruchi 1983, 427-8). Boards are one of three organisational structural levels: the institutional level that mediates between the organisation and society, and the technical and managerial levels (Mizruchi 1983).

The directors’ key roles\(^\text{18}\) are oversight of the CEO, determining the direction of strategy, and doing the right thing (assuring that the corporation’s affairs are conducted in an ethical, legal and socially responsible fashion) (Lorsch and MacIver 1989, 75-6). Smithson (2004), in research on non-executive directors, adds more to the literature of directors’ roles from “policeman” who monitors board processes to “mentor” who makes a contribution to the board. Non-executive directors’ most important role is to provide an independent viewpoint, then make a greater contribution to strategic development and monitoring (Dulewicz, Gay, and Taylor 2007).

Directors’ duties vary depending on the particular role they assume, whether as insiders (managers, employees, owners), business experts (active or retired executives from other companies with expertise and knowledge of the markets and competition), support specialists (supporting strategy formulation, providing expertise in law, capital markets, insurance, public relations, technological know-how, industrial knowledge), or community influentials (with networking skills and a reputation, such as retired

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\(^{18}\) Directors’ influence on issues ranging from most influential to least: selecting CEO; change in ownership; evaluating new board members; nominating board members; approval of capital requirements; corporate social responsibilities; capital structure and legal matters (Lorsch and MacIver 1989, 75-6).
politicians, academics, or members of social organisations) (Markarian and Parbonetti 2007). Corporate boards perform different tasks at the same time depending on the characteristics of the companies and of their environment (Rindova 1999).

2.2.2. The Chair’s Roles and Duties

Most of the research on boards focuses on boards’ duties, roles and tasks in general. Cadbury went a further step to be specific about individuals on the board, in particular the chair’s role: the typical role of a chair is leadership and a representational role, a “ceremonial function”, representing the company by presenting a public image at events such as annual general meetings (Cadbury 2002). Van Hamel et al. (1998b) conducted interviews in the Netherlands about board chairs’ roles and the results were: keeping independence, taking an emotional and relational point of view, establishing a sounding board, being a mediator and being a coach of the CEO.

In terms of operations, the primary task of a chair is to chair their boards in their meetings to ensure efficient meetings within the time limit and with members contributing cooperatively (Cadbury 2002, Van Hamel et al. 1998b). They bind the supervisory team, and reconcile possible conflicts of interests, initiate appointment and assessment processes, are the first contact in personal and confidential matters, are the most senior ambassador and advocate and most senior negotiator in the case of mergers and acquisitions (Van Hamel et al. 1998b).

As a key member of the board team, a chair must also ensure the interests of the shareholders, the monitoring and replacing of the chief executive, providing leadership, reporting to the shareholders, protecting the company’s values, and ensuring investment in corporate renewal (Cadbury 2002).
The most detailed list of chair duties was suggested by Leblanc (2005), an expert in qualitative research of boards, that covers most of the aforementioned chair roles and duties.

2.2.3. The Board of Directors’ Role of Conformance

Bob Tricker, a leading figure in the area of corporate governance research, proposed to summarise boards’ activities according to a time horizon and direction (inward to or outward from the company). The two main functions of the board are conformance and performance (Tricker 1993a, 61). The conformance function focuses on the past and present orientation with the two components of monitoring and supervising, and providing accountability. On the other hand, the performance function considers the future in formulating strategy and in policy making. Both functions cover outward and inward directions (in relation to the company). The two aspects, conformance and performance, make up a comprehensive system of corporate governance (Banaga, Ray, and Tomkins 1995). The conformance or performance debate is also called the Cadbury–Hilmer debate, because the Cadbury Report of 1992 proposed conformance as focus while the Hilmer Report (Hilmer 1993b) suggested performance and value creation (continuously and effectively striving for above average performance, taking account of risk) as the emphasis of corporate governance (Tricker 1994a).

Conformance is about compliance with laws, regulations, and having a reliable reporting system to ensure board and management accountability (Banaga, Ray, and Tomkins 1995). It is monitoring in nature, requiring regular evaluation to ensure control, setting limits, delegation policy and monitoring the delegated tasks, establishing proper rules to prevent mismanagement, discouraging corruption, monitoring the evolution of the outcomes, and comparing these with the financial plans
(Van den Berghe and Levrau 2004). The controlling role of boards is widely
recognised as of the greatest importance in both academic and professional practice,
such as the Korn-Ferry survey or in shareholder proposals for reform (Fields 2007,
Filatotchev and Boyd 2009). There are two main types of control: ex-ante control via
long-term strategy and ex-post control via short-term financial oversight (Nielsen and
Huse 2010a). The conformance function of the board is aimed at protecting
shareholder investments and assets rather than creating, generating and enhancing
shareholder value (Brennan 2006).

2.2.4. The Board of Directors’ Role of Performance

Is it reasonable to expect the board to contribute to performance? The performance
function of the board means ensuring that managers strive for above-market-average
corporate performance (Hilmer 1993b). Boards do so, not by taking over the
managerial function (especially in large public corporations), but by focusing on a
critical review of proposals for developing corporate strategy, culture, policy and
major decisions (Hilmer 1993b), and by seeking to change or replace management by
setting goals, performance indicators, a time frame, and benchmarks (Hilmer 1994).

In small corporations, active and able board members are a source of assistance, advice
and counsel when it is what the management requests (Mace 1971, 1-2). In the eyes of
the CEO, the board’s contribution to performance ranges from active contribution
(contributing to good strategic decisions, keeping managers alert, forcing them to
clarify what they want) to light assistance (being the most trusted adviser) (Van Hamel
et al. 1998b). The board can play several roles, such as innovator, the power-broker
dealing in resources, the mentor for management, and the group facilitator (Banaga,
Ray, and Tomkins 1995, 130). A summary of board roles in two dimensions of
timespan (short-term versus long-term) and direction (internal versus external) is shown in Figure 2.1. The central role is to appoint and reward the CEO, supported by the roles for corporate policy, supervision, accountability and strategic thinking.

**Figure 2.1. Typical Board Roles**

<table>
<thead>
<tr>
<th>External</th>
<th>Accountability</th>
<th>Strategic Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reporting to shareholders.</td>
<td>Reviewing and initiating strategic analysis.</td>
</tr>
<tr>
<td></td>
<td>Ensuring statutory and regulatory compliance.</td>
<td>Formulating strategy.</td>
</tr>
<tr>
<td></td>
<td>Reviewing audit reports.</td>
<td>Setting corporate direction.</td>
</tr>
<tr>
<td>Internal</td>
<td>Supervision</td>
<td>Corporate Policy</td>
</tr>
<tr>
<td></td>
<td>Reviewing key executive performance.</td>
<td>Approving budgets.</td>
</tr>
<tr>
<td></td>
<td>Reviewing business results.</td>
<td>Determining compensation policy for senior executives.</td>
</tr>
<tr>
<td></td>
<td>Monitoring budgetary control and corrective actions</td>
<td>Creating corporate culture.</td>
</tr>
</tbody>
</table>

Source: Hilmer (1994, 172)

How does a board contribute to corporate performance? To improve corporate performance, boards need to understand core business issues such as core units, performance drivers and core customers (Fahy, Roche, and Weiner 2005). They give advice to management through the exchange of knowledge, and information to widen strategic options and tap strategic opportunities (Westphal 1999); they provide useful contacts, contribute to the development of the organisation’s missions and goals, monitor management, and create a corporate identity (Cravens and Wallace 2001); and they interlock into other boards for a continuing supply of resources (O’Neal and Thomas 1995). Boards manage succession and talent, decide on mergers, partnerships and restructuring, and have a key voice on reputation and relationship management.
(Taylor 2007, 1027) and risk management and the risk-taking culture\(^{19}\) (Srivastav and Hagendorff 2016). They govern CEOs by broadening the strategic options available to them and defining their discretion (Wirtz 2011). A board’s ability depends on individual directors’ knowledge, experience and capabilities (Howard 1996), their effective time management and their use of committees (Lorsch and MacIver 1989), as well as on having a diverse board, engaging experts, and implementing board self-evaluation.

### 2.2.5. Performance and the Board’s Capacity and Ability

Directors’ (management) experience, knowledge of industry and decision making capabilities enhance their advice and counselling value, hence their value creation (Bezemer et al. 2007). They use their information, expertise and other cognitive resources to enhance the understanding, creativity and coherence of the firm’s decisions (Castro et al. 2009). Changes in strategy occur when there are substantial changes in the cognition of top managers (Fields 2007) and the effectiveness of a board depends on its accumulated human capital (average tenure, professional diversity or range of educational backgrounds) (Filatotchev and Boyd 2009). A board’s capability to add value depends on its intellectual capital (Nicholson and Kiel 2004), and its ability to deploy competencies and capabilities (Markarian and Parbonetti 2007).

Stakeholder theory conceives of the firm as a new-wealth-creating team and directors as impartial corporate coordinators who are corporate fiduciaries. Outside directors bring knowledge that the board requires either for the firm’s value-creating capabilities or for its markets. The knowledge creates value when employees deploy directors

\(^{19}\) Firm policies on bank risk, evaluating whether current and future risk-exposure is consistent with risk appetite, and designing executive incentives to promote prudent risk-taking (Srivastav and Hagendorff 2016).
intelligently and when they reconfigure directors incrementally to be innovative in products and processes (Kaufman and Englander 2005).

There is a process to enable directors’ knowledge to contribute to creating corporate value; the starting point is that directors have the knowledge necessary for the corporation and the next step is to put such knowledge to work in the board’s decision making.

2.3. Board Processes and Directors’ Human Capital

Group processes such as board processes are mediators between group composition and performance (Nielsen and Huse 2010a). When directors fulfil their conformance or performance role, they have to conduct it via board processes. Castro et al. (2009) cited Korac-Kakabadse et al. (2001) to define a board’s process as decision making activities, its style, the frequency and the length of board meetings, and the formality of board proceedings and board culture on the evaluation of directors’ performance. Examples of board processes are staff support, chairship, committees and lead directors (Ward 1997), the balance of power and responsibility, judgement capacity and board culture (Demb 1996), the behaviour and the involvement of directors (from minimal to maximum) (Srivastav and Hagendorff 2016), and critical board discussion, interaction and the exchange of information (Zona and Zattoni 2007). Some other board processes are delegation20 (Van den Berghe and Baelden 2005), self-evaluating and correcting procedures (Lorsch, Berlowitz, and Zelleke 2005), joint board meetings and board committees (Bezemer et al. 2007). All are aimed at corporate directing, an integrative process of governing, strategising and leading (Pye 2002).

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20 Delegation is one of the main methods for board control, including four steps of initiation (generation and selection), ratification, implementation, and monitoring, that fails when management exceeds its authority without the board’s knowledge or consent (Van den Berghe and Baelden 2005).
The board creates value through the interactions of board members that involve trust, emotions and power (Huse 2007). Organisational theories (Melkumov, Breit, and Khoreva 2015) and a cognitive approach are part of the framework needed to understand corporate governance’s everyday situations, including board dynamics and decision making (Aguilera and Jackson 2010, Huse 2007). Board processes are the key to understanding board effectiveness (Leblanc 2005, Nielsen and Huse 2010a). Jonnergård and Svensson (1995) demonstrate board behaviour (emphasis and involvement) as the mechanisms that transform board inputs (tenure, background, attitudes, etc.) into output (board performance, board policies) as demonstrated in Figure 2.2.

**Figure 2.2. Relationships between Input Variables, Board Behaviour and Output**

![Figure 2.2. Relationships between Input Variables, Board Behaviour and Output](image)

Source: Jonnergård and Svensson (1995, 70)

Although they appear to be formal, board processes such as selecting a new CEO are entirely informal (Demb and Neubauer 1992a, Van Hamel et al. 1998b), and board-level behaviour is political (Tricker 1993b). Dealing with inter-personal politics, personalities and power (Stiles and Taylor 2001), boards have to cope with class conflicts, insider-outsider conflicts and alignment conflicts (Hilb 2005b). Informal
board network relations may be more influential than a formal network (Bezemer et al. 2007). Boards act as a collective (Brennan 2006) via debate, teamwork and cohesiveness (Finkelstein and Mooney 2003) but members with large egos and strong opinions also play a critical role (Stiles and Taylor 2001). Personal will and character, rather than reasoned argument alone, often rule in the boardroom (Hilmer 1993a).

Ways in which board members can wield influence are assertiveness, persuasion, coalition formation, pressure and blocking, consultation, manipulation, exchange and rational persuasion; the method chosen depends on the directors’ sources of power, whether it is personal status and prestige, or the external legitimacy of groups (such as shareholders and regulators), knowledge of the host sector and/or business, the quality and extent of personal networks inside and outside the board, residual power to reward and sanction, and power derived from good quality relationships with the chair or chief executive (McNulty and Pettigrew 1996). Udueni (1999) classified four main types of power: structural, ownership, prestige and expert power. Board decision making is complex and cognitive in nature, so is strongly affected by cognitive conflict, effort norms and use of knowledge and skills (Zona and Zattoni 2007), that are a part of a board’s intellectual capital.

Intellectual capital provides the board with attributes including human capital, social capital, structural capital and cultural capital, of which the board’s human capital is the individual knowledge, skills, and abilities possessed by directors (Nicholson and Kiel 2004). The board intellectual capital supports executing board roles, and that is

21 The methods of influence most used by non-executive directors are: persuasion, coalition formation; assertiveness; consultation and pressure. By contrast, the methods of influence most used by chairs are assertiveness; pressure; persuasion and blocking (McNulty and Pettigrew 1996).

22 Structural power is based on a formal hierarchical position. Ownership power originates from equity ownership. Expert power is rooted in individual competence, experience and ability to drive the firm to success, prosperity and growth. Prestige power comes from the reputation and image of the director in the institutional environment (Udueni 1999).
the transformational process that turn inputs into outputs (Nicholson and Kiel 2004, 444).

A director’s power is derived from their professional background, personality and expertise, the latter being the most important, especially when facing financial difficulties. To improve board process, the board needs to have members with appropriate expertise in different areas and with strong communication skills (Finkelstein and Mooney 2003). Without good communication, directors may fail to put their knowledge to board use, to bring in diverse views and opinions to improve the monitoring performance of the board (van Ees, van der Laan, and Postma 2008).

The board’s decision making culture and its working structure are two elements that strongly influence information exchange and decision making (Nielsen and Huse 2010a). However, there is a lack of research on such board processes (access to information, directors’ education, consulting by the board of outside advisers) (Van den Berghe and Levrau 2004, Institute of Directors 1995) and real boardroom life (information flow, meeting content and frequency, meeting conduct, delegation and other dimensions of the chair’s and the board’s relationship with management) (Machold and Farquhar 2013, Hilmer 1993a), and directors’ perceptions, values and beliefs (Tricker 1993b).

2.4. Directors’ Competencies

The review of board roles and processes highlights the influence of directors’ abilities on the board’s performance. The mechanism is that individual director and board attributes interact with company characteristics to form board responsibilities, which then result in the board’s eventual actions (Cravens and Wallace 2001, 3) as demonstrated in Figure 2.3 below. The use of directors’ knowledge and skills (which determine board effectiveness) is positively
associated with the board’s task performances (Zona and Zattoni 2007). In a capability-building process, the primary task of the board is to provide specific knowledge in creating a competitive advantage (Markarian and Parbonetti 2007), which is one source of corporate capital (Keenan and Aggestam 2001).

**Figure 2.3. A Framework for the Influence of the Board of Directors**

![Diagram showing the influence of board attributes on board responsibilities and types of actions by the board.]

Source: Cravens and Wallace (2001, 3)

What are the crucial competencies that directors of boards should have?

Director competencies are situation-specific and reflect the mix of personalities and cannot be reduced to a series of observable and ascribable actions (Institute of Directors 1995). However, for practical purposes, there is a need to make the criteria for selecting directors specific and testable, instead of being quite abstract (Hilmer 1993a), and several researchers (Kravatzky 2017, Mathew, Ibrahim, and Archbold 2016, Salleh and Othman 2016) have tried to point out such features and competencies.
The United Kingdom was the first country to develop competency standards for board directors, led by the Institute of Directors (Tricker 1993b). The competencies needed differ according to the type of director, whether a chair or member or outside director.

2.4.1. The Chair

Van Hamel et al. (1998b) describe what people wish of a chair, whether very experienced or widely respected, or the most senior director of the entire company, with undisputed authority. The chair needs to be a strong leader without being dominant, an impartial person with drive and activeness in decision making (Van den Berghe and Levrau 2004). Outstanding chairs have great integrity, high ethical standards, and an acute critical faculty to take a lead on corporate governance matters (Dulewicz, Gay, and Taylor 2007). Leblanc (2005) also specifies competencies and behaviours expected from a chair. The chair should have extensive knowledge of the company’s business and the industry, the skills and kind of conduct to make the board a cohesive team and to build a healthy corporate governance culture, together with strong interpersonal skills, and an effective chair “style”.

2.4.2. Members of the Board

Good and effective board directors need to have analytic capabilities, assertiveness, effective communications, and collegial good manners as well as credibility and governing eligibility. They should be responsive to stakeholders and committed to self-improvement and have continuing capacity to serve on the board (attendance, the number of boards they serve, independence) (Berenbeim 1996). They also need to be critical while maintaining a comfortable and constructive climate (Van den Berghe and Levrau 2004), and have business sense, integrity and decisiveness (Cravens and Wallace 2001). After comprehensive research on board directors’ competencies,
Dulewicz, Gay, and Taylor (2007) suggest a comprehensive list of desirable features, including integrity, a critical faculty, perspective and vision ability, willingness to change, listening ability, and good judgement.

Technically, members of the board of directors must have a minimum level of knowledge about accountancy, law and the industry and also have corporate directing experience because board structures are “brought alive” by people (Van den Berghe and Levrau 2004). Skills necessary for directors are organisational awareness, good judgement, financial expertise (useful in evaluating financial policy and alternatives) (Cravens and Wallace 2001), and decision making capabilities (Bezemer et al. 2007). This covers the ability to plan, delegate, appraise and develop others, to focus on achievement when risk taking; resilience and independence are needed (Ingley and Van der Walt 2001).

Directors serving on a board should be well matched in their personalities, education, occupation, function and experience (Van den Berghe and Levrau 2004) to encourage a cognitive fit (Bezemer et al. 2007). O'Neal and Thomas (1995) call it compatibility, including: of institutions, geographic constituencies, ages, contacts and leadership. They recommend selection of new members should be based on the specific knowledge and capabilities needed by the firm.

Non-executive directors can bring to the board a breadth of knowledge and experience which the company’s own management may not possess, such as independence and objectivity in board decision making (Spira and Bender 2004). Among the qualifications of candidates to serve as outside directors, standing and title as leaders in their field are essential; the position of an outside director provides an opportunity to learn and earn prestige (Mace 1971).
Heracleous (1999) calls the qualities ‘traits’ and there are traits that can distinguish leaders, including physical traits, abilities and personality characteristics such as drive, leadership motivation, honesty and integrity, self-confidence, cognitive ability and knowledge of the business. Directors’ core competencies are those critical for success and the competencies do not cover all those required to carry out the role but are pointers for success as a director (Tricker and Lee 1997).

The Institute of Directors also specifies what knowledge directors need to have. This is the knowledge specific to boards (corporate governance, board roles, relationships and processes, board standards of good practice, corporate finance and accounting principles and practices), and specific to the company and the business environment (political, economic, social, cultural issues, key trends and development, public affairs and communication) (Tricker and Lee 1997, 92).

Having access to a wide variety of information is likely to improve both the board’s current and future strategic performance of tasks. Effective information exchange among board members helps to create this diversity. Competent directors can avoid biases in information exchange. Only job-related diversity in functional, industrial and educational backgrounds contributes to this advantage (Zhang 2010). Effective boards require capable individuals who contribute wide company experience, financial expertise and credibility with shareholders (Long, Dulewicz, and Gay 2005).

For example, in the banking industry, board diversity, prior banking experience and

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23 “The leader is characterized by a strong drive for responsibility and task completion, vigor and persistence in pursuit of goals, venturesomeness and originality in problem solving, drive to exercise initiative social situations, self-confidence and sense of personal identity, willingness to accept consequences of decision and action, readiness to absorb interpersonal stress, willingness to accept frustration and delay, ability to influence other persons’ behavior, and capacity to structure social interaction systems to the purpose at hand” (Stogdill 1974, quoted by Heracleous 1999, 259).
financial expertise, appropriate board demographics and educational qualifications may allow board members to better assess the impact of bank policies.\textsuperscript{24} Financial expertise is essential to understand the complex workings of the firm and the risks associated with the firm’s policies, but many bank boards lacked sufficient financial expertise to identify and control exposure to risk in the years preceding the global financial crisis (Srivastav and Hagendorff 2016).

2.4.3. Training

Investors are looking for directors who will take intelligent risks and grow their businesses, so director training is important for investors and financial analysts (Cadbury 2000). Around the world, the demand for skilled directors is increasing while the supply is decreasing (Brown and Brown 1999, Linck, Jeffry and Yang 2009), so training for directors in professionalism and in the complexity of board tasks is in great demand (Van den Berghe and Levrau 2004). Board training should be mandatory; directors have to develop a sustainable and productive style of interaction, and relevant competencies (Heracleous 1999). They need to develop a broader mindset and new skills and general expertise\textsuperscript{25} via education, work experience and functional background (Li and Aguilera 2008).

However, directors have become less interested in learning, and there is a limit to their acquisition of knowledge if there is no incentive to put pressure on them (Shen 2003). On-job training appears to be the best way, by building up boards with people with differing work experiences and knowledge (Wirtz 2011) and with board orientation

\textsuperscript{24} Board demographics such as executive teams composed of younger members and more women increase bank risk, while boards with a higher representation of individuals with a doctorate are negatively related to bank risk (Srivastav and Hagendorff 2016).

\textsuperscript{25} General human capital refers to an individual’s expertise that is useful in multiple contexts, whereas specific human capital refers to human capital that is embedded in the firm and will lose its value when separated from it (Li and Aguilera 2008).
programs for new members (Tricker and Lee 1997).

2.4.4. Power

The power of control means the power to exercise virtually all the rights of ownership (Mace 1971). It is the potential to carry out will even when facing resistance, or to get things done indirectly by using others. Power in a relationship consists of making other individuals or organisations dependent. Power is normally informal and structured around uncertainty; and elites, the powerful people, possess cross-organisation power (Fleming and Spicer 2014).

Fleming and Spicer (2014) specify four faces of power (coercion, manipulation, domination and subjectification) and four sites of power (power enacted “in”, “through”, “over” and “against” organisations). Coercion and manipulation are easily recognised because they are exposed in acts influencing others’ behaviours in particular situations, but domination and subjectification are systemic and invisibly expressed in mobilisation of institutional, ideological, and discursive resources to shape organisational activities.

As a part of an elite group, directors’ power comes from sources such as their legal authority, their confidence in expressing their ideas and views, their knowledge of the matter under discussion, their control over the agenda and the discussion process and unity. Their power may be limited due to minimal time available at meetings, lack of expertise, lack of information, little time for preparation, the dominance of the CEO

[26] Coercion: having someone do something that the actor would have not done if not requested; manipulation: usually applying on agenda setting, by limiting the issues for discussion, establishing boundaries and anticipated outcomes of various behaviours, and influencing decision making processes; domination: influencing by constructing dominating ideological values; and subjectification: influencing by determining an actor’s sense of self, emotions and identity (Fleming and Spicer 2014, 242-5).
and other outsiders or inside directors. When there is a shortfall such as this, many directors remain silent to save face, which makes them powerless (Lorsch and Maclver 1989). In fact, boards of directors do often lack in-depth know-how in auditing, risk management and communication (Hilb 2005a).

As reviewed above, directors’ expertise, especially financial knowledge, must be possessed by directors of all types, as it is essential for board decisions on policies. It is the source of power that determines directors’ influence over the board in general. Because of the importance of this expertise, this thesis explores board directors’ understanding of one aspect of finance, financial derivatives.

2.5. Financial Derivatives

2.5.1. Overview

A derivative can be defined as the sale of a promised asset at an agreed price and at a future time by a method among agreed alternatives; the promised asset can be cash, commodities or something else, and the agreed price can be referred to as any standard of measure (Hull 2014, Swan 2000, Kolb and Overdahl 2010, Swan and McKenna 1999). The agreed settlement alternatives may be expressed or implied by market practice (Kolb and Overdahl 2010). Derivatives are an instrument whose value is based upon, or derived from, some underlying index, reference rate (for example interest rates or currency exchange rates), security, commodity or other assets (Swan 2000, 27).

The function of a derivative is to provide a “flexible” choice of possible settlement, that is performance, opportunities including (1) delivery of the underlying asset (even though, at the time of making the agreement, neither party possesses the promised asset); (2) assignment of the derivative contract to another party; (3) substitution of another agreed asset (including cash) for the stated underlying asset (Swan and McKenna 1999).
Typical forms of financial derivatives are forwards, futures, options and swaps; in addition to these, there are structured products (Kolb and Overdahl 2010).

Derivatives are used for financing future activities, securing supplies, and managing risk and speculation, or are simply something to sell (Swan 2000). The true value of a derivative to the related parties is that the creation of a derivatives agreement triggers a time-limited opportunity to exploit a flexible range of commercial opportunities (Swan and McKenna 1999).

Derivatives seems to be a natural form of life and business; they are nearly 4,000 years old, originating in ancient Mesopotamian times (Swan 2000). Since their initiation, commodities and financial derivatives experienced intermittent prohibition and acceptance, until finally they were recognised and enforced by laws across national boundaries. It has taken centuries for common law to conclude that derivatives and future delivery agreements should be enforceable. Finally, after the turn of the twentieth century, the United States Supreme Court began to make decisions recognising that future speculation was a legitimate part of commerce (Swan 2000).

There is a recurring impulse to eliminate derivatives markets through legislative action (Kolb and Overdahl 2010). However, derivatives are now well recognised, accepted and legalised as a part of normal business in a number of economies, which demonstrates their substantive attractiveness to the business world.

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28 A forward contract: a sale of a promise solely to deliver a commodity in the future. A futures contract: a sale of a promise either to deliver a commodity or pay its market value in the future. A contract for differences: a sale of promise solely to pay the market value of a commodity in the future. An option: a sale of a promise to keep open the opportunity to purchase one of the foregoing promises at an agreed price for a fixed period of time. A swap: a trade of one such promise for another (Swan and McKenna 1999).

29 Structured products are financial instruments that combine cash assets and/or derivatives to provide a risk/reward profile not otherwise available or only available at high cost in the cash market (Kolb and Overdahl 2010).
2.5.2. Uses of Financial Derivatives

The use, and understanding, of derivatives is still developing, as were stocks before 1929, and this is likely to cause trouble until regulations and training are implemented so that the marketplace can understand and manage these products (Zask 1996). The business world has seen the gradual evolution of ever more creative risk management; from the family and private property to derivatives and structured financing arrangements, it is the story of the advances and retreats of prudent risk management expansions (Kolb and Overdahl 2010, 266–7).

Financial derivatives are widely appreciated for their characteristics of leverage, customisation and opportunities for making money from flows, positions-taking or arbitrage. A leveraged position is one where a change in a risk factor does not always produce a proportional change in profit or loss. With “customisation”, it is sometimes possible to achieve exactly the risks one wants and not those one does not want (Murphy 2008).

In general, financial derivatives are for hedging and speculation (Kolb and Overdahl 2010). During their history, derivatives have been used for financing future activities (for example Islamic armies, Italian cities, running city governments, expansion and maintenance of religious institutions and the commercial enterprises of the medieval Roman Catholic Church), securing supplies (of food, wool, naval stores, cotton, rye and forgiveness), managing risk and speculation, and being simply something to sell.

30 Before 1929, stocks were widely considered to be extremely speculative while bonds were for the prudent investor. The Great Crash and events since have taught the financial community how to manage a stock market, and equities are now core holdings of pension funds and trusts (Zask 1996).

31 If you are long £1000 of a single stock and it moves 2%, you make £20 because you are not leveraged. With derivatives, a £1000 investment could produce an investment that changes by any amount between nothing and thousands of pounds for a 2% move (Murphy 2008).

32 Managing risk by two ways: fixing the prices of future assets; and shifting the risk to parties who wish to bear it for reasons of their own (Swan 2000).
promises and intellectual capital (Swan 2000, 296-9). In addition to real hedging and speculation, two more uses of financial derivatives are tax optimisation\(^{33}\) and arbitrage including regulatory arbitrage,\(^{34}\) accounting or perception arbitrage,\(^{35}\) and funding arbitrage\(^{36}\) (Murphy 2008).

At a social level, derivatives markets serve to mitigate risk (risk forecasting, transferring) in a non-intrusive, inexpensive manner;\(^{37}\) to allow price discovery; to promote the efficient allocation of resources to their most highly valued uses over time; and to enhance opportunities for investors to access alternative asset classes and mitigate “underinvestment problems” by creating opportunities for asset-based financing; and as a result, overall, reduce business failure rates. The wider availability of consumer products in high-risk markets increases opportunities for firms to invest in innovative but risky production technologies, and allows the redistribution of risks to those parties most willing and able to bear and manage them (Kolb and Overdahl 2010). Such “social functions” make derivatives popular and overcome prohibitions, and people think they do more good than harm to society (Kolb and Overdahl 2010). People whose behaviour is most likely to be altered as a result of the various initiatives are more likely to criticise them than those parties who will benefit from the ideas (Solomon 2007, 72).

\(^{33}\) Tax optimisation. Derivatives may have a different tax treatment from other investments or they may permit tax liabilities to be transformed or relocated, enhancing the user’s tax position (Murphy 2008).

\(^{34}\) Regulatory arbitrage. The capital required to take a position via a derivative may be significantly different from that via another route, or it may be possible to pass on an insignificant amount of risk via a derivative and yet make a significant change to the capital required (Murphy 2008).

\(^{35}\) Accounting or perception arbitrage. Derivatives may permit a different accounting treatment for a risk, and they may reduce earnings volatility, or otherwise enhance the perceived attractiveness of an investment to third parties (Murphy 2008).

\(^{36}\) Funding arbitrage. Derivatives may permit risks to be taken without a balance sheet being used, they may allow off-balance-sheet funding, or they may permit both (Murphy 2008).

\(^{37}\) Derivative contract positions are unfunded today, are carried out off the balance sheet, and the financial requirements for initiating a derivative contract are just sufficient for a future performance guarantee of counterparty obligations (Kolb and Overdahl 2010).
2.5.2.1. Hedging

Hedging is the shifting of the price risk from one party to a counterparty who enters into the opposite side of the contract to protect either a long or a short cash market position,\(^{38}\) or to minimise the risk of financial loss from an adverse price change (Kolb and Overdahl 2010). Derivatives contracts are zero sum in the sense that the buyer’s gains equal the seller’s losses, so that adding all gains and losses gives a total equal to zero (Kolb and Overdahl 2010, 333). Three kinds of hedging are straight hedge, options hedge and speculative hedge\(^{39}\) (Zask 1996).

Hedging adds value to a firm by reducing expected taxes or financial distress costs, by mitigating underinvestment, or by allowing a firm to increase its debt capacity and take advantage of debt tax-shields without an increase in risk. It is valuable for firms with strong internal corporate governance and insignificant for firms with weak internal governance (Allayannis, Lel, and Miller 2012).

2.5.2.2. Speculation

Speculators trade with the objective of achieving profits through the successful anticipation of price movements, by taking on a financial risk that they previously did not possess (having no assets at risk) (Kolb and Overdahl 2010). Speculators are important for market liquidity and formation (the risk purchasing side) (Swan 2000).

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\(^{38}\) A long cash market position (i.e. one owns the cash commodity) or a short cash market positions (i.e. one plans on buying the cash commodity in the future) (Kolb and Overdahl 2010).

\(^{39}\) Straight hedge: Forwards, Futures.

Options hedge: An option hedge is like buying insurance. The goal is to pay a price for protection from specific events. It is an attempt to keep a value above, below, or within a range, or outside of a price range for a finite period of time. The goal is to purchase the possibility of exposure without having to assume it unless it is needed.

Speculative hedge: An attempt to protect the value of an asset by using a proxy when the hedging instrument is not a derivative of the asset or when the historical relationship between the hedging instrument and the underlying asset has been volatile beyond what one considers stable enough for a hedge (Zask 1996).
Derivatives are “fascinating, and they are in the process of changing our financial environment as a mechanism for ever increasing efficient allocation of capital” (Rulle 1996, 48). As presented in derivatives scandals, to make sure that derivatives are used in a prudent manner, we need the education, involvement, and the support of senior management and directors (Seltzer 1996).

2.5.3. Financial Derivatives Scandals

The rapid growth of derivative markets, along with the failures of large derivatives users, including the American Insurance Group, Bear Stearns and Lehman Brothers, has been accompanied by concerns about the risks these instruments pose not only to users but also to the financial system as a whole (Kolb and Overdahl 2010, 22). Another point of view is that derivatives markets pose an untold risk to users, are home to unbridled speculation, and are unchecked sources of systemic risk (Kolb and Overdahl 2010).

Four factors common to all derivatives scandals are exceptionally large wagers based on faulty strategies or the wild speculative activities of rogue traders; significant exogenous shocks that are difficult to predict and extremely rare; dysfunctional risk management systems and the lack of access to reliable sources of liquidity when needed most (Kolb and Overdahl 2010, 313). High leverage is the advantage that derivatives have compared to the cash markets; however, it is also the root of virtually all derivative scandals and disasters (Kolb and Overdahl 2010, 314).

An industrial conglomerate, Metallgesellschaft (MG), incurred significant losses in 1993 because its German-based supervisors had a poor understanding of the cash flow risks associated with the stack-and-roll hedges used by American-based MGRM (Metallgesellschaft Refining and Marketing) and with its method for evaluating the
risks\textsuperscript{40} (Kolb and Overdahl 2010, 325). The €4.9 billion equity index trading loss at Société Generale in 2008 was blamed on the fragmented controls at the bank, which prevented a healthy overview of firm-wide risks (Kolb and Overdahl 2010, 326).

Enron became famous for its dexterity in handling risk management derivatives, as well as for its abilities in the area of commodity trading derivatives; it transformed itself from an energy company to a predominantly financial and energy trading company, trading financial derivatives as well as energy contracts and effectively running a gas pipeline. The special purpose entities\textsuperscript{41} themselves led the company to financial collapse in 2001 (Solomon 2007, 33). In the case of Barings in 1995, the senior management did not understand the technicalities of derivatives trading. The Barings case channelled attention toward the area of risk management and internal control (Solomon 2007, 59). Granite Partners, a New York hedge fund, lost US$600 million in mortgage derivatives when they distorted the term “hedge” for marketing needs and had problems with models (Zask 1996).

The 2007–2008 financial crisis originated from sub-prime market failures and was boosted by financial engineering with financial derivatives. This raised the question of whether directors, especially independent non-executive directors, understand strategic models and sophisticated securitised instruments and the risks their companies can face (Tricker 2012).

\textsuperscript{40} Supervisors did not realise that the success or failure of these hedges cannot be evaluated by interim cash flows. MGRM’s German managers also failed to grasp that part of the problem was an accounting illusion, due to the difference between German rules, which required German-based companies to value their positions using the lower-of-cost-or-market (LCM) method, and US rules, which permitted hedge accounting (Kolb and Overdahl 2010, 325).

\textsuperscript{41} The non-consolidated, off-balance-sheet vehicles were used to hide a company’s liabilities from the balance sheet, in order to make the financial statements look much better than they really were (Solomon 2007, 33).
Human judgement\textsuperscript{42} determines the success of any risk-management plan. Risk is at the core of speculative hedging; poor judgement causes most financial disasters by letting one of the risks (correlation, ratio, execution, liquidity, model risks) get out of control. This occurs slowly, and the biggest losses normally follow the biggest successes\textsuperscript{43} (Zask 1996).

The three best-known failures that lead to derivative losses are those of knowledge, accountability and judgement.\textsuperscript{44} Derivatives are likely to continue to cause more problems, since the knowledge and failures of accountability and judgement that caused the previous disasters still persist. The lack of knowledge is a matter of the board and management not properly understanding derivatives, and this can be remedied by training, reading and increasing experience. Most executives do not have time to study the derivatives positions until it is too late. The biggest derivatives risk does not come from the markets but from the people working with derivatives (Zask 1996).

\textbf{2.6. Directors’ Knowledge of Financial Derivatives}

For the public at large, financial derivatives have long been the most mysterious and least understood of all financial instruments (Gordon, Hayt, and Marston 1996, Swan 2000, Klein 1996, Schwimmer 1994, Masheane 1998, Kolb and Overdahl 2010, Zask 1996). While some financial derivatives are fairly simple, others are quite complicated

\textsuperscript{42} Judgement is the ability to make good decisions (Zask 1996).

\textsuperscript{43} A big win gives people the courage to make huge bets. Big bets are easy to make (and hide) with derivatives. Big bets cause disasters (Zask 1996).

\textsuperscript{44} Accountability failure: That means the controls are not in place to have derivatives used in an organisation, there being no policy statement and evaluation procedures.

- Policy statement: what derivatives are supposed to do, what kinds of risks can be managed if there is hedging, how much a firm is willing to lose if things go wrong, how derivatives are valued, and what kinds of instruments can be used.

- Evaluation procedure: who is responsible for what and how tasks are supposed to be carried out. The third is judgement failure: overconfidence (Zask 1996).
and require considerable mathematical and statistical ability to understand fully (Kolb and Overdahl 2010). The very power of these financial derivatives makes them potential for accident and tools for mischief (Kolb and Overdahl 2010).

Since the widely publicised derivative losses of the early 1990s, one of the most important aspects of control of derivatives among large United Kingdom companies is board-level approval (Marsden and Prevost 2005), since the board plays an important role in the decision to use derivatives (Marsden and Prevost 2005).

Lel (2012) conducted an exhaustive survey and tests to find out whether corporate governance at both company level and country level significantly influences the decision by firms to use currency derivatives. Lel found that strongly governed firms tend to use derivatives to hedge currency exposure and overcome costly external financing; weakly governed firms appear to use derivatives mostly for managerial reasons. Derivative contracts are particularly appealing to managers for speculation purposes because of the leverage they can provide, and because of the complexity of interpreting the consequences of their use on firms’ operations; because of the limited disclosure requirements in many countries, managers perhaps feel less constrained by investor scrutiny (Lel 2012).

Lel’s explanation is strongly supported by research by Buckley and Van Der Nat (2003) into the knowledge of and attitude to financial derivatives in 80 non-executive directors in the Netherlands, South Africa, the United Kingdom and the United States. The finding was that one-third of directors were reasonably knowledgeable about derivatives’ workings and the risks while two-thirds were not, and so relied on executives, auditors and the audit committee for reassurance; 75 per cent supported the use of derivatives in appropriate situations while 15 per cent were suspicious and
10 per cent were not sure. As result, only 75 per cent thought that derivatives deserved to be discussed by the board (Buckley and Van Der Nat 2003).

In other research, Schwimmer (1994) found that 65 per cent of respondents (derivatives dealers) said their boards of directors had some knowledge but relied heavily on the next level of management on the use of derivatives, while 8 per cent admitted that their directors had little understanding of them. Among end-user companies, only 18 per cent of directors had a good understanding, while 29 per cent had little understanding, and 53 per cent had a sufficient understanding (Schwimmer 1994).

This is problematic because Attia (2012) had confirmed previous literature indicating that accounting manipulations and derivatives are complementary income-smoothing instruments. Accounting manipulations complement the lack of derivatives in managing operational risk, and derivatives can be used to cover up opportunistic accounting manipulations (Attia 2012). In other words, derivatives are as dangerous as accounting manipulation; and if directors are concerned about accounting manipulations, they should apply the same level of concern to financial derivatives. Therefore, if directors, especially non-executive directors, do not understand what executives are using derivatives for, they cannot impose the appropriate controls to ensure accounting outcomes that best benefit stakeholders.

The board of directors, together with financial management and the external auditors, are the trio of good corporate governance (Psaros 2009). On the other hand, the company’s top directors are directly responsible for the use of creative accounting to conceal debt and massage reported profits, in order to bolster the company’s share price; whereas they are also responsible for detecting unethical practices and corporate
reputation risks (Solomon 2007, 40). The need for board-level authorisation and comprehension of derivatives trading policies by boards has long been a concern of the Group of Thirty (G30) – an international body of very senior representatives of the private and public sectors and academia, specialising in international economic and financial issues – which recommends that the board approve all the purposes and uses of derivatives, limits and control procedures (Little 1999). A board’s responsibility was even recognised by a court when an Indiana Court of Appeals case found that a board had breached its duty of care by failing to supervise the manager and by not becoming aware of the essentials of hedging in a way to allow it to monitor the business effectively. This was a situation where the board did not understand the products and their inherent risks, did not even want to know about them, and did not have the means to control the risks (Seltzer 1996).

Lack of understanding about derivatives by directors occurs in most developed countries, as these studies make clear. Does the same situation exist in Vietnam? And is this lack of understanding reflected in current corporate governance policies on risk management, especially regarding derivatives? Answers to these questions are useful for financial market developers and the companies themselves.

In mid-April 2013, the State Securities Commission of Vietnam announced its plan to issue a decree on financial derivatives at the end of the year. This is a signal for the opening of a new financial market in Vietnam. According to the experience of other emerging economies, the derivative markets usually start with index derivatives and then single-stock derivatives (Bhaumik and Bose 2009, Fernandez 2006, Lien and Mei 2008, Martins, Singh, and Bhattacharya 2012, Nair 2011). Vietnam has finished its preparation for an index derivative market: in early 2012 the country’s two stock exchanges issued new indices (VN30-Index and HNX30-Index) in addition to the
long-standing VNI-Index and HNX-Index and UPCOM index. In October 2016, a general index for both markets was announced, the VNXALL index. There are now four indices, and the market that had been imminent in 2016 was actually opened in 2017.

By 2016, the Vietnamese government has nearly finished its preparation for opening the new financial derivatives markets in terms of a legal and regulatory basis (one Decree and two Circulars), central counter party, market members (banks, securities companies, funds) and training and communication for future investors. However, all the current communications from the Commission are targeted at professional financial investors; knowledge dissemination to corporate users and their leaders and staff has not started. The market is scheduled to start its operation in the second quarter of 2017 (State Securities Commission of Vietnam 2017b). The new market operators are likely to promote the participation of individual investors and institutional investors.

How have directors and CEOs, especially those from non-financial companies, prepared for such a promotion and the accompanying pressure? How should they protect their companies in a new market context? What kind of policies do they think are needed? This thesis answers these questions in the context of Vietnam.

Why Vietnam? Studies on corporate governance in Vietnam are abundant; however, the main focus is the regulatory framework, especially compared to benchmarks such as the OECD Principles of Corporate Governance (World Bank 2013, Centre for Asia Private Equity Research 2015, Freeman 2005, Le Minh and Walker 2008, McGee 2009, Nguyen 2005, Owoeye and Van der Pijl 2016), the causal relationship between corporate governance and firm performance (Malesky, McCulloch, and Nhat 2015,

2.7. Conclusion

The literature review shows there is a dearth of research on individual directors, even though the broad field of corporate governance research has a collection of studies on boards of directors as an entity. Several studies have failed to link the board as an entity to corporate indicators such as financial performance, and researchers have suggested that board dynamics with regard to individual directors’ behaviour might be the linkages.

For boards to be effective, board members need to be competent, but it is impossible to ensure that all directors on a board are similarly competent about all issues at hand. However, to make effective judgements, directors at least need to be informed fully about the critical issues. Financial derivatives are controversial but are attractive to businesses in many nations. The weaknesses of boards in general and directors in particular in dealing with derivatives are common in developed markets and have been exposed to the public in notorious scandals in a single company, in a single country and in nations. Do directors in other countries learn from these lessons? This thesis answers this in the context of an emerging economy, Vietnam.
In summary, there are gaps in the current literature on corporate governance in Vietnam, and on individual directors’ behaviour, especially in the area of financial derivatives. This thesis addresses a number of these gaps including:

- a comprehensive understanding of fundamental corporate governance issues in Vietnam
- the current awareness and understanding of directors of boards in Vietnam of financial derivatives
- the relationship between directors’ understanding of financial derivatives and their attitude to the instruments, intention to use and potential impact on corporate governance policies including risk management.

This thesis seeks to make progress in filling these gaps and aims to benefit regulators, directors, corporations and other investors in derivative markets, firstly with a picture of corporate governance in Vietnam in Chapter 3.
Chapter 3 Corporate Governance in Vietnam

Introduction

During the literature review, no comprehensive published writing on corporate governance in Vietnam was found. Such a context is crucial to understanding and investigating the country’s board director behaviour in dealing with financial derivatives. This was the primary motivation for a study (as a part of this thesis) on Vietnamese corporate governance, and the results were published in a journal article: Lien, T. T. H., and D. A. Holloway. 2014. “Developments in corporate governance: The case of Vietnam”. Corporate Ownership and Control 11 (3 C):219-230. DOI: 10.2307/30226006.

This chapter is the excerpt from the journal, with an additional section on financial derivatives in Vietnam at the end and minor editorial changes, to establish the basis for the analysis and discussion in the following chapters.

3.1. Corporate Governance – Country Assessment

Corporate governance alternative systems are classified as Anglo-Saxon, Germanic, Latin and Japanese with acknowledged differences in their orientation, representative countries, prevailing concept of the firm, the board system, main stakeholders that exert influence on managerial decision making, importance of stock and bond markets, market for corporate control, ownership concentration, compensation based on performance and the time horizon of economic relationships (Clarke 2007). Researchers generally agree that the main categories of corporate governance in the world consist of models from Anglo-America, Continental Europe, Asia Pacific,

Different countries start their corporate governance reforms in different ways. Many governance reformers have cited the Cadbury Report 1992 in the United Kingdom as a key development in the modern literature on corporate governance. This code, and the development of the UK Combined Code which was to follow, was formulated as a response to several visible UK corporate failures of the late 1980s and early 1990s (Dallas and Patel 2004). Similarly, regulatory reforms in the United States following the corporate failures in that country were an effort to stabilise the financial markets.

In Europe, several countries’ corporate governance codes and other efforts were inspired by the code in the United Kingdom and the United States (Clarke 2007). “At the beginning probably there was a sense of simply matching the regulation of close economic neighbours by developing similar codes, however over time it is likely that the engagement in the codes became more real” (Clarke 2007, 175-6).

In Asian countries:

“A range of external agencies have an interest in sustaining the reform process including the IMF, World Bank, and Asian Development Bank, and they have all engaged in major initiatives to facilitate and support the reform process. Moreover, international investors will not be sympathetic to economies that are not consistently raising their standards of corporate governance” (Clarke 2007, 207-8).

In addition as Dallas argued:

“Country factors can play important, even determining, roles in setting the environment for corporate governance practice at the individual company level.
Attitudes toward corporate governance can vary from country to country. Diverse country forces – legal, political, historical, cultural – come together to shape ownership structures, stakeholder priorities, and fundamental attitudes toward the role of the firm in the economy” (2004a, 138).

Currently there are two major frameworks in use: one incorporates a rules-based approach and the second uses a principles-based approach. The main areas of focus are market infrastructure, legal infrastructure, regulatory infrastructure and information infrastructure (Dallas 2004b). Also, there are the two analytical processes of modelling and clinical/interactive approaches (Dallas 2004b).

Finally, there are varying country perspectives and drivers on corporate governance initiatives such as Standard and Poor’s Sovereign Credit Ratings, World Bank’s Rule of Law Regulatory Indicators and Transparency International’s Corruption Perceptions Index (Dallas 2004a). The Organisation for Economic Co-Operation and Development (OECD) is a major player in the area of country assessment with a system of national reports and regional roundtables (Asia, Eurasia, Latin America, Middle East and North Africa and South Africa). The assessment is also based on the main aspects of legal and regulatory systems and economic conditions.

3.2. Corporate Governance in Vietnam

Vietnam is still an under-researched country in the literature on corporate governance. For example, the book, Corporate Governance and Accountability (Solomon 2007), provides an analysis and overview of corporate governance developments in 36 countries around the world, including not only developed countries but also developing or transition countries such as Hungary, Indonesia, Poland and Thailand. However, Vietnam is not included.
A similar omission occurs in some of the more highly cited papers on corporate governance, such as Shleifer and Vishny (1997) and Porta et al. (1998). For instance, in “A Survey of Corporate Governance”, Shleifer and Vishny (1997) investigated corporate governance through a major review of published studies mainly from Japan, Russia, Sweden, the United Kingdom and the United States; they felt it “unfortunate” that there is little research from the rest of the world and, of course, there were no studies about Vietnamese corporate governance. In “Law and Finance”, Porta et al. (1998) used a sample including non-financial listed companies from 49 countries in Europe, North and South America, Africa, Asia and Australia; there were no socialist or transition economies and again, Vietnam was not included.

In some studies focusing on the Asia-Pacific region, such as “Corporate Governance in Asia: A Survey” (Claessens and Fan 2003) and “Corporate Governance in Asia: A Comparative Perspective” (OECD 2001), the authors discussed and analysed Vietnam’s neighbouring countries such as China, Indonesia, Japan, Malaysia, Korea, Singapore and Thailand but not Vietnam itself. In addition, since 2006, the OECD has published a series of reports on corporate governance in the region (OECD 2011), in which Vietnam is more frequently mentioned as a participant in the surveys. The reports show progress in the region based on six main corporate governance principles recommended by the OECD; however, there are no major studies of corporate governance in Vietnam.

What has led to this outcome and gap in the literature? Most of the leading international studies are based on previous studies published in leading journals, conferences, books and reports; these publications do not include the Vietnamese context. Therefore, a thorough investigation into the corporate governance policies and practices of listed companies in Vietnam should be of interest to different stakeholders, such as
international academics, policy makers, and investors and an effective contribution to closing this gap.

In 2006, the World Bank issued a Report on the Observance of Standards and Codes (ROSC) – Corporate Governance Country Assessment on Vietnam. The corporate governance frameworks were benchmarked against the OECD Principles of Corporate Governance. The main areas for focus included ensuring the basis for an effective corporate governance framework, the rights of shareholders and key ownership functions, the equitable treatment of shareholders, the role of stakeholders in corporate governance, disclosure and transparency and the responsibilities of the board. The report analysed four key issues relating to investor protection, disclosure, enforcement and company oversight and the board. The report also made several policy recommendations (World Bank 2006).

3.3. Analytical Overview of the Development of Corporate Governance in Vietnam

On a narrow scope, corporate governance issues relate mainly to public companies. The definition of a public company is enshrined in Article 25, section 1, Law on Securities (Quốc Hội Khóa 11 2006):

A public company means a shareholding company which belongs to one of the following three categories:

(a) A company which has made a public offer of shares;

(b) A company which has shares listed on the Stock Exchange or a Securities Trading Centre;
(c) A company which has shares owned by at least one hundred (100) investors excluding professional securities investors, and which has paid-up charter capital of ten (10) billion Vietnamese dong\textsuperscript{45} or more.

3.3.1. Securities Markets Development

One critical feature of joint stock companies is that their shares can be transferred freely between different parties. This enables the number of shareholders to range from three to an unlimited number. When the number surpasses the threshold of 100, a company is designated as a public company.

Traditionally, Vietnamese do business and trade with people they know personally; personal relationships are considered a requirement for ensuring credibility and trust among parties. When capital source funding from this group is not sufficient for a particular business, company owners and managers then look for investment funds from outsiders. These outsiders are also looking for credible partners in which to invest. The two parties then agree on a mechanism for ensuring credibility other than the usual personal relationship. Securities markets with prescribed financial functions of listing, public offering and share auction are such a mechanism since this mechanism is backed by the Vietnamese government. Both of the securities exchanges in Vietnam are one-member limited liabilities companies with 100 per cent State ownership with the government represented by the Ministry of Finance (Hochiminh Stock Exchange 2013).

The first securities exchange of Vietnam was opened in Ho Chi Minh City in 2000; the second one in Hanoi came into operation in 2005. A central over-the-counter

\textsuperscript{45} Currency unit in Vietnam
exchange system (UPCoM) was also opened in 2009 under the management of Hanoi Stock Exchange. The Law on Securities was passed and promulgated by government in June 2006 and amended in November 2010. This provided the legal and enhanced framework for securities markets in general and markets for public companies in particular.

At the start, there were only two companies listed on the Hochiminh Stock Exchange. By April 2013, there were 702 listed companies on both exchanges, accounting for 55 per cent of all the public companies in Vietnam. This is evidence of the exchanges’ influence on the development and growth of public companies across the country.

3.3.2. Equitisation of State-owned Enterprises and Formation of Public Companies


From 1998 to 2007, equitisation was conducted on a large scale (Chính Phủ 1998, 2002, 2004). Conditions were lowered to allow legal entities and natural persons to have rights to buy shares. All small and medium enterprises in industries that the government did not need to keep under 100 per cent government ownership were part of the equitisation scheme. However, the biggest corporations were not on the list. In 2007, big corporations with 100 per cent state ownership were then put on the equitisation scheme considerations (Chính Phủ 2007, 2011). Some of the big corporations that were successfully equitised and listed were Vietcombank, Military Bank and Vietinbank. There are many other large entities that are expected to be part
of large initial public offerings in the future, such as Vinaphone, Mobiphone, Vietnam Airlines, BIDV and Agribank.

In 2012, the Prime Minister approved a scheme for restructuring state-owned enterprises and corporations in the period up to 2015 with an important focus on classifying them into sub-categories in which the government maintains either 100 per cent, 75 per cent, 65 per cent or 50 per cent ownership. The equitisations program should have been finished in 2010. However, the equitisazation process has slowed down because of the large scale and complexity of the remaining corporations. The scale of the new scheme means the equitisation and privatisation process is unlikely to be completed before 2020.

The equitisation schemes have transformed a significant number of state-owned enterprises into joint stock companies including public companies. Thirty companies form the VN30 index and HNX30 index baskets of the Hanoi Stock Exchange and the Hochiminh Stock Exchange as at April 2013, with each basket containing 16 companies that used to be state-owned enterprises that were privatised. VN30 and HNX30 indices are calculated based on the 30 top shares in terms of market values which account for about 80 per cent of total market value and 60 per cent of total trading value.

In addition, most of the listed companies outside the VN30 baskets were also formed as part of the equitisation process. This development provides evidence of the crucial nature of the contribution of equitisation schemes in helping to establish a robust group of public companies in Vietnam.
3.4. Typical Features of Corporate Governance of Public Companies in Vietnam

As part of this development phase, the evolution of corporate governance in the public sphere in Vietnam highlights three key features that are analysed in the following subsections.

3.4.1. Leading Role of the Government

The government of the day is the prime initiator in making laws that embed key corporate governance principles and practices. Governments around the world carry out this key role through the enactment of laws and through court processes that ensure a central role in creating principles and codes for corporate governance in all nations (Gourevitch and Shinn 2005). If the private “bonding mechanism” is effective, then the role of politics and laws are less important; if, however, this mechanism is not effective then solutions to such a problem require the enactment of effective laws (Gourevitch and Shinn 2005).

In the 20-year development of public companies in Vietnam, the government opened the way for the creation of joint stock companies, and also supplied the markets with the very first public and listed companies and created the biggest public companies through the privatisation of state-owned enterprises. The government has also created the framework, and principles for corporate governance and guided the markets to conform with these codes.

The establishment of a corporate governance framework has achieved significant progress in a medium time frame. In 2006, the “legal framework and institutional foundation for capital market in Vietnam is in its initial development” (World Bank 2006, 1). The legal framework for corporate governance is regulated by the Law on
Enterprises enacted in 2005, the Model Charter 2002 and the Law on Securities 2006. Vietnam has had to confront major challenges in enforcing laws, enhancing institutions for administration, compulsory law enforcement, and market development as well as promoting good corporate governance.

In 2012, six years after the previous comment, the institutional framework for effective corporate governance has been issued. In fact, administrative agencies have implemented active measures for the last years in issuing appropriate documents on enhancing corporate governance. In 2010, Law on Credit Institutions was approved. After Circular 09/2010, a new circular on information declaration was approved in April 2012 (Circular 52/2012 by Ministry of Finance), and Guidelines on corporate governance were issued in July 2012. All of these legal documents expose new challenges to companies in Vietnam with poor corporate governance quality (Tổ chức Tài chính Quốc tế (IFC) 2012, 23).

Recognising the importance of the government in corporate governance in Vietnam, the International Finance Corporation warned that “The government must be ‘a pioneer’ in promoting good corporate governance practice. At least, the government needs to approve its representatives in companies with major part of state ownership, requires those companies to implement good corporate governance” (Tổ chức Tài chính Quốc tế (IFC) 2012, 24). In addition, “shareholders, especially state shareholders, need to more actively participate in corporate governance issues” (Tổ chức Tài chính Quốc tế (IFC) 2012, 25). Three years of Corporate Governance Scorecard reports reveal that corporate governance in Vietnam has been implemented in a top-down way,

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Circular regulates information disclosure on securities markets by the Ministry of Finance
relying on a legal framework and penalty measures (Tổ chức Tài chính Quốc tế (IFC) 2012, 23).

The government can influence corporate governance practices in public companies in two major ways, either by establishing an appropriate institutional framework for these public companies or by directly participating in corporate governance as a key shareholder within these companies. A recent survey concluded that state ownership had a negligible impact on corporate governance scores and practices by comparison with foreign shareholders. This finding also identified that the government held a controlling ownership interest (50 per cent or over) in 31 per cent of all the companies surveyed (Tổ chức Tài chính Quốc tế (IFC) 2012, 20).

The government plays a crucial role in the macro political environment; changes in the political environment and interactions among key stakeholders occur continuously and they can affect corporate governance. For example, the extension of pension funds (especially of Pillar 2 – Corporate funds, and Pillar 3 – Savings and investment of employees) acts as a direct driver for enhancing employee participation in corporate governance (Gourevitch and Shinn 2005, 23). These major stakeholders and shareholders include: financial institutions, banks, other firms; family or ethnic networks; and state ownership (Gourevitch and Shinn 2005, 5).

In Vietnam, the government’s key role as a major shareholder in a range of public companies and its attention to employees’ benefits which is expressed through the participation of the trade union in corporate activities (a key feature of a socialist society) work relatively harmoniously. In addition, corporate managers are selected through the influence of key stakeholders especially the government. Therefore, in many public companies, a coalition exists that is similar to a corporatist compromise
coalition⁴⁷. A similar situation occurs in those public companies without significant levels of state ownership. As a result, majority shareholders prevail and minority shareholder protection is weak. The average score of “Equitable treatment of shareholders” has continuously decreased in the International Finance Corporation’s Corporate Governance Scorecards in consecutive years from 2009 (65.1), 2010 (61.0) through to 2011 (57.8) (Tổ chức Tài chính Quốc tế (IFC) 2012, 13).

In addition, pension savings of employees are almost all via social insurance funds that are mostly contributed to by the companies, with a minor part by the employees, and the funds are then managed by the government. This is considered Pillar 1 of the three pillars of the pension system. Corporate pension funds do not exist and private investment by employees is low because of low wage rates. Employees do not usually have direct input into the investment activities of the current government-managed pension funds, so they do not have incentives to participate in the corporate governance of public companies.

Clearly, the impact and the influence of the political system over corporate governance of public companies in Vietnam are highly visible and pervasive. To sum up, the participation of the government in corporate governance policies and practices is substantial; however, the outcome is only positive in the area of the governance framework. While playing the role of a major shareholder, the government has not generated more positive outcomes in the Corporate Governance Scorecard results compared to the private sector, and especially to those companies with foreign ownership levels.

⁴⁷ In a corporatist compromise coalition, managers and workers form a coalition that wins over the diffused owners. As a result, the owners form a blockholding to balance the relationship and protect their interest in companies (Gourevitch and Shinn 2005)
3.4.2. Active Participation of International Institutions

Corporate governance frameworks have evolved and developed around the world via a process of dissemination from one country to another. Until the first half of the 2000s the “main propellants of thoughts and practices in corporate governance come from the United States. Institutional investors from U.S. influenced corporate governance practices in other countries where they invested in and required U.S. governance principles. The number of research and publications on corporate governance from the United States were bigger than that from the rest of the world” (Tricker 2012, 474). Together with the development and the emergence of other economies such as BRIC (Brazil, Russia, India and China) and the Middle East countries, and diminishing importance and attractiveness of capital flows from the United States, initiatives in corporate governance frameworks have emerged in other countries. This started with the influential Cadbury report in 1992 investigating financial aspects of corporate governance in the United Kingdom, followed by OECD and World Bank principles (not through legislation) of corporate governance, and best practice models for corporate governance in family businesses in Asia (Tricker 2012).

International financial institutions (International Monetary Fund (IMF), Bank for International Settlement (BIS) and OECD) have a special interest in promoting good corporate governance; they act as intermediaries connecting good corporate governance with major shareholders and external investors, especially international investors. Development organisations such as the World Bank and the OECD are interested in enhancing the protection of minority shareholders in order to develop stronger and more effective capital markets, with the resulting market development, in its turn, promoting national and regional economic growth. The IMF and BIS have a vital interest in the reduction of ethical problems in financial corporations (Gourevitch
In other words, these institutions are pioneers in the opening of national markets, establishing a level playing field favourable for national and international investors. This disseminating mechanism has been well demonstrated in outcomes embedded in Vietnam. The World Bank and IFC are the two institutions with the most credible activities in promoting the establishment of effective corporate governance practices in public companies in Vietnam.

From 1999 to 2013, the World Bank financed Vietnam through the establishment of 26 technical support projects that included components focusing on corporate governance with a total value of US$1,652,780,000. These projects focused on major issues such as renovating the management of state-owned enterprises, restructuring the banking system, and educating directors of boards about good corporate governance as well as projects aimed at alleviating poverty (Ngân Hàng Thế Giới 2013).

In 2006, the World Bank published a report on corporate governance in Vietnam, Report on the Observance of Standards and Codes (ROSC) – Corporate Governance Country Assessment – Vietnam 2006. This is considered to be the first document that introduced the definition of modern corporate governance into Vietnam, and evaluated the observance of corporate governance codes and standards based on OECD principles. This report analyses the corporate governance framework in Vietnam, including components of relevant laws and regulations, supervisory and compulsory behaviour mechanisms and markets, especially the securities markets. The report highlighted major issues, summarised the context of observance and compliance with OECD corporate governance principles and recommended additional points for further improvement (Ngân Hàng Thế Giới 2006). Since this report, the term “corporate governance” has been disseminated widely from policy consultants to researchers and business people throughout Vietnam.
Following the initiatives of the World Bank, the IFC – a member of the World Bank Group – is implementing the “Vietnam Corporate Governance Project”. According to the IFC, this project aims to improve overall corporate governance practices in Vietnam via a specific range of activities such as: consulting corporations, institutional investors and banks about the implementation of good corporate governance practices; working with related state agencies in improving the legal framework for corporate governance; enhancing capability for corporate governance training and education organisations; and improving society’s understanding of the importance of corporate governance. The project has published a series of reports and books on corporate governance such as the Corporate Governance Scorecard (2010–2012), OECD corporate governance principles (2004), and a manual for board directors (2010). These empirical research outcomes and essential corporate governance knowledge need to be widely disseminated to all interested parties.

3.4.3. Passiveness of Businesses

How have businesses responded to these ranges of activities and promotion of good corporate governance by the government and the international institutions? The analysis in the first section of the three key features has demonstrated the degree of activity by the government in establishing and continuously improving the institutional system for corporate governance. However, from the perspective of business, there has been little progressive change, except for some minor cases (Tổ chức Tài chính Quốc tế (IFC) 2012). In 2012, the 100 biggest listed companies on the two exchanges of Vietnam showed a decrease in corporate governance score results referred to earlier; only one conclusion can be drawn from this. The companies themselves have not fulfilled their duties in developing a quality investment market in Vietnam (Tổ chức Tài chính Quốc tế (IFC) 2012).
Jay Lorsch (cited by Tricker 2012, 21-2) discovered that most current corporate collapses were due mostly to the increasing complexity of companies and this situation could only be solved by improving the role and functions of the boards of directors, not by direct intervention by government. Boards should develop appropriate structures, processes and practices. Muth and Donalson (cited by Tricker 2012, 62) recognised that a board with executive members operated better than a board that merely ‘ticked the boxes’ with respect to best practice corporate governance principles in using independent board members. This discovery goes against accepted ideas of good corporate governance; however, there is support for Lorsch’s argument that it is the effective performance of the board of directors itself, not the government, that can improve and deliver effective corporate governance.

All companies need a charter that forms the foundation for the company’s corporate governance regime; however, many board members and committee members have never even read the charter (Tricker 2012). This situation also occurs in Vietnam, where almost all listed and unlisted companies have implemented the model charter for joint stock companies issued by the Ministry of Finance (Hải and Liên 2012), with only minor modification for individual company details and industry. This appears to mean that shareholders also do not consider the charter important for protecting their benefits.

There may be two reasons behind this outcome. The first is that the shareholders may want to rely on external mechanisms such as the government to protect their benefits; the second is that they may choose to exit by selling off their shareholding instead of voicing their concerns when they recognise the companies are not performing effectively. In both cases, the shareholders do not invest resources in the development of private contracts such as the charter. In reality, the second choice is popular in
Vietnam because of a traditional viewpoint that “until you get compensation, you have suffered more than that”\(^{48}\). The government should pay special attention to this if they want to enhance good corporate governance; people need a solution to the problem that shareholders do not trust official bonding mechanisms, both private and government.

### 3.4.4. Discussion

Despite the efforts detailed above, the corporate governance performance of companies in Vietnam in general, and public companies in particular, are at the medium quality level on several scales. In a two-phase survey, Hải and Liên (2012) found that the quality of corporate governance of companies listed on the Hanoi Stock Exchange in 2010 was at the medium level (25.73/51) on the Gov-Score scale, meeting the minimum requirements of promulgated regulations and that there were only minor instances of progressive practices and improvement. This conclusion matches the results of the IFC’s “Corporate Governance Scorecard Report 2011” which was based on 2010 data.

The report calculated that the average corporate governance score of all surveyed companies was 44.7 per cent, slightly higher than the score of 43.9 per cent in 2009 (Tổ chức Tài chính Quốc tế (IFC) 2011). In general, the companies had made some improvement: there were no companies with a low score below 20 per cent, and the minimum score in 2010 was 29.3 per cent (Tổ chức Tài chính Quốc tế (IFC) 2011). However, this level of improvement was not maintained through to 2011. According to the currently accepted standards on good corporate governance practices, the score should be from 65 per cent to 74 per cent; however, none of the companies surveyed

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\(^{48}\) An old saying in Vietnam
in Vietnam recorded such a score (Tổ chức Tài chính Quốc tế (IFC) 2012). In 2010, 80 per cent of the companies scored from 40 per cent to 59 per cent; in 2011, this percentage had reduced to 73 per cent and there were more companies scoring from 10 per cent to 29 per cent compared to the 2010 results (Tổ chức Tài chính Quốc tế (IFC) 2012). Even among the top 25 companies by market value, the average corporate governance score was only 46.5 per cent, which was only slightly higher than the overall average of 42.5 per cent (Tổ chức Tài chính Quốc tế (IFC) 2012). These results substantiate Hải and Liên’s conclusion that there was no difference in the corporate governance of companies listed in Hanoi Stock Exchange in 2010, with scores ranging from 24 to 28 (on a 51-point scale).

Analysis of a 2011 survey of 107 public companies (either listed or unlisted) based on the Gov-Score criteria shows that the quality of corporate governance in public companies in Vietnam has only shown a minor improvement and there are no significant differences among corporate groups even though they differ in scale and their listing on separate exchanges. The 2011 Gov-Score was 24.6/51, slightly lower than the score 25.7 in 2010 (Hải and Liên 2013).

The Anglo-Saxon corporate governance model and system has been developed specifically for a market based system with diffused equity ownership, strong minority protection and disclosure, and strong company law enforcement. European continental countries have corporate relationships based around bank finance and with business networks at the centre. Asian countries, on the other hand, used a corporate governance approach that is personal relationship based, with high levels of family control and a business networks perspective (Clarke 2007). Vietnam is closer to the Asia model with some minor differences.
In Asian countries, researchers call for stronger government intervention because they have seen the failure of voluntary efforts and lack of effective action by business itself. They also call for a stronger supervisory role by banks. However, in Vietnam, the reliance on banks for such purposes can also be suspect. The following section identifies a serious problem in one of Vietnam’s main banks and is an exemplar of the difficulties in Vietnam of embedding effective and good corporate governance practices in large companies.

3.5. Fraud and the Forging of Documents at Vietinbank

Vietinbank was the only Vietnamese enterprise listed in the Top 2000 world’s largest enterprises by Forbes Magazine in 2012. In 2012, the total assets of the bank were 503.5 trillion Vietnam Dong (US$23.9 billion), with owners’ equity of 33.6 trillion (US$1.6 billion) and a charter capital of 26.2 trillion (US$1.2 billion) (Vietinbank 2013). State ownership, represented by the State Bank of Vietnam, accounts for 89 per cent of the total ownership interests in the bank. In 2013, the charter capital was raised to 37.2 trillion (US$1.8 billion), with 35.5 per cent of the outstanding shares listed on the Hochiminh Stock Exchange.

In the first month of 2014, observers in Vietnam became aware that an ex-official of Vietinbank, Nhu – the former manager of risk management division of a Vietinbank branch in Hochiminh City – had been convicted of illegally appropriating assets, forgery and defrauding personal clients and other banks of about 4,000 billion Vietnam dong (equivalent to US$200 million) (Hoàng Diệp 2014b, C.Mai 2014, Hải Duyên 2014b) in a process depicted in Figure 3.1. Nhu had started by borrowing millions of dollars in 2007 from financial institutions and individuals with extremely high interest rates around 1 per cent to 3 per cent per day to finance her real estate deals. When she was unable to repay these loans, she started to forge documents to withdraw money
from Vietinbank accounts. Nhu carried out this fraudulent borrowing for more than a year, and all the transactions were between Vietinbank and other banks and individuals and conducted in Vietinbank premises. She claimed to be raising funds on the bank’s behalf.

**Figure 3.1. Money Flow in Vietinbank Scandal 2014**

From March 2010 to September 2011, Nhu used similar fraudulent techniques to withdraw money from the accounts of nine companies, three banks and three individuals with a total value of nearly 4,000 billion Vietnam Dong (US$200 million). The banks included Navibank, Maritime Bank and the Asia Commercial Bank (Doàn Nga 2014).

From May 2010 to November 2011, Asia Commercial Bank had entrusted 19 staff members to make trust investment contracts with Vietinbank with a total value of VND719 billion (US$34 million). All those contracts were supposedly entitled to interest rates higher than the ceiling rate (14 per cent) set by the State Bank of Vietnam by 3.8 per cent to 4.5 per cent annually. In the same way, Maritime Bank had also entrusted Vietinbank with 2,500 billion (US$118.8 million), Navibank with 1,500 billion (US$71.3 million) and Tien Phong Bank with 1,860 billion (US$88.4 million).
In the final count, Asia Commercial Bank had lost 716 million (US$34,000), and Navibank 200 billion (US$9.5 million) in this fraud (C.Mai 2014).

After individual clients had deposited money into their Vietinbank accounts, Nhu then forged clients’ signatures and stamps to make saving books under the clients’ name. Then, she used those saving books as collateral to acquire loans from Vietinbank and other banks such as the Vietnam International Bank. When Vietinbank discovered that all the loan documents were forged, Vietinbank still withdrew money from the collateralised saving books to compensate for the loans it had made (Hoàng Điệp 2014a, Hải Duyên 2014a).

At first, Vietinbank rejected any obligations to the clients who had lost significant funds by arguing that all the trust investment contracts with Vietinbank were forged and all the money had not been put into the bank’s financial records, and all the transactions were not in Vietinbank premises. However, under pressure from the individual victims and organisations, the bank declared that it would be responsible for honouring the legal contracts in this case. Lawyers acting for the individual and corporate victims submitted bank statements to the court as evidence that all the money had already been put into Vietinbank system and was reflected in the bank’s accounts (Hoàng Điệp 2014a, Hải Duyên 2014a, C.Mai 2014).

Ultimately Nhu was found guilty and was sentenced to life imprisonment (Hải Duyên 2014b). However, what angered people is the decision of the prosecutors to clear Vietinbank of any liability. This fraud scandal reflects badly on both micro and macro corporate governance issues in Vietinbank and other banks and Vietnam in general. The bank’s board of directors had failed to prevent the management implementing a deposit and saving policy that supplied interest rates higher than the legal ceiling rate.
In addition to failing to audit and detect weaknesses in the transaction system and procedures, the failure put the bank at a high risk of capital loss. In fact, Asia Commercial Bank and Navibank did lose a large amount of funds in this case.

There had been illegal transactions not only between individuals and respective banks, but also between banks with other banks. This helped to unearth a significant failure of the legal interbank transaction system in meeting banks’ capital demand and a corresponding failure of policies. In addition, auditors, both private and state, had carried out several audits on the bank during the time of this major fraudulent activity, but they failed to discover anything amiss.

This case of fraud highlighted that there are still major concerns and difficulties with corporate governance practices and processes across the corporate sector in Vietnam. There is still much work to do to embed best practice and effective corporate governance models that are capable of working as required in the Vietnamese context.

The case of Vietinbank shows the general weakness of the corporate governance legal framework. This weakness also occurs in a specific area of financial derivatives.

3.6. Financial Derivatives in Vietnam

The very first regulatory document on a type of derivative product was issued by the State Bank of Vietnam in 1997 about swap of USD for Vietnam dong between the bank and commercial banks (Ngân hàng Nhà nước Việt Nam 1997), and about the forward exchange rate in 1999 (Ngân hàng Nhà nước Việt Nam 1999). The State Bank reserves the authority over derivatives products for banking services and commodities, because only qualified commercial banks (which are under the control of the State Bank) are permitted to provide such services. However, the State Bank has so far only regulated the area by administrative decisions, and there are no upper-level legal
regulations such as laws or decrees. Administrative decisions can be changed easily; and the State Bank has tightened and loosed the grip on derivatives products several times, demonstrating their lack of confidence in and suspicion of the market. Foreign commercial banks such as HSBC and CitiBank, which have ambitions for such a market in Vietnam, have lobbied for a long time, and even trained the State Bank on the products to raise the authority’s confidence to issue suitable policies (Global Banking News 2009, Asia News Monitor 2010). In terms of accounting, the most recent guide for recognising financial products by the Ministry of Finance classified the products as sellable assets, collectibles or loans; they have not had their own names on the balance sheet (Bộ Tài Chính 2009). In other words, there has been no transparent and stable legal framework for this sector.

The history of derivatives products in Vietnam can be best described by three cases that reflect the inconsistent behaviours and poor knowledge of the state authorities over the instruments: the exchange rate case at ABN Amro in Exhibit 3.1, fuel hedging of Jetstar Pacific in Exhibit 3.2 and the coffee industry in Exhibit 3.3 below.

**Exhibit 1.1. Exchange Rate: ABN Amro vs. Incombank**

In March 2006, after an audit, Incombank (now renamed Vietinbank, one of the four biggest banks in Vietnam) discovered that its branch in Hai Phong city had incurred a loss of US$5.4 million over a three-year period (from 2003 to 2006) in speculative currency transactions with a leading world bank, ABN Amro from the Netherlands. Incombank filed a lawsuit against ABN Amro, seeking to recover the $5.4 million. The Police Investigation Agency took part, and in August 2006 five people were arrested: Nguyen Thi Quynh Van from Incombank and four from ABN Amro. All
of Van’s subordinate staff were dismissed. The case attracted significant attention from the global media.

The Incombank Hai Phong branch’s deputy head of Trade Financing Division, Nguyen Thi Quynh Van, had authorised nearly 600 foreign currency transactions, of which 504 were said to be illegal because:

1. They were oral agreements without any signed contracts.
2. Van was not authorised to conduct such currency transactions; she had not registered with the State Bank of Vietnam to be a trader. She was charged with stealing computer passwords in order to complete these transactions.
3. The exchange rates applied in the contracts sometimes were over the limit set by the State Bank (in about 20 transactions). In addition, on many spot delivery contracts, the two sides did not pay within the required two-day timeframe.
4. The Police Investigation Agency’s charge was that the transactions were “unreal” because the two parties did not make payment in full contract value, they just made payment by a “netting” method, and the agency considered the traders “rogue” traders operating with the purpose of misappropriation of state money.

Among 613 transactions between the two banks, the average contracted amount was US$5 million, ranging from US$500,000 to US$30 million. At one point, the total value of all contracts reached US$45 million, a very significant amount to banks in Vietnam at that time. Besides ABN Amro, Van also conducted foreign currency transactions with Standard Charter Bank and CitiBank. Total contract value reached US$3.62 billion.
Investigators also discovered ABN Amro Hanoi’s foreign exchange trades with another state-run bank, the Bank of Agriculture and Rural Development (Agribank), which caused losses of nearly 300 billion Vietnam dong (US$18.75 million) to the local bank.

Despite the range of accusations levelled at ABN Amro, the foreign banking group in Vietnam had their own perspective of these events, believing that their trades with Incombank complied with common market practices as well as with the legal and regulatory framework being enforced by the relevant authorities at the time.

While Vietnamese authorities also alleged that ABN Amro had been illegally using a foreign-exchange trading practice known as netting – reducing the transfer of funds between two parties to a net amount at the end of the trading day – the foreign banking community considered netting an international practice, which is still practised in Vietnam.

Vietnamese authorities’ interpretation of what constitutes a foreign exchange contract is highly problematic for future foreign exchange transactions. The Ministry of Public Securities, in order to demonstrate that a “crime” had occurred, declared that oral contracts between traders by telephone are not valid and that only after the traders write up a paper contract and sign it, is it a lawful transaction.

ABN Amro representatives noted that they repeatedly had to explain the nature of the foreign exchange market, the ways in which transactions balance out and the means by which profit is made. They even created a “dummy guide” to try to demonstrate to the Vietnamese police how these money flows operated.

In another effort, Citibank was a virtual training centre for the State Bank of Vietnam. The bank provided a 30-person team to train State Bank employees in such
matters as due diligence and on technical matters on trading issues.

To conclude, it appeared that local business and the administrative group spoke a different business language from that of the foreign partners.


Exhibit 1.2. Fuel Hedging: Jetstar Pacific Airlines

On 7 January 2010, the then former CEO of Jetstar Pacific, a joint venture between State Capital Investment Corporation (SCIC, Vietnam) and Qantas (Australia), Luong Hoai Nam, was arrested by the Police Investigation Agency. Two other Jetstar Pacific top executives, Daniela Marsilli (Chief Operating Officer) and Tristan Freeman (Chief Financial Officer), were also prevented from leaving Vietnam for their Christmas holidays back home in Australia. Immediately, the event attracted the attention of world media. The BBC, Sydney Morning Herald, Bloomberg, Reuters, ABC News, Time and the Financial Times all ran analyses about the case. The trigger that set off the investigation was a US$31 million loss suffered by Jetstar Pacific; the executive board members were charged with mismanagement of their fuel hedging contracts. Fuel hedging is a normal operation for airlines worldwide because fuel accounts for a large proportion of total costs. The hedging process is used to stabilise input fuel prices.

In January 2008, for the first time, Jetstar Pacific had discussed the possibilities associated with hedging. Because no local board members or executives had experience with hedging, the board of directors authorised two Australian executives to conduct transactions to protect the fuel price until the end of 2008. The authorisation was registered in the board’s Resolution 04/BOM-PA dated 15 January 2008, and allowed the executives to hedge at least 15 per cent of total fuel demand for 2008 to a maximum of 70 per cent. On 30 May 2008, Daniela Marsilli and Tristan Freeman conducted the first transaction to buy futures of 69,180 barrels
at US$126 per barrel; delivery time was 30 November 2008. The second transaction was on 9 July 2008, to buy futures of 290,200 barrels at US$136 per barrel, with delivery on 31 May 2009.

Both deals appeared very positive initially because, in August 2008, the oil price hit a historically high level of US$144.78 per barrel. At this point, almost all popular analyses predicted that oil prices would keep rising, to US$200. If the prediction had been true, Jetstar Pacific would have been well protected. However, against all the expected forecasts, in the subsequent months of 2008 and the beginning of 2009, the oil price fell significantly, down to around US$40 a barrel in February 2009. Subsequently, the hedging contracts resulted in a total loss of US$31 million.

To the Vietnamese partner in the joint venture, this loss was judged to be unacceptable and the top executives were blamed. The partner considered that the second deal could not be part of the board resolution, since it had only allowed protection for 2008. The Police Investigation Agency came to the same conclusion resulting in a criminal investigation.

After ten months of investigation, all the accusations levelled against the three executives were dropped, and they were all freed at the end of 2010. The conclusion was that the loss of US$31 million was due to objective and unavoidable occurrences on the world oil market.


Exhibit 1.3. Vietnamese Coffee Industry

In 2005, coffee futures were introduced into the Vietnamese market via Techcombank and the Bank for Investment and Development of Vietnam (BIDV) and some other banks. At that time, some business people saw coffee futures as a
new way of selling, a risk management method and a good approach to the world market. They eagerly accepted the use of this particular instrument.

Five years later, from 2010 to 2013, the Vietnam coffee industry faced the most difficult time in its history. Nearly 100 (from approximately 200) coffee companies were liable to either large bank debts, or went bankrupt or were forced to be delisted from the stock exchange. All of the companies in difficulty were locally based coffee exporters and processors. Foreign coffee companies in the market continued to prosper.

Several reasons have been identified in an attempt to explain what occurred. First, local companies did not have adequate financial resources as did the foreign competitors; so the foreign companies “played” them up in order to dominate the market. Second, local companies had borrowed from banks at very high interest rates in the preceding years (in 2008 and 2009 annual rates reached a peak of 22 per cent) and the debts were still current. Third, the government did not do enough to support coffee companies as they had with companies in the rice industry. Fourth, local companies were trapped by international coffee traders via “price-to-be-fixed” selling contracts.

“Price-to-be-fixed” is a popular pricing method with local coffee exporters. According to this method, the seller or buyer will finalise the price at some time in the future but before delivery time. Both parties arrive at an agreement on quantity, specifications and delivery month. Pricing will be either a “Minus” or “Plus” method on the basis of the futures price for the delivery month. The futures price is taken from the LIFFE (London International Financial Futures and Options Exchange, now ICE – Intercontinental Exchange).

Together with signing the selling contract, local exporters would buy futures to fix their buying price. In the physical market, local exporters can buy in coffee, then wait until the LIFFE coffee futures price goes up and then finalise the contract price.
In theory, local exporters can wait until local prices are low enough to ensure a profit to buy in. However, in reality a number of problems emerged.

Firstly, different local exporters could bargain different “minus” amounts, and companies with a bigger minus amount were weaker in competing for supplies.

Secondly, local exporters had misused this pricing method. Large exporters with adequate funds usually buy and store coffee, then watch the market and finalise the selling price at an appropriate time. Their calculated risks generated enhanced profits. However, local exporters in Vietnam do not have such capacity. When the delivery time approached, they borrowed from banks in order to buy coffee. As a result, they experienced two negative consequences: to accept the (high) interest rate applied by the banks and to accept a rising purchase price (not the same as the futures price they were relying on). In delivery months, when exporters tended to purchase more, domestic prices usually far surpass the local exporters' expectations.

Thirdly, local exporters tended to finalise the contract price when futures prices were going down. As result, they were subject to low prices and a much lower expected profit margin.

Finally, when the futures price was favourable to the local exporters, they sold them to make an immediate profit, instead of keeping them as a form of price insurance.

As the closest partners to the exporters, bank staff pointed out two reasons for the losses of local coffee exporters: they did not strictly follow their initial purpose for using coffee futures, and the futures were not tailored to the real quantity they needed for selling contracts. In other words, the companies switched from hedging the coffee price to trading futures for profit. The banks recommended to the local exporters that they should focus on hedging only. If they then traded without enough information, losses would be inevitable.
In the central highland province of Dak Lak, many individuals and companies who do not have any coffee inventories or real transactions still traded on the futures market. They called it “paper coffee”.


In the area of securities financial derivatives, even the first Law on Securities 2006 mentioned options, warrants, put options, call options and futures contracts (Quốc Hội Khóa 11 2006), however, there was no under-law guidance. As a tradition in the legal sector in Vietnam, a law needs a guidance decree and circular to be effective. The situation of lacking such guidance keeps occurring to the second version of Law on Securities 2010 (Quốc Hội Khóa 12 2010). At the beginning of 2013, the government expected to issue such a decree by the year end. However, such issuance was not made until mid 2015, but still needed a circular to guide it. Therefore, for a long time, a legal framework for financial derivatives, in both banking and securities, was not available in Vietnam.

3.7. Conclusion

Corporate governance frameworks are still evolving in both developed and developing nations. The common approach is not to take a legislative path to ensure effective reform, rather the process has been one of developing principles, guidelines and codes that effectively construct a ‘best practice model’ of corporate governance. However, it is also clear that a ‘one size fits all’ model is not applicable across the globe. There is a clear need to construct corporate governance frameworks that are situationally contextual and appropriate to different regions and nation states. In particular, the notion that a Western developed corporate governance model can be imported without change into the ASEAN region is problematic.
This chapter has highlighted a range of issues that have confronted decision makers, government and other major stakeholders in Vietnam when attempting to construct an appropriate corporate governance regime appropriate for this developing nation. The details of the fraudulent case in Vietinbank highlight a key point in the corporate governance debate. Ultimately, the approach required must enhance and promote effective performance and behaviour by board directors to help deliver effective and good corporate governance without using a big legislative stick as a threat.

The underlying reality of corporate governance practices in Vietnam is that the quality of corporate governance is below international standards and is only currently at a medium level of quality. The Vietnamese government has actively developed an enhanced and more complete corporate governance framework, and international institutions in the country have actively supported these developments, but the passive attitude and nature of the companies themselves is slowing down the embedding of improved corporate governance practices. The roots of this problematic situation are due to the civil-law-originated legal system in Vietnam, the existence of an institutional system that over-prioritises the role of the government in the economy, and a socio-economic environment with opportunities that allow unprofessional business practices to prosper. These features weaken economic incentives created by contemporary policies and make it difficult for companies to practise good corporate governance.

The next chapter, Chapter 4, clarifies the philosophical and methodological components of this thesis. The research design with two sub-studies, the quantitative and the qualitative, is described in detail.
Chapter 4 Methodology

Introduction

This chapter on methodology outlines the main empirical research. The overall philosophy that clearly became the most appropriate to guide this thesis is pragmatism; this approach draws on different sources to answer the research questions posed. On the basis of the philosophy, three research methods – quantitative, qualitative and mixed methods – are analysed and summarised, with mixed methods then determined as the most suitable for the research topic. Finally, a research paradigm specific to this research is detailed, with informing theories, research objectives and questions, and two research components – the quantitative and the qualitative approaches. The quantitative section presents the process from the objectives to hypotheses, measurement, questionnaire preparation, data collection and analysis. The qualitative section presents the objectives, questions, description of interviewees, data collection and analysis.

4.1. Philosophy

Both natural scientists and social science researchers have certain beliefs and worldviews that determine the underlying philosophy of their studies. There are three generally accepted components which comprise ontology (the nature of being), epistemology (the theory of knowledge, whether the being is apprehensible) and methodology (the system by which a study is undertaken) (Denzin and Lincoln 1994). Creswell (2013, 17-21) modified and upgraded Denzin’s research process and philosophical assumptions to include axiology (the role played by values) in addition to the three components. In their turn, these components are expressed in theoretical
paradigms, research designs, methods for data collection and analysis as well as the interpretation and presentation of results (Denzin 1994). Philosophical assumptions are embedded in interpretive frameworks. The most popular frameworks in social research are post-positivism, social constructivism, transformative frameworks, postmodern perspectives, pragmatism, critical theory and critical race theory, feminist theories, queer theory and disability theory (Creswell 2013).

Denzin and Lincoln summarised four of the most popular inquiry paradigms: positivism, post-positivism, critical theory and constructivism (see Table 4.1).

**Table 4.1. Basic Beliefs (Metaphysics) of Alternative Inquiry Paradigms**

<table>
<thead>
<tr>
<th>Item</th>
<th>Positivism</th>
<th>Post-positivism</th>
<th>Critical Theory</th>
<th>Constructivism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontology</td>
<td>Naïve realism – “real” reality but apprehendable</td>
<td>Critical realism – “real” reality but only imperfectly and probabilistically apprehendable</td>
<td>Historical realism – virtual reality shaped by social, political, cultural, economic, ethnic, and gender values; crystallised over time</td>
<td>Relativism – local and specific constructed realities</td>
</tr>
<tr>
<td>Epistemology</td>
<td>Dualist/ objectivist; findings true</td>
<td>Modified dualist/objectivist; critical tradition/ community; findings probably true</td>
<td>Transactional/ subjectivist; value-mediated findings</td>
<td>Transactional/ subjectivists; created findings</td>
</tr>
<tr>
<td>Methodology</td>
<td>Experimental/ manipulative; verification of hypotheses; chiefly quantitative methods</td>
<td>Modified experimental/manipulative; critical multiplism; falsification of hypotheses; may include qualitative methods</td>
<td>Dialogic/dialectical</td>
<td>Hermeneutical/ dialectic</td>
</tr>
</tbody>
</table>

Source: Denzin and Lincoln (1994, 109)

This thesis relies on a combination of post-positivism and constructivism inquiry paradigms, which are reviewed below.
4.1.1. Positivism – Post-positivism

Even though positivism is a scientific approach, it is applied to the social sciences, especially since the advances that have been made in the development and use of statistics. This is because social facts are believed to be like natural facts that can be discovered by scientific methods (Hughes 1990), and this philosophy has held a dominant position in social and behavioural research throughout most of the twentieth century (Tashakkori and Teddlie 2003). This approach is aimed at generalisation and prediction based on discovering and confirming universal laws, that is, causal laws of human behaviour involving basic assumptions about rational human beings having free will (Neuman 2000). Positivism attempts to discover the truth that is the opposite of falsehood, through reasoning. Key characteristics of a good positivist argument are not having logical contradictions, and being consistent with facts and replicability; however, such knowledge can be supported but never proven (Neuman 2000). The weakness of positivism in the social sciences is that the idea of free will does not fully reflect the nature of human beings, who being context-based, can imagine, feel and learn, have a past, a present and a future, and have motives and reasons that cannot always be adequately discovered by scientific methods (Neuman 2000).

Post-positivism modifies positivism in that researchers are value-laden and realities are probabilistic (Neuman 2000, Denzin 1994, Teddlie and Tashakkori 2003). Post-positivism is reductionistic (reducing ideas into a small, discrete set of ideas to test) with key assumptions about conjectural and antifoundational knowledge.\(^49\) Post-positivist research is the process of making claims and then refining or abandoning some of them for more strongly warranted claims; data, evidence and rational

\(^{49}\) Truth is something sought, but not necessarily found with certainty, so a researcher might not be able to reject a hypothesis yet can never say that they can prove it (Creswell 2009, 7).
considerations shape knowledge; and objectiveness, validity and reliability are crucial to research quality (Creswell 2009, 7). To understand human beings, we need to know the context around them, which is important in constructivism.

4.1.2. Constructivism – Interpretive Social Science

According to constructivists, the realities are constructed by researchers through their interaction with what belongs to these realities (Atkinson and Hammersley 1994, Neuman 2000, Creswell 2009). Reality is what people perceive it to be; it is not fixed (Neuman 2000). In contrast to the assumptions of positivism, in the constructivist point of view people do not have free will, rather they have reasons and motives behind their internal feelings and decisions (Neuman 2000). Human beings make sense of their world through their historical and social perspectives, and their interpretations are shaped by their own experiences and background (Creswell 2009, 8-9).

Constructivism discovers realities by participant observations, field research and by examining texts (conversations, written words, pictures) (Neuman 2000). The realities of people’s inner worlds are discovered by analysing their point of view and feelings, on the assumption that no one analysis is better than another, and by developing propositions based on common perception (Neuman 2000). For example, ethnographers build up a picture of social actions and actors by using their literary skill (Atkinson and Hammersley 1994, 255).

Despite its limitation in generalisation, constructivism is a powerful concept in exploring human inner reality and human experience. A strong constructivist theory is

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50 Data and information are collected by instruments completed by participants or by researchers’ observations.

51 A form of interpretive social science that includes varieties of hermeneutics, constructionism, ethnomethodology, cognitive, idealist, phenomenological, subjectivist and qualitative sociology (Neuman 2000).
one that makes sense to the people studied and penetrates deep into their inner reality (Neuman 2000).

Post-positivism and constructivism are two extreme ends of a continuum; the bridge connecting post-positivism and constructivism is pragmatism.

4.1.3. Pragmatism

From the contradictions between positivism/post-positivism and constructivism comes an incompatibility thesis, which suggests there is no compatibility between positivism and constructivism, hence no compatibility between quantitative and qualitative methods (Teddle and Tashakkori 2003, 7). In contrast, pragmatism argues that quantitative and qualitative methods are compatible, hence a combination of these methods in one piece of research is feasible (Teddle and Tashakkori 2003, 7).

Pragmatists believe in an external world independent of the mind as well as that lodged in the mind. Pragmatism is not committed to any one system of philosophy of reality; its worldview arises out of actions, situations and consequences rather than antecedent conditions. The focal point is the problem in question and researchers use all approaches available to understand it. Thus, mixed methods research combines quantitative and qualitative components, following the researchers’ freedom of choice (Creswell 2009, 10-11).

Pragmatists do not see the world as an absolute unity, and for them truth is what works at the time, in social, historical, political and other contexts. They look to the What and How in research, depending on the intended consequences. These summaries lead to the appropriateness of mixed methods in research and mean that researchers need to establish the purpose for their mixing in the first place (Creswell 2009).
This thesis follows the pragmatist approach in answering the research questions posed by the topic. A combination of quantitative and qualitative is intended to explore and explain directors’ understanding of using financial derivatives and their impacts in the developing nation context of Vietnam.

4.2. Methodology

Qualitative research is not bounded by specific techniques for data collection and analysis as people generally think; its nature is its strong focus on the issues or subjects being studied (Janesick 1994, 211). Things are studied in their living context; researchers interpret phenomena to find out what meaning people ascribe to them (Denzin 1994, 2).

Qualitative research is flexible in selecting research tools and practices appropriate to the research questions, and triangulation is popular as a means of validation and to collect the most relevant information (Denzin 1994). The match between an explanation and the description of persons, places and events confers validation on a finding (Janesick 1994, 216). Data collection and analysis are parallel processes undertaken until a saturation point is reached where no more pertinent information can be extracted (Morse 1994, 229).

If flexibility is the advantage of qualitative study, access and entry are its great disadvantages because it is a sensitive matter to establish trust and rapport with participants in order to initiate open discussions (Janesick 1994, 216) and gather authentic data.

While qualitative research emphasises the importance of common sense and the meaning people give things in the context of daily life, the focus of quantitative study
is the causal relationship between variables, measurement and analysis in a supposedly value-free framework (Denzin and Lincoln 1994, 4). The foundation of quantitative research is positivism. Quantitative research condenses data to produce a big picture of phenomena while qualitative research enhances data to identify and explore key aspects and cases as well as the process (Neuman 2000).

The mixed methods approach lies between the two approaches and pragmatically employs their strengths to effectively deal with the problems under study (Tashakkori and Teddlie 2003). The integration of the two fundamental methods to form the third, of mixed methods, is illustrated in Figure 4.1.

**Figure 4.1. Qualitative – Mixed Methods – Quantitative Continuum***

*Note: QUAN: Quantitative; QUAL: Qualitative; MM: Mixed Methods

Zone C represents totally integrated MM (mixed methods) research. The arrow represents the QUAL – MM – QUAN continuum. The movement toward the middle of the continuum indicates a greater integration of research methods and sampling. Movement away from the centre (and toward either end) indicates that research methods are more separated or distinct.

Source: Adapted from Teddlie and Tashakkori (2009, 28)
In the mixed methods research design, qualitative and quantitative methods are intertwined in every step, from identifying research questions to methods for data collection, analysis and result interpretation (Teddlie and Tashakkori 2009). A truly mixed approach methodology also transforms data from one approach to the other and carries out a deeper level of analysis (Tashakkori and Teddlie 2003).

Mixing the two methods is a further step after data source triangulation, and is based on the assumption that the biases of the two will be captured or neutralised so that the limitations of each will be cancelled out (Creswell 2009, 14).

A mixed methods researcher can choose from three strategies: a sequential mixed method, concurrent mixed methods and transformative mixed methods (Creswell 2009, 14). For example, Sonenshein, DeCelles, and Dutton (2014) used a mixed methods design to examine the role of self-evaluations in influencing support for environmental issues, with two steps: a qualitative study to develop theory, and then a quantitative, observational study to empirically validate key constructs from step one.

The above analysis and summary of key philosophical and methodological issues is the foundation on which a specific paradigm for this thesis is established in the following sections.

4.3. Research Paradigm

The position of a researcher in a large field of knowledge can be specified when the researcher is explicit about relevant key concepts and assumptions of the theory in use which will guide research questions and analysis (Neuman 2000, 6). A research design should then be clarified with details of the paradigm that deals with who or what will
be studied, strategies of inquiry, methods, and tools for collecting and analysing data (Denzin 1994, 200).

4.3.1. Informing Theories

The primary topic and investigation in this thesis is directors’ understanding of the use of financial derivatives and their potential impact on corporate governance policies in Vietnam. Two theoretical lenses are needed to investigate this particular topic: the corporate governance lens and the personal cognitive and decision making process lens. The first lens puts directors into the bigger picture of corporate governance, which covers individual, corporate and national aspects. The second lens is crucial in understanding the extent of directors’ knowledge, what factors affect that knowledge, the consequences of this (lack of) knowledge, and how they may occur. Consequently, the investigation and analysis in this thesis is guided by two theoretical lenses: stakeholder theory and the theory of planned behaviour and also aided by the model of board attributes and roles.

4.3.1.1 Stakeholder Theory in Corporate Governance

Among the proliferation of corporate governance theories (agency, institutional, resource dependence, managerial hegemony and stewardship which were discussed earlier in Chapter 2) stakeholder theory agrees with the others in that corporate governance consists of structures and processes that ensure companies are appropriately controlled and directed (Solomon 2007). However, it extends the scope of corporate governance to cover more than just shareholders and management and executives. The stakeholders also include regulators, employees, institutional investors and society in general. Aguilera and Jackson (2010) predicted that market-oriented and
shareholder-centred systems may become closer to stakeholder-oriented systems in the context of democratic financial markets being made accountable to the public interest.

Stakeholder theory supports pragmatism and pluralism (Freeman, Wicks, and Parmar 2004), accepting a collection of interacting, reinforcing and contradicting theories of business strategy instead of absolute objective definitions (Hitt, Freeman, and Harrison 2001, Hutton 1997). Therefore, a mixed methods approach comes under, and is appropriate to, this theoretical framework.

Stakeholder theory contributes to value creation by attending to the powerless ones among stakeholders to create value for them and for companies, and dealing with stakeholders on the basis of their partially shared interests in avoiding trade-offs and destruction of value (Freeman 2009). Stakeholder-oriented strategies will distribute both benefits and harms between different groups, which ensures their long-term support even when the results are not favourable (Hitt, Freeman, and Harrison 2001). The sharing of both favourable and unfavourable conditions among stakeholders creates trust and cooperation, which facilitate socially efficient exchange, leading to better outcomes (Amess and Howcroft 2001) and improving everyone’s circumstances (Freeman, Wicks, and Parmar 2004), such as enhanced profits and greater shareholder wealth (Donaldson and Davis 1994).

A more detailed description of stakeholder theory was analysed and discussed in Section 2.1.2.3 in Chapter 2.

4.3.1.2 Theory of Planned Behaviour

Originating in the discipline of psychology, the theory of planned behaviour predicts personal intentions on the basis of the antecedents of beliefs and attitudes, subjective
norms and perceptions of behavioural control, and the impact of such intentions on behaviour (Ajzen 2011, 1115). Human attitudes, intentions and behaviours are generated by corresponding human beliefs that are not necessarily rational or unbiased (Ajzen 2011, 1116).

In the theory of planned behaviour model, “attitude” is the kind of favourable or unfavourable feeling toward behaviours; “subjective norm” is the perceived social pressure; and “perceived behavioural control” is the perceived ease or difficulty of performing the behaviour. They are respectively affected by “behavioural beliefs” (beliefs about the likely consequences or other attributes of the behaviour), “normative beliefs” (beliefs about the normative expectations of other people) and “control beliefs” (beliefs about the presence of factors that may further or hinder the performance of the behaviour). All are predictors of behavioural intention (Ajzen 2002, 665).

**Figure 4.2. The Theory of Planned Behaviour**

![Theory of Planned Behaviour Diagram](source: Ajzen (1991, 182))

In terms of empirical support, the theory’s clear mechanisms of interactions among the constructs, generalisation capacity, intervention techniques and limitations are well-
validated (Rauch and Hulsink 2015). This also has the advantages of testability, parsimony and specificity in various research areas (Flannery and May 2000). Since 1985, the theory of planned behaviour has received considerable attention (Armitage and Conner 2001) and has become one of the most frequently cited and influential models for the prediction of human social behaviour (Ajzen 2011, 1114). This theory is more robust in explaining human intentions than in predicting behaviour (Flannery and May 2000).

Attitudinal and behavioural entities in theory of planned behaviour are divided into four components: the action, the target of the action, the context of the action and the time of action, of which action and target correspondence is the minimum condition for high attitude-to-behaviour association (Ajzen and Fishbein 1977, 889).

Perceived behavioural control (PBC) was added to the reasoned action theory and turned it into theory of planned behaviour to predict actions that are not under complete volitional control. A meta-analytic review summarised that theory of planned behaviour accounted for 39 per cent of the variance in intention, of which the perceived behavioural control accounted for a significant amount and the subjective norm construct contributed weakly, owing to poor measurement (by a single item instead of more reliable multi-item scales) (Armitage and Conner 2001). In its turn, intention represents motivation of behaviour; it indicates people’s will and effort to carry out such behaviour (Armitage and Conner 2001, 477).

Self-reporting refers to the situation in which data on individuals are supplied by themselves, and this can threaten the validity and reliability of research. Like other behavioural decision making models, theory of planned behaviour depends on self-reports for data collection (Armitage and Conner 2001, 475). In a meta-analysis of 161
articles containing 185 independent empirical tests of the theory of planned behaviour, a significant part (44) studied self-reported behaviour, and only 19 studied behaviour reported objectively (Armitage and Conner 2001, 479). The undesirable effect of self-reporting is its exaggeration of behavioural variance explained by up to 11 per cent (Armitage and Conner 2001).


In top management, Flannery and May (2000) applied theory of planned behaviour to the study of what guides managers’ and other employees’ sustainability-oriented decisions and behaviours in a modified model of attitude, subjective norm, perceived behavioural control and personal moral obligation about the environmental consequences, and the influence of these components over intention of environmental ethical decisions.

Rauch and Hulsink (2015) used theory of planned behaviour to test the effectiveness of entrepreneurship education on entrepreneurship behaviours. They found that students participating in entrepreneurship education improved in their attitudes and perceived behavioural control, and had higher entrepreneurial intentions at the end of
the program, subsequently creating more new business ventures than students who did not take part in the program. Liang, Farh, and Farh (2012) drew on theory of planned behaviour to study employee voice action (voicing their opinions) and had immediate supervisors assess all voice behaviours to reduce bias in self-reporting. They hypothesised that employee voice action is explained by three psychological factors: psychological safety, felt obligation for constructive change, and organisation-based self-esteem, which respectively influence employees’ attitude, subjective norm and perceived behavioural control, and they subsequently found support for this hypothesis. Lee (2004) applied the theory of planned behaviour to identify what determined consumers’ intention to use online financial services and found those with positive attitudes toward credit markets are more likely to have the intention to use online financial services; factor analysis was used to reduce the number of independent variables.

4.3.1.3 Model of Board Attributes and Roles

Combining four approaches of the links between boards and company performance (the legalistic approach, the resource dependency perspective, the class hegemony model and agency theory), Zahra and Pearce (1989) proposed the model of board attributes and roles, shown in Figure 4.3.

The effectiveness of boards in conducting the three roles of service, strategy and control depends on the board’s attributes, which include composition, characteristics or personality, structure and process, as discussed in Chapter 2. Composition refers to size, and the mix of different types of director (insiders versus outsiders). Characteristics refer to the directors’ experience, functional background, independence, age, education, values, experience, stock ownership, and similar variables that influence their interest in and performance of their tasks. Board
personality is their distinctive styles or modes of operations, such as a focus on either internal or external issues, the level of directors’ independence from management influence and stock ownership. Structure refers to board organisation, the division of labour among standing committees and the efficiency of its operations. Process refers to activities related to decision making by the board (Zahra and Pearce 1989). Past research focused on the direct association between board attributes and corporate performance without an indirect path through board roles. Zahra and Pearce urged researchers to discover the indirect link and to include directors’ views in the study of board behaviours, as well as direct observation and secondary data.

**Figure 4.3. Model of Board Attributes and Roles**

Source: Zahra and Pearce (1989, 305)
In other words, board characteristics and individual directors’ attributes have a potential impact on board process and decision making in general. In spite of the way that board personality may persist for some time, a considerable change in board composition and its members’ backgrounds can transform a board (Zahra and Pearce 1989).

The potential impact of directors’ and boards’ attributes on board decision making and final effectiveness is also suggested by the integrative model of board role performance (Babic, Nikolic, and Eric 2011, 157), the conclusions of research on directors’ sources of authority and powers (Lorsch and MacIver 1989, McNulty and Pettigrew 1996), and on directors’ competencies and traits (O'Neal and Thomas 1995, Dulewicz, Gay, and Taylor 2007, Ingley and Van der Walt 2001).

Individual directors’ attributes help create human capital. Human capital theory emphasises the role of education and training in improving people’s knowledge and skills, which increase productivity at work (Tan 2014).

4.3.2. Research Objectives, Questions and the Necessity of Mixed Methods

This thesis is an analysis of how directors of boards in Vietnam understand the use of financial derivatives (both the upside potential and downside risk), their attitudes towards using derivatives, and the subsequent effects on corporate governance. The thesis aims to answer the following research questions:

*RQ 1. What is the level of perceived knowledge of directors of boards in Vietnam about the benefits and risks associated with using financial derivatives?*

*RQ 2. Does their perceived level of knowledge affect their attitude towards using financial derivatives?*
RQ 2a. Does such perceived level of knowledge and attitudes impact boards’ policies on risk management, especially on financial derivatives?

RQ 2b. What is the mechanism channelling the impact of directors’ perceived knowledge on the board’s policies?

RQ 3. Who are the key stakeholders in the board directors’ consideration of using financial derivatives for corporate purposes and what are their roles?

There has been no database available on the use of these instruments so collection of primary data has been necessary. To assess directors’ general attitude to, and knowledge of, financial derivatives, it is appropriate to survey a relatively large population. The survey should be restricted to common issues, such as general knowledge of the instruments, the perceived benefits and risks of derivatives, and whether directors want to use the instruments or not. It is then easier for participants to answer such questions in a reasonable time frame.

However, expressing and discussing opinions on, and deeper understandings of, financial derivatives and related corporate governance policies is complicated, because of the complex nature of the instruments themselves. In addition, directors of boards are usually not prepared to complete a long and detailed questionnaire, even though they might talk about the same issues. In this case, personal interviews need to be conducted with individual participants. Figure 4.4 outlines the basic research philosophy and the methods applied in this thesis.

To discover the extent of directors’ understanding of financial derivatives and the relationship between this and their intention to use them, a mixed methods approach, using both qualitative and quantitative methods, was chosen because of the mix of research questions listed above. This thesis intersects the middle of the qualitative – mixed methods – quantitative continuum in Figure 4.1. In more detail:
- Research questions 1 and 2, use quantitative analysis.
- Research questions 2a, 2.b. and 3 use qualitative analysis.

**Figure 4.4. The Thesis Research Paradigm**

Triangulation is achieved by using a combination of different techniques, such as a survey instrument and personal interviews, archival analysis, and mini case study analysis. Specific techniques used were a survey and semi-structured interviewing for the main study on directors and archive mining for the review of the Vietnamese context, and mini case studies for both. The thesis followed the sequence of quantitative followed by qualitative (QUAN → QUAL). The survey aimed to establish a “global picture” of the situation, then the interviews were used to more thoroughly investigate issues arising from the global picture.
The main challenge was that the “elites”—the directors of boards—had to be interviewed. The difficulties were: directors’ tight business schedules, their sensitivity to the feeling of public disclosure, their high awareness of trust and social connections, and pressure on interviewers in discussions with knowledgeable counterparties (Neuman 2000).

To understand value creation in an organisation, there is a need to investigate the human side of boards (Huse 2007). Research on board actions rather than structure is more operationally relevant (Cadbury 2000); statistical methods cannot effectively describe and explain the reality of the boardroom (Hilmer 1994). The failure of the statistical approach is due to data not being readily available on board action in a time of crisis, when the board is most active; also, board members are hesitant to express their opinions honestly, even in normal times (Hilmer 1993a). Instead, a more appropriate approach to researching the boardroom is case-based (not variable-based), with a dynamic and historical orientation, and an actor-centred view of institutions (Aguilera and Jackson 2010). The weaknesses of each approach makes it necessary to combine them in a single research project in order to extract and analyse the most pertinent information.

Stiles and Taylor (2001), in a study of board directors, used data from a combination of interviews, company documentation and secondary material (company annual reports, mission statements, policy documents, reserved powers statements, public relations material, analysts’ reports and press cuttings). Judge and Dobbins (1995) used a two-step design, multiple and moderated regression analyses, to test the hypothesised relationships between individual directors and the CEO, and then qualitative data to interpret the results to gain a more comprehensive understanding of outside director awareness of CEO decision style.
Brennan and Solomon (2008) suggested widening perspectives in corporate governance research beyond the traditional approaches of agency theory and positivism. This thesis follows some of Brennan and Solomon’s recommendations in using stakeholder theory, investigating boards’ risk management and adopting the mixed method approach of qualitative and quantitative approaches on the developing economy of Vietnam.

4.3.3. Quantitative Inquiry

4.3.3.1. Objectives

The aim of the quantitative inquiry was to answer the first two research questions RQ1 and RQ2, and a part of RQ2a.

<table>
<thead>
<tr>
<th>Research Questions</th>
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<tbody>
<tr>
<td>RQ 1. What is the level of perceived knowledge of directors of boards in Vietnam about the benefits and risks associated with using financial derivatives?</td>
</tr>
<tr>
<td>RQ 2. Does their perceived level of knowledge affect their attitude towards using financial derivatives?</td>
</tr>
<tr>
<td>RQ 2a. Does such perceived level of knowledge and attitudes impact boards’ policies on risk management, especially on financial derivatives?</td>
</tr>
</tbody>
</table>

4.3.3.2. Hypotheses

Directors’ Understanding

As strategic management and corporate governance share a common research interest in top corporate leaders including boards of directors, the experience from the strategic management domain lends insight and guidance for studying corporate governance. There is a separation between strategic content and strategic processes in strategic management research, in which the former investigates strategic decisions and the latter focuses on actions leading to and supporting these decisions (Huff and Reger
Similarly, there is a separation between structure and processes in corporate governance studies. Top decision makers do not always appear well-informed and rational, and may seem unable to make use of what information they have in a corporate political context (Huff and Reger 1987). Under time pressure, boards must balance making unbiased decisions when necessary against the time needed to gather enough information to be properly strategic (Judge and Dobbins 1995). Nevertheless, people can still make complicated decisions using the long-established conventions of their environment, even in the absence of full information, through a top-down or theory-driven approach rather than a bottom-up or data-driven approach (Carpenter and Westphal 2001).

Strategic management processes need to reflect individual, organisational characteristics and political circumstances. Cognitive, perceptual and other psychological impacts on strategic decision making processes are unavoidable, so board decision making should make use of a combination of viewpoints: from organisation theory and organisation behaviour, psychology, sociology, political science, international relations and education (Huff and Reger 1987). In terms of methodology, Huff and Reger suggest that research into strategic processes should combine qualitative and quantitative methods, comprehensive and focused studies, and distinguish between rational and political assumptions. Taking the idea from strategic management research, this thesis focuses on capturing the extent of directors’ understanding in a dynamic context, that is, as they are in the midst of forming intentions and making policy.

Among personal characteristics influencing the choice of strategy, the knowledge that decision makers have (about available strategies and their relative chances of success) is the most influential factor; the nature and extent of their experience is one source
of their knowledge (Beach and Mitchell 1978). Whether many directors have suitable judgement or information to contribute meaningfully to decisions is one of the challenges they face in making constructive contributions to corporate strategy (Carpenter and Westphal 2001). Nielsen and Huse (2010b) cited Rindova (1999) to say it is important that individual board members have the knowledge and expertise to involve them in forming strategies. If necessary, it is quite possible to improve members’ understanding of the problems facing them (Huff and Reger 1987).

**Director Traits and Attributes**

Methodological individualism in economics states that economic phenomena should be analysed at the level of individual action rather than at corporate level (Donaldson 1990). Stakeholders put more weight on corporate leaders’ individual integrity than on that of companies because they need to trust the leaders before they engage with the business (Six, de Bakker, and Huberts 2007). Forbes and Milliken (1999) call for research on the actual behaviour of boards or actual board processes to explore the group dynamics that may be the currently missing link between board demographic characteristics and board outcomes. Study of individual directors is crucial because individual director attitudes are better predictors of organisational outcomes than are board structure and composition (Judge and Dobbins 1995). The research for this thesis responds to that call and has focused on individual directors.

To be effective, boards require a high degree of specialised knowledge and skill (either firm-specific or functional, such as in accounting, finance, marketing and law), to be provided either by directors possessing the necessary knowledge and skills or through access to external networks for information and problem solving (Forbes and Milliken 1999).
In the case of Eurotunnel, at the outset, the board of directors mainly included representatives from banks and construction companies. The former were at a disadvantage by lacking information and relevant expertise and they suffered when the construction representatives left the board, because they still did not fully understand the business (Vilanova 2007). Directors need to be explicit about their own expertise and respect the expertise of others, and seek to make a common contribution through a creative and synergistic combination of their insights. The most influential directors are the most knowledgeable ones, when knowledge and responsibilities are well matched (Forbes and Milliken 1999). If female directors make up a significant proportion of a board, their professional experiences and values potentially bring a greater variety of strategic solutions for discussion, hence they are likely to improve board decision making (Nielsen and Huse 2010b). There are five attributes that make a good board: knowledge, information, power, rewards, and opportunity/time (Letendre 2004). The model of board attributes and roles (Zahra and Pearce 1989) suggests the importance of the influence of board and directors’ characteristics and their environment on the board’s performance in conducting its roles. Corporate industry, directors’ backgrounds and personalities are among the influential factors.

From the above review of directors’ knowledge, its roles and determinants, it can be summarised that board members’ knowledge is crucial for their individual contribution and general board performance. With appropriate and relevant knowledge, directors can raise their voice, influence others and suggest solutions to problems. In turn, knowledge is normally derived from directors’ education and experience, and influenced by the industry they are in and the nature of the corporation, such as its scale. This applies to all kinds of knowledge, including the focus of this study on
understanding use of financial derivatives. This is the foundation for the four hypotheses below.

**Hypothesis 1a, b:** Directors’ educational background (a. level of education, b. specialisation within their education) influences their knowledge of using financial derivatives.

**Hypothesis 2:** Directors’ working experience affects their knowledge of using financial derivatives.

**Hypothesis 3:** The type of directors’ corporate industry influences their knowledge of using financial derivatives.

**Hypothesis 4a, b:** Corporation size (a. number of employees, b. annual turnover) influences directors’ knowledge of using financial derivatives.

The theory of planned behaviour applies to freely made choices and actions and is unsuitable for a decision that is involuntary or compulsory under personal commitment or social convention (East 1993). Financial investment and other savings decisions are where theory of planned behaviour applies, and in addition to the three normal factors (attitude, subjective norm and perceived behavioural control), past experience (range of previous investment or reading of financial news) affects intention (East 1993). Since knowledge contributes to directors’ decision making, it is added to the theory of planned behaviour model to see how it interacts with other factors determining directors’ intention to use financial derivatives.

**Directors’ Decision Making**

Investment decisions depend on investors’ attitude. Attitudes, subjective norms, perceived behavioural control and risk propensity are significant predictors of
investment intentions, among which risk propensity is a direct predictor, not a moderator of the others (Alleyne and Broome 2011). Furthermore, investors’ investment horizons are associated with their attitude toward a regulated environment for corporate risk disclosure (Solomon et al. 2000).

**Hypothesis 5 a, b, c, d:** Directors’ (a) risk propensity, (b) attitude, (c) subjective norms, (d) perceived behavioural control are directly associated with their intention to use financial derivatives.

Mediated by perceived risk and uncertainty, investors’ product knowledge, product involvement and tendency to avoid risk and uncertainty impact on their investment intentions; these factors explain more than 60 per cent of the variation in intentions (Lim, Soutar, and Lee 2013). Similarly, people’s intentions are derived from four sources: risk propensity, attitude, subjective norms and perceived behavioural control (Alleyne and Broome 2011), the impact of directors’ knowledge on their intention may go through these four channels.

**Hypothesis 6:** Directors’ knowledge of the use of financial derivatives affects their intention to use them.

**Hypothesis 7 a, b, c, d:** Directors’ knowledge of using financial derivatives affects their (a) risk propensity, (b) attitudes, (c) subjective norms, (d) perceived behavioural control over their use.

Age and gender may also affect people’s learning and information acquiring. To complete the list, more hypotheses have been added.

**Hypothesis 8a, b:** Directors’ (a) age and (b) gender influences their knowledge of using financial derivatives.
Associations among the three main predictors of intention are suggested in the theory of planned behaviour model. All the interactions between source of knowledge, risk propensity and the components of the theory of planned behaviours lead to the research hypothesis model that follows and is tested in Chapter 5, in addition to some further correlation tests.

**4.3.3.3. Measurements**

Hypotheses 1 through 8 in Section 4.3.3.2 established constructs for measurement as presented in the model in Figure 4.5. They are knowledge (Directors’ knowledge of using financial derivatives), risk propensity (Directors’ personal risk propensity), attitude (Attitudes toward using financial derivatives), subjective norm (Subjective norms on using financial derivatives), perceived behavioural control (Perceived behavioural control over using financial derivatives) and intention (Intention to use financial derivatives).

**Figure 4.5. Proposed Quantitative Research Model**

Source: Adapted from: Ajzen (1991), Lim, Soutar, and Lee (2013), Alleyne and Broome (2011)
In a study of the role of individual environmental managers on corporate pollution prevention, Cordano and Frieze (2000) used multi-item scales with the responses ranging from “strongly disagree” 1 to “strongly agree” 7. Managers’ attitude to pollution prevention was assessed by seven descriptive terms, such as “necessary”, “important”, “ineffective”, “desirable” and “worthwhile” (composite reliability 0.73). The subjective norms for environmental regulation scale (reliability 0.74) followed the format of “People in this organization who are important to me think …”. The managers’ perceived behavioural control scale (reliability 0.79) covered the ideas of “within my control”, “sufficient to implement”, “have the authority”, “can obtain the resource” and “support” (Cordano and Frieze 2000, 628).

Flannery and May (2000) measured managers’ environmental ethical decision intention by asking participants about their likelihood of action, in the range from “extremely unlikely” (1) to “extremely likely” (7). Their attitude to environmental behaviour was designated by three terms: “bad, negative, harmful” (1), and “good, positive, beneficial” (7) (Cronbach’s alpha 0.73); subjective norms about environmental behaviour by two terms: “Most people who are important to me would think …” and “I should …” (alpha 0.60); and perceived behavioural control (in term of self-efficacy) by “confident”, “qualified” (alpha 0.89).

The norm of a similar multi-item scale is also followed by other researchers such as Konradt, Warszta, and Ellwart (2013), Driver and Dowrick (1997), Ramayah et al. (2009), Wittkowski, Moeller, and Wirtz (2013), and Um, Chon, and Ro (2006) in measuring similar constructs.

East (1993) studied theory of planned behaviour in the context of an investment choice, that is, the application for shares. East suggested original multi-item scales measuring
the constructs in the theory of planned behaviour model; however, no Cronbach’s alpha was reported. Intention was measured by “I will …”, “I intend to …”; attitude to behaviour was expressed by adjectives such as “bad/good”, “nice/nasty”, “rewarding/punishing”, “unpleasant/pleasant”; the subjective norm was measured by the phrases “Most people who are important to me think that …” and “People who influence what I do think …”, and finally perceived control by “If I want to …”, “I can …” and “There is plenty of opportunity to …”. All are on a bipolar seven-point Likert scale by semantic levels of Extremely bad/quite/slightly/neither/slightly/quite/extremely good.

The measurement of constructs in this thesis follows the literature reviewed above.

**Knowledge**

The knowledge and skills present on the board can be assessed by asking board members questions using a Likert-type scale including items (either weighted or unweighted) that can be summed to obtain a composite score (Forbes and Milliken 1999). For this thesis, the survey questionnaire section on directors’ understanding of financial derivatives included 13 items on basic topics expected to be known by directors (Kline 2001, Dubofsky and Miller 2003, Fabozzi 2013, Hull 2014). Each topic was matched to one question, and there were technical aspects on each product (forwards, swaps, futures, and options), risk specifications and valuation, purposes of use, pricing and transaction procedures, information supply and search. The final questions asked the participants to re-confirm their general assessment of their understanding (see Appendix 3 for the questionnaire). Some of the items are adapted from the Laroche, Bergeron, and Goutaland (2003) scale of knowledge which includes seven terms (alpha 0.85), such as “My knowledge is …” (weak/strong), “informed”
(very uninformed/very informed), “information search” (weak/strong) and “I don’t have experience making this kind of decision” (strongly disagree/strongly agree – reversed).

Risk Propensity

Risk propensity is a person’s present tendency to accept or avoid risks; the tendency is changeable and can be learned. Risk propensity influences the making of risky decisions which are exposed to the uncertainty of considerably positive versus negative, or an even more extreme outcome (Sitkin and Weingart 1995, 1575-6). Using financial derivatives is highly risky, owing to the nature of the instruments as described in Chapter 2.

Sitkin and Weingart (1995) suggested a five-item scale measuring risk propensity, which has Cronbach’s alpha of 0.86. This research applied their five-point scale, from extremely unlikely to extremely likely; specific questions are in Appendix 3.

Alleyne and Broome (2011) developed the East (1993) scales for attitude, subjective norm, perceived behavioural control and intention, and applied the Sitkin and Weingart (1995) scale for risk propensity in their study, with the Cronbach’s alpha coefficients of all scales ranging from 0.72 to 0.94, which satisfied the desirable level of 0.70. The items were combined to form an average score. The hypothesis testing confirmed that all four predictors were accurate about the investment intentions.

Questions on directors’ attitude, risk propensity, subjective norm, perceived behavioural control and their intention to use the instruments were similarly designed.
**Intention**

Intentions can be measured by either behavioural intentions ("I intend to perform behaviour x") or self-predictions ("It is likely that I will perform x"); subjective norms accounted for more of the variance in behavioural intentions than self-predictions (Armitage and Conner 2001, 477).

The scale in this study was taken from Soderlund and Ohman (2003), and measures intentions as expectations ("I will …"), plans ("I will choose to … at some point in time"; “I will try to …”; “I will make efforts to …”, “I plan to …”, “I intend to …”, “I intend to try to …”) and wants (“I want to …”).

This thesis measured intention by multi-item scales including “I would like to use financial derivatives for my business in the near future”, “I intend to use financial derivatives for my business in the near future”, “I plan to use financial derivatives for my business in the near future”, “I will make an effort to prepare my company to use financial derivatives in the near future”, with five-point Likert responses ranging from “strongly disagree” to “strongly agree”. The questions were arranged in order of increasing likelihood.

**Attitude**

The attitude construct was measured by eight items on a five-point scale. The items were “Using financial derivatives is … for managing business” (bad/good); “Using futures contracts is … for controlling overall business risks” (useless/useful); “It is … to use forward contracts for controlling accounting records” (harmful/beneficial); “Pricing a SWAP contract is …” (unpleasant/pleasant); “Selecting appropriate options is …” (difficult/easy); “Putting money into financial derivatives is …” (foolish/wise);
“Managing financial derivatives is …” (boring/interesting); “Outcomes from using financial derivatives are …” (unprofitable/profitable).

**Subjective Norm**

The construct was measured by six items with five-point responses (strongly disagree to strongly agree), as listed below.

1. Most people who are important to me would think that using financial derivatives is a wise idea.

2. Most people who are important to me would think I should use financial derivatives.

3. My subordinates would think that using financial derivatives is a wise idea.

4. Company shareholders who are important to me would think that using financial derivatives is a good idea.

5. Business partners who are important to me would think that using financial derivatives is a good idea.

6. My family who are important to me would think I should use financial derivatives.

The sixth question about support from family members is relevant because directors of boards usually belong to families with business traditions, so family members stand a good chance of knowing about financial derivatives.

**Perceived Behavioural Control**

Perceived behavioural control refers to people's expectations of their ability to complete an action by their own assessment of their available resources and any
potential obstacles (Ajzen 2002, 675). The directors’ perception of control in this thesis was measured by nine questions as in Appendix 3.

These items were adapted from the scale summarised by Ajzen (2002, 670-3), which has high reliability (0.74 to 0.90). Examples of the Ajzen’s items were “For me … it would be very easy/very difficult”, “The number of external influences …”, “How much control do you have over …”, and “I feel I would be capable of convincing my new partner of …”. Perceived control could be either self-efficacy (ease or difficulty of performing an action) or controllability (beliefs about the extent to which the behaviour is up to the actor). Self-efficacy is a better predictor of intention while controllability is stronger at predicting behaviour (Ajzen 2002). This thesis combines both content types in the measurement.

Finally, directors’ education was measured by two questions about the highest qualification they had achieved (from high school level to doctorate level), and the major subject of their qualification (General Management, Accounting, Finance or other). Their working experience was expressed in the area they spent the longest time (General Management, Accounting, Finance or other). Directors were also asked about their age, gender, corporate scale (the number of employees and the previous year’s turnover) and their company’s industry. The corporate industry list was from the official list by the Vietnam State Securities Commission accessed in November 2014 (Ủy ban chung khoán nhà nước 2014).

4.3.3.4. Questionnaire Preparation

The questionnaire was initially drafted in English and then translated into Vietnamese to suit all Vietnamese participants. To ensure that the questionnaire was understandable to people whether with or without financial expertise, three people
were consulted: one with a PhD in Finance, one Vietnamese PhD candidate in Finance and one Vietnamese PhD candidate in English Language. The holder of the PhD was asked to read the whole English questionnaire and assess if it was understandable and reasonable for a variety of people and its suitability was confirmed. The PhD candidate in Finance was asked to translate the Vietnamese version into English, and the other candidate was asked to do the opposite with the English version. The questionnaires in each language were compared and minor variation was recognised and then corrected. Therefore, the questionnaire, in both languages, was used for the next step; the English version was used for directors with non-Vietnamese names.

The link to the pilot questionnaire was sent to 46 testers including directors, senior business people and business students: 29 answered and of these 14 gave full answers. The testers were asked the time they had needed to answer, how well they understood the questions, and for other comments. Of the 14 testers, 83.33 per cent said it was understandable. On the basis of their comments, the order of sections was revised, and the questions were shortened to encourage people to answer as fully as they could. The revised questionnaire was used for the official survey. This advance testing is a common way to increase the validity of a method (Westphal 1999, Westphal and Shani 2016); for example, McDonald and Westphal (2010) pre-tested their questionnaire by interviewing 20 top managers.

4.3.3.5. Data Collection

Lists of potential participants with contact details were collected from databases on the official websites of State Securities Commissions, the Hanoi Stock Exchange and Ho Chi Minh City Stock Exchange. The three databases were crosschecked for accuracy to form the final list.
The official questionnaires were sent out via an online channel (www.surveymonkey.com) and by ordinary post, and targeted at the directors of boards of public (joint stock) companies. Emails were sent to a total of 812 public companies belonging to three groups: companies listed on Ho Chi Minh City stock exchange, companies listed on Hanoi Exchange and companies transacted on UPCom market. The number of email-accessed directors was approximately the number of corporate emails accessible (624).

The response rate for the survey was 19.07 per cent: 216 responses were received, of which 119 were usable questionnaires. This rate is low but acceptable considering the nature of the research topic (financial derivatives) and the elite nature of the targeted subjects (directors of boards). The tendency of the elite to avoid public scrutiny meant that random sampling was not applicable (Neuman 2000, 152). A low response rate of below 25 per cent is common (Carpenter and Westphal 2001, Westphal 1999) and it could be even lower, at 5.1 per cent (Van Ees, van der Laan, and Postma 2008). To increase the response rate, a survey should be supported by well-respected people and delivered repeatedly (McDonald and Westphal 2010, Westphal and Graebner 2010, Flannery and May 2000). During the data collection, reminder emails were sent repeatedly: five times in five consecutive weeks after the first sending. After that, paper-based mailings were sent out with a post-paid envelope inside. Each email or posted mail included a covering letter (see Appendix 1) introducing the purpose of the survey, its main content and the researchers; a consent form clarifying risks and asking for the participant’s agreement; and the main questionnaire that passed that human ethics procedures (see Appendix 2).

The selection of sample size is aimed at achieving the desired level of precision balanced against costs, error and the availability of data (Schmidt 1977). In addition
to the issue of size, samples of unique features are important (O'Connell and O'Sullivan 2014). In contrast to previous research that collected information on directors via another source and that usually focused on non-executives, this survey was aimed directly not only at non-executives but also at executive directors. The data were collected from the end of 2014 to the middle of 2015.

4.3.3.6. Analysis

As described in Section 4.3.3.3, all the main constructs were measured by a multi-item Likert scale with five different levels. To create a single score for each construct, the first step was to conduct factor analysis for all the constructs to make sure that they were measured in a consistent and reliable manner. Component analysis was used. It is a factor model based on the total variance (Hair et al. 2014, 90), used to summarise most of the original information (variance) in a minimum number of factors, while common factor analysis is used primarily to identify unknown underlying factors. Also known as principal component analysis, component factors analysis is most appropriate for data reduction and when prior knowledge is available about small specific and error variance (Hair et al. 2014, 105-6). The two conditions of objective and prior knowledge are met in this thesis, hence component analysis was selected. When each construct was confirmed, all item scores were summed to be the construct score. More complex analyses were done using those constructs.

Besides direct associations, the mediation effect was also assessed to study the relationships of the constructs. Mediation is supposed to exist if there is a chain of causal relationships: in four steps by Baron and Kenny (1986) or two steps by Kenny, Kashy, and Bolger (1998) cited by Williams, Vandenberg, and Edwards (2009, 567). The four-step chain includes: (a) the independent variable is related to the dependent
variable; (b) the independent variable is related to the mediator variable; (c) the mediator variable is related to the dependent variable; and (d) when the mediator variable is statistically controlled, the independent variable is no longer related to the dependent variable. When the first (a) and fourth (d) steps are removed, the remainder is the set of two (Williams, Vandenberg, and Edwards 2009, 567). It is different from moderation, in which the effect of one variable on another varies in accordance with the level of a third variable (Williams, Vandenberg, and Edwards 2009, 570).

After the associations were specified, the next step was to test whether they were statistically significant. Owing to the limited sample size and the non-normal distributions of the final data, null hypothesis testing was used.

Unlike the alternative hypothesis that measures the effect size of association, the null hypothesis focuses on assessing the existence or nonexistence of the relationship or the effect. Null hypothesis testing is used to establish sufficient evidence to support an ordinal claim with an appropriate level of probability significance of the testing, usually $P < 0.05$. A rejection of a null hypothesis is not an end, since it leads to testing the alternative hypothesis to quantitatively estimate the size of the effect of the association. If testing is unable to reject the null hypothesis, it does not mean the relationship does not exist, as it may still hold true until proven otherwise (Alziyadat 2016).
4.3.4. Qualitative Inquiry

4.3.4.1. Objective

The purpose of the qualitative inquiry part of this research was to seek an explanation for the results of the first two research questions and answers to the two remaining questions.

**Research Questions**

*RQ 2a.* Does such perceived level of knowledge and attitudes impact boards’ policies on risk management, especially on financial derivatives?
*RQ 2b.* What is the mechanism channelling the impact of directors’ perceived knowledge on the board’s policies?
*RQ 3.* Who are the key stakeholders in the board directors’ consideration of using financial derivatives for corporate purposes and what are their roles?

4.3.4.2. Interview Questions

All the interviews were semi-structured, with some predetermined questions followed by others emerging from answers to the former. Structured interviewing is used to collect codable data for pre-specified categories, while unstructured interviewing expands the understanding of complicated behaviours for which pre-categorisation could limit the investigation (Fontana and Frey 1994, 366). One general question may be enough to activate a long and information-rich conversation (O'Neal and Thomas 1995). Questions for each section are listed in Exhibit 4.1 and Exhibit 4.2 below.

**Exhibit 4.1. Predetermined Interview Questions**

A. **Explain survey results**

1. Are survey results reasonable according to your experience?
   - General scores
   - Differences among groups, products, areas of knowledge
2. What do you think about the gap in scores between directors’ knowledge, attitude and intention?

3. Do other people have influence over directors’ decisions on such instruments as financial derivatives?

B. Impacts of the survey results on companies

4. What type of outcomes may these results lead to for companies?

5. What are the risks when top directors have limited knowledge of technically complicated instruments and markets that companies want to enter?

C. Solutions to problems

6. What would be the motivation for directors to get to know more about financial derivatives? Market forces or something else?

7. What is the best way to improve directors’ knowledge?

8. What is the current use of outside consultants for complicated financial issues?

9. What type of controls could board directors apply on operations of such instruments?

10. What type of control should boards apply on financial derivatives?

11. Do boards need to set up an ethics policy? Is an ethics policy feasible in your context?

12. Besides the compulsory regulations on risk management, what can a company do to control the risks when the company enters the market?

13. Do companies in sectors other than finance have a separate risk management/internal control policy?

14. Some people suspect that the board may not want to set up a risk policy for financial derivatives because the members may benefit. What do you think about this?

15. What is the best way for boards of directors to make decisions when they do not have the capability but do not want to use an outside consultant and it takes time to find staff?

16. Do you see any company with a separate policy for financial derivatives (such as REPO-repurchase agreement)?
Exhibit 4.2. Emerging Interview Questions

1. What do you think about the role of the government in market formation and operation?
2. Did the Ministry of Finance request your comments on their drafted policies? How have you participated in the Ministry’s workshop?
3. Do you see the board participating in REPO operations? (Approving contract values or anything else)
4. What can boards of directors do to achieve good judgement in decisions about financial derivatives, without depending on managers?
5. Should risk management for financial derivatives be separated or included in a general risk policy?
6. What should the content of a separate risk policy on financial derivatives be?
7. Should boards control transactions or a higher level controlling by policy?
8. Do directors really need to be knowledgeable to make decisions?
9. If directors do not have the ability to use financial derivatives, should they be excluded from decision making? Can we establish such a condition? How to prevent them from participating?
10. In the context of our market, if transactions occur, how can the board control them? Can they exercise control or not?
11. Do any private groups want to found a market?
12. When and in what context will a standard financial derivatives market be formed?
13. Do we need to wait for government action in the market establishment?
14. What can directors do if they do not have appropriate knowledge?
15. Does the psychology of considering financial derivatives as gambling affect people’s participation in financial derivatives markets?
16. Is using financial derivatives only recommended for proactive directors?
17. What type of directors have influence over the board? To what extent?
18. What do you think about participation into the financial derivatives market by companies outside the finance sectors? How efficient is this?
19. How frequent should reports to boards be? What can boards do when companies have big value contracts when market values fluctuate considerably?

4.3.4.3. Interviewees

The very first interviewees were those participating in the survey who had consented to be interviewed as requested in the covering letter. These interviewees were then asked to recommend other directors with financial expertise whom they knew to join. The recommended directors were then asked to confirm if they had answered the survey and give their consent to be interviewed. This step was done because many directors answered the survey but did not express their interest in being interviewed as requested in the covering letter. However, when asked by a peer, they changed their mind and agreed to participate in the interview. This followed the method known as snowball sample selection, in which researchers identify cases of interest from people who know other people with rich information. The “criterion” (Creswell 2013) for selection in this case was that all interviewees had expertise in finance.

There was a total of 19 interviewees with three females and 16 males. They were from various industries including securities, fund management, steel manufacturing, commodities import-export, banking, paper manufacturing and petroleum extractions, and all had expertise and extensive experience in finance. The interviewees were coded in the analysis to ensure anonymity.

Selection of interviewees with expertise in finance was planned with the aim of collecting deep insight into the survey results, and only directors with financial expertise agreed to be interviewed as in Table 4.2.
To explore the unique features of the studied subjects, qualitative research follows the well accepted notion of reaching a saturation point with regard to the size of the sample: the best size is reached when no new information can be extracted from further investigation (Creswell 2013, 157). The final number of 19 interviewees satisfied this criterion. An equivalent sample size has been used by several researchers. Nineteen Norwegian female directors from public companies were selected by a theoretical sampling of a heterogeneous group, and then interviewed to enable rich data to be collected about their attitudes to, and the appropriateness of, the gender quota policy (Seierstad 2016). In the United States, O'Neal and Thomas (1995) conducted
interviews with 18 directors, with open-ended questions to explore their views of the role of director networks in board behaviour.

4.3.4.4. Data Collection Procedures

The essence of a qualitative study lies in the data collection process. Creswell (2013) suggests a circle model with steps that could be repeated until the study is completed: locating individuals, gaining access and establishing rapport, purposefully sampling, collecting data, recording, dealing with field issues and storing data.

In this narrative-style study, Creswell’s recommended steps were followed. The interviews were semi-structured, with some planned questions and others developed in response to answers to previous questions. Initial questions were about whether interviewees agreed with the survey results on directors’ understanding of financial derivatives, the reasons for the results and the effect of this understanding on corporate governance.

Locating Individuals and Purposeful Sampling

Interviewees were located when they gave their consent in response to the survey questionnaire. The other interviewees, those located through recommendations, were contacted either by email or by mobile phone (provided by the recommenders) and were asked for their consent this way. When they replied with consent, the interview time and location was arranged.

Gaining Access and Making Rapport

It took some time to arrange each interview meeting because all the directors were busy. During the scheduling and re-scheduling, the interviewees became better acquainted with the interviewer, who gained their trust as they grew ready for the
Most of the interviews (16) occurred in the director’s office and three took place out of the director’s office.

Collecting Data and Recording Information

All the interviews started with social talk, then moved to specific research questions, emerging questions, and ended with thanks and other social talk. The interviewees were asked about their personal views and experience on the issues being researched. Besides sharing their personal stories, interviewees also supplied corporate policy materials and referred to other sources of information. All interviewees gave consent to recording the interviews. Five were followed up by additional phone or email interviews.

Storing Data

All the recordings and emails were stored on the researcher’s personal storage device and accessed only by the researcher.

Personal Experience with Board Directors

The researcher had spent three years working as a personal assistant to the chair of a board of directors of a big private holding company. During that time, the researcher learned about the working style, habits and preferences of not only the chair but also the chair’s peers in and outside the company. This understanding helped in arranging meetings and facilitating interviews with the participating directors. To ensure the quality of research, qualitative researchers need to be explicit about their experience relevant to the research issues and its influence over their interpretation (Creswell 2013, 216).
Transcription and Translation

All the interviews were conducted by the researcher, who transcribed them in their original Vietnamese and then translated them into English for analysis. After translation, the interviews were coded using a template, to provide the possibility of combining a more structural conceptual approach with the emerging interpretations. The data were analysed and coded using the software product NVivo (version 11). Back and forth checking was made to ensure correct meaning, or semantic equivalence, which is essential for international and cross-cultural research data analysis (Seierstad 2016).

There are five common approaches to qualitative inquiry: narrative, case study, phenomenology, grounded theory and ethnography (Creswell 2013). Narrative research focuses on the life of one or more individuals, using their stories collected by interviews and documents; the data are analysed into themes (Creswell 2013, 104-6). The data collection process can follow several strategies depending on the person (convenient, politically important, typical, a critical case) to achieve different forms of data (documents and archival material, open-ended interviews, subject journaling, participant observation, casual chatting, typically a single individual) (Creswell 2013, 148-9). Given the nature of exploring directors’ dealing with financial derivatives in their corporate operations, this research uses a narrative approach.

4.3.4.5. Analysis

Data for narrative studies come from personally lived and told experience stories which are analysed by themes (what was said), structure (the nature of telling) or dialogic and performance (how the story is produced and what the story is directed toward) in its situation or context (Creswell 2013, 70-2).
This research is the oral history type of narrative, in which personal reflections of several individuals were collected and analysed. Thematic analysis was applied. Sketching ideas and taking notes are conducted during data collection. After summarising field notes and working with words, researchers identify codes and reduce them into themes (Creswell 2013, 181).

After all interview content was translated into English, the next step was working with words, identifying primary codes or nodes, adding emerging codes or nodes during coding, reducing codes to themes, relating the themes and displaying the data using NVivo 11 software.

This process followed Creswell’s recommendations. Researchers start the qualitative data analysis method by immersing themselves in the transcripts, then setting out pre-scheduled codes or nodes and new codes arising from the data, developing sub-nodes then combining them into bigger themes. The suggested number is about 25-30 nodes and five to seven themes (Creswell 2013, 183-6).

Using personal hunches, insights and intuition, qualitative researchers extract further meaning from the themes and codes in their interpretation, which may be within a social science construct or idea, or, in contrast, derive from a combination of personal views (Creswell 2013, 187).

In the final step, presentation of findings in a narrative study varies in format, such as literary orientation, five-elements plot structure, incorporation of different elements that go into the story, and a three-dimensional space approach (Creswell 2013, 189). The presentation style mirrors the researchers’ interpretation as influenced by their

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52 Characters, setting, problem, actions, and resolution (Creswell 2013, 189).
53 Interaction – personal and social, continuity – past – present – future, and situation – physical places or the storyteller’s places (Creswell 2013, 189).
Validation is a normal procedure in quantitative research, but qualitative researchers vary in their positions about validation. Some suggest application of the same validity criteria as with the quantitative approach, others believe that understanding is more important than validity, while some propose unique criteria (Creswell 2013, 244-5).

Lincoln and Guba (1985, quoted by Creswell 2013, 246) use unique terms, such as credibility, transferability, dependability and confirmability, as equivalents to the scientific concepts of internal validation, external validation, reliability and objectivity, and these unique qualities can be realised by long term field study, triangulation (of researchers, data sources and methods) and rich description (Creswell 2013, 246). Validation is more a process than a single step of verification and is an effort to appraise the accuracy of the findings (Creswell 2013, 249). This thesis used triangulation of data sources (archives, surveyed directors and interviewees) and methods (quantitative and qualitative) together with an effort to acquire the richest information in each aspect of the directors’ situation in relation to financial derivatives.

The final issue is evaluation. To evaluate a qualitative study, the criteria used mainly assess the research in terms of its contribution to informing and improving practice, ensuring participants’ privacy, confidentiality and truth-telling, fairness (a balance of stakeholder views), disseminating knowledge, and promoting social action, aesthetic merit and reflexivity (Creswell 2013, 255). All these issues are clarified in Chapter 7.
4.4. Conclusion

With the mixed nature of the research questions, the pragmatism philosophy is the most suitable for this thesis. This allows the combining of post-positivism and constructivism by using both quantitative and qualitative methods. The survey was designed to derive an overall picture of directors’ understanding of financial derivatives and relationship to the board members’ attitudes and intentions to use these instruments. Because intention is the predictor of real actions, the situation investigated is an issue that needs to be dealt with in corporate governance policies. The follow-up interviews were aimed at acquiring more detail, and depth of analysis, of the causes behind the big picture, whether this was reasonable in the view of experts, and the mechanisms through which this may affect corporate policies, as well as the main players in such mechanisms. This type of research design enables two complementary studies, whose results and findings are reported in the following two chapters.
Chapter 5 Survey Results

Introduction

The survey questionnaire in this thesis investigated the bigger picture of board directors’ understanding of using financial derivatives in Vietnam. The survey was based on a modified model of the theory of planned behaviour. This chapter starts with Section 5.1 Data Description and Variate Creation, which summarises the data collection process and characteristics of the respondents, and demonstrates how the main variables in the research model were created and calculated. This is in preparation for Section 5.2, an assessment of directors’ understanding of using financial derivatives and a descriptive analysis of other variables in the model. The follow-up is an analysis of the association between the directors’ understanding and their attitude to using financial derivatives, their intention, risk propensity, subjective norms and perceived behavioural control. The focus of the survey data analysis is not alternative hypothesis testing, but primarily descriptive statistics and null hypothesis testing to highlight issues of concern emerging from the questionnaire answers.

5.1. Data Description and Variate Creation

5.1.1. Data Description

5.1.1.1. Sample and Responses

Directors of all public companies (listed and unlisted) as specified by the State Securities Commission (SSC) were the targets. During the first mailing, emails with survey links, cover letters and consent form were sent to 785 corporate email addresses among a total of 812 public companies (the gap was the number of companies without email addresses listed on official databases), and of these, delivery failed for 289
companies. This failure was due to either incorrect addresses or the mailbox being too full to receive any more. After the first attempt, the corporate emails for the failure cases were collected and re-sent with the survey email, resulting in 128 successful new sendings (no “failed to be delivered” report). Repeated emails with a cover letter, consent form and questionnaire as well as the survey link were sent five times during the following five weeks. The follow-up paper-based survey letters were then sent to those companies where emailing had been successful (a total of 624).

In both the survey emails and the posted mails, the mail account managers were asked to forward the communication to the appropriate board director, because only 4.55 per cent of directors work as corporate official spokespersons who normally keep the corporate email account. Customarily, corporate account managers, usually corporate secretaries, as subordinates, respect the directors and do not answer on their behalf. Instead, they forward emails addressed to directors to the most appropriate director.

The number of email-accessed directors equalled approximately the number of the 624 successful emails; which represents 14.17 per cent of the total number of individual board directors of public companies (4,405) in Vietnam at that time, November 2014. There were in total 216 responses, of which 119 were usable questionnaires. The unused responses were due to early failure to complete or too much data missing. Among the 216 responses, 27 (12.5 per cent) were not from directors. They might have been from email account managers, who would have needed to check the content before forwarding the email to the relevant director of the board.

Among the remaining 189 participants who were directors, 14 (7.4 per cent) did not want to proceed with the survey after Question 2 (with “No” answer to this question). Up to this question, they had read the introduction with all the relevant information
about the content of the survey. The reason for stopping might be either that they simply did not want to spend time responding, or that they did not know enough about the surveyed issues so could not give their opinions.

Among the 175 directors who agreed to go ahead, 33 (18.9 per cent) did not give any answers to the subsequent questions, which was the equivalent of failing to complete. This might originate from the same problems as above. Among the 142 cases with answers from directors, data was missing in 23 cases. The way missing data presented was noticeable. Among the total of 23 records with missing data, nine participants (39.1 per cent) quit the survey after the first section asking about their knowledge about using financial derivatives, five (21.7 per cent) quit after the next section, on their attitude to using the instruments. Fewer participants quit during subsequent questions. Only one participant answered that he/she did not know anything about financial derivatives. Little’s MCAR test showed that the thesis data set was with missing complete at random (Chi-square 333.53, DF = 322, sig. = .31 > .05). The result is effective even without question 1 and 2 about directors and their agreement to proceed (Chi-square = 333.53, DF = 30, sig. = .09 > .05). In other words, the data qualified for further multiple variate analysis.

A comparison of directors’ knowledge scores between the quitting group and the full-answer group shows the difference. The quitting group had higher scores for nine out of 15 questions. Was that because the quitters knew more about financial derivatives? Or because, lacking knowledge, they overstated their level of understanding and then quit because they could not assess other issues? The latter is the more likely answer.

The final response rate of the survey was 19.07 per cent. This rate is relatively low, but acceptable (see Section 4.3.2.5 in Chapter 4).
5.1.1.2. Participants

Table 5.1 summarises participants’ characteristics by qualification, experience, age and gender. Most of the directors had a degree: 63.0 per cent had a bachelor degree, 28.6 per cent had a master’s degree and 5 per cent had a doctorate degree. Only 3.4 per cent did not have a degree. This is a similar outcome to the qualification levels of directors in other countries, such as India (Vissa 2011). Participants mainly had degrees in general management (38.7 per cent), finance (26.9 per cent) and accounting (23.5 per cent). Only 10.9 per cent had studied other areas such as construction, law, technology, pharmacy, information technology, sales, customer care or international business.

The primary areas of working experience in areas were general management (42.0 per cent), finance (31.9 per cent) and accounting (20.2 per cent). Other areas of experience were construction, law, technology, pharmacy, information technology, sales, and customer relations. This agrees with Kesner (1988) in that most directors were business executives.

The participants’ companies were in industrial manufacturing (26.9 per cent), banking and finance (21 per cent), consumer goods (16.8 per cent) and others such as basic material (11.8 per cent), health care, consumer services and public services. A small percentage was from oil and gas, telecommunications and technologies (0.80 per cent each), which was unexpected because these industries have a tradition of using financial derivatives in world markets.
Table 5.1. Participants’ Qualification Specialisation, Primary Area of Working Experience, Age and Gender

<table>
<thead>
<tr>
<th>Highest Qualification</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational training</td>
<td>3.4</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>63.0</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>28.6</td>
</tr>
<tr>
<td>Doctorate or higher</td>
<td>5.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Qualification Specialisation</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>10.9</td>
</tr>
<tr>
<td>General management</td>
<td>38.7</td>
</tr>
<tr>
<td>Finance</td>
<td>26.9</td>
</tr>
<tr>
<td>Accounting</td>
<td>23.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary Area of Working Experience</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>5.9</td>
</tr>
<tr>
<td>General management</td>
<td>42.0</td>
</tr>
<tr>
<td>Finance</td>
<td>31.9</td>
</tr>
<tr>
<td>Accounting</td>
<td>20.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 30</td>
<td>2.5</td>
</tr>
<tr>
<td>30 to 40</td>
<td>49.6</td>
</tr>
<tr>
<td>40 to 50</td>
<td>34.5</td>
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<tr>
<td>50 to 60</td>
<td>13.4</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>16.0</td>
</tr>
<tr>
<td>Male</td>
<td>84.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In terms of age, nearly half (49.6 per cent) of the participants were aged from 30 to 40 years old; 34.5 per cent were from 40 to 50, and 13.4 per cent were from 50 to 60 years old. A minor percentage (2.5 per cent) were under 30. This accords with the normal rule that it takes time for someone to accumulate the experience to qualify for work at the board level.
Sixteen per cent of participants were female and 84 per cent were male. This is congruent with 12.75 per cent women in the total population of directors (a statistic by the thesis researcher) and much higher than the rate of 3 per cent to 4 per cent in the America Fortune 1,000 directorships in 1986 (Kesner 1988), but is not a surprise because Vietnam has a left-leaning tradition that strongly promotes women’s participation in all social activities including business.

5.1.2. Variate Factor Analysis

Factor analysis was conducted to check the consistency of composite measures of the constructs (see Section 4.3.3.3) using the principal component analysis extraction method.

5.1.2.1. Knowledge

In the first factor analysis, Q3 to Q15 all belong to one Knowledge factor; however, the Q15 loading on the component was weakest, 0.63 (below 0.70) (Hair et al. 2014) and its communality was also weakest, 0.40 (below the recommended level of 0.50) (Hair et al. 2014), and cumulative extraction was 69.39 per cent. KMO and Bartlett’s test showed an adequate sample.

In the next step, Q15 was removed, leaving Q3 to Q14. The KMO test was still significant, and Cronbach’s alpha was nearly the same. Cumulative extraction was 72.08 per cent, and all loadings (above 0.75) and communalities (above 0.56) satisfied the recommended levels. The Knowledge variate was composed of Q3 to Q14. Total variance explained was 72.08 per cent and Cronbach’s alpha was high at 0.96.
5.1.2.2. Attitude

Initial factor analysis (covering Q16 to Q23) showed very low correlation between Q19, Q20 and other items (0.08 to 0.44) and the correlations were mostly insignificant (sig. 0.07 to 0.13 with Q16 to Q18, 0.05 and 0.12 with Q22, only significant with Q21 and Q23, but correlations were well below 0.30). MSA (Measure of Sampling Adequacy) for Q19 and Q20 were low (0.60 and 0.61), much lower than the MSA of other items.

After excluding Q19, Q20 correlations to other variables were still small (0.10 to 0.19) and mostly insignificant except for a minor correlation with Q23 (0.19, sig. 0.03). When Q20 was excluded, Q19 correlations were almost insignificant except with Q21 (0.28, sig. 0.00) and Q23 (0.20, sig. 0.02). However, all the significant correlations were below the recommended level of 0.30 (Hair et al. 2014). Exclusion of either Q19 or Q20 improved reliability statistics by increasing Cronbach’s alpha from 0.80 to 0.81.

After excluding both Q19 and Q20, all correlations were above 0.30 and significant (sig. 0.00). In this final analysis, only one factor was extracted and only Q22 had communality (0.47) slightly below 0.50 but this level was acceptable for a sample of 119. Cronbach’s alpha was up to 0.86. In addition, the KMO test improved after removing Q19 and Q20 (from 0.81 to 0.83). Attitude was measured by Q16, Q17, Q18, Q21, Q22 and Q23.

Q19 and Q20 were not strongly related to other items. SWAPs and options may be less understood or popular with participants than other financial derivatives such as forwards and futures. In addition, people may have a general intuition about financial derivatives in general, but no understanding about some specific products.
5.1.2.3. Risk Propensity

For Q24 to Q28, all correlations were above 0.30; MSA was from 0.73 to 0.81. Communalities were lower for Q24 (0.46) and Q28 (0.49). Loading of Q24 was the lowest (0.68) while other loadings were from 0.70 to 0.81. The variance explained was relatively low (57.00 per cent).

After Q24 was excluded, MSA all became smaller, below 0.80 (0.71 to 0.75), but communalities improved (0.54 to 0.69) and all loadings increased (0.73 to 0.83). In particular, the explained variance increased to 62.20 per cent. Cronbach’s alpha was slightly reduced from 0.81 to 0.79; however, this was still well within the desired range. Risk Propensity was measured by Q25, Q26, Q27 and Q28.

5.1.2.4. Subjective Norm

For Q29 to Q34, all correlation coefficients were above 0.30 (from 0.34 to 0.71) and significant (sig. 0.00). MSA coefficients were good, from 0.74 to 0.86. Communalities were well above 0.50 (0.50 to 0.71) and all loadings were good (0.71 to 0.84). The variance explained was qualified (60.79 per cent) and Cronbach’s alpha was high at 0.87. Therefore, Subjective Norm variate was covered by Q29, Q30, Q31, Q32, Q33 and Q34.

5.1.2.5. Perceived Behavioural Control

In the analysis with full data from Q35 to Q43, correlations were relatively weaker for Q39, Q41 and Q43, some were insignificant for Q41 and Q43 (sig. greater than 0.05). MSAs were strong (above 0.73), and only weaker for Q36 (0.73) and Q41 (0.73). All others had MSAs greater than 0.80, so Q43, Q41, Q39 and Q36 were targets for further consideration.
When Q43 was excluded, Q41, then either Q41 or Q43 and Q36, tended to detach from the main component of other items. When Q36 was deleted, there was one factor extracted but loadings were very low for Q41 (0.43) and Q43 (0.54). However, a separate factor analysis for the three items (Q41, Q43, Q36) did not support the possibility that they belong to one factor (Cronbach’s alpha 0.38) with Q43 having the worst loading of 0.20.

When both Q43 and Q36 were excluded, KMO was qualified (0.83) and MSAs were all greater than 0.80, but communalities were lowest for Q41 (0.20) and Q39 (0.40). One factor was extracted with variance explained of 47.89 per cent, and the lowest loading was to Q41 (0.45).

When Q41 was added to the deletion list, KMO was still good (0.83, sig. 0.00), with MSAs from 0.79 to 0.89. One factor extracted with the lowest loading was Q39 (0.65) with higher variance explained of 53.32 per cent.

After Q39 was deleted, KMO was good, all communalities were above 0.51 and all loadings improved to be greater (0.71 to 0.79). Variance explained was further improved to 57.28 per cent. Hence, the Perceived Behavioural Control variate included Q35, Q37, Q38, Q40 and Q42, with Cronbach’s alpha high at 0.81.

### 5.1.2.6. Intention

All correlations were large and significant (0.583 to 0.897); MSA coefficients were all around 0.70 or greater and communalities were all above 0.60 with the variance explained at 75.49 per cent. Loadings were all above 0.78. One factor was extracted with Cronbach’s alpha of 0.89. Therefore, the Intention variate covered Q44, Q45, Q46 and Q47.
Table 5.2 summarises the results of the factor analyses with the variates with their corresponding original questions in the survey, the final questions used for score calculation, Cronbach’s alpha, variance explained, loadings and communalities.

Table 5.2. Summary of the Factor Analysis to Form Variates

<table>
<thead>
<tr>
<th>Variates</th>
<th>Original Questions</th>
<th>Final Questions</th>
<th>Cronbach’s Alpha</th>
<th>Variance Explained</th>
<th>Loadings</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>3 to 15</td>
<td>3 to 14</td>
<td>.96</td>
<td>72.08%</td>
<td>&gt; .75</td>
<td>&gt; .56</td>
</tr>
<tr>
<td>Attitude</td>
<td>16 to 23</td>
<td>16, 17, 18, 21, 22, 23</td>
<td>.86</td>
<td>59.74%</td>
<td>&gt; .68</td>
<td>&gt; .47</td>
</tr>
<tr>
<td>Risk Propensity</td>
<td>24 to 28</td>
<td>25 to 28</td>
<td>.79</td>
<td>62.20%</td>
<td>&gt; .73</td>
<td>&gt; .54</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>29 to 34</td>
<td>29 to 34</td>
<td>.87</td>
<td>69.79%</td>
<td>&gt; .71</td>
<td>&gt; .50</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>35 to 43</td>
<td>35, 37, 38, 40, 42</td>
<td>.81</td>
<td>57.28%</td>
<td>&gt; .71</td>
<td>&gt; .51</td>
</tr>
<tr>
<td>Intention</td>
<td>44 to 47</td>
<td>44 to 47</td>
<td>.89</td>
<td>75.49%</td>
<td>&gt; .78</td>
<td>&gt; .60</td>
</tr>
</tbody>
</table>

A double check on the factor analyses by covering all the selected items showed the variance explained at 71.36 per cent, significant KMO of 0.86 (sig. 0.00) with minimum communality of 0.61. Five separate factors equivalent to Knowledge, Attitude, Risk Propensity, Perceived Behavioural Control and Intention clearly emerged from the analysis. The exception was that Q29, Q30, Q31 and Q34 loaded onto one factor while Q32 and Q33 loaded on another factor, but they did not load on any of the factors mentioned above. In addition, the factor composed of Q32 and Q33 added only 4.37 per cent more to the variance explained, so it was reasonable to combine these two sets into one factor, in accordance with the original design and meaning of Subjective Norm. Cronbach’s alpha of the check analysis was high at 0.93.
(see Appendix 5). The overall check supported the single factor analyses to create the variates.

The final variate data were the summate scale of the component items. Descriptive statistics, histograms and tests of normality showed that only the Knowledge variate met the requirement of normality (see Appendix 7).

5.2. Directors’ Understanding of Using Financial Derivatives from Descriptive Analysis

At first glance, Knowledge and Risk Propensity scores were relatively low on the five-point Likert scale, while all the other sections scored highly, approaching 3.5, especially Attitude, which scored highest at nearly 4.0. Using the whole data set, mean scores for each question in each section were as follows: Knowledge around and below 3; Attitude approaching 4; Risk Propensity ranging from 2 to 3; Subjective Norm approaching 3.5; Perceived Behavioural Control from 2.5 to 3.7 and Intention around 3.5. However, distributions of all single items were not normal; they were skewed to the left for Risk Propensity items and to the right for all other groups of items. There were some cases exhibiting themselves as outliers for some single items, but deleting them caused more outliers. Furthermore, they represented that some participants had a certain pattern of thinking and understanding about financial derivative issues. Hence, they were kept for the subsequent analysis.

The following descriptive analysis is presented by order in the questionnaire, including directors’ Knowledge, Attitude, Subjective Norm, Perceived Behavioural Control and Intention.
5.2.1. Knowledge

Director participants showed a low understanding of technical issues related to financial derivatives. The low levels were present in all single aspects. Mean scores of 15 Knowledge items were consistently below 3.0 with 95 per cent confidence interval for mean and 5 per cent trimmed mean, as presented in Table 5.3. There were a few participants with the answer “Don't know” accounting for a minor percentage of 0.8 per cent to 2.5 per cent of answers to each question. At the other extreme, the percentage of directors with “Extremely good/comprehensive” knowledge of financial derivatives was even smaller, from 0.0 per cent to 2.5 per cent.

No one assessed themselves as having a comprehensive understanding of “Techniques for evaluating risks associated with using financial derivatives” (question 8, Table 5.3) and “Procedures in financial derivatives transactions” (question 11, Table 5.3), the worst rate among all the items. This result explains the low mean scores of 2.4 and 2.4 respectively, the lowest among the means (as presented in Figure 5.1). It is clear that directors have a slightly better understanding of specific types of financial derivatives (for example forwards, futures, options, swaps) and the purpose of using them, but have the lowest understanding of risks, pricing methods, risk evaluation and transaction procedures.

From 31.1 per cent to 48.7 per cent of directors said that they had moderate understanding of financial derivatives; only 10.9 per cent to 21.0 per cent had good knowledge. The imbalance happened because 18.5 per cent to 42.9 per cent of participants had limited knowledge, the second biggest percentage after the moderate level, and 8.4 per cent to 15.1 per cent had extremely limited understanding, the third biggest percentage. In line with the self-report phenomenon in surveys like this one,
nearly 80 per cent of directors did not have good knowledge of the instruments. This reflects their insufficient knowledge of financial derivatives in general.

Table 5.3. Summary of Knowledge Item Scores and Frequency

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Very limited</th>
<th>Limited</th>
<th>Moderate</th>
<th>Good</th>
<th>Comprehensive</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Technical issues related to forward contracts</td>
<td>2.8</td>
<td>9.2</td>
<td>18.5</td>
<td>48.7</td>
<td>21.0</td>
<td>1.7</td>
<td>.8</td>
</tr>
<tr>
<td>4. Technical issues related to futures contracts</td>
<td>2.7</td>
<td>10.9</td>
<td>21.8</td>
<td>42.9</td>
<td>20.2</td>
<td>1.7</td>
<td>2.5</td>
</tr>
<tr>
<td>5. Technical issues related to SWAP contracts</td>
<td>2.7</td>
<td>10.9</td>
<td>21.0</td>
<td>47.9</td>
<td>14.3</td>
<td>3.4</td>
<td>2.5</td>
</tr>
<tr>
<td>6. Technical issues related to Options</td>
<td>2.7</td>
<td>8.4</td>
<td>22.7</td>
<td>48.7</td>
<td>16.8</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>7. Methods for pricing financial derivatives</td>
<td>2.5</td>
<td>10.9</td>
<td>34.5</td>
<td>41.2</td>
<td>10.9</td>
<td>1.7</td>
<td>.8</td>
</tr>
<tr>
<td>8. Techniques for evaluating risks associated with using financial derivatives</td>
<td>2.4</td>
<td>13.4</td>
<td>42.9</td>
<td>31.1</td>
<td>11.8</td>
<td>.00</td>
<td>.8</td>
</tr>
<tr>
<td>9. Purpose(s) of using financial derivatives</td>
<td>2.6</td>
<td>10.1</td>
<td>26.9</td>
<td>46.2</td>
<td>15.1</td>
<td>.8</td>
<td>.8</td>
</tr>
<tr>
<td>10. The risks associated with using financial derivatives</td>
<td>2.5</td>
<td>10.9</td>
<td>31.1</td>
<td>41.2</td>
<td>12.6</td>
<td>1.7</td>
<td>2.5</td>
</tr>
<tr>
<td>11. Procedures in financial derivatives transactions</td>
<td>2.4</td>
<td>10.9</td>
<td>38.7</td>
<td>35.3</td>
<td>13.4</td>
<td>.00</td>
<td>1.7</td>
</tr>
<tr>
<td>12. In general, my knowledge of financial derivatives is …………</td>
<td>2.5</td>
<td>15.1</td>
<td>27.7</td>
<td>42.9</td>
<td>12.6</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>14. The information search I have performed about financial derivatives is………</td>
<td>2.5</td>
<td>13.4</td>
<td>28.6</td>
<td>46.2</td>
<td>10.9</td>
<td>.8</td>
<td>0</td>
</tr>
<tr>
<td>13. To what extent would you consider yourself informed about financial derivatives?</td>
<td>2.5</td>
<td>11.8</td>
<td>36.1</td>
<td>37.0</td>
<td>12.6</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>15. To what extent do you agree with this statement “I don't have much experience in making the decision about financial derivatives”? (Reversed)</td>
<td>2.4</td>
<td>11.8</td>
<td>55.5</td>
<td>10.9</td>
<td>20.2</td>
<td>1.7</td>
<td></td>
</tr>
</tbody>
</table>
To get an initial view of the differences in knowledge amongst different groups of directors, the data were partitioned into two main groups of Finance and Accounting directors and Others (that included General Management and Others) for the two aspects of Qualification Specialisation and Working Experience. For convenience, “Don’t Know” answers were classified into the “Very limited” category. Item mean scores and percentages of each level for the four groups are detailed in Tables 5.4 and 5.5. The tables show directors with Finance and Accounting qualification had higher mean item scores (2.5 to 2.9) than those with other specialisation (2.2 to 2.7) (significant at 95 per cent confidence level for items 8 through 14, 7 out of 13 items, sig. 0.005 to 0.04); those with working experience in Finance and Accounting also had better mean scores (2.5 to 2.9) than directors with experience in other sectors (2.1 to 2.7) (significant at 95 per cent confidence level for 9 out of 13 items, item 6 through 14, sig. 0.000 to 0.041). These were the outcomes of higher percentages for the group of Finance and Accounting directors falling into the middle (“Moderate”) and upper levels (Good, Comprehensive) of knowledge. For example, 13.3 per cent to 55.0 per
percent of directors with Finance and Accounting education had “Moderate” understanding, compared to 8.5 per cent to 47.5 per cent for the Other group. Similarly, only 5.3 per cent to 19.3 per cent of directors with experience in other sectors had “Good” understanding, while the rate of those with Finance and Accounting expertise was from 14.5 per cent to 24.2 per cent (see the two following tables – Tables 5.4. and 5.5).
Table 5.4. Descriptive Statistics of Differences in Knowledge of Director Qualification Groups: Finance and Accounting versus Others

<table>
<thead>
<tr>
<th>Items</th>
<th>Others</th>
<th>Finance &amp; Accounting</th>
<th>Others</th>
<th>Finance &amp; Accounting</th>
<th>Others</th>
<th>Finance &amp; Accounting</th>
<th>Others</th>
<th>Finance &amp; Accounting</th>
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<td></td>
</tr>
<tr>
<td>3. Technical issues related to forward contracts</td>
<td>2.7</td>
<td>2.9</td>
<td>11.9</td>
<td>8.3</td>
<td>20.3</td>
<td>16.7</td>
<td>47.5</td>
<td>50.0</td>
<td>18.6</td>
<td>23.3</td>
</tr>
<tr>
<td>4. Technical issues related to futures contracts</td>
<td>2.6</td>
<td>2.8</td>
<td>15.3</td>
<td>11.7</td>
<td>25.4</td>
<td>18.3</td>
<td>37.3</td>
<td>48.3</td>
<td>22.0</td>
<td>18.3</td>
</tr>
<tr>
<td>5. Technical issues related to SWAP contracts?</td>
<td>2.6</td>
<td>2.8</td>
<td>16.9</td>
<td>10.0</td>
<td>22.0</td>
<td>20.0</td>
<td>44.1</td>
<td>51.7</td>
<td>13.6</td>
<td>15.0</td>
</tr>
<tr>
<td>6. Technical issues related to Options</td>
<td>2.6</td>
<td>2.8</td>
<td>13.6</td>
<td>6.7</td>
<td>25.4</td>
<td>20.0</td>
<td>42.4</td>
<td>55.0</td>
<td>18.6</td>
<td>15.0</td>
</tr>
<tr>
<td>7. Methods for pricing financial derivatives</td>
<td>2.4</td>
<td>2.7</td>
<td>16.9</td>
<td>6.7</td>
<td>37.3</td>
<td>31.7</td>
<td>35.6</td>
<td>46.7</td>
<td>8.5</td>
<td>13.3</td>
</tr>
<tr>
<td>8. Techniques for evaluating risks associated with using financial derivatives</td>
<td>2.2</td>
<td>2.5</td>
<td>20.3</td>
<td>8.3</td>
<td>44.1</td>
<td>41.7</td>
<td>27.1</td>
<td>35.0</td>
<td>8.5</td>
<td>15.0</td>
</tr>
<tr>
<td>9. Purpose(s) of using financial derivatives</td>
<td>2.4</td>
<td>2.8</td>
<td>16.9</td>
<td>5.0</td>
<td>30.5</td>
<td>23.3</td>
<td>40.7</td>
<td>51.7</td>
<td>10.2</td>
<td>20.0</td>
</tr>
<tr>
<td>10. The risks associated with using financial derivatives</td>
<td>2.3</td>
<td>2.7</td>
<td>20.3</td>
<td>6.7</td>
<td>33.9</td>
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<td>33.9</td>
<td>48.3</td>
<td>11.9</td>
<td>13.3</td>
</tr>
<tr>
<td>Items</td>
<td>Others</td>
<td>Finance &amp; Accounting</td>
<td>Others</td>
<td>Finance &amp; Accounting</td>
<td>Others</td>
<td>Finance &amp; Accounting</td>
<td>Others</td>
<td>Finance &amp; Accounting</td>
<td>Others</td>
<td>Finance &amp; Accounting</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------</td>
<td>----------------------</td>
<td>--------</td>
<td>----------------------</td>
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<td>----------------------</td>
<td>--------</td>
<td>----------------------</td>
<td>--------</td>
<td>----------------------</td>
</tr>
<tr>
<td>11. Procedures in financial derivatives transactions</td>
<td>2.3</td>
<td>2.6</td>
<td>18.6</td>
<td>6.7</td>
<td>44.1</td>
<td>33.3</td>
<td>23.7</td>
<td>46.7</td>
<td>13.6</td>
<td>13.3</td>
</tr>
<tr>
<td>12. In general, my knowledge of financial derivatives is ............</td>
<td>2.3</td>
<td>2.8</td>
<td>23.7</td>
<td>6.7</td>
<td>33.9</td>
<td>21.7</td>
<td>32.2</td>
<td>53.3</td>
<td>8.5</td>
<td>16.7</td>
</tr>
<tr>
<td>14. The information search I have performed about financial derivatives is.......</td>
<td>2.3</td>
<td>2.7</td>
<td>16.9</td>
<td>10.0</td>
<td>37.3</td>
<td>20.0</td>
<td>39.0</td>
<td>53.3</td>
<td>6.8</td>
<td>15.0</td>
</tr>
<tr>
<td>13. To what extent would you consider yourself informed about financial derivatives?</td>
<td>2.3</td>
<td>2.8</td>
<td>18.6</td>
<td>5.0</td>
<td>44.1</td>
<td>28.3</td>
<td>23.7</td>
<td>50.0</td>
<td>11.9</td>
<td>13.3</td>
</tr>
<tr>
<td>15. To what extent do you agree with this statement &quot;I don't have much experience in making the decision about financial derivatives&quot;? (Reversed)</td>
<td>2.3</td>
<td>16.9</td>
<td>54.2</td>
<td>56.7</td>
<td>8.5</td>
<td>13.3</td>
<td>16.9</td>
<td>3.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.5. Descriptive Statistics of Differences in Knowledge of Director Working Experience Groups: Finance and Accounting versus Others

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Very limited</th>
<th>Limited</th>
<th>Moderate</th>
<th>Good</th>
<th>Comprehensive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Extremely weak (12, 14)</td>
<td>Weak (12, 14)</td>
<td>Uninformed (13)</td>
<td>Extremely Informed (13)</td>
<td>Extremely strong (12, 14)</td>
</tr>
<tr>
<td>Others</td>
<td>Others</td>
<td>Finance &amp; Accounting</td>
<td>Others</td>
<td>Finance &amp; Accounting</td>
<td>Others</td>
<td>Finance &amp; Accounting</td>
</tr>
<tr>
<td>3. Technical issues related to forward contracts</td>
<td>2.7</td>
<td>2.9</td>
<td>14.0</td>
<td>6.5</td>
<td>19.3</td>
<td>17.7</td>
</tr>
<tr>
<td>4. Technical issues related to futures contracts</td>
<td>2.6</td>
<td>2.8</td>
<td>17.5</td>
<td>9.7</td>
<td>24.6</td>
<td>19.4</td>
</tr>
<tr>
<td>5. Technical issues related to SWAP contracts?</td>
<td>2.5</td>
<td>2.8</td>
<td>21.1</td>
<td>6.5</td>
<td>21.1</td>
<td>21.0</td>
</tr>
<tr>
<td>6. Technical issues related to Options</td>
<td>2.5</td>
<td>2.9</td>
<td>17.5</td>
<td>3.2</td>
<td>22.8</td>
<td>22.6</td>
</tr>
<tr>
<td>7. Methods for pricing financial derivatives</td>
<td>2.3</td>
<td>2.7</td>
<td>19.3</td>
<td>4.8</td>
<td>40.4</td>
<td>29.0</td>
</tr>
<tr>
<td>8. Techniques for evaluating risks associated with using financial derivatives</td>
<td>2.1</td>
<td>2.5</td>
<td>22.8</td>
<td>6.5</td>
<td>43.9</td>
<td>41.9</td>
</tr>
<tr>
<td>9. Purpose(s) of using financial derivatives</td>
<td>2.4</td>
<td>2.8</td>
<td>17.5</td>
<td>4.8</td>
<td>29.8</td>
<td>24.2</td>
</tr>
<tr>
<td>10. The risks associated with using financial derivatives</td>
<td>2.2</td>
<td>2.8</td>
<td>22.8</td>
<td>4.8</td>
<td>35.1</td>
<td>27.4</td>
</tr>
<tr>
<td>Items</td>
<td>Mean</td>
<td>Very limited (Extremely weak (12, 14), Extremely Uninformed (13)) (%)</td>
<td>Limited (Weak (12, 14), Uninformed (13)) (%)</td>
<td>Moderate (%)</td>
<td>Good (Strong (12, 14), Informed (13)) (%)</td>
<td>Comprehensive (Extremely strong (12, 14), Extremely Informed (13)) (%)</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
<td>-----------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>--------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>Others Others Finance &amp; Accounting Others Finance &amp; Accounting Others Finance &amp; Accounting Others Finance &amp; Accounting Others Finance &amp; Accounting Others Finance &amp; Accounting Others Finance &amp; Accounting</td>
<td>2.2</td>
<td>2.7</td>
<td>21.1</td>
<td>4.8</td>
<td>43.9</td>
<td>33.9</td>
</tr>
<tr>
<td>11. Procedures in financial derivatives transactions</td>
<td>2.2</td>
<td>2.8</td>
<td>19.3</td>
<td>8.1</td>
<td>38.6</td>
<td>19.4</td>
</tr>
<tr>
<td>12. In general, my knowledge of financial derivatives is ……….</td>
<td>2.2</td>
<td>2.8</td>
<td>19.3</td>
<td>4.8</td>
<td>43.9</td>
<td>29.0</td>
</tr>
<tr>
<td>14. The information search I have performed about financial derivatives is………</td>
<td>2.2</td>
<td>2.8</td>
<td>19.3</td>
<td>4.8</td>
<td>43.9</td>
<td>29.0</td>
</tr>
<tr>
<td>13. To what extent would you consider yourself informed about financial derivatives?</td>
<td>2.2</td>
<td>2.8</td>
<td>19.3</td>
<td>4.8</td>
<td>43.9</td>
<td>29.0</td>
</tr>
<tr>
<td>15. To what extent do you agree with this statement “I don't have much experience in making the decision about financial derivatives”? (Reversed)</td>
<td>2.3</td>
<td>2.5</td>
<td>17.5</td>
<td>6.5</td>
<td>54.4</td>
<td>56.5</td>
</tr>
</tbody>
</table>
5.2.2. Attitude

Most of the mean attitude scores ranged from 3.5 to 3.9 (with 5 per cent Trimmed Mean and 95 per cent Confidence Interval for Mean approaching 4.0), except for attitudes toward pricing SWAP (3.0) and selecting options (2.9) as summarised in Table 5.6. The scores were much higher than knowledge scores.

Four of the eight Attitude questions had no extremely negative answers, and the rates were minor (0.8 per cent to 1.7 per cent) in the other four questions. Extremely positive Attitude answers accounted for a much bigger percentage – from 3.4 per cent to 16.0 per cent – and a majority of the answers were in neutral and positive categories. Negative answers were only from 3.4 per cent to 7.6 per cent, except for “Selecting appropriate options” (28.6 per cent) and “Pricing SWAP contracts” (28.6 per cent) (see Table 5.6). This explains why the distribution of data is highly skewed to the right.

Directors demonstrated a highly positive attitude to using financial derivatives and thought that financial derivatives are good/useful/beneficial for managing the business and controlling overall business risks; it is pleasant/easy/interesting to make a decision on financial derivatives and using the instruments is wise/profitable. From 60 per cent to 80 per cent of participants presented a positive to very positive attitude on six out of eight aspects of financial derivatives. They were less positive about using SWAPs and options.

In general, participants were highly positive in answering questions on the usefulness of the instruments, but less positive when asked about ease of use.
## Table 5.6. Summary of Attitude Item Scores and Frequency

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Extremely negative (%)</th>
<th>Negative (%)</th>
<th>Neutral (%)</th>
<th>Positive (%)</th>
<th>Extremely Positive (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Using financial derivatives is … for managing business. (Extremely Bad to Extremely good)</td>
<td>3.9</td>
<td>0.0</td>
<td>3.4</td>
<td>18.5</td>
<td>62.2</td>
<td>16.0</td>
</tr>
<tr>
<td>17. Using futures contracts is … for control overall business risks. (Extremely Useless to Extremely Useful)</td>
<td>3.8</td>
<td>0.0</td>
<td>5.0</td>
<td>14.3</td>
<td>70.6</td>
<td>10.1</td>
</tr>
<tr>
<td>18. It is … to use forward contracts for controlling accounting records. (Extremely Harmful to Extremely Beneficial)</td>
<td>3.6</td>
<td>0.8</td>
<td>7.6</td>
<td>21.0</td>
<td>65.5</td>
<td>5.0</td>
</tr>
<tr>
<td>19. Pricing SWAP contract is … (Extremely Unpleasant to Extremely Pleasant)</td>
<td>3.0</td>
<td>1.7</td>
<td>26.1</td>
<td>43.7</td>
<td>24.4</td>
<td>4.2</td>
</tr>
<tr>
<td>20. Selecting appropriate options is … (Extremely Difficult to Extremely Easy)</td>
<td>2.9</td>
<td>0.8</td>
<td>28.6</td>
<td>45.4</td>
<td>21.0</td>
<td>4.2</td>
</tr>
<tr>
<td>21. Putting money into financial derivatives is … (Extremely Foolish to Extremely Wise)</td>
<td>3.5</td>
<td>0.8</td>
<td>4.2</td>
<td>35.3</td>
<td>56.3</td>
<td>3.4</td>
</tr>
<tr>
<td>22. Managing financial derivatives is … (Extremely Boring to Extremely Interesting)</td>
<td>3.7</td>
<td>0.0</td>
<td>7.6</td>
<td>21.0</td>
<td>62.2</td>
<td>9.2</td>
</tr>
<tr>
<td>23. Outcomes from using financial derivatives are … (Extremely Unprofitable to Extremely Profitable)</td>
<td>3.7</td>
<td>0.0</td>
<td>5.9</td>
<td>16.8</td>
<td>68.9</td>
<td>8.4</td>
</tr>
</tbody>
</table>

### 5.2.3. Risk Propensity

Risk propensity scores were all either equal or lower than 3.0, with means ranging from 2.2 to 3.0, as shown in Table 5.7. Five questions asked participants about their likelihood of taking risky actions in situations with high uncertainty (see Appendix 3 for the questions) similar to the context of using financial derivatives to assess their risk propensity in using such instruments. The percentage of directors who were “Extremely likely” to act in risky situations was very low, from 0.8 per cent to a maximum of 2.5 per cent, while at the opposite end of the scale, “Extremely unlikely” accounted for a much greater percentage: from 5.9 per cent to 17.6 per cent. A major portion had a neutral status (Neither unlikely nor likely): 21.0 per cent to 46.2 per cent. For the rest, “Unlikely” answers carried more weight than “Likely” ones. In general,
directors presented as having slightly risk-averse to risk-neutral propensity, with three of the five items’ mean scores around 3.0, and the other two mean scores from 2.2 to 2.5 on a five-point scale.

Table 5.7. Summary of Risk Propensity Item Scores and Frequency

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Extremely unlikely (%)</th>
<th>Unlikely (%)</th>
<th>Neither unlikely nor likely (%)</th>
<th>Likely (%)</th>
<th>Extremely likely (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24. How likely are you to choose riskier alternatives based on the assessment of others on whom you must rely on such as management board, financial officers, accounting officers or family members?</td>
<td>2.9</td>
<td>5.0</td>
<td>21.8</td>
<td>46.2</td>
<td>25.2</td>
<td>1.7</td>
</tr>
<tr>
<td>25. How likely are you to choose riskier alternatives which could have a major impact on your own future?</td>
<td>2.9</td>
<td>6.7</td>
<td>25.2</td>
<td>35.3</td>
<td>31.9</td>
<td>.8</td>
</tr>
<tr>
<td>26. How likely are you to choose riskier alternatives which rely upon analyses that are high in technical complexity?</td>
<td>3.0</td>
<td>5.9</td>
<td>19.3</td>
<td>37.8</td>
<td>34.5</td>
<td>2.5</td>
</tr>
<tr>
<td>27. How likely are you to initiate a financial action which has the potential to backfire?</td>
<td>2.5</td>
<td>17.6</td>
<td>31.1</td>
<td>34.5</td>
<td>16.0</td>
<td>.8</td>
</tr>
<tr>
<td>28. How likely are you to support a decision when you are aware that relevant analyses were done while missing several pieces of information?</td>
<td>2.2</td>
<td>13.4</td>
<td>57.1</td>
<td>21.0</td>
<td>6.7</td>
<td>1.7</td>
</tr>
</tbody>
</table>

5.2.4. Subjective Norm

Subjective norm scores represented a slightly positive self-perceived support from related people to board directors. All the means were from 3.3 to 3.5 on a five-point scale as shown in Table 5.8.

Only 7.5 per cent to 16.8 per cent of directors thought that people related to them would oppose their use of financial derivatives, meaning that more than 80 per cent thought the people related to them would either support or not protest about such use.
Table 5.8. Summary of Subjective Norm Item Scores and Frequency

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Strongly disagree (%)</th>
<th>Disagree (%)</th>
<th>Neither agree or disagree (%)</th>
<th>Agree (%)</th>
<th>Strongly agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>29. Most people who are important to me would think that using financial derivatives is a wise idea.</td>
<td>3.3</td>
<td>2.5</td>
<td>12.6</td>
<td>35.3</td>
<td>45.4</td>
<td>4.2</td>
</tr>
<tr>
<td>30. Most people who are important to me would think I should use financial derivatives.</td>
<td>3.3</td>
<td>1.7</td>
<td>11.8</td>
<td>43.7</td>
<td>39.5</td>
<td>3.4</td>
</tr>
<tr>
<td>31. My subordinates would think that using financial derivatives is a wise idea.</td>
<td>3.3</td>
<td>.00</td>
<td>13.4</td>
<td>44.5</td>
<td>38.7</td>
<td>3.4</td>
</tr>
<tr>
<td>32. Company shareholders who are important to me would think that using financial derivatives is a good idea.</td>
<td>3.4</td>
<td>.00</td>
<td>8.4</td>
<td>37.8</td>
<td>49.6</td>
<td>4.2</td>
</tr>
<tr>
<td>33. Business partners who are important to me would think that using financial derivatives is a good idea.</td>
<td>3.5</td>
<td>.8</td>
<td>5.9</td>
<td>35.3</td>
<td>53.8</td>
<td>4.2</td>
</tr>
<tr>
<td>34. My family who are important to me would think I should use financial derivatives.</td>
<td>3.3</td>
<td>1.7</td>
<td>15.1</td>
<td>37.8</td>
<td>42.0</td>
<td>3.4</td>
</tr>
</tbody>
</table>

No participant thought that corporate internal stakeholders (the subordinates and shareholders) would oppose strongly the use of financial derivatives (.0 per cent for “Extremely disagree”). The proportion of “Disagree” of 5.9 per cent to 15.1 per cent was considerably lower than the proportion of “Agree” (38.7 per cent to 53.8 per cent) combined with “Strongly agree” (3.4 per cent to 4.2 per cent).

Directors had a strong belief that their peers, subordinates, shareholders, business partners and even family members would support their use of financial derivatives.

5.2.5. Perceived Behavioural Control

Most of the Perceived Behavioural Control scores were below 3.0, from 2.5 to 2.8 (six out of nine items), while only three scores were above 3 (3.1, 3.2 and 3.6) as presented in Table 5.9. The exceptionally high score of 3.6 related to directors’ belief that they can “find capable staff to conduct financial derivatives transactions”.

197
These results showed directors’ general confidence in the availability of financial derivatives suppliers. When put in the context of a company as a whole, not individual capacity, directors showed less expectation of control. Directors demonstrated a low confidence in their ability to control the corporate use of financial derivatives, with almost all mean scores being from 2.5 to 3.1, except for “ability to enforce a decision to use SWAP contracts when needed” (3.2) and “I believe that I can find capable staff to conduct financial derivatives transactions” (3.6).

Table 5.9. Summary of Perceived Behavioural Control Item Scores and Frequency

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Extremely negative (%)</th>
<th>Negative (%)</th>
<th>Neutral (%)</th>
<th>Positive (%)</th>
<th>Extremely Positive (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35. “For me to evaluate forward contracts is …” (Extremely difficult to Extremely easy)</td>
<td>2.8</td>
<td>2.5</td>
<td>33.6</td>
<td>40.3</td>
<td>20.2</td>
<td>3.4</td>
</tr>
<tr>
<td>36. “If I wanted to, it would be easy for me to select a supplier of futures contracts.” (Strongly disagree to Strongly agree)</td>
<td>3.1</td>
<td>2.5</td>
<td>24.4</td>
<td>31.1</td>
<td>37.8</td>
<td>4.2</td>
</tr>
<tr>
<td>37. “How much control do you have over the transaction of financial derivatives?” (Almost no control to Total control)</td>
<td>2.6</td>
<td>10.1</td>
<td>32.8</td>
<td>42.9</td>
<td>10.9</td>
<td>3.4</td>
</tr>
<tr>
<td>38. “I believe that I have the ability to enforce a decision to use SWAP contracts when needed.” (Strongly disagree to Strongly agree)</td>
<td>3.2</td>
<td>2.5</td>
<td>17.6</td>
<td>31.9</td>
<td>46.2</td>
<td>1.7</td>
</tr>
<tr>
<td>39. “I believe that I can find capable staff to conduct financial derivatives transactions.” (Strongly disagree to Strongly agree)</td>
<td>3.6</td>
<td>.8</td>
<td>5.9</td>
<td>20.2</td>
<td>68.9</td>
<td>4.2</td>
</tr>
<tr>
<td>40. “How confident are you that you will be able to persuade your companies to use options?” (Almost no confidence to Total confidence)</td>
<td>2.6</td>
<td>11.8</td>
<td>30.3</td>
<td>45.4</td>
<td>9.2</td>
<td>3.4</td>
</tr>
<tr>
<td>41. “Using financial derivatives is entirely up to me.” (Strongly disagree to Strongly agree)</td>
<td>2.5</td>
<td>7.6</td>
<td>47.1</td>
<td>27.7</td>
<td>16.8</td>
<td>.8</td>
</tr>
<tr>
<td>42. “To what extent do you feel that ordering management to use financial derivatives is within your control?” (Totally beyond my control to Totally within my control)</td>
<td>2.7</td>
<td>5.9</td>
<td>23.5</td>
<td>58.0</td>
<td>10.9</td>
<td>1.7</td>
</tr>
<tr>
<td>43. “The number of events outside my control which could prevent me from recommending company to use financial derivatives is: …” (Very few to Numerous) (Reversed)</td>
<td>2.9</td>
<td>5.0</td>
<td>18.5</td>
<td>53.8</td>
<td>20.2</td>
<td>2.5</td>
</tr>
</tbody>
</table>
5.2.6. Intention to Use Financial Derivatives

Intention mean scores were all high, around 3.5 as presented in Table 5.10. Four questions about Intention to use financial derivatives were arranged in an increasingly confirmative order. Directors had a strong Intention to use financial derivatives, with all mean scores approximately 3.5. Half (52.9 per cent) to 69.7 per cent of directors wanted to use financial derivatives at some point in the future (Agree to Strongly Agree), while the percentage of those who would not use them was low (0.8 per cent to 3.4 per cent for “Strongly disagree”), lower than the percentage of those who were sure about using them (2.5 per cent to 4.2 per cent for “Strongly agree”). The percentage of participants who “Agree” to use financial derivatives (50.4 per cent to 67.2 per cent) far surpassed the percentage of those who “Disagree” (6.7 per cent to 10.1 per cent), while 20.2 per cent to 36.1 per cent of participants were in a neutral/undecided position. This skewed the distributions of answers for each question.

Table 5.10. Summary of Intention Item Scores and Frequency

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Strongly disagree (%)</th>
<th>Disagree (%)</th>
<th>Neither agree or disagree (%)</th>
<th>Agree (%)</th>
<th>Strongly agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>44. I would like to use financial derivatives for my business in the near future.</td>
<td>3.5</td>
<td>1.7</td>
<td>8.4</td>
<td>22.7</td>
<td>63.9</td>
<td>3.4</td>
</tr>
<tr>
<td>45. I intend to use financial derivatives for my business in the near future.</td>
<td>3.5</td>
<td>3.4</td>
<td>6.7</td>
<td>20.2</td>
<td>67.2</td>
<td>2.5</td>
</tr>
<tr>
<td>46. I plan to use financial derivatives for my business in the near future.</td>
<td>3.4</td>
<td>.8</td>
<td>10.1</td>
<td>36.1</td>
<td>50.4</td>
<td>2.5</td>
</tr>
<tr>
<td>47. I will make an effort to prepare my company to use financial derivatives in the near future.</td>
<td>3.5</td>
<td>.0</td>
<td>7.6</td>
<td>31.1</td>
<td>57.1</td>
<td>4.2</td>
</tr>
</tbody>
</table>
5.3. Association between Directors’ Understanding with Attitude and Other Variables

The six variates are components of the model, below, used to investigate directors’ understanding of financial derivatives. The survey data were included in the analysis to test if the suggested main relationships exist under the potential impact of certain environmental factors such as directors’ education, experience, gender, age, corporate industry and scale.

5.3.1. Associations between Personal and Corporate Features and Variates

5.3.1.1. Knowledge

The Knowledge variate was normally distributed, hence appropriate for both parametric and non-parametric tests. The hypotheses for testing were that there is a difference in the levels of directors’ Knowledge depending on their personal (education, experience, age and gender) and corporate (size and industry) features.

Two non-parametric tests were used. The non-parametric Kruskal–Wallis H-test is used to determine if more than two independent samples are significantly different. When the test results are significant, at least one of the samples is different from the other samples. However, the test does not identify how many and where the difference(s) occurs. To answer these two questions, sample contrasts such as the Mann–Whitney U-test is a useful method. The Kruskal–Wallis H-test statistic is computed by combining all of the samples and rank ordering the values together. The one-way analysis of variance (ANOVA) is the parametric equivalent to this test (Corder and Foreman 2014, 117-118). ANOVA is a statistical technique used to determine whether samples from two or more groups come from populations with
equal means (Hair et al. 2014, 666). The null hypothesis tested is the equality of a single dependent variable means across groups; however, the test does not locate where the significant differences are (Hair et al. 2014, 698).

Kruskal–Wallis tests provided support for five of the eight hypotheses, H1a, H1b, H2, H3 and H4a, at the confidence level of 0.05 (see Appendix 8 for a summary of the tests). These differences are also confirmed by ANOVA tests between the Knowledge variate and other personal and corporate features: H1a (F 3.585, sig. 0.016, df 3), H1b (F 4.338, sig. 0.006, df 3), H2 (F 7.598, sig. 0.000, df 3), H3 (F 2.013, sig. 0.044, df 9) and H4a (F 2.885, sig. 0.026, df 4).

Directors’ Knowledge about financial derivatives was associated with their education (levels and majors), working experience, corporate industry and corporate scale in terms of the number of employees. Directors’ age and gender had no effect on their level of understanding.

To determine what type of education, experience and industry enable directors to have better knowledge about derivatives, Mann–Whitney tests were conducted and the results are reported below. The Mann–Whitney U-test is a non-parametric statistical procedure to compare two independent samples. The samples are combined and rank ordered together. If the values from the two samples are randomly mixed in the rank ordering, the samples are not different; if they are clustered at opposite ends when combined, there is a difference between them. The analysis is useful for determining if two sample are significantly different (Corder and Foreman 2014, 69-71).

**Difference among Highest Level of Qualifications**

Directors with a master’s degree had the best mean Knowledge score (mean 2.96), followed by those with a doctoral degree (mean 2.80), bachelor degree (mean 2.47)
and vocational training (mean 2.39). None of the groups exceeded the moderate knowledge level of 3.0.

The Mann–Whitney test pointed out the difference between directors with a bachelor degree and those with a master’s degree; those with a master’s degree had better knowledge about financial derivatives (mean rank 67.19) than those with a bachelor degree (mean rank 49.47) (U 860.50, Z -2.71, sig. 0.00 (2-tailed)).

**Difference among Qualification Specialisations**

Directors who have a qualification in finance recorded the highest Knowledge score (mean 3.0026), and the only mean score above the moderate level of 3.0. Directors with either a general management or accounting qualification had a slightly lower score, mean 2.52 and 2.55 respectively, which was higher than that of directors with other qualifications (2.24).

The Post Hoc test (used to confirm where the differences occurred between groups when an overall statistically significant difference in group means has been established) pointed out the difference between directors with a degree in Finance and General Management (sig. 0.01). The Mann–Whitney test agreed with the Post Hoc test in that directors with a major in Finance had a better understanding of financial derivatives than directors with a major in General Management (mean rank 48.23, 33.42, U 456.50, Z -2.84, sig. 0.00), Accounting (mean rank 35.61, 24.66, U 284.50, Z -2.42, sig. 0.01) and Others (mean rank 26.13, 15.31, U 108.00, Z -2.51, sig. 0.01) in a consistent manner.

When the knowledge data were partitioned into two groups of directors with Finance and Accounting qualification and those with Other qualification, Two Independent-
Samples T-Test demonstrated that Finance and Accounting directors had better knowledge of financial derivatives than the others (means of 33.51, 29.57 respectively, t -2.38, df 117, sig. 019) (see Appendix 10).

**Difference among Major Areas of Working Experience**

Directors with working experience in Finance had the best knowledge about financial derivatives and were the only group above the moderate level (mean 3.06 versus the moderate level of 3.0). Directors with expertise in General Management and Accounting had a similar knowledge level (mean 2.44 and 2.47 respectively), which was much higher than that of directors with other expertise (mean 2.09).

In a Mann–Whitney test, directors with experience in Finance had better knowledge about financial derivatives than those with experience in General Management (mean rank 56.41, 35.45, U 497.500, Z -3.81, sig. 0.00), Accounting (mean rank 37.59, 21.85, U 224.50, Z -3.35, sig. 0.00) and Others (mean rank 25.04, 11.93, U 55.50, Z -2.43, sig. 0.01).

When the data were re-arranged into two groups of those with Finance and Accounting working experience and those with other experience, the test showed that directors with Finance and Accounting experience had better knowledge than the other group (means of 34.06, 28.84 respectively, t -3.21, df 117, sig. 002). The mean difference (5.22) of these two groups of working experience was bigger than the difference between the two groups of qualifications in the previous section (see Appendix 10 for more details).
Difference between Directors’ Company Primary Industry

Directors in the Banking and Finance sector had a better understanding of financial derivatives than directors in Basic Material (mean rank 23.34, 14.04, U 91.50, Z -2.49, sig. 0.01), Industrial Manufacturing (mean rank 35.86, 23.64, U 228.50, Z -2.76, sig. 0.00), Consumer Goods (mean rank 29.08, 15.40, U 98.00, Z -3.47, sig. 0.00), and Public Service (mean rank 21.62, 11.41, U 59.50, Z -2.68, sig. 0.00). For other sectors, the number of participants is very low, so any comparison is not effective.

Difference between Directors’ Company Scale (Number of Employees)

Directors of big companies with more than 1,000 employees had a better knowledge of financial derivatives than either directors of the smallest companies (1 to 100 employees) (mean rank 42.82, 27.48, U 163.50, Z -2.84, sig. 0.00) or companies with 100 to 200 employees (mean rank 22.46, 15.02, U 84.50, Z -2.11, sig. 0.03).

5.3.1.2. Risk Propensity

The association between directors’ Risk Propensity and personal and corporate features was tested for the difference in the levels of directors’ Risk Propensity linked with their different levels of education, major areas of study, areas of working experience, corporate industries, age, gender, company’s number of employees and corporate turnover.

Kruskal–Wallis tests did not support any of these correlations (all sig. > 0.05), and suggested that there was no evidence of an effect of directors’ education, experience, gender, age and their companies’ scale on their Risk Propensity.
5.3.1.3. Attitude

The only feature that affected directors’ Attitude was their company scale in terms of turnover, as shown by the Kruskal–Wallis test (Chi-Square 10.664, df 3, sig. 0.014). Directors of the biggest companies (turnover of 15,000 billion Vietnam dong or more) had a more positive Attitude to using financial derivatives than directors from the smallest companies (0 to 5,000 billion VND) (mean rank 77.82, 49.51, U 233.00, Z -2.98, sig. 0.00).

5.3.1.4. Subjective Norm

A series of Kruskal–Wallis tests did not support any correlations between the directors’ and company’s features and the directors’ Subjective Norm (all sig. insignificant >= 0.05).

5.3.1.5. Perceived Behavioural Control

Kruskal–Wallis tests showed the effect of directors’ highest qualifications (Chi-Square 12.96, df 3, sig. 0.00) and corporate scale in terms of turnover (Chi-Square 10.72, df 3, sig. 0.01) on directors’ Perceived Behavioural Control.

Mann–Whitney tests supported the proposition that directors with a master’s degree had higher Perceived Behavioural Control than those with a bachelor degree (mean rank 68.54, 48.86, U 814.50, Z -3.02, sig. 0.00) and directors with a doctorate had better perceived control than those with a bachelor degree (mean rank 61.92, 39.33, U 99.50, Z -2.27, sig. 0.02).

Directors of companies with a turnover 10,000 to 15,000 billion VND had higher perceived control than directors from companies with a smaller turnover, of up to
5,000 billion VND (mean rank 74.30, 48.17, U 108.50, Z -2.01, sig. 0.044). Directors from companies with over 15,000 billion VND annual turnover had better perceived control than directors from small companies with turnover up to 5,000 billion VND (mean rank 73.73, 49.99, U 278.00, Z -2.48, sig. 0.01). Directors from companies with annual turnover over 15,000 billion VND had higher perceived control than directors from companies with 5,000 to 10,000 billion VND (mean rank 13.82, 7.90, U 24.00, Z -2.19, sig. 0.02). Directors from bigger companies consistently had better Perceived Behavioural Control than those from smaller companies.

5.3.1.6. Intention

Kruskal–Wallis tests showed that directors’ level of qualifications (Chi-Square 9.90, df 3, sig. 0.01) and major area of study (Chi-Square 8.40, df 3, sig. 0.03) were associated with their Intention to use financial derivatives.

Directors with vocational training had a greater Intention to use financial derivatives than those with a bachelor degree (mean rank 65.38, 38.65, U 48.50, Z -2.34, sig. 0.01) but directors with a bachelor degree had lower Intention than those with a master’s degree (50.85, 64.15, U 964.00, Z -2.12, sig. 0.03).

Directors with a qualification in Finance had a stronger Intention than those in General Management (mean rank 45.75, 35.15, U 536.00, Z -2.15, sig. 0.03) and those in Accounting (35.77, 24.48, U 279.50, Z -2.62, sig. 0.00).

The directors’ two personal characteristics of gender and age did not demonstrate any influence over all other variables in the main model.

All the significant pairs of influence are summarised in Figure 5.2 below. Directors’ education, experience, and corporate scale and industry influenced their knowledge of
financial derivatives. Their education had further impact on their perceived behavioural control and intention. In addition, their corporate scale was associated with their attitude and perceived behavioural control.

**Figure 5.2. Significant Associations between Main Variates and Directors’ Personal and Corporate Features**

![Diagram showing significant associations between main variates and directors' personal and corporate features.]

**5.3.2. Variate Correlations**

As described in Section 5.1.2., five of the six variates as variables in the model did not meet the condition of approximate normal distribution (except for the Knowledge variate). Therefore, to assess their association, the non-parametric Spearman’s rho test of correlation was used. The focus of this thesis is to test if each pair of relationships in the model exists, not the causal dimension of the relations. As proposed in Section 4.3.2, the expected relationships are expressed in a series of hypotheses.
In addition to these, other interactive relationships were tested: among directors’ Attitude, Subjective Norms, Perceived Behavioural Control and Risk Propensity as suggested in the original model of the theory of planned behaviour.

The hypotheses for testing are shown in Table 5.11 below.

Table 5.11. Hypotheses of Relationships among the Main Variables

<table>
<thead>
<tr>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 H7a: Directors’ Knowledge of the use of financial derivatives is associated with their Risk Propensity.</td>
</tr>
<tr>
<td>2 H7b: Directors’ Knowledge of the use of financial derivatives is associated with their Attitude toward the instruments.</td>
</tr>
<tr>
<td>3 H7c: Directors’ Knowledge of the use of financial derivatives is associated with their Subjective Norm.</td>
</tr>
<tr>
<td>4 H7d: Directors’ Knowledge of the use of financial derivatives is associated with their Perceived Behavioural Control.</td>
</tr>
<tr>
<td>5 H6: Directors’ Knowledge of the use of financial derivatives is associated with their Intention to use the instruments.</td>
</tr>
<tr>
<td>6 H5a: Directors’ Risk Propensity is associated with their Intention to use the instruments.</td>
</tr>
<tr>
<td>7 H5b: Directors’ Attitude to the use of financial derivatives is associated with their Intention to use the instruments.</td>
</tr>
<tr>
<td>8 H5c: Directors’ Subjective Norm is associated with their Intention to use the instruments.</td>
</tr>
<tr>
<td>9 H5d: Directors’ Perceived Behavioural Control is associated with their Intention to use the instruments.</td>
</tr>
</tbody>
</table>

To specify the relations among other pairs of variates, further tests of correlations were also conducted: Risk Propensity and Attitude; Risk Propensity and Subjective Norm, Risk Propensity and Perceived Behavioural Control, Attitude and Subjective Norm, Attitude and Perceived Behavioural Control, Subjective Norm and Perceived Behavioural Control.
Support for the existence of the associations was assessed by the appearance and strength of significant correlations in several tests, both uncontrolled and controlled at different levels. The initial test was the non-parametric Spearman’s rho with inputs of all six variates. The following partial correlation tests were conducted in SPSS syntax environment with a step of transforming rho. A total of 28 partial correlation tests were made.

The first Spearman’s rho correlation tests (see Appendix 4) showed significant positive correlation between:

- **Knowledge** and Attitude, Risk Propensity, and Perceived Behavioural Control.

- **Risk Propensity** and Knowledge, Attitude, Subjective Norm, Perceived Behavioural Control and Intention.

- **Attitude** and Knowledge, Risk Propensity, Subjective Norm, Perceived Behavioural Control and Intention.

- **Subjective Norm** and Attitude, Risk Propensity, Perceived Behavioural Control and Intention.

- **Perceived Behavioural Control** and Knowledge, Attitude, Risk Propensity, Subjective Norm and Intention.

- **Intention** and Attitude, Risk Propensity, Subjective Norm and Perceived Behavioural Control.

54 See IBM instruction at: http://www-01.ibm.com/support/docview.wss?uid=swg21474822
All the correlations are positive, implying a positive relationship between the pairs. The important point is that knowledge about the use of financial derivatives does not present any correlation with directors’ intention to use the instruments.

Knowledge and Risk Propensity widely had correlations with all other variables in the main proposed model. Partial correlation testing was used to check if there was any spurious effect caused by those two variables.

Significant correlations and partial correlations are summarised in the two tables in Appendix 6. The maximum number of correlation and partial correlation tests that each pair of variables is involved in is summarised in Table 5.12. If a relationship is significantly correlated in at least 50 per cent of the total correlations, it is supported; otherwise, it is rejected. This criterion and the analysis in this section are taken from Schlegel (2015). Schlegel (2015, 209) used two thresholds to assess if an influencing factor was significant based on the number of significant relationships among a total of 43: “If there are at least ten significant relationships between an influencing factor variable and different cost-of-capital practices, the factor is considered to be supported [...] For five to nine significant relationships, the influencing factor is considered to be partially supported”. The equivalent rate of significant relationship is 23.25 per cent (10 divided by 43). To simplify and increase the confidence of assessing hypotheses in this thesis, a single but higher threshold of 50 per cent was used following the rule of majority.

The tables show there is no significant correlation between directors’ Knowledge and their Intention to use financial derivatives (either normal or partial correlation). This supports the rejection of H6.
The second key point is that directors’ Risk Propensity and Intention is weakly correlated when uncontrolled (\(\rho = 0.292, p = 0.001\)) or controlled for one variable (\(\rho = 0.190\) to \(0.258, p = 0.005\) to \(0.039\)), almost insignificant when controlled for two variables or more, except when controlled for Subjective Norm – Perceived Control \((.186, p = .045)\). However, overall, it is still significant in six out of nine tests which lends support for H5a.

As predicted by the theory of planned behaviour, the associations between directors’ Intention with either of their Attitude, Subjective Norm or Perceived Behavioural Control were moderate and significant in all normal correlations and partial correlations.

Attitude–Intention association was positive and moderate in strength in seven out of ten significant correlations (correlation of \(0.437\) to \(0.516, p = 0.000\)). The other three correlations approached the moderate level (\(0.245\) to \(0.287, p = 0.002\) to \(0.008\)). Therefore H5b is supported.

Even stronger is the association between directors’ Subjective Norm and their Intention, which was positive and moderate in eight out of ten correlations (\(0.346\) to \(0.548, p = 0.000\)). The other two correlations were \(0.206\) (sig. \(0.027\)) and \(0.258\) (sig. \(0.005\)). All these lend support for hypothesis H5c.

Slightly weaker was the directors’ Perceived Behavioural Control and Intention correlation, positively significant and moderate for six out of ten correlations (\(0.344\) to \(0.431, \text{sig. } 0.000\)). The other four partial correlations were from \(0.202\) (sig. \(0.030\)) to \(0.246\) (sig. \(0.008\)). This outcome lends support for hypothesis H5d.
Up to this point, the core model of the theory of planned behaviour is supported: directors’ Intention to use financial derivatives is significantly correlated with their Attitude to using them, their Subjective Norm or self-perceived support from related people and their Perceived Behavioural Control over the use of them. Other pairs of associations were assessed.

Attitude and Subjective Norm were moderately correlated in all ten instances (0.424 to 0.590, sig. 0.000), hence the two variables were significantly correlated.

Similarly, Subjective Norm and Perceived Control were also significantly correlated in all ten cases, but to a weaker degree (0.284 to 0.497, sig. 0.000 to 0.002).

The situation for Attitude and Perceived Control is different. They were significantly correlated in only four cases and all were weak associations (0.191 to 0.289, sig. 0.001 to 0.038). Their association is not supported.

Directors’ Risk Propensity and their Perceived Control over the use of financial derivatives were weakly significantly correlated in the initial Spearman’s rho test (rho = 0.206, p = 0.024), then insignificant in all partial correlations. Their association is not supported.

Directors’ Risk Propensity and Subjective Norm were significantly correlated in only two cases. The association was weak: rho 0.222, sig. 0.015 when uncontrolled and partial rho 0.205, sig. 0.026 when controlled for Knowledge, and then non-significant when controlled for any of other variables. Their association is not supported.

Risk Propensity and Attitude were only weakly correlated, in three cases (0.214 to 0.261, sig. 0.004 to 0.021). Their association is not supported.
Directors’ Knowledge and Risk Propensity were positively but weakly significantly correlated in all possible 14 tests (0.183 to 0.259, sig. 0.005 to 0.49). H7a is supported.

Knowledge and Attitude were significantly correlated in six cases, although weakly (0.182 to 0.272, sig. 0.003 to 0.049). H7b is supported.

Directors’ Knowledge and Perceived Control is a special case, with all highly moderate and positive correlations (from 0.559 to 0.624, sig. 0.000) in all nine cases. This strongly supports H7d. The only negative correlation was between directors’ Knowledge and Subjective Norm. Although it was relatively weak (-0.216 to -0.338, sig. 0.000 to 0.019), it appeared in four out of eight cases. H7c is therefore supported.

All the supported and unsupported hypotheses are summarised in Table 5.12.

All the supported correlations are summarised in Figure 5.3. All the relationships between directors’ Intention to use financial derivatives and their Attitude, Subjective norms, Perceived behavioural control and personal Risk propensity were significant and positive; there were also positive correlations between attitude and subjective norms, and between subjective norms and perceived behavioural controls, consistent with the literature. Directors’ knowledge of financial derivatives had positive correlations with their risk propensity, attitude and perceived behavioural control, but negative correlation with their subjective norms. Directors’ education, experience, industries and corporate scale had influence over one or more variables of knowledge, attitude, perceived behavioural control and intention as summarised in Figure 5.2 in Section 5.3.1.6.
Table 5.12. Hypotheses, Further Correlations and Conclusions

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Total Correlations</th>
<th>Significant Correlations</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H7a: Directors’ Knowledge about the use of financial derivatives is associated with their Risk Propensity.</td>
<td>16</td>
<td>14</td>
<td>Supported</td>
</tr>
<tr>
<td>H7b: Directors’ Knowledge about the use of financial derivatives is associated with their Attitude to the instruments.</td>
<td>9</td>
<td>6</td>
<td>Supported</td>
</tr>
<tr>
<td>H7c: Directors’ Knowledge about the use of financial derivatives is associated with their Subjective Norm.</td>
<td>8</td>
<td>4</td>
<td>Supported</td>
</tr>
<tr>
<td>H7d: Directors’ Knowledge about the use of financial derivatives is associated with their Perceived Behavioural Control.</td>
<td>9</td>
<td>9</td>
<td>Supported</td>
</tr>
<tr>
<td>H6: Directors’ Knowledge about the use of financial derivatives is associated with their Intention to use the instruments.</td>
<td>8</td>
<td>0</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5a: Directors’ Risk Propensity is associated with their Intention to use the instruments</td>
<td>10</td>
<td>6</td>
<td>Supported</td>
</tr>
<tr>
<td>H5b: Directors’ Attitude to the use of financial derivatives is associated with their Intention to use the instruments.</td>
<td>10</td>
<td>10</td>
<td>Supported</td>
</tr>
<tr>
<td>H5c: Directors’ Subjective Norm is associated with their Intention to use the instruments.</td>
<td>10</td>
<td>10</td>
<td>Supported</td>
</tr>
<tr>
<td>H5d: Directors’ Perceived Behavioural Control is associated with their Intention to use the instruments.</td>
<td>10</td>
<td>10</td>
<td>Supported</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Further Correlations</th>
<th>Total Correlations</th>
<th>Significant Correlations</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors’ Risk Propensity and their Attitude to the use of financial derivatives</td>
<td>8</td>
<td>3</td>
<td>Rejected</td>
</tr>
<tr>
<td>Directors’ Risk Propensity and their Subjective Norm</td>
<td>9</td>
<td>2</td>
<td>Rejected</td>
</tr>
<tr>
<td>Directors’ Risk Propensity and their Perceived Behavioural Control</td>
<td>9</td>
<td>1</td>
<td>Rejected</td>
</tr>
<tr>
<td>Directors’ Attitude and their Subjective Norm</td>
<td>10</td>
<td>10</td>
<td>Supported</td>
</tr>
<tr>
<td>Directors’ Attitude and their Perceived Behavioural Control</td>
<td>10</td>
<td>4</td>
<td>Rejected</td>
</tr>
<tr>
<td>Directors’ Subjective Norm and their Perceived Behavioural Control</td>
<td>10</td>
<td>10</td>
<td>Supported</td>
</tr>
</tbody>
</table>

5.4. Extensive Impact of Directors’ Knowledge of Financial Derivatives

Owing to the limitations of the data, this thesis focused on null hypothesis testing rather than alternative testing. Even though the results are not causal link confirmation, they shed some light on the nature of the relationships. Directors’ understanding and knowledge of financial derivatives expresses itself as the factor that widely impacts on others in the model, with the exception of Intention to use financial derivatives.
Directors’ Knowledge is positively associated with their Risk Propensity, Attitude, and Perceived Behavioural Control. Directors who have greater understanding about using the instruments tend to be better at accepting risk, to have a more positive attitude to using financial derivatives and better self-perceived capacity to control them. Directors’ Knowledge has a negative association only with the Subjective Norm, or in other words, directors with more knowledge have less positive awareness of related people’s support of the use.

According to the two steps to assess mediation effect by Kenny, Kashy and Bolger (1998) cited by Williams, Vandenberg, and Edwards (2009, 567), there could be a causal relationship between directors’ knowledge and intention if the associations above were themselves confirmed as causal. In this thesis, owing to the limited size of the sample, such causal links have not been confirmed.
Directors’ knowledge about the use of financial derivatives is significantly affected by their education, experience, corporate industry and corporate scale. People with education in finance and banking, working experience in the sector and from companies in the financial sector consistently demonstrate superior understanding to directors from other sectors.

The master’s degree seems to be the optimum qualification for directors to gain the best understanding about using financial derivatives. Directors with a master’s degree have the best knowledge among the education groups, better than those with a vocational degree, bachelor degree, or even a doctoral degree. The result is understandable because a doctoral study specialises in a topic instead of the broader areas in a master’s degree.

Corporate scale (in terms of the number of employees) also matters. Directors from the largest companies (more than 1,000 employees) have a better understanding of financial derivatives than those from either medium size or small companies.

**5.5. Connecting Directors’ Knowledge and Attitude with Corporate Policy**

Even if directors’ knowledge about financial derivatives is not directly associated with an intention to use them, it is significantly associated with all four factors (Attitude, Subjective Norm, Perceived Behavioural Control and Risk Propensity) that correlate with Intention, as detailed above. The correlation is especially strong between directors’ Knowledge and Perceived Behavioural Control, arguably a good indicator of both intention and behaviour.

Understanding how to use financial derivatives encourages directors to be more comfortable in weighing up a good or bad outcome, to know what support to expect
from others, to determine an acceptable level of risk and to assess the degree of control they may have in using these instruments. In turn, those four factors strongly affect directors’ intentions to use financial derivatives in their businesses.

As a component of the overall corporate governance framework, risk management policy partly reflects top leaders’ propensity for risk. In addition, when having an intention, directors, as normal actors, will set up the conditions to realise the intention. At the top leadership level, the conditions are set out in corporate policies. In an indirect way, with its extensive interactions with directors’ decision making considerations, directors’ knowledge about financial derivatives is likely to influence the way corporate policies are determined.

This inference partly answers the last of the three research questions in this chapter. More answers about potential impacts and how they happen are drawn from further interviews with expert directors in the next chapter.

5.6. Conclusion

Board directors’ less-than-expected understanding of financial derivatives was clear from the survey results. However, there were differences in level of knowledge among different groups of participants. Directors with either qualification, experience and current working sector in finance consistently showed superior understanding of the instruments than those from general management, accounting and others. In addition, when combined together, directors with qualification or experience in finance and accounting had better knowledge than other directors. Similarly, their generally good attitude about the instruments, strong belief in support from related people, low confidence in their ability to control them, from being slightly risk-averse to risk-
neutral, and their strong intention to use them, were all well demonstrated by the survey results.

Further analysis demonstrates that Knowledge is significantly correlated with Risk Propensity, Subjective Norm, Attitude and Perceived Behavioural Control. In turn, these four factors are correlated with Intention to use financial derivatives. Knowledge is not directly correlated with Intention; potentially its effect is channelled through Risk Propensity, Attitude, Subjective Norm or Perceived Behavioural Control to arrive at Intention. However, consideration of even these factors has implications for corporate governance policies. The next chapter seeks explanations for these survey results from directors’ perspectives through personal interviews.
Chapter 6 Interview Results

Introduction

The survey results provide a clear picture of directors’ understanding of financial derivatives in Vietnam and the relationship between directors’ personal characteristics and their corporate features on one hand and, on the other, their knowledge, propensity to accept risk, self-perceived support from related people, self-perceived behavioural control and finally their intention to use the instruments for business purposes. Directors’ knowledge of financial derivatives is insufficient for effective decision making; they may have basic ideas about popular types of the instruments such as forwards, futures, options and swaps, but do not know the risks associated with them, the transaction procedures and purpose for using them. As expected, their knowledge is affected by their education, experience and their corporate industry background and the scale of the business. In turn, directors’ knowledge interacts with their attitude, subjective norm, perceived behavioural control and risk propensity which in concert interact with their intention. The follow-up personal one-on-one interviews with 19 directors investigated and explained the mechanisms of all these interactions in the context of Vietnam.

The following sections present findings based on themes and details from NVivo analysis.

6.1. Directors’ Understanding of the Use of Financial Derivatives: An Explanation

The survey questionnaire section on directors’ knowledge and subsequent findings showed corporate elites’ knowledge of financial derivatives. All 19 directors in the one-to-one interviews agreed with the situation as shown in Chapter 5. These
interviews added additional details about directors’ real perceptions of the instruments and the reasons underlying the situation.

6.1.1. Perceived Benefits and Risks of Using Financial Derivatives

6.1.1.1. Benefits

The interviews identified clearly that mitigating risks, creating values and trading and speculating to earn significant profits were the main benefits from using financial derivatives. In more detail, financial derivatives were perceived by the interviewees to give protection, insurance, risk mitigation and management, enabling a business to succeed more effectively in the longer term, adding value to the business and investment and increasing overall profit. Interviewees expressed their strong interest in accessing the benefits of financial derivatives.

One example of this set of benefits is in the area of commodities. Coffee businesses have participated in the forward or futures market, and as a result, Vietnam’s coffee market has followed the operations of the global coffee market with prices following the rhythm of the world market. Through the use of derivatives, many other businesses have avoided big losses in the export of textiles, and in the import of steel and cattle food when material prices have fluctuated considerably. Derivatives have provided insurance against changes in the exchange rate and commodities prices, and insurance against risks when a fund invests in corporate bonds and credit instruments. But they are not simply a method of insurance and risk mitigation; they have proved to be vital for some companies, even though a number of companies have incurred legal penalties for using financial derivatives such as Jetstar Pacific and ABN Amro Bank as detailed in Chapter 3.
Financial derivatives have helped to create value. Investing or trading in financial derivatives is much more profitable than normal business in physical assets. When repurchase orders (REPOs) were exploding in the market, many banks were involved and the earnings were outstanding. If companies miss out on using derivatives, they lose the chance to create value. Now, there is an expectation that a market for securities derivatives will open because it will increase market size and supply additional opportunities for traders to make money. This represents a new set of business possibilities in the Vietnamese economy.

6.1.1.2. Risks

What is the other side of financial derivatives? The biggest concern, raised by interviewees, is about the state’s legal environment. Following this were worries about the level of knowledge required, because these financial instruments are sophisticated. Some other secondary risks included an increased risk of potential losses, possible use of derivatives for inappropriate purposes, underlying asset risks and risks from counterparties.

At the time of data collection for this thesis (mid-2015), there had been no effective and transparent government regulations or laws on financial derivatives set up or proposed. Decree 42/2015 about securities derivatives was issued in May 2015; however, additional financial circulars providing detailed advice and guidance for users have not been issued. State-owned enterprises have been very careful and
cautious about trading financial derivatives. If any loss occurred, it would be very
damaging for those individuals who had authorised transactions using financial
derivatives, since they could be penalised under criminal law provisions. There is a
need for a legal framework to mitigate the degree of legal personal risk, and to avoid
scandals that have already occurred. The legal risks are obvious, and the ambiguity of
the current regulations on finance also exposes people to unacceptable levels of risk.

Financial derivatives are based on underlying assets, so the risks of these assets are the
risks associated with the instruments. Counterparty risks also add to this list, so an
appropriate legal framework would bring the necessary assurance for the business
community.

INT11: “It is uncertain if banks and counterparties accept the products that
companies want to use. A framework lets us know what to do.”

Financial derivatives, especially securities derivatives, are new to an emerging market
like Vietnam. The products are perceived to be “high-end”, sophisticated even for
experts in finance. They are high-tech instruments that are much more complicated
than the underlying securities. Therefore, they are not easy to use and understand and
few Vietnamese businesses and private traders are currently able to do so. Financial
derivatives are attractive primarily for investing institutions; for private investors,
participation is limited because these investors do not have an adequate level of
knowledge and capital.

INT01: “Financial derivatives are sophisticated, not simple.”

The underlying value at risk in derivatives transactions is large, even if the initial
payment is small, around 1 per cent to 2 per cent of the value of the contract. Premiums
have to be paid for financial derivatives, so the final business efficiency may not be as expected. This applies to both hedging and trading: the possible risk of losing money is considerable. Some banks have sold REPOS and then were unable to collect the money due, leading to significant losses (INT11).

Many companies have not used futures just for hedging and risk mitigation, but often for trading purposes. As a consequence, the companies have undertaken significant levels of risk and many have become bankrupt because of futures trading. Trading in financial derivatives can be from a speculative purpose, and speculation in and of itself is highly risky. When business people want to convert uncertainty into certainty, speculation is not suitable. If they considered financial derivatives to be profit-making tools, they would be taking on considerable levels of risk. Financial derivatives are only beneficial for businesses with a hedging purpose when unfavourable events occur.

6.1.2. Reasons for Directors’ Poor Understanding of Financial Derivatives Use

All 19 directors interviewed agreed with the survey results on directors’ poor knowledge of financial derivatives; they have perceptions about the basic types of financial derivatives, but they do not know how these products work.

INT11: “I agree with the survey results. For Vietnam, the result that about 50 per cent of participants have knowledge of financial derivatives is right, and the real rate is even slightly lower.”

The survey result of an average score of 2.5 for knowledge of financial derivatives may be high for directors of boards in general, but for publicly listed companies, it is appropriate because directors of these large corporations are generally considered to be more professional and knowledgeable than those in the non-listed entities. The
stratification of knowledge among participants is suitable too, and reflects that
directors know the concepts and definitions but not the operation and management of
financial derivatives. As they do not understand the operation, they find it difficult to
administer their use. More companies know about and use forwards and swaps, but
few know about interest rate financial derivatives. Many interviewees believed the
level of directorial understanding to be even lower, somewhere below 1 on a scale of
1 to 5 for all directors in general, because of the complicated nature of financial
derivatives.

According to the interviewees, the primary cause of directors’ insufficient
understanding is that they come from industries in which derivatives are not well
known or used so they do not have any effective experience with these instruments.
The second reason is that market demand for derivatives is not high in Vietnam.
Thirdly, the current legal framework and regulations do not require that directors must
have appropriate knowledge about derivatives. Fourthly, training courses on financial
derivatives are not available.

6.1.2.1. Working Experience not in Finance

In Vietnam, corporate managers and directors who have acquired some knowledge of
financial derivatives know that they are used mainly for risk mitigation, but their
knowledge of the literature is very limited. In addition, they do not have any real
experience in a financial derivatives market because no such market currently exists
in the country, except for very limited transactions in the area of banking. Most of the
directors of boards come from a range of different industries, such as property
development and construction, and have not had any experience with or studied
financial derivatives. Only those with financial expertise have any level of
understanding about derivatives; other people may have basic ideas about what these instruments are but no deeper level of understanding.

INT10: “People in banking industry may know about financial derivatives; in other industries, people don’t, and even haven’t heard of the terminology “Financial derivatives’’.”

Even directors of boards in banks and financial firms in Vietnam have usually come from other industries, so their understanding of financial derivatives can also be quite limited. For example, in securities companies, directors who are from the insurance industry (both life insurance and other insurance) have never used financial derivatives; some directors do not even know about securities, so they certainly do not know anything about financial derivatives. Companies in industries such as banking and import-export may have used the products in dealing with international suppliers, so they could have some understanding. Companies in other industries, such as real estate, manufacturing or consumer trading (home appliances, electronics, consumer goods), may well know nothing about financial derivatives. Directors may know more about the purpose of using financial derivatives than about pricing techniques; even professional finance staff still have some difficulty with pricing techniques.

A market for financial derivatives is still emerging in Vietnam (at the time of data collection), so any real experience with financial derivatives is almost impossible. Only after business people interact with financial derivatives in a real, ongoing market would an assessment of their knowledge and understanding be more substantial.
6.1.2.2. No Urgent Demand

In Vietnam, except for securities and finance companies, there is no real interest in financial derivatives for risk management, and instead business managers and directors focus on their main business of trading or manufacturing. The number of business people with knowledge about financial derivatives is very small. Even the top bank, Vietcombank, only first heard about securities derivatives in around 2007 (INT14). Although the securities industry has been established for over ten years, there are still companies that have never used financial derivatives and do not know how the market operates.

INT19: “I used to represent ownership in a pepper company; Vietnam pepper accounts for the biggest share in the world market, but the company had never thought of hedging. People just think about hedging for coffee.”

6.1.2.3. No Training and Insufficient Knowledge at the Top

There are only a few business people in Vietnam who fully understand financial derivatives. In Vietnam, formal study in financial derivatives is not available. In university finance and business courses, financial derivatives have been included in some subjects such as risk management for about four years. Only people passing Chartered Financial Analyst courses and those educated in overseas countries have a better level of knowledge. The top state administration agencies such as State Securities Commission (SSC) have not acquired comprehensive knowledge and awareness about financial derivatives, so they are wary about the use of these instruments, and are only slowly preparing a legal framework to manage these instruments. In summary, financial derivatives are new to Vietnam, and there is an
urgent need for state policies and macro-economic policies to keep pace with international standards.

INT01: “Staff of financial companies have joined some training courses by SSC, but their knowledge has not been improved much, because the training content was too concise, and SSC themselves have not deeply understood the financial derivatives yet.”

6.2. Influence of Directors’ Knowledge on Attitude and Other Variables

6.2.1. Positive Attitude

What drives directors to have a positive attitude about using financial derivatives? The biggest drive is a demand for changes in the market and the second is the benefits directors perceive in the use of such instruments.

Similar to interviewees’ comments about directors’ knowledge, all agreed with the survey results on attitude. Their comments were consistent with the survey answers, and generally interviewees had a positive feeling about the instruments. The interviewees repeatedly pointed out the benefits of financial derivatives as the reason for their support.


6.2.1.1. Benefits

Many business people want to use financial derivatives, even those who do not understand the finance sector. Financial derivatives are perceived to be necessary for
mitigating and diverting risks in corporate operations. When financial and accounting staff explain why companies should use the instruments, most directors agree, because companies understand the need to mitigate risk in order to be profitable and derivatives are effective tools. In Vietnam, there have been simple securities derivatives, such as note, bill and bond REPOs. Using such derivatives has enabled business people to recognise the added value, so there is an underlying demand for a well-developed financial derivatives market.

INT19: “The macro-economic context makes people need protection, and financial derivatives mean protection. It is beneficial for both markets and state administration to develop a financial derivatives market. When people don’t know all aspects of financial derivatives, they think that financial derivatives are new, and hear from somewhere that financial derivatives are good for companies, provide protection for companies. All is because of their incomplete knowledge.”

6.2.1.2. Demand for Changes in the Market

There is a positive trend of business people wanting effective change; they want to discover new products and trends. When there are novel products that are suitable for a developed market, there will be interest in using such products. When there is such interest in new products, that positive attitude is good for overall market development. Financial derivatives are just such products.

INT11: “We need innovation. People are expecting new trends that may relate to securities financial derivatives, the trends are expected to promote companies’ development.”
In addition, a positive attitude amongst directors is affected by others via the crowd psychology mechanism.

6.2.2. Strong Intention

The survey results on intention to use financial derivatives were supported by the interviewees such as INT13 below. In areas such as interest rates, exchange rates and securities, business people expect to be allowed to use these instruments. They know that financial derivatives may be a new business approach or a legitimate method for mitigating risks. Those with experience in using simple securities derivatives, such as note, bill or bond REPOS, have had first-hand experience of their added value, and this has increased their intention to use financial derivatives when a well-developed market is available.

INT13: “People usually agree with an [intention] score around 3.5 as your survey showed.”

However, interviewees also pointed out that strong intention is just the result of respondents’ feelings or intuition. The responses do not reflect a real prediction of action because there is a significant time lag from intention to final action.

One interviewee pointed out that the uniformly strong intention among the respondents is not necessarily good for market development. The current underlying asset market in Vietnam is still small, and crowd psychology is prevalent. In order to develop a financial derivatives market, there must be a developed underlying asset market with various products and information flows based on which people form their different observations, opinions and predictions then want to earn or protect in different ways. Such variety creates demand and supply sides to form a market (INT19).
6.2.3. Risk Propensity

The interviewees agreed with the survey results about directors’ risk propensity that the medium level outcome for risk propensity accurately reflects directors’ low level of knowledge, and confusion.

INT11: “Without information on the nature of the instruments, they cannot make a decision on whether using the instrument is right or wrong, so they just take the mid-point [on the risk propensity scale].”

When business people do not clearly understand financial derivatives, they face enhanced risks in making decisions and will be hesitant in the decision making process. There is a need for further education and training in order to resolve this lack of understanding.

There is a difference between the risk propensity of institutional investors and that of other individuals. In Vietnam, the number of institutional investors and professional investors, such as funds or investment companies, is small. These professional and institutional investors are those who have a more advanced knowledge of inherent risks. They are more interested in active risk management and have well-specified risk propensity. On the other hand, other investors or directors do not have any enhanced inclination for risk, or know what level would be acceptable. So, they just chose the mid-point when answering the survey.

Interviewees also pointed out the difference between directors in the private sector and those in state-owned enterprises. In partly or wholly state-owned businesses, directors have a very low level of risk propensity. Directors in the private sector have a much higher risk propensity. This phenomenon derives from the difference in risk propensity
between those people with their own ownership and those who are representatives. Representatives must follow directions from their principals or the owners and act in accordance with their authority (how much money they are allowed to manage; how much profit they have to acquire), and on that basis they specify their risk preferences. General speaking, risk preference means how much money one person is ready to lose. If the money is in the decision makers’ ownership, and they manage it every day, they can quickly decide risk preference. This is not the case when they assign the money to another person; for example, if they are willing to lose 50 per cent of the money, they will tell the authorised person that they are ready to lose a much lower percentage, of 30 per cent or 20 per cent. In other words, authorised representatives are always more conservative than actual owners.

6.2.4. Limited Supply of Capable Human Resources for Financial Derivatives Market

Respondents to the survey strongly believed that they could find capable staff to help them with financial derivatives transactions. However, directors who were interviewed, such as INT11 below, did not agree; they recognised that there was a limited supply of such capable staff.

People can find staff who are able to complete transactions in basic financial derivatives in an import-export business, however, in Vietnam there are very few people who can participate fully in a financial derivatives market. Even state administrations do not have enough qualified staff and as a result struggle to issue effective policies and guidelines in this area. The survey respondents appeared to focus only on simple products such as REPOs and forwards. It is easier to find staff to handle these types of transactions, but not to handle more complicated products.
INT11: “People in your survey thought that they could find capable staff, maybe because they just thought about simple derivatives, not complicated ones, real ones. I know that on international markets, financial derivatives are very complicated, so it is not easy to find people to do that job in Vietnam.”

The supply of capable staff is limited due to business education and the gap between learning and experience. Financial derivatives have only recently been included in economics, finance and business courses in the last few years in Vietnam. Even staff who have graduated from overseas universities need time to garner experience from real-life practice and cannot do their jobs effectively immediately after being recruited. Most staff enrich their knowledge through experience and their own practice; official training from entities such as the SSC plays a minor role. To sum up, training and working experience are the two factors determining capable staff in the area of financial derivatives.

6.3. Gaps and Risks

As detailed in Chapter 5, there are gaps in directors’ knowledge, attitude to using financial derivatives and intention to use them. The risks caused by these gaps are real but the potential impact is not immediate because directors’ intentions are not yet actions. Among the interviewees, a number worried about these risks while others did not.

6.3.1. Reasons for Worry about the Gaps

When decision makers know very little about these instruments, how can they use them? The risk is that financial derivatives may be mismanaged and businesses may be left with considerable costs and losses. According to the interviewees, the gaps
between low levels of knowledge, positive attitude and strong intention to use financial derivatives mean that companies will be exposed to greater risks, which could take a company in entirely the wrong direction. When business people do not have good knowledge, they risk either missing opportunities or underestimating threats. For example, they may wrongly approve proposals for over-risky transactions by subordinates. On the other hand, they may disallow otherwise sound proposals (INT16).

At the time of the interviews, there was no comprehensive legal framework for financial derivatives. A framework issued by the SSC is needed to make clear what financial derivatives are and what the range of products are, so that appropriate transactions can be made in the markets. Another need is to train a range of business people; banks and financial institutions should commit to follow Basel III (a global, voluntary regulatory framework on bank capital adequacy, stress testing and market liquidity risk), and should set appropriate safety limits.

6.3.2. Reasons not to Worry about the Gaps

There is a gap between positive attitude and intention to actual practice. When business people want to use financial derivatives without the appropriate level of knowledge, they will either try to educate themselves at that point or use qualified consultants and experts. The securities market in Vietnam is still in early development, where participants’ understanding about financial derivatives is relatively limited, so there is a need to take a gradual approach to these new financial products. Throughout this early phase, companies and their staff learn and understand more; such a developmental pathway is necessary to fill the gap that exists between knowledge, intention and practice, to minimise risks for companies and other participants.
INT05: “Even though I am in a securities company, I can’t say that I have comprehensive and deep knowledge of financial derivatives, my knowledge is limited. Knowledge can be acquired later.”

In reality, when there is interest in using a specific product such as swaps or futures, serious consideration will be given by decision makers as to whether to participate and at what scale. They are expected to be cautious before using these new products. They are likely to take incremental steps, from simple to more complicated ones; and are less likely to rush into the market even if there are initial high levels of interest. This interest is likely to be matched against the set of steps that will be taken by the government to open up a financial derivatives market.

INT16: “The people with an interest in the market will firstly act as observers to see what institutional and professional investors do and what the efficiency is. Then, if they are persuaded, they will participate.”

The survey results reflected directors’ perceived intention, not their final or actual decision to use financial derivatives. Before such a decision is made, they would go through a careful research process before committing to such an undertaking. Since there is significant time lag between intention in principle and the actual use of financial derivatives, a number of interviewees felt there is no apparent risk emerging from such a gap.

6.4. Business Culture

Business culture emerged from the interviewees as a key theme affecting corporate risk policy in general, and policy on financial derivatives in particular. Among the components of business culture, the personal feelings and intuition of owners or
founders is the most influential factor. This influence is present in specific aspects, including implied but not documented ideas, leaders’ decisive position in decision making, the lower level of care about preserving funds or mitigating losses, their concentration on the drive for additional profits, and an underlying distrust of the actions of employees.

6.4.1. Low Levels of Trust in Employees

Financial derivatives transactions are a highly professional field of endeavour, so even when directors have the requisite level of understanding, they must still rely on members of staff to process such transactions. A major barrier here is a custom of not easily trusting other people in the business environment. In Vietnam, there have been no underlying customs or prevailing workplace practices in employment and internal control. When entrepreneurs want to invest money in a business they are more likely to want to manage the business themselves. They worry about losing their investments if subordinate staff are given decision making responsibility.

The owners are also inhibited by current laws when appointing executive management. In Vietnam, when a CEO is appointed, an issue arises as to who will be the legal representative of the company. If the newly employed CEO is the key legal representative, who has real authority in law to make corporate transactions valid, then the board of directors would have little effective authority. If the chair of a board is the legal representative, then the chair needs to authorise the CEO to undertake some actions to make the actions lawful. Therefore, the prevailing attitude in Vietnam is that entrepreneurs and investors are reluctant to hand control of money to others; they would rather manage a business themselves.
“If you hire someone to be the manager as well as legal representative while you have not had any control mechanism, you will worry that the manager will make decisions exceeding their authority.”

Another concern is that the internal control system in Vietnam is not well established and not legislated effectively. Even where there are accounting regulations, the chief accountant is under the control of CEO, and is not independent. Especially in small and medium-sized companies, there is little concern about the lack of such internal controls.

There is a well-known traditional saying in Vietnam: “Before you get compensated, you have suffered a great deal”. Therefore, the common practice is for a chair to have worked previously as a CEO. There is a cultural preference for senior executives to exercise all the power and authority in a business. At the operational level, the top leaders often participate in all daily decision making activities instead of concentrating primarily on planning and forming strategy. Thus, if for some reason they cannot work, the company operations halt; lower level staff members do not know what to do without specific instructions. Managing a business in that way over a long period means that when the business owner or leader retires or dies, the transition to the next generation of decision makers can be very difficult (INT10).

Founders often believe that the ‘successful’ company is primarily the result of their own ‘blood, sweat and hard work’; they do not want to lose control, and so there is a significant struggle in arranging to transfer the management of the company to the next generation.
6.4.2. Low Care about Avoiding Losses, Focusing on Making Money

Companies in Vietnam often do not have an appropriate risk management culture and have not yet specified their risk propensity. They have not made risk management an important issue and instead focus primarily on trading to generate profits.

In the initial period of a company’s life, the owners simply focus on moving it forward, and making as much money as they can; they are not concerned about protecting the money earned, so risk management is not considered to be important. Companies who survive their initial growth period then transition into a second phase in which they plan to make their company bigger; they need more capital, more security, and then they start thinking about risk management (INT14). The firm’s stage in its life cycle plays a part in its corporate risk managing policy.

INT14: “In the past, many business owners started their business from zero, and when they saw an opportunity, they got it and formed a company... For such companies, they don’t care about risk management”.

6.5. The Government’s Role in Establishing a Financial Derivatives Market

Another topic that emerged during the interviews was the role of the government in forming and organising a financial derivatives market. Interviewees often referred to cases of corporate scandal that resulted in a demand for an enhanced role for government.

There have been three well-known scandals related to financial derivatives in Vietnam involving Jetstar Pacific airline, ABN Amro bank and the coffee industry. In the first two cases, the government intervened, resulting in a business transaction being
classified as a criminal action. In the third case, the government was blamed for not providing effective direction and guidance to market participants.

Business people expect the government to establish an appropriate legal framework, regulations and requirements for exchanges and the financial markets in general. Other specific expectations include the need to develop intermediaries, ensure transparency and compliance, and supply human and other resources as well as undertaking timely regulatory action.

6.5.1. Setting up a Legal Framework

There is an implicit expectation that the government should set up a legal framework for financial derivatives that covers accounting regulations, underlying markets and ethics.

INT11: “We need play rules. We need to have a framework from the SSC, to make it clear what financial derivatives are, what the products are, then people can exchange the products in the markets.”

The first element that such a framework needs is to recognise that financial derivatives are part of the normal modern business cycle, and companies and investors have the right to lose or make money using these instruments. No criminal laws should be applied as long as transactions are undertaken ethically and with a duty of care. Accounting regulations should treat financial derivatives as separate accounts in balance sheets, instead of considering them simply to be types of collectibles and receivables in Vietnamese companies.

A framework would promote the formation of intermediaries for financial derivatives such as brokerages, clearing-house and consultants. Such third parties supply
appropriate assurance for both business and individual market participants. A framework also reduces potential participants’ concerns about judicial threats. Once financial derivatives are perceived to be normal business, business people will exploit their underlying advantages.

INT19: “Direct trading without a legal framework, without a third party, is very hard and unattractive to companies.”

Ethical requirements for financial derivatives staff in processing these transactions should be covered in the legal framework. These requirements need to be as tight and strict as in the securities sector. Both government agencies (Ministry of Finance and the State Securities Commission) and private firms should collaborate in setting and enforcing the ethics requirements via regulations and reward systems.

6.5.2. Developing Underlying Markets

The underlying markets are markets for commodities or financial products, based on which financial derivatives are engineered. Markets include coffee, interest rates, foreign exchange rates, corporate stocks, corporate bonds and treasury bonds. When such markets are well developed, participants’ demand will move to the next level in which financial derivatives are considered new products either for protecting their assets or gaining profit.

Interviewees predicted that the government will be careful in opening the market for financial derivatives in step with developing the underlying markets. If all these markets were opened at the same time, neither the government, firms or traders would be able to control the resulting range of risks. Careful evolutionary steps by the government would be helpful for firms in allowing them to prepare and use necessary
resources.

INT16: “Financial derivatives require tight and synchronised state administration on software, human resources, knowledge as well as the financial capability of participants. Therefore, financial derivatives market development should be step-by-step, from infrastructure to financial capabilities, to limit risks.”

6.5.3. Disseminating Knowledge and Training

Directors expect the government to assume an active role in the dissemination of knowledge about, and training in, financial derivatives. When an issue is raised by a government agency, this does attract public attention. Frequently, market participants are concerned that any difference between their perception and understanding and that of the government could lead to trouble and legal sanctions.

INT03: “People have not understood financial derivatives, so they have different interpretations. The government should play a role in widely spreading knowledge of financial derivatives, and introduce them into markets. Financial derivatives should be taught in schools.”

Government actions are important signals for the foundation of a financial derivatives market in Vietnam.

INT11: “I agree that in Vietnam the government is the market founder.”

Regulators’ understanding about financial derivatives determines their judgement about the legitimacy of a business activity, as was ably demonstrated in the case of Jetstar Pacific airline detailed in Chapter 3.
Directors often stated during the interviews that the government was the key player in all critical events involved with financial derivatives market developments.


6.6.1. Suppliers and Products

Interviewees agreed that the initial use of financial derivatives can be traced back to the 1990s in Ho Chi Minh City through an over-the-counter market. The official market for financial derivatives in Vietnam started in 2005, when Techcombank commenced offering coffee futures, in cooperation with a Singapore company. Following banks in the market were BIDV (coffee futures), Eximbank (2008, Forex swaps), and Maritime Bank (2011, Forex options). All the banks acted as agents for foreign exchanges.

INT06: “Before banks supplied commodities derivatives, companies in the coffee industry in Dak Lak and Hochiminh City had used the products via intermediaries who are agents of international exchanges. When local banks started financial derivatives business, they acted as agents for the international exchanges.”

INT04: “Futures trade was started in Vietnam in 2005 by Techcombank through a broker in Singapore.”

In the following years, additional banks participated in the market. Some of the banks specialised in commodities derivatives (Techcombank, BIDV), and most participated in exchange rate and interest rate derivatives as another element of banking business. There are two commodities exchanges (one is located in Ho Chi Minh City and the other in Buon Ma Thuot), but they are not very active. Foreign banks are more active
in providing financial derivatives including CitiBank, HSBC, ANZ and Standard Charter. Foreign banks are suppliers for multinational corporations and foreign direct investment companies; local banks are suppliers for local companies.

INT19: “The difficulties for foreign banks are that they just trade financial derivatives based on USD and there is no legal framework. It is risky to trade financial derivatives case by case, banks need to get the permit from the Central Bank, and it is very hard to do so.”

The most popular derivatives products are futures and swaps; options have limited use. The current products are for commodities such as coffee, rubber, fuel, metal, oil and cotton. By its nature, the current over-the-counter market is small, fragmented and not transparent.

Because financial derivatives are not popular and banks are the main suppliers, banks are the main access point or source of recommendations for businesses. Usually, when businesses negotiate credit contracts with banks, the banks will recommend ways to earn the best interest rates. One method is to combine a credit contract with a financial derivatives contract to get a more favourable interest rate. Without bank suggestions, businesses (with the exception of financial firms) have not been proactive in discovering and using financial derivatives; so banks are producers, marketers and retailers. Here the banks act as a crucial catalyst for the financial derivatives market formation and operation.

INT03: “The transaction was the first financial derivatives transaction of Sumitomo Mitsui Banking Corporation (SMBC) in Vietnam. We did not get much benefit from the financial derivatives contract, but as compensation we got a
better offer on the credit contract (better interest rate) and got real experience with financial derivatives”.

6.6.2. Users and Purposes for Using Financial Derivatives

Financial derivatives users in Vietnam are mainly two groups: export/import companies and companies who need to borrow in foreign currencies.

6.6.2.1. Export/Import Businesses

Those companies that make payments to their foreign counterparts in foreign currencies need protection against exchange rate fluctuations. Exports and imports are a crucial part of the Vietnamese economy, and almost all sectors have export and import activities including agriculture, manufacturing, textiles, mining, forestry, aquaculture and food processing. Traditionally, export/import companies just buy or sell spot foreign currencies. Only a few know about and have the expertise to use foreign exchange derivatives as an insurance or protection measure.

6.6.2.2. Companies with Borrowing Requirements

The dong, the local currency in Vietnam, is not a major currency. Its value and the interest rate applied to borrowing and lending activities are high and have fluctuated considerably over time, while the interest rate on the US dollar is generally much lower and more stable. Companies prefer to use borrowing rates at the lowest level possible. Interest rate derivatives are one way to convert the Vietnamese dong borrowing rate into the US dollar interest rate.

INT07: “Major financial derivatives users are companies in import/export; they use financial derivatives in foreign exchange (FX). Other companies
In the area of interest rate and currency derivatives, the main driver for businesses is the protection of assets, or hedging. Companies want to change the interest rate from floating to fixed, for a future buy or sell. Similarly, they want to switch the amount paid or received from one currency to another. All such transactions are based on their current open positions in physical contracts.

The situation is different for commodity derivatives. Coffee futures are one of the most popular commodity derivatives in Vietnam. Coffee importers and exporters have used derivatives extensively, particularly in the period from 2005 to 2009. However, coffee futures have been used mainly for trading and not for hedging purposes. In theory, large companies with a high volume of transactions should be more active in the futures market. However, in Vietnam, the reverse applies; small companies are very active market participants. While such companies buy futures in large quantities they do not own or control the underlying commodities contracts or stock, and the primary driver for such transactions is speculation. The majority of the large companies in Vietnam are state-owned enterprises, which are deterred by the current policy framework from using such derivatives.

INT09: “There is a fact that the most active participants in the financial derivatives market are small companies. When small companies are very active in financial derivatives that means they are trading, not hedging. It should be that big companies are more active than small ones. But you know most of big
companies in Vietnam are state-owned enterprises who hesitate to use financial derivatives”.

INT12: “The main barrier is that in state-owned enterprises, decision making takes a long time. So, it is hard to make timely decisions. Decision makers don’t have enough authority; they also depend on others.”

6.6.3. Market Development Predictions

Interviewees expressed caution when talking about the future of the financial derivatives market in Vietnam. This level of caution and hesitation originated from their direct experiences. Ten years before the interviews, they had experienced a growing interest in financial derivatives, especially in coffee products, however, the market failed to develop because an appropriate legal framework did not exist. The legal framework has developed a little more from that earlier experience, but generally, the framework still does not meet the requirements for a developed financial derivatives market.

The interviewees also experienced the formation, re-formation and then a stagnation of the two commodities markets: the coffee market in Buon Ma Thuot and the general commodities market in Ho Chi Minh City. The two markets failed to attract participants for a number of reasons including no flexibility in connecting storage policy and credit support policy and no commodity grading policy that harmonised farmers’ preference for easy to understand transactions with the strict requirements of international exchanges.

INT09: “There are some commodity exchanges in Vietnam, but none of them is active. The coffee exchange in Buon Ma Thuot is almost dead... To trade on the
The interviewees argued that the fundamental impediments to the development of a functional financial derivatives market in the country were the absence of a legal framework by the government, the prevailing business culture and companies’ risk management policy. The most optimistic forecast for a market to form in the current context of Vietnam is five years, and a more pessimistic forecast is ten years. A common belief is that the market in Vietnam will be opened up step-by-step to reflect the caution and careful consideration by the government.

INT02: “I think we need 2 years to establish the foundation, when the foundation is strong enough, we need 3 years to create a habit of transactions. Then we may have a market after 5 years.”

INT09: “The prerequisite for the formation of a financial derivatives market is...a legal framework at the external bound, and compliance framework for internal bound. That’s what we need to develop a financial derivatives market in the next 5 to 10 years.”

6.6.4. Reasons for not Using Financial Derivatives

In explaining why companies do not use financial derivatives, interviewees specified three main reasons: the scale of businesses, the nature of the business cycle and the price of derivatives offered by the banks.
6.6.4.1. Scale of Business

For hedging purposes, derivative contracts need to correspond to physical business contracts. For example, a standard contract size is 37,500 lbs for coffee, 100 troy ounces for gold (CMX), 1,000 barrels for crude oil (NYM), 500xIndex value for CME S&P500 index, US$100,000 for CBOT 10-year Treasury note or 30-year Treasury bonds, 12,500,000 yen for a Japanese yen contract, and 125,000 euros for a CME euro currency contract (Kline 2001). Recently, the Ministry of Finance introduced a government bond derivatives contract with a standard value of one billion Vietnam dong (equivalent to about US$45,000) and two securities index contracts of 500,000VNDxVN30-Index and 1,000,000VNDxHNX30-Index (Saigon Securities Inc 2017). When a business does not meet the scale of one or more contracts, the business cannot use the derivatives, and they do not expect to.

INT03: “For the last few years our business scale is not big enough so we just do some research and have not actually used commodity financial derivatives.”

6.6.4.2. Offering Prices Too High

The interviewees perceived that they were being required to pay a premium for derivative products. The initial prices set by banks were perceived to be too high by a number of directors, and this acts as a significant impediment for companies that might be wanting to enter such contracts. They do not want to pay what they perceived to be a high price for a benefit they may or may not receive.

INT15: “Why we don’t use financial derivatives? In fact there are some suppliers offering us financial derivatives, but they offer too high prices. That’s why we are not interested.”
6.6.4.3. Nature of Business Cycles

Interviewees considered that financial derivatives were suitable for long-term management purposes. Hence, if the business cycle they experienced in their companies is less than a year, they suggested that such instruments should not be used. In other words, businesses do not use derivatives because their business cycle does not match the derivatives’ timeframe.

INT18: “Why we can’t use futures contracts? Our business and trading is mainly short-term, a cycle is about 3 months. You know futures contracts operate in a different way, so they are not suitable for us. Futures are more suitable for manufacturers to stabilise prices for a year or more.”

The three next sections are about the three most popular types of financial derivatives products in Vietnam: coffee futures, currency and interest rate derivatives, and securities derivatives.

6.6.5. The Most Popular Types of Financial Derivatives in Vietnam

6.6.5.1. Coffee Futures

Coffee futures were one of the most dominant, early types of financial derivatives in Vietnam. The first use of these was in the 1990s, and the first official derivatives market in Vietnam for coffee futures was in 2005. In this market, participants are both businesses and individual traders. They use LIFFE (The London International Financial Futures and Options Exchange) coffee futures price as the base for actual price calculations through the “minus or plus” method. It is normal for businesses and traders to buy and stock coffee combined with buying futures to fix the buying price, and then wait for a favourable futures price to finalise the selling price. Troubles arose
when traders, instead of holding the futures that they had bought to fix the purchasing price, cleared them when markets became favourable for making gains. Without futures protection, their purchasing prices were then exposed to market risks. They had to follow the market to get enough coffee as the delivery dates approached, and often the market went against them. The gains they had earned from trading the futures could not compensate for the losses incurred in having to purchase subsequent coffee supplies. Hence, traders often incurred significant losses and a number became bankrupt.

INT14: “In the coffee industry the participants did not suffer loss in trading coffee with growers, but they suffered when they traded financial derivatives.”

The crucial action leading to these losses was that businesses and traders had switched the underlying purpose of using coffee futures from hedging to speculation.

6.6.5.2. Currency and Interest Rate Financial Derivatives

Financial derivatives in currencies and interest rates are the most popular and widely used derivatives in Vietnam. These products include IRS (interest rate swaps) and CCS (cross currency swaps), forward interest rate contracts and forward exchange rate contracts.

The State Bank of Vietnam has issued circulars on interest rates and the exchange rate for foreign banks and for local banks (INT06). The regulations are very strict, in order to ensure that only hedging transactions are allowed. To use financial derivatives products, businesses must have current risk-bearing contracts with banks. Even though the banks allow options as one of the derivatives, options transactions are almost entirely absent because of the complicated approval process required by the State Bank.
6.6.5.3. Securities Derivatives

In 2014, an official market for derivatives on stocks and treasury bonds was expected to be initiated in 2016. However, the deadline was missed, and the current plan is to have a market for treasury bonds in the third quarter of 2017 (Ủy ban chứng khoán nhà nước 2017). This will be managed by the two current stock exchanges, Hanoi and Ho Chi Minh City. However, other primary forms of securities derivatives have been used in Vietnam for some time. The stock REPO is the most popular; another one is the employee stock ownership plan (ESOP). The REPO was first used in Vietnam at the start of the securities market (in 2000) when there were assets such as stocks and all valued documents could be used as REPOS to acquire money for other investments (INT11). Currently, the Central Bank bans the use of REPO because of previous use as part of risk-taking activities in banks that were far from their initial purpose.

When the official market was opened in August 2017 (Ủy ban chứng khoán nhà nước 2017), this has been the first time that the government will have established a market with both trading participants and hedging participants in Vietnam.

INT09: “Securities financial derivatives are mainly targeted at individual traders. For those traders, they do all transactions with their pocket money and just risk their own assets. It is different for companies in which some people make decisions but the risks are faced by the companies, not the decision makers.”

6.7. Expected and Emerging Themes

Among the six themes covered above, the first three were expected to be developed from the initial 14 planned nodes which correspond to the variables and relationships posited in the quantitative outcome model in Chapter 5. The initial nodes were
directors’ knowledge, attitude, risk propensity, intention, education and knowledge, knowledge and attitude. These nodes were the focus at the start of each interview and they have been combined into the three themes of directors’ understanding of financial derivatives, the influence of their understanding on directors’ features (attitude, subjective norm, risk propensity, perceived behavioural control) in the model, and the relationship between gaps, risks and corporate policy in the directors’ perceptions.

As interviews progressed, directors spoke a lot about new issues that emerged in their concerns about the financial derivatives market in Vietnam, in which key players were identified, and the importance of the government’s roles and business culture were also identified as important elements. From these new nodes that emerged during the interviews, the three themes of business culture, the government’s role in setting up a financial derivatives market and the market for these instruments emerged as additional findings and themes. In addition, interviewees suggested ways to improve directors’ knowledge about financial derivatives and the urgency about the need for corporate risk policy with specific content. These recommendations are analysed and discussed further in Chapter 7.

6.8. Conclusion

Following the survey, face-to-face interviews were held with 19 of the respondents to explore in greater detail the outcomes from the survey results. Interviewees uniformly agreed with the results from the survey, especially on reasons for the directors’ insufficient knowledge, positive attitude, risk neutrality and strong intention. The only mismatch was that the interviewees believed and assessed that the real level of directors’ understanding might be even lower than the 2.5 on a five-point Likert scale that emerged from the survey.
Three additional topics emerging from the interviews were business culture, the
government role and the market for financial derivatives. The additional issues of the
business culture having no satisfactory targets, implied but not documented thoughts
of owners, low attention to preserving wealth, focus on making money, and distrust of
employees have all hindered directors and owners from establishing a clear corporate
risk management policy and framework. As identified by directors, and in the
information about suppliers and users, the government’s major role is most evident in
subsections of the three most popular types of financial derivatives, specific market
developments and especially corporate scandals. The directors interviewed concluded
with a call for the government to set up a legal framework for financial derivatives, to
develop the underlying markets and to take part in disseminating knowledge and
training, especially for directors. The findings in this chapter are integrated with the
survey results in Chapter 5 for a deeper analysis presented in the next chapter.
Chapter 7 Analysis of Results

Introduction

This chapter draws on all the preceding chapters to analyse and answer the research questions. The issues are discussed from the two methodologies – the survey and the semi-structured interviews – in the context of Vietnam as described in Chapter 3 and the theoretical lenses identified in Chapters 2 and 4. The first section connects and discusses the findings on the research questions, followed by the directors’ range of recommendations to improve their knowledge of financial derivatives and the corporate risk management policies that they proposed to deal with the risks resulting from their lack of knowledge. The chapter then focuses on the resulting implications for the theories used in this thesis, government authorities, corporate boards, individual directors and training organisations.

7.1. Combination of Qualitative and Quantitative Elements to Address Research Questions

Three main and two sub-research questions have been addressed and analysed through a combination of quantitative and qualitative studies as summarised in Figure 7.1. The first two questions, 1 and 2, have been answered by the quantitative inquiry, with three major findings of directors’ low knowledge and status of their personal attributes, differences of knowledge levels among director groups, and their relationship between the attributes, and a part of the qualitative inquiry further investigating directors’ understanding and their self-explanation of the survey results. Responses to the two sub-questions of 2a and 2b and question 3 came from the interviews that unearthed the
connection between gaps, risk and corporate policies, the market of financial
derivatives in Vietnam and the government’s role in the market.

Figure 7.1. Coordination of Quantitative and Qualitative Methods in Answering the Research Questions

7.1.1. Directors’ Understanding of Using Financial Derivatives

7.1.1.1. Current Status

In the context of markets for financial derivatives that are emerging but do not officially exist in Vietnam, measuring directors’ understanding of financial instruments is a difficult task.
Directors have a poor level of knowledge of financial derivatives in general as evident from both the survey, and agreed in the follow-up interviews. This result is consistent with the situation in other developed economies, as evident in the literature (Ingley and Van der Walt 2001, Schwimmer 1994), and adds further confirmation of a transnational phenomenon: that board directors’ knowledge of financial derivatives is low. The issue was raised even before the Barings scandal in 1995; however, more than twenty years later, this deficiency still exists.

Directors’ knowledge of financial derivatives is associated with a combination of factors: their education (level and major area of study), working experience, corporate industry and corporate scale in terms of the number of employees. Directors with a master’s degree have better knowledge than those with a bachelor degree. Those with a major or experience in finance consistently show a more advanced understanding about financial derivatives than directors in general management, accounting, or other subjects. When combined together, directors with either qualification or working experience in finance and accounting have a better level of knowledge than other directors (see Appendix 13 for a summary of mean knowledge scores across groups).

These results (clearly identified in Chapter 5) agree with the interviewees’ judgement that actual practice and experience is the best way to improve knowledge about financial products. Remarkably, directors’ age and gender have no connection with their levels of understanding. The deeper level of diversity of board director background (functional, industrial and educational) (Torchia, Calabrò, and Morner 2015) matters, rather than superficial appearances.
The combination of multiple methods in one research project is known as triangulation, which is an alternative to validation, as reviewed in Chapter 4. This thesis uses both quantitative and qualitative methods to achieve that goal. The majority of interviewees agreed that directors’ understanding about financial derivatives was low, and that this outcome varied depending on specific issues and groups of directors.

The interviewees, who were all directors with financial expertise, initially talked more about the benefits of financial derivatives, but finally, when a list of benefits and risks emerged, risks were mentioned more frequently. The results demonstrated that when people have a higher level of understanding about financial derivatives, they have a more balanced and cautious view of financial instruments. This outcome was different from the general survey results in which participants displayed a highly positive attitude towards such instruments. What is the reason for this difference? Survey participants were a mix of directors with different levels of education and experience, and from different sectors and companies, while the interviewees were all experts in finance (whether they worked in the finance sector or not) and were more confident in their knowledge about financial derivatives. With the relevant education and experience, these interviewees were more aware about derivatives in detail, and understood better the range of risks and benefits. Their viewpoints about the balance between risks and benefits in using financial derivatives matches the literature reviewed in Chapter 2.

The biggest concern raised related to the state legal environment. The next level of concern related to insufficient knowledge because these instruments are complicated and sophisticated. Additional risks identified were the potential for large losses, inappropriate purposes for the use of such instruments, underlying asset risks and counterparty risks.
The interviews revealed the reasons for directors’ insufficient understanding of financial derivatives, which are discussed below.

7.1.1.2. Reasons for Directors’ Insufficient Understanding of Financial Derivatives

Weak Market Forces

Businesses rarely use derivatives in an active manner. Financial derivatives are mainly recommended by banks to their clients, and are most suitable for larger companies, especially when considering hedging opportunities. However, the banks and large (and usually state-owned) companies are restricted by laws in selling and using such instruments. Weak market forces mean that the level of demand for such instruments is not urgent; hence directors do not have a motive to learn about financial derivatives.

Lack of Legal Framework

Business people in Vietnam are cautious when talking about financial derivatives, partly because they have seen significant and alarming scandals described in Chapter 3: the cases of ABN Amro bank vs. Incombank (now Vietinbank) and Jetstar Pacific airline. Senior staff or executives in these either partially or wholly state-owned enterprises were prosecuted under criminal law when they had entered financial derivatives transactions and had incurred subsequent significant losses. They were accused of “irresponsibility leading to loss of state capital” (Hà Nhân 2010, V.C 2006). As a result, directors feel exposed in a legal framework that does not protect their business transaction rights, and in which an ordinary business occurrence (during which losses have occurred) is treated as a criminal action.

The absence or ineffectiveness of external institutions can strain the ability of boards to direct and control firms (Chakrabarty and Bass 2014). In the Jetstar case, the lack of
a framework on financial derivatives in the then legal system in Vietnam was a major contribution to the difficulties encountered. If the instruments had been considered normal business, there would have been no accusations, no arrests, and no harm to the reputation of the company.

**Nature of the Business**

When asked about reasons for not using financial derivatives, the directors interviewed pointed out that the scale of business and the business cycle were the main barriers. The large volume of standard contracts may not suit small scale companies in Vietnam. They are not allowed to use derivatives freely, hence are not interested in their use. When companies have not reached a certain threshold of scale, boards of directors do not deliberate about risk management, or the use of financial derivatives.

**Lack of Training**

Directors realised that education about financial derivatives is absent from curricula in economics, finance, accounting, management or business courses in Vietnam. Even the top government body, the State Securities Commission, has demonstrated a distinct lack of knowledge. Hence, the training the SSC supplies to securities companies is too minimal and not informative enough. The most practical form of training, actual market experience, is not available in some sectors in Vietnam. Several directors agreed that being part of the market would be the best kind of training.

**Unrelated Experience**

Another explanation for the low level of knowledge is that a considerable proportion of directors do not have any working experience in finance. Even in the finance and banking sector, directors often come from other industries, so they know little about such instruments.
Business Culture

As demonstrated in Chapter 6, the directors interviewed pointed out a situation that is common in Vietnam: business people are not careful about preserving their money, and instead they simply focus on making money. In other words, risk management has not been a focus so far. In the context of a business culture that does not make risk management a priority, directors do not recognise the need to learn about instruments such as financial derivatives.

Fundamentals can be learned but only practice teaches people how to actually operate. This situation is understandable because directors in Vietnam do not get effective training on derivatives and have work backgrounds which have not prepared them for using financial instruments. In addition, they have not been helped by the operation of weak market forces, by their inexpert business practice and culture within an inadequate legal framework which have all contributed to a lack of practice in using financial derivatives within their businesses.

7.1.2. Association between Directors’ Knowledge and Attitude to Financial Derivatives

Directors in the survey showed a highly positive attitude toward using financial derivatives. What drives directors to have such a positive attitude to using financial derivatives? The biggest driver appeared to be a demand for changes in the market and the second was the perceived benefits to be derived from the use of these instruments. After 15 years of activities on the stock exchange with only two primary products – corporate securities and treasury bonds – business people wanted new products and supported trends for a new developmental level of the market, and financial derivatives were perceived to be just such products. In addition, attending presentations by
financial and accounting experts enabled directors to recognise the potential benefits of financial derivatives, such as mitigating and diverting risks in corporate operations. In particular, those who had the experience in using less complex securities derivatives, such as note, bill and bond REPOs and have had actual experience in judging the value of such instruments, would appreciate having access to a well-developed financial derivatives market. Finally, directors’ positive attitude was also affected by the opinion of others through a crowd psychology mechanism; and directors were affected positively by prevailing attitudes in the market.

In general, participants were highly positive about the usefulness of the instruments, but less positive when asked about ease of use. This finding once again supports the conclusion in the preceding section that directors may know about different types of financial derivatives but not how they actually work. Being comfortable about the use of such instruments requires adequate knowledge of transaction procedures, risk and price evaluation; however, directors’ responses were weak in all these areas, as Chapter 5 demonstrated.

Among the features of their context, the only one that affects directors’ attitude is their company scale in terms of turnover. With big standard contract volumes, financial derivatives are more suitable for large-scale corporations than for small ones, if considering hedging. Hence directors from big companies may have greater incentive and learn more about the instruments, and so they tend to have a more informed attitude to using financial derivatives.

The extensive correlation analysis in Section 5.3.2 showed that directors’ knowledge interacts with four other composite variates, one of which is their attitude. The interaction is direct and positive. In other words, directors with better knowledge tend
to have the most positive attitude to financial derivatives. Directors’ understanding about financial derivatives does have a positive impact on their attitude to using these products.

7.1.2.1. Linking Directors’ Knowledge, Attitude, and Intention to Use Financial Derivatives and Corporate Governance Policies on Risk Management

As predicted by the model of theory of planned behaviour, directors’ attitude directly and positively interacts with intention in a moderately strong and consistent manner (see Section 5.3.2 and Appendix 6 for details).

Stronger than the attitude–intention relation is the positive association between directors’ subjective norm and their intention (correlations .206 to .548, sig. .000 to .027) (see Section 5.3.2 and Appendix 6). Slightly weaker than the attitude–intention correlation is the directors’ perceived behavioural control–intention positive correlation (correlations .202 to .431, sig .000 to .030) (see Section 5.3.2 and Appendix 6). The weakest positive interaction is between directors’ risk propensity and intention. All directors’ attitude, subjective norm, perceived behavioural control and risk propensity have positive associations with their intention to use financial derivatives.

Even though there is no significant direct correlation between directors’ knowledge and their intention to use financial derivatives (either normal or partial correlations), knowledge has significant association with all four variables that have significant positive correlations with intention. It could be argued from the results that the interaction between directors’ knowledge and intention is mediated by the four other variables. Directors’ knowledge is significantly correlated with attitude (+), subjective norm (-), perceived behavioural control (+) and risk propensity (+), which in turn are significantly and positively correlated with their intention to use derivatives for
corporate purposes. The correlation is especially strong for the pair knowledge–perceived behavioural control (see Section 5.3.2). The better the level of knowledge, the more clearly directors recognise the obstacles and advantages in the use of derivatives. Because of such clear understanding, the directors should assume that others with similar knowledge would treat financial derivative with care. This makes the only negative correlation between knowledge and subjective norm understandable.

Education has been shown to be the main source of knowledge. The association between directors’ knowledge and other variables is further supported by the fact that directors’ education (major study and level of qualification) also affects their perceived control and intention.

To conclude, directors’ attitude to the use of financial derivatives has a direct interaction with their intention to use them, while their knowledge about the instruments has a mediated interaction with intention via attitude, subjective norm, risk propensity and perceived behavioural control.

In addition to these results, descriptive analysis exposed potential issues relating to three variables of directors’ knowledge, attitude and intention. On the same five-point Likert scale, knowledge registered a low score, below the mid-level, while attitude and intention were relatively high, approaching 4.0.

The survey asked directors about their intention to use financial derivatives, instead of their actual use as in the full theory of planned behaviour model, because at the time of survey in mid-2015, there was not yet an official and well developed financial derivatives market in Vietnam. With the high expectation of such a market being established soon, the follow-up interviews posed questions to directors relating to the impact of the situation on corporate policies. The answers were that directors’
insufficient knowledge, combined with strong and positively interacting attitude and intention, do expose companies to potential danger, and this outcome requires appropriate changes to be made in corporate risk management policies.

Interviewees were concerned that the gaps between knowledge, attitude and intention expose companies to considerable risk of inappropriate strategies and general direction. When business people are knowledgeable, they are confident in management of, and key decision making in, the firm. When they have low levels of knowledge, they may make incorrect decisions or mistakenly approve proposals by subordinates, such as over-risky transactions. On the other hand, they may either fail to approve good proposals and lose an opportunity for the company, or reject a reasonable opportunity as in the case of the coffee industry in Exhibit 1.3.

The path to failure of the coffee exporters is summarised in Figure 7.2 below.

Intention is the direct predictor of behaviour (Ajzen 1991). When intention is based on insufficient or inaccurate understanding of the situation, this may lead to action with an unproductive outcome. Even when the action has not fully occurred, the effort to make it happen incurs a cost to the organisation. This is a risk to companies, hence there is sound reason to be concerned and find appropriate preventative measures. For directors of boards, who are not involved in daily operations, the best measure is the introduction of a corporate risk management policy covering the issues at hand. It is therefore no surprise that all the interviewees suggested that concerns about financial derivatives should be included in their risk management policy.
7.1.2.2. Mechanisms Connecting Directors’ Knowledge, Attitude, Intention and Corporate Governance Policies

The main mechanism channelling the impact of directors’ knowledge and attitude on corporate policies is the gaps between the three variables of their knowledge, attitude and intention. Since directors’ knowledge about financial derivatives interacts with their likelihood for accepting risk, their attitude to the instruments, their perceived support from related people (such as subordinates, partners, suppliers) and their perceived control over the use, these four components together lead to directors’ intention to use. Directors were worried about the gaps for several reasons, such as losing opportunities and making an incorrect decision. Even if the intention is that of an individual director, the director can bring the matter to the attention of the whole board and recommend that this be considered.
What could happen when a suggestion is considered by people who do not understand the issue at hand? Even though a board operates as a group, during a board’s deliberations and discussion individual directors can play a critical role. In a discussion, the group leader is the one who knows most about the issue under consideration, and whose behaviour has important effects on group performance and whose capability is derived from their knowledge, skills, abilities, other competencies and prior experience (Cascio 2004).

A director possessing the four qualities of independence, expertise in a domain, bandwidth and motivation\(^{55}\) above a threshold is likely to be an effective participant in the domain by being able to rise to challenges and raise the board’s efficacy (avoiding failures of governance in a given domain) (Hambrick, Misangyi, and Park 2015). Expertise must be domain-based; directors can only effectively monitor those domains in which they possess requisite expertise; of the desirable kinds of expertise, financial expertise has special importance and can equip directors to be effective overseers in a wide range of domains (Hambrick, Misangyi, and Park 2015). Directors’ knowledge and skills are put to use throughout board decision making processes that coordinate and integrate individuals’ contributions (Van Ees, Van der Laan, and Postma 2008). To conclude, directors’ individual competencies matter for the effectiveness of the whole board.

The composition of a board of directors is therefore crucial. A board without any directors who are knowledgeable about financial derivatives is likely to fail at being effective monitors in the domain. That is a major challenge for corporations entering

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\(^{55}\) Independence (ability to be objective), expertise (ability to comprehend the issues at hand), bandwidth (ability to devote requisite time and attention), and motivation (eagerness to exert oneself on behalf of shareholders) (Hambrick, Misangyi, and Park 2015).
the financial derivatives market, either for hedging or speculation purposes. In general, in nearly 60 per cent of failed banks, board members either lacked banking knowledge or were uninformed during their supervision (Van Greuning and Brajovic Bratanovic 2009, 54). To prevent potential harm, changes in corporate governance policies related to risk management were proposed by interviewees. They posited that directors’ knowledge should be improved and a corporate risk management framework should be established; discussed further in Sections 7.2 and 7.3. Figure 7.3 shows the process from directors’ insufficient knowledge to gaps between such knowledge and high intention, positive attitudes that may create risks for companies, and such concerns encouraging directors to establish appropriate corporate risk policy.

**Figure 7.3. Process Leading from Directors’ Insufficient Knowledge to a Risk Management Policy**

![Diagram showing the process](https://example.com/diagram.png)

7.1.3. **Key Stakeholders in Board Directors’ Consideration of Using Financial Derivatives and their Roles**

The interview component of this research was initially designed to investigate issues emerging from the survey, with questions about whether directors agreed with the survey results, whether they saw any differences from their own experience, the reasons for this, and whether they recognised any potential impact of the results on corporate policies. The majority of interviewees identified the government, regulations and markets as key issues in their answers. Interviewees often referred to corporate scandals that had led to the government’s role in forming and organising a financial
derivatives market. Therefore, the government and the financial derivatives market in Vietnam are the two major themes emerging from this study.

The government, banks, financial institutions and other parties in the financial derivatives market as identified by directors are stakeholders outside of the internal corporate governance domain. The interviewees’ significant consideration of, and interest in, these factors was evidence that directors of boards must also take account of these stakeholders in their internal corporate policy decisions.

Stakeholder theory is the theory that identifies the requirement to take into account parties other than corporate management and the board when making key corporate governance decisions. Using insights from stakeholder theory, directors are now encouraged to communicate openly with stakeholders, and establish relationships with society, partners and government to ensure the achievement of long-term goals ("Corporate Governance Reports Précis" 1996). However, the board’s ability to navigate firms may be curtailed by the absence or ineffectiveness of external institutions (Chakrabarty and Bass 2014).

Because the government and regulators are important groups of stakeholders of public companies (Tegner 1993), corporations need to develop objectives that stakeholders would support (Hitt, Freeman, and Harrison 2001, Phillips, Freeman, and Wicks 2003). The stakeholders’ influence is channelled through political influence and use of the media (Filatotchev and Boyd 2009).

As discussed in the previous sections, there have been three well-known scandals related to financial derivatives in Vietnam: Jetstar Pacific airline, the ABN Amro bank and the coffee industry. In the case of ABN Amro vs. Incombank, foreign exchange derivatives transactions were conducted between the foreign bank ABN Amro and a
branch of the local Incombank (now renamed Vietinbank), and the local bank suffered a major loss. Taking advantage of the gap in the then legal framework, Incombank filed a case against ABN Amro, and invited the Homeland Security Investigation Agency to intervene. The gap was that the nature of currency derivatives had not been enshrined in financial laws and regulations. Therefore, the derivatives transactions that were perceived to be normal and customary in international financial markets were classified as illegal under Vietnam’s legal system. The ostensible reason was that they did not conform with requirements for a normal currency and exchange rate transaction.

As a result, bank staff were put in jail temporarily or placed under constraint during the investigation. The scandal raised serious concerns among international financial firms in Vietnam and globally; business people worried about their safety when conducting normal business activities. The scandal also pushed the Vietnamese Central Bank to tighten its regulations on derivatives transactions, and consequently required companies to use the instruments only for hedging, by requiring them to have counter physical contracts. This was a barrier to a more comprehensive development of the financial derivatives market in the country.

The case of ABN Amro vs. Incombank once again demonstrated how important government regulators’ awareness and knowledge of financial derivatives products are in deciding their assessment of business customs. This case and the previous case of Jetstar Pacific, which were in effect about the same problem, were prolonged for years and obstructed market development.

The situation in the cases of both Jetstar Pacific and ABN Amro is illustrated in Figure 7.4 below. Government regulators’ lack of knowledge of financial derivatives customs leads to no fair legal framework existing and normal business treated as unlawful. As
a result, businesses lose their trust in the system and do not participate or establish a market. The final outcome is a much slower market development.

**Figure 7.4. Impact of Government Regulators on Financial Derivatives Market Development**

Financial derivatives have a contentious history but have proved to be attractive to the business world, as reviewed in Chapter 2. Directors of boards face a major dilemma, with interest in and demand for corporate use of financial derivatives on one side and legal risk on the other. Governments can interfere with affairs of corporations, and can influence corporate governance either directly (as an owner) or indirectly (via macro-economic policies) (Aguilera and Jackson 2010). When governments and corporations do not share an understanding, one side can act against the other. Considering this, all interviewees looked to government actions in order to define and construct their corporate policies.

Business people expect the government to establish a legal framework, regulations and requirements for exchanges and markets in general. The goals are to develop intermediaries, ensure transparency and compliance and supply human and other resources as well as imposing timely penalties or taking disciplinary action. In
particular, the government is expected to set up a legal framework for financial
derivatives that covers accounting regulations, underlying markets and ethics; that
develops underlying markets such as coffee, interest rates, foreign exchange rates,
corporate stocks, corporate bonds and treasury bonds; and that disseminates
knowledge about financial derivatives.

The directors’ expectation of the government’s role in paving the way for a financial
derivatives market is appropriate, considering the usual leading role of the government
in corporate governance in Vietnam (Lien and Holloway 2014) in Chapter 3. While
the government is proactive, businesses tend to be passive and often wait for the
government to initiate changes (Lien and Holloway 2014).

Empowering the powerless among certain groups of stakeholders helps to create
values for these groups and companies (Freeman 2009). This value is created by people
who voluntarily come together and cooperate to improve everyone’s circumstances
(Freeman, Wicks, and Parmar 2004), so including stakeholders can lead to many
benefits, including greater profit and shareholder wealth (Donaldson and Davis 1994).

The cooperation to help improve everyone’s circumstances was demonstrated in the
case of ABN Amro bank vs. Incombank. Recognising that the regulators and
authorities spoke a “different language”, and did not share an understanding about the
nature of FOREX (foreign exchange) derivatives, the foreign bank made a significant
attempt to guide the authorities through the technical knowledge required by
businesses globally. Similarly, in the case of Jetstar Pacific, Vietnamese investigators
did not understand the nature of fuel hedging and considered that a loss on the hedge
was a serious failure by senior management. Qantas, one of the two main shareholders
in the venture, tried in every way to help the authorities realise that such a loss is part
of normal business and to be expected when the fuel price becomes favourable to the airlines. The patience displayed by the two companies worked when finally the government authorities accepted that FOREX derivatives and fuel hedging are part of the normal business cycle and the detained staff were then freed and all charges were withdrawn (Vietnam Economic Forum 2010, Kazmin 2006a). Every party benefited from this level of cooperation.

7.2. Directors’ Recommended Ways to Improve Their Knowledge of Financial Derivatives

Even if the risks from inadequate knowledge are not immediate, directors agreed that improving their overall level of understanding is beneficial in the long run and suggested several approaches to achieve that goal. They include practice activities or actual business operations; using an outside consultancy or adviser; appointing knowledgeable members onto boards; and training or self-training through courses or self-learning. More detailed analysis of each method follows.

7.2.1. Combination of Financial Derivatives Experts in Boards of Directors

It is impossible to require all directors on a board to have good knowledge of financial derivatives; it is more appropriate to have a full-time director who does have such knowledge and expertise, especially for boards of companies strongly related to the instruments. Such directors can then educate and persuade other members when decisions are needed. Part-time directors are usually from other industries and participate in board operations to a different extent from full-time directors. They are more likely to be reactive than proactive. Generally, there are only one or two proactive members on a board, who are usually full-time members, and who closely follow and monitor company operations. All directors do not have the same level of participation.
INT03: “The board of directors should invite independent directors with good qualifications to join.”

INT01: “Those directors will educate, persuade other members when decisions are needed.”

Participation in the financial derivatives market is hard for directors who are reactive, but it is easier for those who are proactive. While directors who are reactive tend to depend on support from key employees, the proactive directors are more able to make decisions on whether to take on a risk or a deal thanks to their more direct engagement in corporate affairs. The passive directors are separated from daily corporate activities; hence, it is harder for them to assess the benefit-risk relationship of an activity. Most of the passive directors will learn from board decision making processes and conclude that financial derivatives have potential benefits, but they will still be reluctant to use the instruments.

Boards of directors should invite independent directors with sound expertise and qualifications to join. Among directors, the expert(s) on the issue will lead the discussion with other directors to arrive at a common understanding. The more passive directors can then, to some extent at least, share in the decisions being made about these instruments. These passive directors need to be persuaded and those members with expertise can advise the rest of the board on the technical issues before decisions are made on financial derivatives.

7.2.2. Training

Training for directors is hard, especially in financial derivatives, because business people have not realised the need for such training. In addition, trainers who
understand the market are necessary if there is to be effective training, but there is insufficient training expertise available because there is not a comprehensive local market in which to develop such expertise.

In addition, the directors of board are unlikely to participate in mass training courses. One obstacle to participation in training is that when the owners have no effective understanding of financial derivatives, they will not send relevant staff to attend training (INT14). In Hanoi and Ho Chi Minh City, conferences and workshops held by consultancy companies, banks and financial institutions for their clients are good methods to ensure effective participation in training. In other provinces, training needs to be undertaken through business associations such as the Coffee and Cocoa Association in the coffee industry. Business associations are more effective in rural provinces than in cities, where industry groups are preferred.

The government needs to play a role in increasing knowledge about financial derivatives and spreading it more widely. The primary responsibility falls on the Ministry of Finance, the State Securities Commission and other market members to disseminate knowledge and provide appropriate training for interested investors. Directors need to have both fundamental understanding and enhanced knowledge. In the context of business people being interested in the new financial instruments, they are more likely to participate in a well-focused training scheme. Financial derivatives suppliers’ promotions that enable the business community to understand the instruments in question are part of the longer-term solution.

7.2.3. Self-learning and Actual Practice

Directors argued in the interviews that mass training would not work especially for directors of boards. The prevailing practice is self-learning by reading and through
actual practice on the job by learning from mistakes. The tendency is to start with small trades, then continue on to larger contracts. Through decision making on contract after contract, their overall knowledge will increase and would likely increase support for using the instruments.

Business people need to experience reality, as only in actual business life can they acquire the relevant information and knowledge and then apply this in their business activities. For example, in the history of the securities market in Vietnam, business people at first thought of listing as an event that was very complicated and potentially threatening, but over time they saw this process as part of the expected business cycle. Similarly, financial derivatives are relatively new products, thus it will take some time for the market, companies and society to understand and accept these instruments, and then they will adapt as required.

INT02: “People have to take risks to raise their knowledge, because there is no free lunch.”

According to the interviewees, raising the board of directors’ awareness and knowledge of financial derivatives requires action by several parties including senior management of companies. Directors need to learn effectively to enhance their financial knowledge, information technology, market developments, new products and new risk management tools. Full-time directors may lack appropriate knowledge initially, and therefore need to participate either in formal training or participate in active self-learning. There are two approaches they can use to learn: reading appropriate technical information and participating in specific well-designed short courses. Because directors are constrained by tight time schedules, self-learning is the
more popular method. A significant majority of the interviewees argued that practice is the best way to learn about financial derivatives.

7.2.4. Outside Consultancy

All interviewees agreed that using an external consultancy firm is one solution for directors wanting to use financial derivatives but not possessing adequate knowledge. However, they are divided about the availability of such services.

INT02: “To participate in the market, boards of directors must use a consultancy, must use independent consultants.”

Six interviewees believed that there were many professional investment companies with deep knowledge of the market. These entities can support companies and directors in managing financial derivatives transactions. They are securities companies and consulting companies. If someone does not have the appropriate knowledge, the directors would be better authorising a professional institution to carry out the investment transaction.

Two directors thought that there were no capable and independent consultants in Vietnam’s financial derivatives market. They argued that there may be some individual experts who could support each other by sharing information and experience, but there were no teams dedicated to supplying high-quality consultancy processes.

Currently, the use of outside consultancies by boards of directors is quite limited. One reason is that people are afraid that their ideas for new products would be stolen and the products developed and sold by others before they themselves can profit from them (INT11). One reason is supposedly the lack of available expert consultancies. In addition, during a crisis period, the budget is limited (INT11).
More practically, if there is no board member with financial derivatives expertise, the board then needs to depend on experts at lower operational levels and on the board’s sub committees. For complicated products, such as financial derivatives, boards of directors need advice either internally from the finance manager or externally from bank staff, or from fund staff in some cases. Interviewees expected that a new generation of leaders would help drive a more comprehensive development of the financial derivatives market because they would have a more appropriate mindset for risk management.

Among the suggestions to improve directors’ knowledge of financial derivatives, there emerged an overall idea of a corporate policy framework on risk management that is set out in the following section.

7.3. Corporate Policy on Financial Derivatives as Suggested by Directors

In the directors’ recommendations, a corporate risk management framework should incorporate leaders’ beliefs and values at the highest level in terms of clear objectives, quantitative limits for authority and decisions (levels of delegation) and a policy for using outside consultants. The framework would also include norms and regulations that are embedded in processes and divisions.

7.3.1. Risk Management Framework

A risk (management) framework is a system to deal with risks in organisations (Hardy 2014), including a set of components for designing, implementing, monitoring, reviewing and continually improving risk management throughout the organisation (International Organization for Standardization ISO cited in Laycock 2014, 45). There are several risk management frameworks including GAO (the US Government
Accountability Office), ISO 31000, the Committee of Sponsoring Organizations of the Treadway Commission – COSO’s ERM (Enterprise Risk Management) framework, the Federation of European Risk Management Associations (FERMA) framework and the OCEG (a US non-profit think tank specialising in governance, risk and compliance) framework (Hardy 2014) (see Appendix 9). COSO argues that the main responsibility for supporting enterprise risk management and involvement in the enterprise risk management process is a key role for the board. All the frameworks share basic components about the risk management process (identify, assess, evaluate, respond, report) and are bounded by corporate objectives.

Another framework was introduced by the Governance Institute of Australia (see Appendix 9). This approach considers that an integrated governance and risk management framework is central to board decision making. In addition to elements of the risk management process, the framework covers a wider range of issues including the key issue of corporate risk appetite (Governance Institute of Australia 2016, 3). The Group of 100 (CFOs in Australia) maintains that a risk management framework would cover the activities of managers of business units, reviewers, corporate finance and accounting people, company secretaries, CEOs and CFOs, audit committees and boards of directors (Psaros 2009). Finally, setting out the delegation of authority is a fundamental component of risk management both at, and below, board level (Governance Institute of Australia 2016, 14).

Boards are widely expected to set the level of corporate risk appetite56 and risk culture57 and communicate these down to lower corporate levels as a way of setting

56 The nature and extent of the risks the board is prepared to take to meet strategic objectives (Fox 2016, 221).
57 The risk culture of an organisation is the shared attitudes (values) and behaviours of individuals about the management of risk in an organisation … the way directors, managers and employees think, communicate and behave about all aspects of risk (Fox 2016, 220-1).
boundaries (Fox 2016, Governance Institute of Australia 2016, Laycock 2014). This would be implemented through relevant risk management policies (Lam 2013, 392), followed by standards and procedures58 (Laycock 2014, 53). The explicit risk appetite of the board is the attitude to risk and the limit of risk-taking that senior management should then operationalise (Governance Institute of Australia 2016, 14). The boundary is essential because each company has a finite risk-bearing capacity, which, if surpassed would trigger other risks (Stulz 2013). The risk appetite level is dynamic and communication of the risk sources and appetite to stakeholders is challenging but crucial (Laycock 2014). It seems that directors with expertise understand this requirement. The interviewees often referred to the importance of a corporate risk management policy and the top voice.

A risk management framework specifies governance structure – internal control, structures of divisions – to ensure that all divisions are under control and risks are recognised. The framework starts with risk recognition. Depending on the recognition, mitigation methods will be suggested and financial derivatives are one of the methods. Under the framework, a risk policy includes the guidelines for company operations and control. A risk framework also covers processes, the supervision system and IT system that help in controlling transactions and standards for counterparties. This reflects the board of directors’ awareness and knowledge. If all directors arrive at a common understanding, this will enable a better outcome for the board of management.

58 The policies are likely to describe the objectives, roles and responsibilities and information requirements. The standards will define terms, event escalation, systems to be used and expectations such as timeliness and completeness of reporting, etc. The procedures are mostly granular and may be customised for different businesses or various subcategories of risk, for example project finance within commercial lending (Laycock 2014, 53).
"Companies must have a risk policy, with a clear risk management framework specifying how much of an exposure must be hedged, as foreign companies do."

The most important thing that directors of a board should do is to give directions on recognising risks; only after risks are recognised can people calculate the value at risk and how much they would like to hedge. It is a standard procedure in forming a risk insurance policy; however, currently, directors in Vietnam just do minimal risk control, of which delegation is a minor part of risk management.

A risk-aware culture is a sub-organisational culture that covers the way directors, managers and employees think, communicate and behave about all aspects of risk (Governance Institute of Australia 2016, 14). Boards need to make a top-level risk culture statement (corporate values, purpose and risk appetite), then widely communicate such a statement, to construct a local risk culture that ensures that the right people do the right thing at the right time whether supervision is available or not (Laycock 2014, 98). For example, in a bank, the board of directors is responsible for setting up corporate objectives and a bank’s risk profile to align corporate activities with corporate expectations and legal compliance (Van Greuning and Brajovic Bratanovic 2009). Directors with expertise in Vietnam are aware of risk culture and suggest that companies build such a culture.

Companies must have a culture of hedging represented in a clear risk policy from top management. They need both policies and limits. The limits are needed if risks are of a scale considerable enough to influence a company’s profits and development. Companies also need regulations on internal controls to enable divisions to participate in risk management and cross-check each other.
However, among the interviewees, there was a different opinion about risk policy. In many companies in Vietnam, members of the board of directors and members of the board of management are often the same and the board’s suggestions are immediately translated into management actions. So the board of directors does not need to issue a risk policy because senior management will readily implement the risk framework.

7.3.2. Delegation of Approval Authority

To limit risk, boards of directors need to set down appropriate limits to guide decision making. In a risk policy, there will be provisions about delegation, and the level of contract value that can be approved by the board of directors, and what level by senior management.

INT05: “The board of directors, such as in my company – a securities company – set stop loss limits that are the maximum losses they accept as risks in business. Because a financial derivatives market in securities has not been established, my company hasn’t considered a risk policy for it. But I think when the time comes, we will.”

Delegation of approval is a way to mitigate risk and for this, thresholds (limits) are needed. However, the board of directors should not undertake decision making for specific transactions. The set limits and risk propensity enable management to decide daily operational transactions. For significantly large transactions that could influence a company’s future, management then needs to seek the board’s approval.

Delegation with limits is the most appropriate and most flexible way for a board of directors to supervise company operations. Besides such limits, the policy should also
include many “dos and don’ts” and other requirements. Some people even think delegation is all about risk management.

INT13: “Delegation is all that we can do to manage risk. We need to develop and issue clear policies, procedures. We need a threshold to make people responsible.”

7.3.3. Ethics

Similar to the suggestion that a legal framework should also cover ethical issues was interviewees’ judgement that a corporate risk policy should include specific requirements on ethics. The companies should have a reward and penalty system that is clear and effectively enforced. The ethics requirement for staff in the securities market and derivatives market should be very high.

INT11: “Surely we need an ethics policy for people related to financial derivatives. When starting derivatives products, we don’t open to all divisions, but just use some highly professional divisions because of worries about ethical hazards.”

7.3.4. Outside Consultancy

A risk policy should be open to the possibility of using an external consultancy, and should require that the board seeks an independent consultancy if it struggles to assess issues. If a board is not knowledgeable and confident, it should seek advice. Consultants, naturally, are required to follow rules of confidentiality to keep clients’ information private.
Other methods of control are financial year-end auditing undertaken by independent auditors. The crucial point is timeliness. Financial derivatives are high-tech instruments that are much more complicated than the underlying securities, so it is important for board members to understand their own limitations and to have experts on the board. For cases with potentially high risks, an effective reporting mechanism is needed.

The interviewed directors’ recommendations for corporate board policy are summarised in Figure 7.5 below, followed by a sample policy from a public company which one of the directors worked for. The policy is strongly focused on quantitative limits in addition to the general terms as described in the recommended framework above.

**Figure 7.5. Corporate Risk Management Policy Recommended by Director Interviewees**
Appendix 11 introduces a sample risk management policy from a top securities company in Vietnam, where one of the interviewee works. The policy covers two main components as suggested in Figure 7.5: the corporate governance system (under the name of “Organisation of Risk Management System) and the delegation and approval authority for each type of risks and examples for one year in 2015. This sample policy also follows the common process of specifying, measuring, dealing with risks and reporting. This needs to be developed further to be as complete as the directors would expect.

Additional implications of the research are presented below.

7.4. Implications

7.4.1. Implications for Theories

This thesis is based on two main explanatory theoretical lenses: stakeholder theory and the theory of planned behaviour, supplemented by the model of board roles and attributes, and in this way has achieved a more comprehensive understanding of board directors’ decision making behaviour.

The attributes of age and gender show no effect on directors’ competencies and considerations in decision making (perceived behavioural control, attitude, perceived support by others or subjective norm); this finding is in contrast to what is suggested by the model of board attributes. However, the attribute of directors’ background in terms of knowledge of financial derivatives has an extensive association with the other components (above) of their decision making – the way in which board roles on strategy, control and service are undertaken.
The key elements of the theory of planned behaviour are supported by both survey and interview data in this thesis; attitude, subjective norm and perceived behavioural control all express a moderate positive correlation with intention. Stakeholder theory is also vindicated in its use in the thesis through the phenomenon that emerged that Vietnamese directors do care about government rules and actions when making corporate decisions.

The decision making and intention forming process as posited in the theory of planned behaviour is the connection between directors’ personal characteristics and the impact of key external stakeholders, the government in this case, on not only the individual directors, but also on board and corporate governance policies. This outcome, in the validation of the use of the two theories in question, means that using multi-theoretical perspectives in mixed methods research is appropriate.

7.4.2. Implications for Government Authorities

A strong desire for an official legal framework for financial derivatives was expressed clearly by all directors in the research. Governments, not only in Vietnam but also in other countries, who would like to facilitate capital flows and meet the requirements of businesses should set up an appropriate legal framework for the operation of financial markets as a priority. However, the pace of reform appears to be slower in Vietnam. In other countries, legal and regulatory framework concerns are about conforming to IOSCO (International Organization of Securities Commissions) principles or requirements by Basel II and Basel III in the areas of exchanges, central clearing systems, transaction methods, trading platforms and accounting (World Bank 2012, International Monetary Fund and World Bank 2010, 2013a, 2013b, 2014, Jain 2014, Kolodizev and Kotsiuba 2016, Ramirez 2015, Robinson and Hronsky 2012, 2016, Pramanik and Roy 2016).
Valiante 2013). However, the most serious concern in Vietnam is about the government’s acceptance of the nature of financial derivatives and businesses’ rights in using them.

The government should clearly define what financial derivatives are, how they are recognised in the balance sheet, and what the conditions are for businesses trading and hedging. There is a need for recognition by the government that financial derivatives are a normal type of business transaction. If they are used with a full duty of care, any consequential losses can also be expected at times and should not lead to criminal charges. This is especially important for senior and subordinate staff in the state-owned enterprise sector. Most financial derivatives scandals that have been due to an incompatible level of understanding between government and businesses are in this sector.

The failures of directors in corporate governance scandals in the private sector have acted as warning signs to public governance authorities, as for example in Alberta, Canada, encouraging these authorities to proactively improve their recruitment, evaluation and training for directors of public sector agencies and quasi-government organisations (Baxter 2005). The government in Vietnam also needs be active in training their representative directors, at least in corporations in which the government is the majority shareholder.

7.4.3. Implications for Corporate Boards

Boards of directors are usually studied in the literature as groups. A board does, naturally, qualify as a group, an intact social system that performs one or more tasks within an organisational context with interdependence among members, and defined roles (Forbes and Milliken 1999, Cascio 2004, Kaufman and Englander 2005); it is in
a better position to manage effective oversight of an organisation than is any individual because of its collective knowledge and deliberation (Forbes and Milliken 1999).

The strength and effectiveness of a board derives from boardroom dynamics. Such a dynamic, however, has rarely been studied using qualitative social science research methods and direct observation (Letendre 2004). As a prominent board researcher using direct observation, Leblanc (2008) emphasised the importance of the role of individual director competencies in producing group board effectiveness. The board needs to have a good mix of members with skills, experience and other qualities, such as understanding their entity’s business and material risks (Governance Institute of Australia 2016, 4). The board as a whole needs to make sure that certain competencies are possessed by members through effective director recruitment, education and training. There is no need for all directors to have the same level of competencies. However, competencies specifically necessary for companies, such as understanding of financial derivatives for corporations with hedging or speculation need, should exist in at least one member. In addition to the nature of business, an effective board should know the related risks (Van Greuning and Brajovic Bratanovic 2009, 56).

Boards of directors increasingly recognise risk management to be their top concern (Lam 2013, 381), and are often judged by enterprise risk management processes (Lorton 2005, 18-9). In the United States, the Dodd-Frank Act (2010) and the Sarbanes-Oxley Act (2002) require a risk committee to be established in public bank holding companies and public companies, and the committee must include at least one risk management expert who has experience in identifying, assessing, and managing risk exposures of large, complex firms (Lam 2013, 382). Even though both the Dodd-Frank Act requirement and Basel III (2010) demand that bank directors raise their capability in overseeing complex risks and regulatory requirements, chief risk officers
account for only 5 per cent of board members while a significant proportion of bank board members come from CEO (47 per cent), chief financial officer (20 per cent), and chief operating officer (7 per cent) backgrounds and academia (8 per cent) (Lam 2013, 384-5).

Every board must consider the real legal, financial and reputational risks that their companies may face (Lorton 2005). They should be responsible for setting the risk policy (risk appetite, guidance on the alignment of corporate strategy with risk appetite and the internal risk management structure) (OECD 2014, 12) at both individual risk and enterprise-risk level (OECD 2014, 14). Similar to Bob Tricker’s approach of performance and conformance in governance, the Governance Institute of Australia (2016, 14) suggests directors focus on risk management as both a control and a strategic function. The board of directors’ contribution to a firm’s new wealth-creation capabilities is the positive link between board independence and the firm’s performance (Kaufman and Englander 2005); the link has long been sought.

To conclude, in order to free management from concerns about using financial derivatives and risk management in general, boards should voluntarily construct appropriate corporate risk management policies, whether their companies are in the finance sector or not. Appendix 12 has a sample enterprise risk management policy that covers risk philosophy, governance structure, risk tolerance levels, risk framework and processes, risk policy standards, and risk categories and definitions (Lam 2013, 392).

7.4.4. Implications for Directors

To set up a risk management framework and specific policy for financial derivatives, directors’ knowledge and awareness of the nature of the instruments’ nature is crucial.
Directors need to know that the costs are explicit but the benefits are less obvious. The benefits are: to increase the stability of earnings and cash flows (or to reduce uncertainty), to avoid potentially crippling consequences from risks that are beyond the management’s control or influence, and to avoid “deadweight costs”\textsuperscript{59} (Stulz 2013). Besides attempting to minimise corporations’ possible financial distress, financial derivatives are used to minimise expected tax liabilities, agency conflicts and reduce the costs associated with accessing external capital markets (Brown and Khokher 2007, 47), debt capacity and inefficient investment (Froot, Scharfstein, and Stein 1993). The most common mistake is to consider losses on a well-designed hedge as risk management failure, while in fact the losses are to be expected when the exposure moves favourably for the firm (Stulz 2013) and the cancelling effect between the hedge and the real underlying asset transactions is to leave the company with expected earnings.

However, many organisations have an inadequate level of knowledge of a relevant framework for corporate risk management (Hung 2012, 69). To satisfy the need for knowledge and awareness, directors of boards should proactively and voluntarily prepare themselves for the position by teaching themselves or by taking formal courses. The more they know, the more competent they are and the more likely they are to be offered a better directorial position in the future.

There are three levels of risk management: corporate, business and project (equivalent to strategic, tactical and operational perspectives), and at strategic or board level, risks are not usually quantifiable (Merna and Al-Thani 2008, 258). Corporate level risk management is therefore less formal but more important; it covers global or

\textsuperscript{59} Longer run negative effects on firm profitability and value that the company would experience (Stulz 2013).
uncontrollable risks, often associated with political, legislative, regulatory, economic and environmental factors (Merna and Al-Thani 2008, 261). Boards and directors need to have some knowledge to understand decisions to do with risk appetite at this level (Laycock 2014, 38).

The nature of more informal and subtle corporate-level risk management means that directors need to have more than an understanding of a specific area. They do not need to be geniuses, but they need to know the fundamentals in a wide variety of fields.

To be qualified to undertake risk oversight, directors must have appropriate professional experience and personal attributes, business acumen and education (Lam 2013, 385-6). Training and courses play some role, but long-term industry engagement contributes the most significant knowledge (OECD 2014, 17) as Hambrick et al. (2015) summarised in their list of factors determining directors’ ability to comprehend the issues at hand. The factors are areas and levels of formal education and certification, the number of public company boards they serve, the types of issues they face on other boards, and their experience in the focal company’s industry (Hambrick, Misangyi, and Park 2015, 330).

To be effective, directors need to have more than qualifications. It is better that people with the desire to be a director take part in actual business practices and develop deeper levels of expertise before becoming a director. That is the key way to help them acquire the appropriate experience. Once they are appointed as a director, the chance to do this is more limited, owing to the principle of independence that states they should not participate in daily corporate tasks for the board. It is risk expertise and experience that establishes the credibility of individual board directors (Laycock 2014, 116).
Risk appetite is only useful in a firm with a firm-wide level of expertise (Laycock 2014, 114). However, where wide distribution is not present, directors should consult with internal or external experts in order to construct more effective decisions (Van Greuning and Brajovic Bratanovic 2009, 57).

7.4.5. Implications for Training Organisations

Director training on financial derivatives was identified by all the interviewed directors to improve their current knowledge; this is supported by the survey finding that directors’ education (qualification) has a significant impact on their level of knowledge (see Section 5.3.1.1). Simply recommending formal training for current directors is recognised to be ineffective because of the expected low participation rate. Training organisations need to devise more creative training methods that suit directors’ tight time schedules.

Barriers to formal director training have been widely recognised. Instead of lengthy formal classroom based training, short presentations in professional workshops, combined with conferences or meetings, would increase directors’ knowledge of the instruments over time. This would be another form of on-the-job training. Training organisations should design concise and easy-to-digest booklets or materials to be delivered to directors, as part of an ongoing self-learning process.

It is more effective to get future directors more effectively prepared for working in a business world with financial derivatives through education. In addition, curriculum material on financial derivatives should be included in business, finance and management degree-awarding courses such as bachelor or master’s degrees, as well as in internal training courses for mid-level management staff.
7.5. Conclusion

Multi-theoretical viewpoints were used with a mixed methods research approach in this study. Stakeholder theory, the theory of planned behaviour and the model for board attributes and roles were intertwined and used as theoretical lenses to explore directors’ poor understanding of financial derivatives and the corresponding relationship with corporate governance policy, especially in the area of risk management. The Vietnamese government needs to be proactive in setting up a comprehensive legal framework, and disseminating knowledge about financial derivatives in order to establish necessary conditions for an expanded financial market. The boards of directors need to recruit well-qualified directors for financial derivatives oversight roles, to supply members with effective education and training about these instruments, and to establish a risk management policy as a guide for daily management tasks. Individual directors should be trained, train themselves and take part in actual business practice to improve their knowledge of using financial derivatives up to the level necessary for the board’s risk management policy. Finally, training organisations should customise their courses to meet the time frame and board directors’ demand for essential knowledge about financial derivatives.

The final chapter, Chapter 8, clarifies the contributions and limitations of this thesis.
Chapter 8 Contributions and Conclusion

Introduction

Specific results and findings from two sub-studies of this thesis were presented, connected and analysed in the previous three chapters. They provide the substantive material for the overall contribution of this thesis. These contributions to knowledge, to theory and practice and to methodology are clarified in this chapter, followed by the limitations and recommendations for future research. The chapter concludes with final remarks.

8.1. Contribution to Knowledge

This thesis is one of the few studies to investigate individual board director behaviour in Vietnam, and revealed and analysed directors’ understanding of financial derivatives and related decision making in an emerging economy. The thesis has also connected directors’ knowledge with the wider areas of risk management and corporate governance. A key outcome of this thesis is a holistic overview of developments in corporate governance in Vietnam (Lien and Holloway 2014) which provided the background to the main research questions.

There have been a number of studies on corporate governance in Vietnam, but a dearth of visible research on individual directors’ behaviour. These studies have included a wide range of areas including the regulatory framework, especially compared to benchmarks such as the OECD Principles of Corporate Governance (World Bank 2013, Centre for Asia Private Equity Research 2015, Freeman 2005, Le Minh and Walker 2008, McGee 2009, Nguyen 2005, Owoeye and Van der Pijl 2016); the causal relationship between corporate governance and firm performance (Malesky,
McCulloch, and Nhat 2015, Nguyen 2013, Nguyen, Locke, and Reddy 2015b, Nguyen and van Dijk 2012, Okuda and Nhun 2012, Trinh, Duyen, and Thao 2015, Trong Tuan 2014, Van Tuan and Tuan 2016, Vo and Nguyen 2014, Vo 2016, Xuan-Quang and Zhong-Xin 2013); and, the legal aspects of corporate governance (Hai 2006, Trong Dan 2005). However, research on the board as an entity and its members is rare, although there has been some research on the diversity of board members, especially in relation to gender (Hoang, Abeysekera, and Ma 2016, Linh et al. 2016, Nguyen, Locke, and Reddy 2015a). This thesis has effectively contributed to a deeper understanding of corporate governance and directors’ behaviour and voices on financial derivatives in Vietnam.

There are a number of contributions from this thesis. Firstly, this study adds to the literature on mixed methods research which is expanding, by applying this approach to a relatively limited-access group of corporate directors in the under-researched area identified above. Access to directors is one of the main barriers to research of this type. To resolve this difficulty, the thesis acquired primary empirical data from directors, both executive and non-executive, directly through a survey and interviews, instead of collecting information on board members via CEOs, managers or analysts. Direct access to directors of all types has contributed to a more comprehensive view of directors’ actual knowledge and the effect they judge this to have on their decision making behaviour.

Secondly, the evidence in Vietnam of directors’ lack of effective knowledge about financial derivatives adds further evidence from an emerging economy to directors’ understanding of these instruments worldwide. Directors in Vietnam are no different from their peers in developed economies including the United States, the United Kingdom and the Netherlands. The greater the level of concern about this lack of
understanding, the more urgent are warnings to related parties such as directors themselves, investors and regulators to take measures to prevent unexpected consequences.

Third, even though not required by regulations to be responsible for risk management (except for those in the finance and banking sector), directors interviewed in this research showed a serious interest in risk management and an awareness of the importance of their role. They recognised that the board of directors is responsible for establishing corporate risk management policies with certain key elements: a general framework, requirements on ethics, independent auditing, delegation and approval authority and an open door for external consultancy. This is no surprise because all the interviewees had financial expertise, so they were well acquainted with the concept and practice of risk management. In other words, appropriately educated in formal education or at work, directors certainly have an appropriate attitude to financial derivatives; and an appropriate tone at the top would be beneficial for corporate risk management in general as can be extrapolated from the model in Figure 8.1. As the figure shows, people’s attitude shapes their behaviour that in turn forms their organisational culture. Once formed, the culture works to enhance the attitude and reinforce the behaviour.

Risk culture\textsuperscript{60} is heavily influenced by the “tone from the top”, and the behaviour of the board, executives and management, which will be adopted by others (Laycock 2014, 100-3). This influence is shown in Figure 8.1: the attitude of senior leaders forms group norms, which then influence the behaviour of other team members; the

\textsuperscript{60} The norms and traditions of behaviour of individuals and of groups within an organisation that determine the way in which they identify, understand, discuss, and act on the risk that the organisation confronts and the risks it takes (Laycock 2014, 100).
behaviour of leaders influences the risk culture in a recursive manner (Laycock 2014, 107).

**Figure 8.1. Attitude – Behaviour – Culture Model**

Failures and losses are not uncommon in hedging and trading, such as the loss of US$9 billion by Morgan Stanley in a hedge in 2007 (Stulz 2013), and JP Morgan Chase’s trading loss of US$6.2 billion in 2012 (Lam 2013). The primary reason for the latter loss was the failure of the company’s risk oversight in preventing the CIO from raising corporate risk appetites hundreds of times in only months because, at the time, none of the company’s risk committee had wide risk experience (Lam 2013, 386-7).

Among the three main lines of defence, the board of directors is the last and the most important, and the only one that can appreciate the subtle, inherent dangers. In carrying

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First line of defense: Business and operating units decisions should be in line with the company’s risk appetite, which is established by the board of directors.

Second line of defense: CRO and ERM function (and Compliance). One of their primary duties is to establish and implement risk and compliance programs. These programs include policies that will guide and constrain the decision making processes of the business units, establishing the infrastructure and best-practice standards for ERM. This includes developing risk policies and procedures, analytical models, and data resources and reporting processes.

Third line of defense: Board of directors (and Internal Audit). As an industry standard, the audit committee usually serves as the third line of defense by itself (Lam 2013, 388).
out the three main responsibilities of governance, policy, and assurance (Lam 2013, 388), boards face problems of insufficient risk experience and expertise among board members. This makes it more difficult for the board to challenge management on major risk issues.

To sum up, directors’ insufficient understanding about financial derivatives in Vietnam is a matter for serious concern; however, there are a number of ways in which this can be improved as discussed in Chapter 7.

8.2. Contribution to Theory and Practice

The main theoretical contribution is the use of a combination of stakeholder theory, the theory of planned behaviour and the model of board attributes and roles in order to achieve a multi-angle view of directors’ behaviours in decisions on financial derivatives. Stakeholder theory and the model of board attributes are theories in management, while the theory of planned behaviour is based in the discipline of psychology. Board directors are individuals, so their actions can be studied from a psychological perspective.

Stakeholder theory supports the pragmatism and pluralism approaches (Freeman, Wicks, and Parmar 2004), accepting that there is a collection of interacting, reinforcing and contradicting theories of business strategy instead of an absolute one (Hitt, Freeman, and Harrison 2001, Hutton 1997). To analyse the behaviour of directors of boards in Vietnam, it is crucial to see them and their corporations in the context of the
business environment of the country. Directors’ personal attributes are the foundation for their decision making, and the outcome of that process depends on compatibility with the environment. The absence of an external institutional factor such as a legal framework in Vietnam for financial derivatives prohibits the private sector from fully developing the financial instruments market.

Corporate governance bundles, a concept initially introduced in 1995, are a combination of corporate governance practices that interact and, consequently, complement or substitute for each other as a bundle of related practices (Yoshikawa, Zhu, and Wang 2014). Schiehll, Ahmadjian, and Filatotchev (2014) viewed corporate governance systems as comprising bundles of interrelated or even intertwined external (country-level) and internal (firm-level) forces operating at both levels to govern the owner-manager relationship within an economy. National corporate governance bundles are the latest development and are different from either firm-level governance bundles or national governance systems (Schiehll, Ahmadjian, and Filatotchev 2014). The combination of factors into bundles suggests that interaction between firm and national factors is a better mechanism for investigating corporate governance issues.

In a similar way, this thesis has combined the two-level factors to some extent and found a range of reasons for directors’ limited knowledge of financial derivatives.

8.3. Contribution to Methodology

This study was an application of mixed methods research, using a combination of qualitative and quantitative methods to investigate the complicated relationship between board directors and financial derivatives. By using a mix of survey and interview, comprehensive empirical data on this topic were produced. The follow-up interviews provided insights into issues that arose from the survey results; they served
to provide deeper explanations for the quantitative findings. In addition, three major themes (directors’ understanding of financial derivatives, the influence of their understanding on directors’ features in the research model, and the relationship between gaps, risks and corporate policy in the directors’ perceptions) and three sub-themes (business culture, the government roles in setting up financial derivatives market and the market of these instruments) emerged from the interviews. The themes expanded the research beyond individual directors and internal companies to include the country’s legal environment.

While other mixed methods studies usually use qualitative research as the first step to establish concepts and variables, and then follow this up with quantitative research to test causal relationships among the variables, this thesis reversed this process. The study commenced with a survey to discover the overall scale of directors’ understanding of financial derivatives in Vietnam and any potential implications for corporate risk management and corporate governance policy. This was followed by interviews to explore more deeply the issues arising from the survey results. The quantitative component of this thesis successfully adapted and developed a survey to measure key facets of individual directors’ decision making with a high level of reliability.

Social research is often divided into two main areas of study: general laws of group life and diagnosis of a specific situation; these are also called the explanation and understanding approaches (Coghlan 2011, 56). This thesis is an example of both combined in one study.

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65 The former emulated the natural sciences, by grounding research in high standards of both evidence and inference, and led to the empiricist tradition of research. The latter, critical of the former’s ability to deal with human meaning, sought to emphasise the interpretation of human meaning in the science of human organisation and action and led to the hermeneutic tradition of research (Coghlan 2011, 59).
8.4. Limitations and Recommendations for Future Research

This research was based on data on board directors from the single country of Vietnam. This limits how far the results can be generalised globally. It is suggested that future research could simultaneously measure individual directors’ attributes in multiple countries and undertake cross-country analyses. This option is possible if time and funding are available and can be done by translating the survey developed in this thesis.

The size of the thesis sample is another limitation. The number of 119 usable questionnaires was not sufficient to use various multivariate data analysis techniques. However, tests of the hypotheses that were undertaken and the further correlations performed are defensible. In addition, significant effort was made to increase the response rate, including using both online and paper-based survey delivery; repeating the distribution of the survey; and using both public databases and personal relationships to obtain access to directors. In the prevailing conditions, especially the culture, of Vietnam and with the difficulty in accessing directors, it was impossible to collect a full random sample, so a convenience sample was used in the survey and snowball sampling was used to select interviewees. Both sampling methods limit the capacity to generalise from the results. Furthermore, this thesis was undertaken at an opportune moment just before the launching of the first official derivatives market in Vietnam in August 2017 (State Securities Commission of Vietnam 2017a). The thesis findings, even though limited due to sample size, can be used as a baseline for future longitudinal research.

In spite of the advantage of diversifying data by directly asking directors about their knowledge and thinking, rather than via another party, the direct data collection in this study suffers from the self-report bias that is normal for research on directors. This
bias means that care is needed in interpreting the results. Participants usually modify their answers to meet social or interviewers’ expectations. Future studies in Vietnam, when the financial derivatives market is fully formed, should use data from multiple sources to reduce the bias effect.

This study is cross-sectional, with data collected at one point in time. Change over time in directors’ knowledge, intention and other characteristics should be of interest, and this is an option for future studies.

The survey design might lead to a learning effect in which participants could predict the purpose of the questions and change their answer accordingly. Separating sections of the survey by using distracting questions or multiple surveys is suggested for future research to address this issue.

Data were collected from directors of publicly listed companies only; directors of private joint stock companies were excluded. Future studies could expand the participants to include the latter group. In addition, this thesis has one key finding about the difference in risk propensity between directors from state-owned enterprises and private companies, a difference that should be explored further in future research.

Active and involved directors are good for corporate performance (Letendre 2004), since they create an engaged board that can use members’ cohesion and human capital (Charan, Useem, and Carey 2013). To fulfil their duties, directors need in-depth knowledge (Sherony and Crum 2014); however, they are not selected on the basis of qualifications, but on their support for the management (Brown 2015, 133). That is the reason why their lack of knowledge is persistent. Directors lacking knowledge were blamed for bank failures during the 2008 global financial crisis (Lam 2013). However, having a higher proportions of domain-expert directors may lead to greater likelihood
of organisational failure in decisions where there is a great deal of uncertainty (Almandoz and Tilcsik 2016, 1143). Furthermore, greater numbers of independent directors with financial expertise were closely related to lower performance during the crisis because they had a strong tendency to take risks (Minton, Taillard, and Williamson 2014, 351). Either too little or too much expertise is problematic, so the question of “How much is enough?” provides an opening for further research.

8.5. Conclusion

This research adds to the literature on the usefulness and compatibility of mixed method approaches, provides support for the use of a combination of stakeholder theory, theory of planned behaviour and model for board roles and attributes, and provides deeper knowledge about individual directors’ behaviour in an emerging economy.

The initial major research question of how directors of boards in Vietnam understand the use of financial derivatives, their attitudes to using derivatives, and the subsequent effects on corporate governance has been answered by the two sub-studies in this mixed methods approach.

Directors’ knowledge of the use of financial derivatives and risk acceptance tendency together with their personal attributes (age, gender, education, working experience) and corporate features (industry, scale) were integrated into the model of theory of planned behaviour to simultaneously measure the knowledge level and its associations with other factors, especially the attitude and the intention to use the instruments.

This thesis provides support for the current evidence in the literature that board directors in Vietnam do have some basic understanding about financial derivatives,
but lack sufficient knowledge about most of the important aspects such as pricing, transaction procedures and risk management, so in general their understanding about derivatives is lower than expected, compared to their peers in more developed economies.

The knowledge is significantly and positively correlated with directors’ attitude, risk propensity and their perception of control; however, its correlation with perceived support from related people is significantly negative. The direction of these correlations is reasonable. Nevertheless, the major gaps between directors’ low knowledge, highly positive attitude and strong intention do raise significant concerns among those directors with financial expertise.

Vietnam’s corporate governance context plays a crucial role in shaping directors’ perceptions about financial derivatives and related issues. An inadequate legal framework and a business culture without a focus on risk management inhibit market establishment and development. A weak market does not create sufficient motivation for directors to learn and better understand the use of such instruments.

On 10 August 2017, the stock index financial derivatives market in Vietnam was officially launched with futures contracts on HNX30 index (State Securities Commission of Vietnam 2017a). The engine has been started to meet the demand for new trading products as well as risk management tools by financial institutions and a number of individual investors. These organisations and individuals need a market with liquidity which means more and more participants are needed to keep the market running smoothly. The market is now restricted to domestic participants, and foreigners, who are more knowledgeable and financially healthier, are excluded. There will be campaigns to attract companies and people into the market to create liquidity.
Therefore, raising potential investors’ (including board directors) understanding and awareness of financial derivatives is essential for a healthy market.

The directors who were interviewed and do have financial expertise were fully aware of the importance of raising directors’ knowledge about financial derivatives as a way to ensure an expanded use of the instruments for business purposes. The question remains as to how this will be achieved. In a corporate governance domain dominated by the leading role of the government, the government in Vietnam is once again a key stakeholder. The reliance on the government has been strengthened by the experience of failure in the coffee industry, airline fuel and currency exchanges, in which the mismatch in understanding by the government and the related companies and banks was a primary causal factor. The government’s primary task is to set up legal framework, develop underlying markets and conduct knowledge dissemination and widespread training. The recent opening of the newly formed stock index derivatives market is one more step in this process.

The responsibility also lies with companies and directors themselves. Companies should count on using outside financial derivatives experts as a source of information, expertise and training. At the policy level, boards of directors should establish a rigorous corporate policy on financial derivatives that encompasses a risk management framework, delegation of approval authority, ethics for staff and using external consultancies. A carefully drafted financial derivatives policy would release directors from tracking daily transactions to a more enhanced focus on trajectory of corporate operations, providing more autonomy to lower management officers, and setting the foundation for an effective business system.
Individual directors can increase their own knowledge through self-learning and by enhancing their practical work experience. These are more practical and efficient recommended changes. Directors’ expertise is crucial to success of the stakeholder governance model. Learning from Athen’s demarchy form of governance in which decision makers are systematically and randomly selected, Sherony and Crum (2014) suggested a dual-chamber board of directors. One includes shareholder representatives and the other chamber holds members drawn by lot from other stakeholders. The two chambers are designed to include fair representation of stakeholders and adequate levels of expertise in order to make the random selection effective (Sherony and Crum 2014), 11).

Vietnam has joined the 41 countries with active financial derivatives markets on the global stage (a statistic by the researcher in 2017). The findings from Vietnam should be helpful for other emerging derivatives markets and for nations with plans for such markets.
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Appendix 1: Cover Letter and Consent Form (English & Vietnamese)

Information Letter

"Understanding Financial Derivative Usage by Directors and Its Impact on Corporate Governance Policies: A Comprehensive Investigation into Vietnam Case"

Dear Sir or Madam,

The purpose of this project is to collect data for an analysis of how directors of boards in Vietnam understand financial derivatives (both the upside and downside), their attitudes towards these derivatives, and the subsequent effects on corporate governance. This is part of my PhD study at Murdoch University.

To help me achieve this objective, I will ask you to complete an online survey. The survey will ask about your occupation, education background and company you are working for and issues related to financial derivatives. Some of these questions may be seen as personal and private. You can choose not to answer any of the questions on topics sensitive to you.

You are also invited to participate in personal interviews following the survey. The interview will last about 1½ hours with the time and venue as you specify, and it will focus on your understanding of financial derivatives to good corporate governance policies.

All answers will be kept confidential in any publication from this research, so there is no foreseeable risk to participants.

My supervisor and I are happy to discuss with you any concerns you may have about this study.

You can expect to receive feedback in 1 year and a half after the survey and interview.

Sincerely

Lien Tran

This study has been approved by the Murdoch University Human Research Ethics Committee (Approval 2014/006). If you have any reservation or complaint about the ethical conduct of this research, and wish to talk with an independent person, you may contact Murdoch University’s Research Ethics Office (Tel. 08 9360 6577 (for overseas studies, +61 8 9360 6677) or e-mail ethics@murdoch.edu.au). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Project researchers contact details:

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Project principal supervisor: David Holloway
Tel: +61 8 9360 1639
Email: D.Holloway@murdoch.edu.au
Thu mời tham gia khảo sát trong khuôn khổ Đề án nghiên cứu

"NHẬN THỰC CỦA THÀNH VIÊN HỘI ĐỒNG QUẢN TRỊ VỀ VIỆC SỬ DỤNG CÔNG CỤ TÀI CHÍNH PHÁI SINH VÀ TÁC ĐỘNG TỚI CHÍNH SÁCH QUẢN TRỊ CÔNG TY: MỘT KHÁO SÁT TOÁN DIỄN VỀ VIỆT NAM"

Kính gửi Quy Ởng/Quy  testimż én

Mục đích của dự án nghiên cứu này là thu thập dữ liệu cho việc phân tích xem các thành viên hội đồng quản trị ở Việt Nam nhận thức như thế nào về việc sử dụng công cụ tài chính phải sinh (cả một tich cực và tiêu cực), thái độ của họ đối với việc sử dụng công cụ tài chính phải sinh và tác động của những hiểu biết và thái độ này tới quan trọng công ty. Đây là một phần của chương trình nghiên cứu sinh mà tôi đang thực hiện tại Đại học Murdoch.

Với mục tiêu nghiên cứu như vậy, tôi kính mong Ởng/ testimż e có thể tham gia khảo sát trực tuyến. Khảo sát này sẽ hỏi quan điểm của Ởng/ testimż e về những vấn đề liên quan đến việc sử dụng công cụ tài chính phải sinh, nghề nghiệp, trình độ đào tạo và một số thông tin cơ bản về công ty nơi testimż e đang làm việc. Thời gian cần thiết để trả lời khảo sát này là từ 15 đến 20 phút.

Liên kết tới Khảo sát: https://www.surveymonkey.com/r/QW3NSQN

 testimż e có thể tham gia khảo sát trực tuyến của tôi. Câu hỏi sẽ kéo dài không quá một giờ đồng hồ với nội dung xoay quanh việc sử dụng công cụ tài chính phải sinh và chính sách quan trọng công ty.

Tất cả các câu trả lời sẽ được giữ bí mật đảm bảo không được xoay quanh việc sử dụng công cụ tài chính phải sinh và chính sách quan trọng công ty.

Tôi và các người hỗ trợ của tôi rất quý trọng sự tham gia của testimż e và có bất kỳ lo lắng nào liên quan tới việc đánh giá của testimż e.

Tôi và các người hỗ trợ của tôi rất quý trọng sự tham gia của testimż e và có bất kỳ lo lắng nào liên quan tới việc đánh giá của testimż e.

Các kết quả phân tích từ khảo sát trực tuyến và phản ánh được kết quả của việc tham gia của testimż e.

Liên kết tới Khảo sát: https://www.surveymonkey.com/r/QW3NSQN

Trân trọng,
Trần Thị Hồng Liên
Nghiên cứu này đã nhận được sự phê duyệt của Ủy ban Đạo đức trong Nghiên cứu thực hiện trên con người (Quyết định phê duyệt số 2014/006). Nếu ông/bà có bất kỳ thắc mắc nào về khía cạnh đạo đức của nghiên cứu này, và muốn trao đổi ý kiến với một cá nhân được lập, ông/bà có thể liên lạc với Văn phòng Đạo đức Nghiên cứu trực thuộc Đạo đức Murdoch tại số điện thoại +61 8 9360 6677 hoặc gửi thư điện tử về địa chỉ ethics@murdoch.edu.au. Tất cả ý kiến của ông/bà sẽ được giữ bí mật và điều tra đầy đủ, kết quả cuối cùng sẽ được thông tin tới ông/bà.

Thông tin liên hệ của các nhà nghiên cứu trong dự án:

<table>
<thead>
<tr>
<th>Nghiên cứu sinh</th>
<th>Liên Trân</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile: +69412864635</td>
<td>Email: <a href="mailto:L.Tran@murdoch.edu.au">L.Tran@murdoch.edu.au</a></td>
</tr>
<tr>
<td>Giáo sư hướng dẫn chính:</td>
<td>David Holloway</td>
</tr>
<tr>
<td>Tel: +61 8 9360 1639</td>
<td>Email: <a href="mailto:D.Holloway@murdoch.edu.au">D.Holloway@murdoch.edu.au</a></td>
</tr>
</tbody>
</table>
"Understanding Financial Derivative Usage by Directors and Its Impact on Corporate Governance Policies: A Comprehensive Investigation into Vietnam Case"

Consent Form

I have read the brief project information letter, which explains the nature of the research and the possible risks. The information has been explained to me and all my questions have been satisfactorily answered. I have been given a copy of the information sheet to keep.

I am happy to be interviewed and for the interview to be audio recorded as part of this research. I understand that I do not have to answer particular questions if I do not want to and that I can withdraw at any time without needing to give a reason and without consequences to myself.

I agree that research data from the results of the study may be published provided my name or any identifying data is not used. I have also been informed that I may not receive any direct benefits from participating in this study.

I understand that all information provided by me is treated as confidential and will not be released by the researcher to a third party unless required to do so by law.

Do you agree to be recorded during the interview? □ Yes □ No

Participant’s name: ______________________

Signature of Participant: ______________________ Date: ____/____/____

I confirm that I have provided the Information Letter concerning this study to the above participant; I have explained the study and have answered all questions asked of me.

Signature of researcher: ______________________ Date: ____/____/____
XÁC NHẬN ĐỒNG Y THAM GIA PHÒNG VÂN

"HIỆU BIẾT CỦA THANH VIÊN HỘI ĐỒNG QUẢN TRỊ VỀ SỬ DỤNG CÔNG CỤ TÀI CHÍNH PHẢI SỊNH VÀ TÁC ĐỘNG TỚI CHÍNH SÁCH QUẢN TRỊ CÔNG TY: MỘT KHẢO SÁT TOÀN DIỄN VỀ VIỆT NAM"

Tôi đã đọc thư giới thiệu ngắn gọn về dự án nghiên cứu, trong đó giải thích về bản chất của nghiên cứu và rủ ro có thể xảy ra. Các thông tin đã được giải thích cho tôi và các câu hỏi của tôi đã được giải đáp thỏa đáng. Tôi đã nhận được một bản thông tin về dự án nghiên cứu.

Tôi đồng ý tham gia phòng van và chấp nhận nguyên phòng van ghi âm lại nội dung như là một phần của nghiên cứu này. Tôi hiểu rằng tôi không nhất thiết phải trả lời một câu hỏi cụ thể nào nếu như tôi không muốn và rằng tôi có thể rút khỏi cuộc phòng van bất kỳ lúc nào mà không cần đưa ra lý do và điều đó không làm tổn hại gì tôi cả nhân tôi.

Tôi đồng ý rằng dữ liệu liệu nghiên cứu từ các kết quả của nghiên cứu này có thể được xuất bản mà tôi tự lun hỏi các thông tin có thể liên hệ tôi tôi không xuất hiện trong đó. Tôi cũng được thông tin rằng tôi có thể không nhận được lợi ích trực tiếp nào từ việc tham gia vào nghiên cứu này.

Tôi hiểu rằng tất cả các thông tin mà tôi cung cấp được giữ bí mật và không được nhà nghiên cứu cung cấp cho mốt bên thứ ba trừ khi được luật pháp yêu cầu.

OWNER CO ĐỒNG Y CHO GHI ÂM CỤC PHÒNG VÂN KHÔNG? □ ĐỒNG Y □ KHÔNG ĐỒNG

Tên người tham gia: __________________________

Chữ ký người tham gia: __________________________ Ngày: .........../........

Tôi xác nhận rằng tôi đã cung cấp thư giới thiệu liên quan tới nghiên cứu này cho người tham gia ở trên. Tôi đã giải thích về nghiên cứu này và giải đáp tất cả các câu trả lời do người tham gia đưa ra.

Chữ ký của nhà nghiên cứu: __________________________ Ngày: .........../........
Appendix 2: Human Ethics Permits

Wednesday, 12 March 2014

Dr David Holloway
School of Management and Governance
Murdoch University

Dear David,

Project No. 2014/006
Project Title Understanding Financial Derivative Usage by Directors and Its Impact on Corporate Governance Policies: A Comprehensive Investigation into Vietnam

Thank you for addressing the conditions placed on the above application to the Murdoch University Human Research Ethics Committee. On behalf of the Committee, I am pleased to advise the application now has:

OUTRIGHT APPROVAL

Approval is granted on the understanding that research will be conducted according the standards of the National Statement on Ethical Conduct in Human Research (2007), the Australian Code for the Responsible Conduct of Research (2007) and Murdoch University policies at all times. You must also abide by the Human Research Ethics Committee’s standard conditions of approval (see attached). All reporting forms are available on the Research Ethics web-site.

I wish you every success for your research.

Please quote your ethics project number in all correspondence.

Kind Regards,

Dr. Erich von Dietze
Manager of Research Ethics
Monday, 11 May 2015

Dr. David Holloway  
School of Management and Governance  
Murdoch University

Dear David,

Project No. 2014/006  
Project Title Understanding Financial Derivative Usage by Directors and Its Impact on Corporate Governance Policies: A Comprehensive Investigation into Vietnam

On behalf of the Murdoch University Human Research Ethics Committee, I certify that this project is renewed until 31 March 2016, subject to any conditions listed below. This approval is effective ONLY with respect to the project as described in the original application and any subsequent amendments that have received approval.

As a condition of the approval of your human research ethics application you are required to report immediately anything, which might affect ethical acceptance of your project’s protocols, including:

- Adverse effects on subjects
- Proposed changes in the protocols
- Unforeseen events that might affect continued ethical acceptability of the project.

Kind Regards,

[Signature]

Dr. Erich von Dietze  
Manager  
Research Ethics and Integrity
Appendix 3: Survey Questionnaire

1. Are you a director of at least one corporate board of directors?
   
   ○ Yes
   ○ No

Information and Consent

"Understanding Financial Derivative Usage by Directors and Its Impact on Corporate Governance Policies: A Comprehensive Investigation into Vietnam"

This project is an analysis of how directors of boards in Vietnam understand financial derivatives usage (both the upside and downside), their attitudes towards the usage, and the subsequent effects on corporate governance.

I am a PhD candidate from Murdoch University, and I am investigating in these problems. I hope that you can help me by answering some short questions. The survey is anonymous. Although the findings of the survey may be published, none of the information you provide can be linked back to you as an individual.

It takes about 20 minutes to answer the questionnaire.

If, after reading the information above, you agree to continue with the survey, choose 'YES' from the options below and proceed. Should you change your mind at any time and decide to withdraw, simply close your browser and you will automatically exit the survey. Note, though, once you click the 'DONE' button at the end of the survey your responses will be uploaded and it will not be possible to withdraw or amend them because the researcher cannot tie responses to you as an individual.

If you want more information before you decide whether or not to participate, email Lien Tran at L.Tran@murdoch.edu.au.

If you do not agree to proceed with the survey, please choose 'NO' from the options below or simply close this window to leave the survey.

This study has been approved by the Murdoch University Human Research Ethics Committee (Approval 2014/006). If you have any reservation or complaint about the ethical conduct of this research, and wish to talk with an independent person, you may contact Murdoch University’s Research Ethics Office (Tel. 08 9360 6677 for overseas studies, +61 8 9360 6677 or email ethics@murdoch.edu.au). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

2. Would you like to proceed with this survey?
   
   ○ YES
   ○ NO

I. Knowledge of Use of Financial Derivatives

Explanation of terms:

Forward contract: A contract that obligates the holder to buy or sell an asset for a predetermined delivery price at a predetermined future time.

Futures contract: A contract that obligates the holder to buy or sell an asset at a predetermined delivery price during a specified future time period. The contract is marked to market daily.
Option: A contract that gives the holder the right to buy or sell an asset.

Swap: An agreement to exchange cash flows in the future according to a prearranged formula.

From Question 2 to Question 10: To what extent do you understand about financial derivatives and related issues as listed in the questions?

From Question 11 to Question 14: Please answer the questions as instruction.

3. Technical issues related to forward contracts
   - Very limited
   - Limited
   - Moderate
   - Good
   - Comprehensive
   - Don’t know

4. Technical issues related to futures contracts
   - Very limited
   - Limited
   - Moderate
   - Good
   - Comprehensive
   - Don’t know

5. Technical issues related to SWAP contracts
   - Very limited
   - Limited
   - Moderate
   - Good
   - Comprehensive
   - Don’t know

6. Technical issues related to Options
   - Very limited
   - Limited
   - Moderate
   - Good
   - Comprehensive
   - Don’t know

7. Methods for pricing financial derivatives
   - Very limited
   - Limited
   - Moderate
   - Good
   - Comprehensive
   - Don’t know

8. Techniques for evaluating risks associated with using financial derivatives
   - Very limited
   - Limited
   - Moderate
   - Good
   - Comprehensive
   - Don’t know

9. Purpose(s) of using financial derivatives
   - Very limited
   - Limited
   - Moderate
   - Good
   - Comprehensive
   - Don’t know

10. The risks associated with using financial derivatives
    - Very limited
    - Limited
    - Moderate
    - Good
    - Comprehensive
    - Don’t know

11. Procedures in financial derivatives transactions
    - Very limited
    - Limited
    - Moderate
    - Good
    - Comprehensive
    - Don’t know

12. In general, my knowledge of financial derivatives is ........
    - Extremely weak
    - Weak
    - Moderate
    - Strong
    - Extremely strong
13. To what extent would you consider yourself informed about financial derivatives?
- Extremely informed
- Uninformed
- Moderate
- Informed
- Extremely informed

14. The information search I have performed about financial derivatives is
- Extremely weak
- Weak
- Moderate
- Strong
- Extremely strong

15. To what extent do you agree with this statement “I don’t have much experience in making decision about financial derivatives”?
- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

II. Attitude toward Using Financial Derivatives

Please fill in the blanks with the most appropriate word in the answer options or follow the instruction.

- Extremely bad
- Bad
- Neither good nor bad
- Good
- Extremely good

17. Using futures contracts is ........ for control overall business risks.
- Extremely useless
- Useless
- Neither useful nor useless
- Useful
- Extremely useful

18. It is ........ to use forward contracts for controlling accounting records.
- Extremely harmful
- Harmful
- Neither harmful nor beneficial
- Beneficial
- Extremely beneficial

19. Pricing SWAP contract is ........
- Extremely unpleasant
- Unpleasant
- Neither unpleasant nor pleasant
- Pleasant
- Extremely pleasant

20. Selecting appropriate options is ........
- Extremely difficult
- Difficult
- Neither difficult nor easy
- Easy
- Extremely easy

21. Putting money into financial derivatives is ........
- Extremely foolish
- Foolish
- Neither foolish nor wise
- Wise
- Extremely wise

22. Managing financial derivatives is ........
- Extremely boring
- Boring
- Neither boring nor interesting
- Interesting
- Extremely interesting
23. Outcomes from using financial derivatives are....

- Extremely unprofitable
- Unprofitable
- Neither unprofitable nor profitable
- Profitable
- Extremely profitable

III. Risk propensity

24. How likely are you to choose riskier alternatives based on the assessment of others on whom you must rely on such as management board, financial officers, accounting officers or family members?

- Extremely unlikely
- Unlikely
- Neither unlikely nor likely
- Likely
- Extremely likely

25. How likely are you to choose riskier alternatives which could have a major impact on your own future?

- Extremely unlikely
- Unlikely
- Neither unlikely nor likely
- Likely
- Extremely likely

26. How likely are you to choose riskier alternatives which rely upon analyses that are high in technical complexity?

- Extremely unlikely
- Unlikely
- Neither unlikely nor likely
- Likely
- Extremely likely

27. How likely are you to initiate a financial action which has the potential to backfire?

- Extremely unlikely
- Unlikely
- Neither unlikely nor likely
- Likely
- Extremely likely

28. How likely are you to support a decision when you are aware that relevant analyses were done while missing several pieces of information?

- Extremely unlikely
- Unlikely
- Neither unlikely nor likely
- Likely
- Extremely likely

IV. Important People's Point of View toward Using Financial Derivative

To what extent do you agree with the following statements?

"Important people" in the following questions include shareholders, board of management, big business partners, subordinates, close friends and family members.

29. "Most people who are important to me would think that using financial derivatives is a wise idea."

- Strongly disagree
- Disagree
- Neither agree or disagree
- Agree
- Strongly agree
30. "Most people who are important to me would think I should use financial derivatives."

- Strongly disagree
- Disagree
- Neither agree or disagree
- Agree
- Strongly agree

31. "My subordinates would think that using financial derivatives is a wise idea."

- Strongly disagree
- Disagree
- Neither agree or disagree
- Agree
- Strongly agree

32. "Company shareholders who are important to me would think that using financial derivatives is a good idea."

- Strongly disagree
- Disagree
- Neither agree or disagree
- Agree
- Strongly agree

33. "Business partners who are important to me would think that using financial derivatives is a good idea."

- Strongly disagree
- Disagree
- Neither agree or disagree
- Agree
- Strongly agree

34. "My family who are important to me would think I should use financial derivatives."

- Strongly disagree
- Disagree
- Neither agree or disagree
- Agree
- Strongly agree

V. Perceived Behavioral Control over Using Financial Derivatives for Business...

Please fill in the blanks with appropriate word in the answer options, to what extent do you agree with the statements in quotation mark ("...") or follow the instructions

35. For me to evaluate forward contracts is .......

- Extremely difficult
- Difficult
- Neither difficult nor easy
- Easy
- Extremely easy

36. "If I wanted to, it would be easy for me to select a supplier of futures contracts"

- Strongly disagree
- Disagree
- Neither agree or disagree
- Agree
- Strongly agree

37. How much control do you have over transaction of financial derivatives?

- Almost no control
- Little control
- Moderate control
- Much control
- Total control

38. "I believe that I have the ability to enforce decision to use SWAP contracts when needed"

- Strongly disagree
- Disagree
- Neither agree or disagree
- Agree
- Strongly agree
39. “I believe that I can find capable staffs to conduct financial derivatives transactions.”
   - Strongly disagree
   - Disagree
   - Neither agree or disagree
   - Agree
   - Strongly agree

40. How confident are you that you will be able to persuade your companies to use options?
   - Almost no confidence
   - Little confidence
   - Moderate confidence
   - A lot of confidence
   - Total confidence

41. “Using financial derivatives is entirely up to me”
   - Strongly disagree
   - Disagree
   - Neither agree or disagree
   - Agree
   - Strongly agree

42. To what extent do you feel that ordering management to use financial derivatives is within your control?
   - Totally beyond my control
   - Mostly beyond my control
   - Within my control
   - Mostly within my control
   - Totally within my control

43. The number of events outside my control which could prevent me from recommending company to use financial derivatives are: ..........
   - Very few
   - A Few
   - A Moderate amount
   - A lot
   - Numerous

VI. Intention to Use Financial Derivatives for Business Purposes

To what extent do you agree with the following statements?

44. "I would like to use financial derivatives for my business in the near future.”
   - Strongly disagree
   - Disagree
   - Neither agree or disagree
   - Agree
   - Strongly agree

45. "I intend to use financial derivatives for my business in the near future.”
   - Strongly disagree
   - Disagree
   - Neither agree or disagree
   - Agree
   - Strongly agree

46. "I plan to use financial derivatives for my business in the near future.”
   - Strongly disagree
   - Disagree
   - Neither agree or disagree
   - Agree
   - Strongly agree

47. "I will make an effort to prepare my company to using financial derivatives in the near future.”
   - Strongly disagree
   - Disagree
   - Neither agree nor disagree
   - Agree
   - Strongly agree
### Appendix 4: Non-Parametric Correlations among Directors’ Knowledge, Attitude, Risk Propensity, Subjective Norm, Perceived Behavioural Control and Intention to Use Financial Derivatives

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Knowledge</th>
<th>Attitude</th>
<th>Risk Propensity</th>
<th>Subjective Norm</th>
<th>Perceived Control</th>
<th>Intention</th>
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<tr>
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<td>Sig. (2-tailed)</td>
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<td>119</td>
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<tr>
<td>Attitude</td>
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<td>261**</td>
<td>590**</td>
<td>289**</td>
<td>516**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
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<td>119</td>
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<td>RiskPropensity</td>
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<td>.261**</td>
<td>1.000</td>
<td>222*</td>
<td>206*</td>
<td>292**</td>
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<td>Sig. (2-tailed)</td>
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<td>.004</td>
<td>.015</td>
<td>.024</td>
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<td>.001</td>
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<tr>
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<td>SubjectiveNorm</td>
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<td>.590**</td>
<td>222*</td>
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<td>.457**</td>
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<td>.000</td>
<td>.015</td>
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<tr>
<td>PerceivedControl</td>
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<td>.289**</td>
<td>.206*</td>
<td>.457**</td>
<td>1.000</td>
<td>.431**</td>
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<tr>
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<td>.001</td>
<td>.024</td>
<td>.000</td>
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<tr>
<td>Intention</td>
<td>.168</td>
<td>.516**</td>
<td>.292**</td>
<td>.548**</td>
<td>.431**</td>
<td>1.000</td>
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<tr>
<td>Sig. (2-tailed)</td>
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*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).
### Appendix 5: Double Check on Factor Analysis by Covering All Selected Items

#### KMO and Bartlett's Test

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .861 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 3616.352 |
| df | 666 |
| Sig. | .000 |

#### Communalities

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<tr>
<th>Item</th>
<th>Initial</th>
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<td>6. Technical issues related to Options</td>
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<tr>
<td>9. Purpose(s) of using financial derivatives</td>
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<td>10. The risks associated with using financial derivatives</td>
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<td>11. Procedures in financial derivatives transactions</td>
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<td>12. In general, my knowledge of financial derivatives is ………</td>
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<td>13. To what extent would you consider yourself informed about financial derivatives?</td>
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<td>14. The information search I have performed about financial derivatives is……..</td>
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<td>16. Using financial derivatives is …….. for managing business.</td>
<td>1.000</td>
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<td>17. Using futures contracts is …….. for control overall business risks.</td>
<td>1.000</td>
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<td>18. It is ……. to use forward contracts for controlling accounting records.</td>
<td>1.000</td>
<td>.573</td>
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<td>21. Putting money into financial derivatives is ……..</td>
<td>1.000</td>
<td>.678</td>
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<tr>
<td>22. Managing financial derivatives is ……..</td>
<td>1.000</td>
<td>.717</td>
</tr>
<tr>
<td>23. Outcomes from using financial derivatives are ….</td>
<td>1.000</td>
<td>.803</td>
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<tr>
<td>25. How likely are you to choose riskier alternatives which could have a major impact on your own future?</td>
<td>1.000</td>
<td>.691</td>
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<tr>
<td>26. How likely are you to choose riskier alternatives which rely upon analyses that are high in technical complexity?</td>
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<td>.692</td>
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<td>27. How likely are you to initiate a financial action which has the potential to backfire?</td>
<td>1.000</td>
<td>.688</td>
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<td>28. How likely are you to support a decision when you are aware that relevant analyses were done while missing several pieces of information?</td>
<td>1.000</td>
<td>.774</td>
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<td>29. &quot;Most people who are important to me would think that using financial derivatives is a wise idea.&quot;</td>
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<td>.722</td>
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<td>30. &quot;Most people who are important to me would think I should use financial derivatives.&quot;</td>
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<td>32. &quot;Company shareholders who are important to me would think that using financial derivatives is a good idea.&quot;</td>
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<td>33.</td>
<td>&quot;Business partners who are important to me would think that using financial derivatives is a good idea.&quot;</td>
<td>1.000 0.810</td>
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<td>34.</td>
<td>&quot;My family who are important to me would think I should use financial derivatives.&quot;</td>
<td>1.000 0.736</td>
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<td>35.</td>
<td>For me to evaluate forward contracts is ………</td>
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<td>How much control do you have over transaction of financial derivatives?</td>
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<td>38.</td>
<td>&quot;I believe that I have the ability to enforce decision to use SWAP contracts when needed&quot;</td>
<td>1.000 0.702</td>
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<td>40.</td>
<td>How confident are you that you will be able to persuade your companies to use options?</td>
<td>1.000 0.627</td>
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<td>42.</td>
<td>To what extent do you feel that ordering management to use financial derivatives is within your control?</td>
<td>1.000 0.616</td>
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<td>44.</td>
<td>&quot;I would like to use financial derivatives for my business in the near future.&quot;</td>
<td>1.000 0.886</td>
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<tr>
<td>45.</td>
<td>&quot;I intend to use financial derivatives for my business in the near future.&quot;</td>
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Extraction Method: Principal Component Analysis.
### Total Variance Explained

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Extraction Method: Principal Component Analysis.
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<td>11. Procedures in financial derivatives transactions</td>
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<td>12. In general, my knowledge of financial derivatives is ..........</td>
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<td>13. To what extent would you consider yourself informed about financial derivatives?</td>
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<td>14. The information search I have performed about financial derivatives is........</td>
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<td>16. Using financial derivatives is ........ for managing business.</td>
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<td>17. Using futures contracts is ...... for control overall business risks.</td>
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<td>18. It is ...... to use forward contracts for controlling accounting records.</td>
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<td>21. Putting money into financial derivatives is ........</td>
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<td>23. Outcomes from using financial derivatives are ....</td>
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<tr>
<td>25. How likely are you to choose riskier alternatives which could have a major impact on your own future?</td>
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<tr>
<td>26. How likely are you to choose riskier alternatives which rely upon analyses that are high in technical complexity?</td>
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<td>27. How likely are you to initiate a financial action which has the potential to backfire?</td>
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<td>28. How likely are you to support a decision when you are aware that relevant analyses were done while missing several pieces of information?</td>
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<td>29. &quot;Most people who are important to me would think that using financial derivatives is a wise idea.&quot;</td>
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<td>30. &quot;Most people who are important to me would think I should use financial derivatives.&quot;</td>
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<tr>
<td>31. &quot;My subordinates would think that using financial derivatives is a wise idea.&quot;</td>
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<tr>
<td>32. &quot;Company shareholders who are important to me would think that using financial derivatives is a good idea.&quot;</td>
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<tr>
<td>33. &quot;Business partners who are important to me would think that using financial derivatives is a good idea.&quot;</td>
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<td>34. &quot;My family who are important to me would think I should use financial derivatives.&quot;</td>
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<td>35. For me to evaluate forward contracts is ........</td>
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<td>37. How much control do you have over transaction of financial derivatives?</td>
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<td>38. &quot;I believe that I have the ability to enforce decision to use SWAP contracts when needed&quot;</td>
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<td>40. How confident are you that you will be able to persuade your companies to use options?</td>
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<td>42. To what extent do you feel that ordering management to use financial derivatives is within your control?</td>
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Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 8 iterations.
### Appendix 6: Normal and Partial Non-Parametric Correlations of Variates in the Research Model

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### Continued Appendix 6

#### Significant Correlations – Controlled for...

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Appendix 7: Test of Normality of Variates

Descriptive Statistics of Six Variates

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Histograms of Six Variates
Continued Appendix 7

### Tests of Normality

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*. This is a lower bound of the true significance.

<sup>a</sup> Lilliefors Significance Correction
## Appendix 8: Kruskal-Wallis Test of Differences in Knowledge among Groups of Personal and Corporate Features

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<td></td>
<td></td>
</tr>
<tr>
<td>100 to 200</td>
<td>21</td>
<td>57.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 to 500</td>
<td>23</td>
<td>67.93</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500 to 1000</td>
<td>14</td>
<td>55.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000 or more</td>
<td>14</td>
<td>82.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>119</td>
<td>9.838</td>
<td>4</td>
<td>.043</td>
<td></td>
</tr>
<tr>
<td>55. What is your company’s last year turnover? (Billions Vietnam Dong)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 5,000</td>
<td>93</td>
<td>56.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5,000 to 10,000</td>
<td>10</td>
<td>63.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,000 to 15,000</td>
<td>5</td>
<td>79.90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15,000 or more</td>
<td>11</td>
<td>76.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>119</td>
<td>5.243</td>
<td>3</td>
<td>.155</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 9: Risk Management Frameworks

Source: Hardy (2014, 131)

Source: Hardy (2014, 135)
Continued Appendix 9

FERMA Risk Management Standard

Source: Hardy (2014, 141)
Continued Appendix 9

Governance Institute of Australia – A Model for Board Oversight of Risk Management

Source: Governance Institute of Australia (2016, 3)

COSO’s ERM Framework Highlights

Source: Hardy (2014, 138)
Continued Appendix 9

Eight Components Of ERM
Building Your Framework

Internal Environment
- Risk management philosophy
- Risk culture
- Board of directors
- Integrity and ethical values
- Commitment to competence
- Management’s philosophy and operating style
- Risk appetite
- Organizational structure
- Assignment of authority and responsibility
- Human resource policies and practices

Objective Setting
- Strategic objectives
- Related objectives
- Selected objectives
- Risk appetite
- Risk tolerance

Event Identification
- Events
- Factors influencing strategy and objectives
- Methodologies and techniques
- Event interdependencies
- Event categories
- Risks and opportunities

Risk Assessment
- Inherent and residual risk
- Likelihood and impact
- Methodologies and techniques
- Correlation

Risk Response
- Identify risk responses
- Evaluate possible risk responses
- Select responses
- Portfolio view

Control Activities
- Integration with risk response
- Types of control activities
- General controls
- Application controls
- Entity specific

Information and Communication
- Information
- Strategic and integrated systems
- Communication

Monitoring
- Separate evaluation
- Ongoing evaluation

Source: Lorton (2005, 20)
Appendix 10: Tests of Differences in Knowledge of Director (Qualification and Working Experience) Groups: Finance and Accounting versus Others

T-TEST GROUPS=QualificationFAandOthers(1 2)
/MISSING=ANALYSIS
/VARIABLES=Knowledge
/CRITERIA=CI(.95).

### T-Test

#### Group Statistics

<table>
<thead>
<tr>
<th></th>
<th>QualificationFAandOthers</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Others</td>
<td>59</td>
<td>29.5763</td>
<td>9.49628</td>
<td>1.23631</td>
</tr>
<tr>
<td></td>
<td>Finance and Accounting</td>
<td>60</td>
<td>33.5167</td>
<td>8.50820</td>
<td>1.09840</td>
</tr>
</tbody>
</table>

#### Independent Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Equal variances assumed</td>
<td>.538</td>
<td>.465</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>-2.383</td>
<td>115.164</td>
</tr>
</tbody>
</table>

T-TEST GROUPS=ExperienceFAandOthers(1 2)
/MISSING=ANALYSIS
/VARIABLES=Knowledge
/CRITERIA=CI(.95).

**T-Test**

### Group Statistics

<table>
<thead>
<tr>
<th>ExperienceFAandOthers</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>57</td>
<td>28.8421</td>
<td>9.57450</td>
<td>1.26817</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance and Accounting</td>
<td>62</td>
<td>34.0645</td>
<td>8.11772</td>
<td>1.03095</td>
</tr>
</tbody>
</table>

### Independent Samples Test

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Equal variances assumed</td>
<td>.940</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>.940</td>
</tr>
</tbody>
</table>

377
Appendix 11: A Sample Risk Management Policy

ABC Corp Risk Management Policy
ABC Corp is one of the top ten securities companies in Vietnam.

Chapter 1: Overview
Objectives
Definitions

Chapter 2: Organization of Risk Management System
Organization
Duties and Responsibilities
- Board of Directors
- Executive Board
- Internal Audit and Internal Control
- Director in charge of Risk Management
- Risk Management Division
- Other Divisions

Chapter 3: Policy on Types of Risk

Market Risk
- Objectives and Scope of Regulation
- Methods for specifying risks
- Measure of risks
  - Measures of investment risks
  - Value at risk (VaR) measure of investment
  - Measures of risk in margin transactions
- Risk limits
- Risk information system and reporting mechanism

Payment Risk
- Objectives and Scope of Regulation
- Risk Specification and Measurement
  - Payment risk in margin transaction
  - Payment risk in deposits in commercial banks
  - Payment risk in issuance underwriting Treasury Bonds
- Risk limits
- Risk information system and reporting mechanism

Liquidity Risk
- Objectives and Scope of Regulation
- Liquidity risk Specification and Measurement
- Liquidity risk limits
- Risk information system and reporting mechanism

Operation Risk
- Objectives and Scope of Regulation
- Risk specification methods
  - Specifying risks based on objectives
  - Specifying risks based on situations
  - Specifying risks based on experience and antecedence
  - Specifying risk by mixed method
- Operation risk measurement
- Operation risk limits

378
Risk information system and reporting mechanism

Legal Risk
- Objectives and Scope of Regulation
- Risk specifying methods
  - Cooperation among Risk management division, Legal division, and other divisions
  - Drafting Compliance List in accordance with legal regulations
  - Fraud analysis and lessons learned
- Risk limits
- Risk information system and reporting mechanism

Penalties for Violations of Risk Limits

Exceptions

Implementation

RISK LIMITS FOR the year 2015

Legitimate risk limits
- Legitimate Limits Specified in Circular 210/2012/BTC
  - Limits on loans
  - Limits on borrowings
  - Limits on Investment
- Limits on lending for margin transactions (Decision 637/2011/UBCK)
  - Limits on lending for margin transactions
  - Limits on time duration of lending for margin transactions

Company Risk Limits
- Limits on investment
  - Investment in shares and fund certificates
  - Investment in treasury bonds
  - Deposits
- Limits on services
  - Limits on issuance underwriting with certainty commitment
  - Margin service

Implementation

Source: INT17
Appendix 12: A Sample Enterprise Risk Management Policy

- **Executive summary**: The executive summary provides a concise description of the purpose, scope and objectives for ERM. It may also provide a high-level summary of the key limits and risk tolerance levels.

- **Statement of risk philosophy**: The statement of risk philosophy discusses the overall approach to risk management. It should also include guiding risk principles that articulate the desired risk culture of the organization.

- **Governance structure**: The section on governance structure summarizes board committees and charters, and roles and responsibilities. Additionally, it should delineate the delegation of authority, including risk management and oversight responsibilities for key individuals.

- **Risk tolerance levels**: This section provides a statement of risk appetite, including specific limits or tolerance levels for critical risk exposures. It also provides exception management and reporting requirements.

- **Risk framework and processes**: This section summarizes the ERM framework, as well as key processes and specific requirements for overall risk management.

- **Risk policy standards**: This section discusses policy standards for all other risks so that the structure and content of risk policies are consistent across the organization.

- **Risk categories and definitions**: This section provides a taxonomy for commonly used risk terms and concepts, facilitating a common language for risk discussions.

Source: Lam (2013, 392)
Appendix 13: Mean Knowledge Scores Across Groups of Directors

<table>
<thead>
<tr>
<th>Descriptives</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Qualification in Finance and Accounting and Others</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>29.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Finance and Accounting</td>
<td>33.5</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Experience in Finance and Accounting and Others</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>28.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Finance and Accounting</td>
<td>34.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

48. What is your highest qualification?

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational training</td>
<td>28.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>29.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Master's degree</td>
<td>35.5</td>
<td>1.6</td>
</tr>
<tr>
<td>Doctorate or higher</td>
<td>33.6</td>
<td>3.7</td>
</tr>
</tbody>
</table>

49. What is your qualification specialization?

<table>
<thead>
<tr>
<th>Specialization</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>26.9</td>
<td>3.6</td>
</tr>
<tr>
<td>General management</td>
<td>30.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Finance</td>
<td>36.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Accounting</td>
<td>30.6</td>
<td>1.6</td>
</tr>
</tbody>
</table>

50. What is your primary area of working experience?

<table>
<thead>
<tr>
<th>Area of Experience</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>25.1</td>
<td>5.1</td>
</tr>
<tr>
<td>General management</td>
<td>29.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Finance</td>
<td>36.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Accounting</td>
<td>29.7</td>
<td>1.4</td>
</tr>
</tbody>
</table>

51. What is your company’s primary industry?

<table>
<thead>
<tr>
<th>Industry</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic material</td>
<td>29.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Industrial manufacturing</td>
<td>31.1</td>
<td>1.5</td>
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<tr>
<td>Consumer goods</td>
<td>28.4</td>
<td>1.5</td>
</tr>
<tr>
<td>Health care</td>
<td>27.5</td>
<td>5.8</td>
</tr>
<tr>
<td>Consumer services</td>
<td>31.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Public services</td>
<td>28.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Banking and finance</td>
<td>37.7</td>
<td>1.7</td>
</tr>
</tbody>
</table>

52. What is your age?

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 30</td>
<td>34.0</td>
<td>0.5</td>
</tr>
<tr>
<td>30 to 40</td>
<td>29.7</td>
<td>1.1</td>
</tr>
<tr>
<td>40 to 50</td>
<td>33.4</td>
<td>1.6</td>
</tr>
<tr>
<td>50 to 60</td>
<td>32.9</td>
<td>1.8</td>
</tr>
</tbody>
</table>

53. What is your gender?

<table>
<thead>
<tr>
<th>Gender</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>33.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Male</td>
<td>31.2</td>
<td>0.9</td>
</tr>
</tbody>
</table>

54. What is the number of employees of your company?

<table>
<thead>
<tr>
<th>Employees</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 100</td>
<td>29.2</td>
<td>1.2</td>
</tr>
<tr>
<td>100 to 200</td>
<td>31.1</td>
<td>1.6</td>
</tr>
<tr>
<td>200 to 500</td>
<td>32.9</td>
<td>2.0</td>
</tr>
<tr>
<td>500 to 1000</td>
<td>30.8</td>
<td>2.2</td>
</tr>
<tr>
<td>1000 or more</td>
<td>38.2</td>
<td>2.6</td>
</tr>
</tbody>
</table>

55. What is your company’s last year turnover? (Billions Vietnam Dong)

<table>
<thead>
<tr>
<th>Turnover</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 5,000</td>
<td>30.6</td>
<td>0.9</td>
</tr>
<tr>
<td>5,000 to 10,000</td>
<td>32.8</td>
<td>3.1</td>
</tr>
<tr>
<td>10,000 to 15,000</td>
<td>37.4</td>
<td>4.3</td>
</tr>
<tr>
<td>15,000 or more</td>
<td>35.6</td>
<td>2.4</td>
</tr>
</tbody>
</table>