

**BOARD OF DIRECTOR AND AUDIT COMMITTEE EFFECTIVENESS,
OWNERSHIP STRUCTURE AND INTELLECTUAL CAPITAL
DISCLOSURE OF LISTED BANKS IN GCC COUNTRIES**

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ABSTRACT

Intellectual capital (IC) disclosure provides signals not only for organizations to gain competitive advantage but it also enables shareholders and other stakeholders to better judge the financial performance and financial position of the organizations. The disclosure of IC is very important in IC-intensive sectors like banking sector. However, generally there is a lack of studies that investigate this issue in the banking sectors in developing countries, particularly in Gulf Co-operation Council (GCC). Thus, the main purpose of this study is to examine the voluntary disclosure of IC among listed banks in the GCC. This study examines annual reports of 137 GCC listed banks for the period of 2008-2010 using content analysis. Further it investigates whether the monitoring mechanisms namely, characteristics of effective board and audit committee, institutional ownership, level of market concentration and bank type, influence the IC disclosure. Furthermore, by using hierarchical regression, this study examines the moderating effect of chairman ownership, family and government control, and also information asymmetry on the relationship between the effectiveness score of the board and IC disclosure. The findings of multiple regression show that the level of score for the board effectiveness and audit committee effectiveness, foreign institutional and level of market concentration have significant relationship with IC disclosure. However, when the characteristics of board and audit committee were individually examined with IC disclosure, the results show that only board independence, board meetings, board committees, audit committee size and audit committee meetings have positive and significant relationship with IC disclosure. In addition, based on hierarchical regression analysis, the results show family control, government control and information asymmetry moderate the relationship between the effectiveness score of the board and IC disclosure. The results of this study might be of interest to regulators, investment analysts and market participants as well as researchers.

Keywords: monitoring mechanisms, ownership structure, IC disclosure, GCC bank

ABSTRAK

Pendedahan Modal Intelek (IC) bukan sahaja memberi peluang kepada sesuatu organisasi untuk memperolehi kelebihan daya saing malahan ia juga membolehkan pemegang saham dan pihak berkepentingan yang lain menilai prestasi kewangan dan kedudukan kewangan organisasi tersebut. Pendedahan IC adalah amat penting dalam sektor berlandaskan intensif IC seperti sektor perbankan. Walau bagaimanapun, secara umumnya kajian yang meneliti isu pendedahan IC dalam sektor perbankan di negara-negara membangun masih berkurangan, khususnya di Majlis Kerjasama Teluk (GCC). Oleh itu, tujuan utama kajian ini adalah untuk mengkaji pendedahan IC secara sukarela oleh bank yang tersenarai di GCC. Kajian ini meneliti laporan tahunan bagi 137 bank di GCC untuk tempoh 2008-2010 menggunakan analisis kandungan. Di samping itu, kajian ini mengkaji sama ada mekanisme pemantauan, iaitu ciri-ciri keberkesanan lembaga pengarah dan jawatankuasa audit, pemilikan institusi, di samping tahap penumpuan pasaran dan jenis bank, berupaya mempengaruhi pendedahan IC. Selain daripada itu, dengan menggunakan regresi hierarki, kajian ini juga meninjau kesan penyederhanaan pemilikan pengurus, kawalan famili dan kerajaan dan juga maklumat asimetri terhadap hubungan skor keberkesanan lembaga pengarah dan pendedahan IC. Dapatkan analisis regresi berganda mendapati bahawa tahap skor keberkesanan lembaga pengarah dan jawatankuasa audit, pemilikan institusi asing dan tahap penumpuan pasaran mempunyai hubungan yang signifikan dengan pendedahan IC. Walau bagaimanapun, apabila hubungan ciri-ciri lembaga pengarah dan jawatankuasa audit diteliti secara individu dengan pendedahan IC, hasil dapatkan menunjukkan bahawa kebebasan lembaga pengarah, mesyuarat lembaga pengarah, jawatankuasa lembaga pengarah, saiz jawatankuasa audit dan mesyuarat jawatankuasa audit mempunyai hubungan yang positif dan signifikan dengan pendedahan IC. Berdasarkan analisis regresi hierarki, dapatkan menunjukkan kawalan famili dan kerajaan serta maklumat asimetri menyerderhanakan hubungan skor keberkesanan lembaga dengan pendedahan IC. Dapatkan kajian ini mungkin berfaedah kepada pengawal selia, penganalisis pelaburan, peserta pasaran dan juga penyelidik.

Kata kunci: Mekanisme Pemantauan, Struktur pemilikan, Pendedahan IC, Bank GCC

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TABLE OF CONTENTS

TITLE PAGE	i
CERTIFICATION OF THE THESIS WORK	ii
PERMISSION TO USE	iv
ABSTRACT	v
ABSTRAK	vi
ACKNOWLEDGEMENTS	vii
TABLE OF CONTENTS	ix
LIST OF TABLES	xiii
LIST OF FIGURES	xv
LIST OF ABBREVIATIONS	xvi

CHAPTER ONE : INTRODUCTION

1.0 Background of Study	1
1.1 Board of Directors, Ownership Structure and IC Disclosure	5
1.2 GCC Banks	8
1.3 Problem Statement	11
1.4 Research Questions	15
1.5 Research Objectives	16
1.6 Significance of Study	17
1.6.1 Theoretical Contribution	18
1.6.2 Practical Contributions	22
1.7 Organization of the Study	23

CHAPTER TWO : BACKGROUND OF GCC BANKS

2.0 Introduction	24
2.1 Overview of GCC	24
2.2 The GCC Banking Industry	25
2.2.1 The Major Characteristics Of Banking Industry in GCC	26
2.2.1.1 Industry Market Concentration	26
2.2.1.2 Controlling Ownership by Government and Influential Families	27
2.2.1.3 Islamic Banking	28
2.3 The Disclosure Practices in GCC Banks	30
2.4 Corporate Governance	32
2.4.1 The Important of Corporate Governance of in Banking Sectors	32
2.4.2 Challenges of Corporate Governance in GCC	36
2.5 Summary	39

CHAPTER THREE : LITERATURE REVIEW

3.0 Introduction	40
3.1 Intellectual Capital (IC)	40
3.1.1 The Importance of IC Disclosure	42
3.1.2 Measurement of IC Disclosure	45
3.2 Theoretical Disclosure Framework	52
3.2.1 Agency Theory	53
3.2.2 Institutional Theory	55
3.2.3 Hegemony Theory	56

3.2.4 Proprietary Costs Theory	58
3.3 Definitions of Corporate Governance	59
3.3.1 Board of Directors	60
3.3.1.1 Board Size	62
3.3.1.2 Board Independence	64
3.3.1.3 Board Meetings	67
3.3.1.4 CEO Duality	68
3.3.1.5 Board Committees	71
3.3.2 Effectiveness of Audit Committee (AC)	73
3.3.3 Institutional Ownership	80
3.4 Product Market Competition.....	84
3.5 Bank Type	88
3.6 Ownership Structure and Monitoring Role of Board of Directors	90
3.7 Empirical Studies	99
3.7.1 Studies on Voluntary Disclosure in the GCC	99
3.7.2 Empirical Evidence on Corporate Governance and Voluntary Disclosure from non – GCC Countries.....	102
3.7.3 Empirical Evidence on Voluntary Disclosure of IC	107
3.8 Summary	115

CHAPTER FOUR: RESEARCH FRAMEWORK AND HYPOTHESES

4.0 Introduction.....	118
4.1 Theoretical Framework	118
4.2 Hypotheses Development	125
4.2.1 Characteristics of Board of Directors	125
4.2.1.1 Board Size	125
4.2.1.2 Board Independence	127
4.2.1.3 Board Meetings	129
4.2.1.4 CEO Duality	130
4.2.1.5 Board Committees	131
4.2.1.6 Score of Effectiveness of the Board of Directors	133
4.2.2 Characteristics of Audit Committee	134
4.2.2.1 Audit Committee Size	134
4.2.2.2 Audit Committee Independence.....	136
4.2.2.3 Audit Committee Financial Expertise.....	138
4.2.2.4 Audit Committee Meetings.....	139
4.2.2.5 Audit Committee Effectiveness	141
4.2.3 Institutional Ownership (Domestic and Foreign)	142
4.2.4 Industry Market Concentration	145
4.2.5 Bank Type	147
4.2.6 Ownership as Moderator	150
4.2.6.1 Chairman Ownership	150
4.2.6.2 Government Control.....	152
4.2.6.3 Family Control.....	154
4.2.6.4 Information Asymmetry	156
4.2 Summary	157

CHAPTER FIVE: RESEARCH METHOD AND DESIGN

5.0 Introduction.....	159
5.1 Sample Selection and Data Sources.....	159
5.2 Content Analysis	162
5.3 Operational Definitions and Measurements of Variables	165
5.3.1 Dependent Variable: IC Disclosure	166
5.3.2 Measurements of Independent Variables	168
5.3.2.1 Characteristics of Board of Directors	168
5.3.2.1.1 Board Size	168
5.3.2.1.2 Board Independence	169
5.3.2.1.3 Board Meetings.....	169
5.3.2.1.4 CEO Duality	169
5.3.2.1.5 Board Committees	170
5.3.2.1.6 Board of Directors Effectiveness Score.....	170
5.3.2.2 Characteristics of Audit Committee	171
5.3.2.2.1 Audit Committee Size	171
5.3.2.2.2 Audit Committee Independence.....	171
5.3.2.2.3 Audit Committee Financial Expertise.....	172
5.3.2.2.4 Audit Committee Meetings	172
5.3.2.2.5 Audit Committee Effectiveness Score	172
5.3.2.3 Institutional Ownership	173
5.3.2.4 Industry Market Concentration.....	174
5.3.2.5 Bank Type.....	175
5.3.3 Moderating Variables	175
5.3.3.1 Chairman Ownership	175
5.3.3.2 Family Control and Government Control	176
5.3.3.3 Information Asymmetry	177
5.3.4 Control Variables.....	178
5.3.4.1 Bank Size	178
5.3.4.2 Leverage	180
5.3.4.3 Profitability (ROA).....	180
5.4 Data Analysis Technique	183
5.4.1 Correlations	183
5.4.2 Multiple Regression Analysis.....	184
5.4.3 Hierarchical Regression.....	185
5.5 Summary	187

CHAPTER SIX : FINDINGS

6.0 Introduction.....	188
6.1 Descriptive Statistics.....	188
6.1.1 Descriptive Statistics of IC Disclosure	188
6.1.2 Descriptive of IC Disclosure Based on Bank Type	193
6.1.3 Descriptive Statistics of Independent Variables	195
6.2 Diagnostic Test	199
6.2.1 Outliers	199
6.2.2 Normality Test.....	199
6.2.3 Linearity.....	201

6.2.4 Multicollinearity	202
6.2.5 Heteroskedasticity	205
6.2.6 Autocorrelation	208
6.3 Result of Regression	208
6.3.1 Result of Model One.....	208
6.3.1.1 Board Size	210
6.3.1.2 Board Independence	211
6.3.1.3 Board Meetings	212
6.3.1.4 CEO Duality	213
6.3.1.5 Board Committees.....	214
6.3.1.6 Audit Committee Size	215
6.3.1.7 Audit Committee Independence.....	216
6.3.1.8 Audit Committee Financial Expertise.....	217
6.3.1.9 Audit Committee Meetings.....	218
6.3.1.10 Institutional Ownership	219
6.3.1.11 Industry Market Concentration.....	221
6.3.1.12 Bank Type	222
6.3.1.13 Control Variables.....	224
6.3.2 Board of Director and Audit Committee Effectiveness Score	226
6.4 Hierarchical Regression Result.....	228
6.4.1 The Moderating Effect of the Ownership Structure and Information Asymmetry on the Relationship between the Effectiveness of the Board of Directors and IC Disclosure	229
6.4.1.1 The Moderating Effect of the Government Ownership	232
6.4.1.2 The Moderating Effect of the Family Ownership	235
6.4.1.3 The Moderating Effect of the Information Asymmetry	238
6.4.2 The Moderating Effect of Family Control and Government Control	241
6.5 Additional Empirical Tests	244
6.5.1 The Moderating Effect of Ownership Structure and Information Asymmetry on the Relationship between the Effectiveness of Audit Committee and IC Disclosure	244
6.5.2 Gross Domestic Product (GDP)	247
6.5.3 Global Financial Crisis	251
6.6 Summary	254
CHAPTER SEVEN: SUMMARY AND CONCLUSIONS	
7.1 Introduction.....	256
7.2 Overview of the Study	256
7.3 Theoretical Contribution.....	260
7.4 Practical and Policy Implications.....	263
7.5 Limitation.....	266
7.6 Recommendations for Future Research	267
7.7 Conclusion	269
REFERENCES.....	271

LIST OF TABLES

Table		Page
Table 2.1	Concentration of the GCC Banking System, 2007 (as Percent of Total Banking Sector Assets)	27
Table 2.2	Ownership Structure of the Domestic Banking System in GCC, end-2007 (in Percent of Total Assets)	28
Table 2.3	Market Share and Average Annual Asset Growth of Islamic and Conventional Banks in Selected Countries (In percent)	29
Table 2.4	Board and Audit Structure in GCC Based on Code of Corporate Governance	35
Table 3.1	Summary of IC Disclosure Studies and How they Measure IC Disclosur	50
Table 3.2	Summary of Studies that have Examined the Relationship Between Board of Directors, Ownership Structre and Voluntary Disclosure	111
Table 5.1	Numbers and Types of GCC Countries Banks included in this Study	161
Table 5.2	IC Framework Adopted for the Study	168
Table 5.3	Constructing Board of Directors' Effectiveness Score (BoDE_Score)	171
Table 5.4	Constructing Audit Committee Effectiveness Score (ACE_Score)	173
Table 5.5	Summary of the Operationalization of the Study Variables	181
Table 6.1	Descriptive Statistics for IC Categories and Subcategories.	189
Table 6.2	Mean of Sentences of IC Disclosure by Bank Type	194
Table 6.3	Descriptive Statistics of Continuous Variables.	196
Table 6.4	Descriptive Statistics of Dichotomous Variable	196
Table 6.5	Normality Test for Model	201
Table 6.6	The Standard Deviation of IC Disclosure and the Residuals	202
Table 6.7	Correlations	204

Table		Page
Table 6.8	The Results of Standard Tests on VIF	205
Table 6.9	White Test for Heteroskedasticity	207
Table 6.10	Multiple Regression Results	209
Table 6.11	Multiple Regression Model Two	227
Table 6.12	The Moderating Effect of Different Types of Ownership and Information Asymmetry on the Relationship between the Effectiveness of the Board of Directors and IC Disclosure	231
Table 6.13	The Moderating Effect of Family Control and Government Control on the Relationship between the Effectiveness of the Board of Directors and IC Disclosure.	243
Table 6.14	The Moderating Effect of Different Types of Ownership and Information Asymmetry on the Relationship between the Effectiveness of Audit Committee and IC Disclosure	246
Table 6.15	The Result of Model One and Two with GDP	249
Table 6.16	The Moderating Effect of Different Types of Ownership and Information Asymmetry on the Relationship between the Effectiveness of the Board of Directors and IC Disclosure	250
Table 6.17	The Result of Model One and Two with 2008 Global Financial Crisis	252
Table 6.18	The Moderating Effect of Different Types of Ownership and Information Asymmetry on the Relationship between the Effectiveness of the Board of Directors and IC Disclosure	253

LIST OF FIGURES

Figure	Page
Figure 4.1 Theoritical Framework	124
Figure 6.1 Heteroscedasticy	207
Figure 6.2 Moderating Effect of the Government Ownership	235
Figure 6.3 Moderating Effect of the Family Ownership	238
Figure 6.4 Moderating Effect of the Information Asymmetry	240

LIST OF ABBREVIATIONS

AAOIFI	Accounting and auditing standards for islamic financial institutions
ACE_Score	Score for effectiveness of audit committee
AUDEX	Audit committee financial expertise
AUDIND	Audit committee independence
AUDMEET	Audit committee meetings
AUDZIE	Audit committee size
BAKTYP	Bank type
BIND	Board independence
BODCOM	Board committees
BoDE_Score	Score for effectiveness of board of directors
BODMEET	Board meetings
BODSIZ	Board size
BSIZE	Bank size
CEODUAL	CEO duality
CHOWN	Chairman ownership
CON	Industry market concentration
CSRД	Corporate social responsibility disclosure
DINSTITUTIONAL	Domestic institutional ownership
FAMOWN	Family control
FINSTITUTIONAL	Foreign institutional ownership
GCC	Gulf Co-operation Council
GDP	Gross domestic product
GOWN	Government control
IA	Information asymmetry
ICD	Intellectual capital disclosure
LEV	Leverage
MENA	Middle East and the North African
ROA	Return on assets

CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

Recent decades have witnessed significant developments in the context in which companies operate their business (Holland, 2003). These developments include the impact of globalization, technological advancements, shifting demographics, deregulation of industries, opening up of formally closed markets, the increase of power and sophistication of customers, the increase of shareholder activism, and the increase of powerful interest and pressure groups (Guthrie *et al.*, 2001; Ashton, 2005). Commensurate with these developments, many changes have occurred in the corporate value-creation processes (Holland, 2003). To explain, the source of companies' economic value today depends more on the intangible assets, such as intellectual capital (IC) than tangible assets (Sullivan, 2000; Guthrie *et al.*, 2004). It has been argued that IC like intellectual property, knowledge of staff, processes, brand names, and loyalty are the key factor for determining whether an organization gains competitive advantage in this world (Bontis *et al.*, 1999; Petty & Guthrie, 2000; Bollen *et al.*, 2005). The literature implies that tangible assets and resources typically comprise between fifteen to twenty-five per cent of company value in today's competitive business environment (Ballow *et al.*, 2004). The rest, seventy-five to eighty-five per cent, are intangible assets and resources (Lev, 1999; Brennan & Connell, 2000; Garcia-Ayuso, 2003). As a result, the focus of management and shareholders has shifted from tangible to intangible capital when considering the "value creation" processes within firms (Mouritsen *et al.*, 2001).

In the same vein, it has been argued that companies that measure, report and manage their IC effectively have a competitive advantage because they have identified all the assets (tangible and intangible), and are thus in a position to operate at their full potential by making maximum use of them (April *et al.*, 2003; De Pablos, 2003; Rodgers, 2003). Therefore, disclosing information about the IC of a firm enables shareholders and other stakeholders to better judge the financial performance and financial position of an organization. Guthrie *et al.* (2004) argue that the primary incentive for most organizations to disclose their IC is to reduce the information asymmetry, thus reducing the cost of capital of companies as well (Leuz & Verrecchia, 2000; Zhang, 2001). This also enhances the liquidity of the stock market and increases the demand for companies' securities (Healy & Palepu, 2001). Thus, without IC information, the capital market will show inefficiency, which, in turn, leads to an increase in an 'uncertainty premium' that will be required by investors. Hence, a direct consequence of this lack of IC information is an increase in the cost of capital, which leads to lower investment and growth (Lev, 1999; Kristandl & Bontis, 2007).

Despite the importance of IC disclosure, previous studies have shown that the majority of organizations that disclose IC are doing so voluntarily (Zhang, 2001; Petty & Cuganesan, 2005). However, if information about IC is not disclosed, smaller shareholders are at a disadvantage, as they do not have the ability to access this information (Holland, 2001). This problem becomes serious in the emerging markets as the sharing of sensitive information with professional managers and outside investors requires trust, which is less likely to occur among unfamiliar parties in this institutional environment (North, 1990; Skaperdas, 1992; Bardhan, 2000; Zahra & Filatotchev, 2004). Getting more information

about a company by larger shareholders than smaller ones in emerging markets leads to an agency problem between the larger shareholders and smaller ones, which is called principal-principal conflicts (Young *et al.*, 2008). It has been stated that voluntary disclosure is considered useful to enhance the protection to such outsiders because it provides a signal to the minority shareholders whether the firm is committed to treating its shareholders in a fair and equitable manner (Chobpichien *et al.*, 2008). Young *et al.* (2008) argue that one of the ways to protect the minority shareholders in countries with weak legal protection of the minority shareholders is by having disclosure and transparency. The present study focuses on a particular type of voluntary disclosure, which is IC disclosure. IC disclosure is an important dimension of voluntary information for which there is growing demand (Holland, 2003, Burgman & Roos, 2007). This is because the IC is the key driver of the company's competitive advantage, and disclosing it reduces investors' uncertainty about future prospects and facilitates a more precise valuation of the company (Barth *et al.*, 2001; Bukh, 2003; Holland, 2006; Li *et al.*, 2012). In addition, information asymmetry is critical for IC as it is specific to a particular company and cannot be seen from other companies (Aboody & Lev, 2000). Thus, if information about IC is not disclosed, opportunities for moral hazard, adverse selection and other opportunistic behaviour of management will be increased (Aboody & Lev, 2000; Holland, 2006).

According Fama and Jensen, (1983), and Demsetz and Lehn (1985), there are several corporate governance mechanisms that may help align the interests of shareholders and managers and increase voluntary disclosure. A combination of these mechanisms can be considered better for reducing the agency cost and protecting the interests of shareholders

because of the effectiveness of corporate governance being achieved via different channels (Cai *et al.*, 2008) and a particular mechanism's effectiveness depends on the effectiveness of others (Davis & Useem, 2002; Rediker & Seth, 1995). Ward *et al.* (2009) argued that it is best to look at corporate mechanisms as a bundle of mechanisms to protect shareholder interests and not in isolation from each other. The effectiveness of board of directors, which is an important internal corporate governance mechanism depends on its characteristics like board size, board independence, frequency of board meetings, non-duality and board committees (e.g. Cerbioni & Parbonetti, 2007; Li *et al.*, 2008; Taliyang & Jusop, 2011; Ruth *et al.*, 2011). Thus, it could be said that boards that have a higher score for its'effectivnesss have more ability to protect the shareholders' interests by increasing the level of disclosure compared to boards that have a lower score. In the same vein, it can be said the effectiveness of the audit committee depends on its characteristics like audit size, independence, frequency of meetings and audit financial expertise (e.g. Akhtaruddin *et al.*, 2009; Gan *et al.*, 2008; Akhtaruddin & Haron, 2010).

In addition to the board of directors, institutional ownership and competition have been suggested as a monitoring mechanism to solve the agency problem between the management and shareholders (Allen & Gale, 1999). According to Chahine and Tohmé (2009), one of the monitoring mechanisms that can be used to mitigate agency problems between the large and minority shareholders is institutional investors. According to Allen and Gale (1999), the competition among firms is an effective mechanism to reduce the agency conflicts between the managers and shareholders because it disciplines the management with competitors` management. Hart (1983) and Li (2010) argue that competition works as a disciplinary mechanism on the leadership in firms by providing

the owner with information about the management performance that can be used to mitigate moral hazard problems. However, because IC disclosure is related to the company's competitive advantage, it could be said that competition among firms might not work as a monitoring mechanism to solve the agency problem by enforcing the management to disclose information about IC.

1.1 Board of Directors, Ownership Structure and IC Disclosure

Voluntary disclosure and board monitoring activities are both viewed by agency theorists as two effective mechanisms to reduce agency costs and to ensure improved protection to investors of the company (see Jensen & Meckling, 1976; Fama & Jensen, 1983). IC disclosure is expected to mitigate opportunistic behaviour and the information asymmetry problem (Cerbioni & Parbonetti, 2007). Thus, the voluntary disclosure of IC primarily works as one of the corporate governance mechanisms to reduce information asymmetry. In addition to the voluntary disclosure, other corporate mechanisms have been suggested to protect shareholders. The board of directors is an internal control mechanism that is intended to make decisions on behalf of the shareholders and to ensure that management behaviour is consistent with owners' interests. Fama and Jensen (1983) argue that the board of directors is needed to minimise agency cost, to fulfil shareholder interests, and to enhance the level of disclosure. Cerbioni and Parbonetti (2007) claim that the effect of internal governance mechanisms is complementary to corporate disclosure and applying more governance mechanisms will assist the company to maintain its internal control and will work as an "intensive monitoring package" for the company in order to reduce opportunistic behaviour and information asymmetry. Under this environment, managers should not withhold information for their own benefit; therefore, the level of voluntary

disclosure in a company's annual report is expected to increase (Chobpichien *et al.*, 2008). However, previous studies that have examined the relationship between the board of directors and voluntary disclosure of IC practice (e.g. Cerbioni & Parbonetti, 2007; Li *et al.*, 2008; Ruth *et al.*, 2011; Taliyang & Jusop, 2011) found somewhat mixed results. The reasons for the mixed results in these studies could be due to their examination of the effect of governance mechanisms in isolation from each other (Ward *et al.*, 2009).

Ward *et al.* (2009) contend that, in addressing agency problems, previous studies considered each mechanism separately, and, thus, ignored the idea that the effectiveness of a mechanism depends on other mechanisms. Agrawal and Knoeber (1996) argue that the results of the effectiveness of an individual mechanism might be misleading as the effectiveness of the individual mechanism could disappear if a number of mechanisms are combined. Based on the idea that the impact of internal governance mechanisms on corporate disclosures is complementary, the effectiveness of corporate governance may be achieved via different channels (Cai *et al.*, 2008) and the effectiveness of a particular mechanism may depend on the effectiveness of others (Rediker & Seth, 1995; Davis & Useem, 2002). This study suggests that an increase of the characteristics that enhance the board and audit committee effectiveness leads to an increase of the level of voluntary disclosure, and vice versa. Hence, this study diverges from the prior literature of IC disclosure (that looked at each board characteristic individually) by examining the effect of board and audit characteristics as a bundle of mechanisms in protecting shareholders' interests. More specifically, this study examines the relationship of the characteristics (that affect board and audit committee effectiveness) in an individual and overall with IC disclosure.

However, it should be noted that the intensity of the board of directors' effectiveness in monitoring management is much affected by the type of ownership (Badrinath *et al.*, 1989; Bennett *et al.*, 2003; Chobpichien *et al.*, 2008; Desender, 2009; Desender *et al.*, 2012).

Desender (2009) and Desender *et al.* (2012) argue that monitoring by the board of directors is more important when ownership is diffused compared with when the company is controlled by large shareholders (ownership concentration). This is because when ownership is diffused, dispersed shareholders, individually, do not have the incentive or ability to monitor management directly or find it challenging to coordinate their monitoring efforts (Davies, 2002; Aguilera, 2005). In contrast, controlling shareholders have both the incentive and ability to hold management accountable for actions not aligned with their interests through their direct monitoring (Bohinc & Bainbridge, 2001). However, it has been argued that not all types of ownership concentration (controlling shareholders) are able to monitor the management because there is a disparity in the monitoring costs incurred and the incompatible monitoring power held by different types of controlling shareholders (Badrinath *et al.*, 1989; Bennett *et al.*, 2003). For example, if the controlling shareholders are actively involved in the board, their need to monitor the role of corporate boards will be lower than outside controlling shareholders (Chobpichien *et al.*, 2008; Desender, 2009). Miller and Le Breton -Miller (2006) point out that the level of information asymmetry that leads to agency cost is lower in companies that are controlled by family members because the owner appoints the members of the board who have a special relationship with them. Therefore, through the communication channels between the owner and the members of

the board, the information problem is solved. Thus, under this type of large or controlling shareholder, the board of directors might not enforce the management to disclose more information to outside since the disclosure is not costless. Li (1994) argues that the agency cost in companies that are controlled by the government is higher than other firms because the government has little or no incentive to monitor the management of these companies. Therefore, there is a need to appoint outside directors who are able to monitor the managers and increase the voluntary disclosure through which the government fulfils its accountability role to the public at large and pursue maximization of political support (Caves, 1990; Eng & Mak, 2003; Jiang & Habib, 2009). Hence, it could be said that the impact of the effectiveness of the board of directors on corporate disclosure is complementary under this type of controlling shareholder. More specifically, in a government-controlled company, the effectiveness of the board of directors will enhance the level of disclosure in order to achieve the goals of this type of controlling shareholder, i.e. fulfil its accountability role to the public at large and pursue maximization of political support. Therefore, it is essential for this study to examine the moderation effect of types of ownership on the relationship between the effectiveness of the board of directors and IC disclosure.

1.2 GCC Banks

The Gulf Co-operation Council (GCC) countries comprise the Kingdom of Bahrain, the State of Kuwait, the State of Qatar, the Sultanate of Oman, the State of United Arab Emirates and the Kingdom of Saudi Arabia, which all have a mature, efficient, stable and profitable banking system. These countries share some common economic, cultural, and political similarities, which far outweigh any differences they might have (Al- Muharrami

et al., 2006). In 2008, the economy of the GCC countries accounted for around 1.8 per cent of the world's total GDP of around \$61trn (Al-Hassan *et al.*, 2010). A reduction of barriers to foreign entry, in line with the World Trade Organization (WTO) accession requirements, forced the domestic banks in the GCC countries to undergo major changes in order to compete on an equal platform with their peers. In this regard, improving the non-financial disclosure standards for banks together with a better regulatory environment is viewed as one of the effective ways that would help GCC banks to face the recent challenges (OECD, 2009).

Specifically, the banking sector in the GCC is selected for this investigation based on the following reasons: Firstly, the banking sector is one of the largest sectors in the GCC economies and there are more bank stocks traded in the GCC stock markets than stocks of any other industry. Banking sector continues to be well-capitalised across the board with capital adequacy ratios of above minimum standards and comfortable leverage ratios by international comparisons (Al-Hassan *et al.* 2010). Generally, the GCC countries have a moderate to high level of financial development. They score the highest on regulation and supervision, as well as on financial openness when compared to the remaining countries in the Middle East and the North African (MENA) region (Creane *et al.*, 2004). The competition in the banking sector of the GCC is high and corporate governance in this sector is better than other sectors in terms of putting in place board committees like audit and nominating committee and appointing independent directors (Saidi & Kumar, 2008). Although the competition is high following the improvements in corporate governance, the information asymmetry is also high and the level of disclosure is low in the banking sector (Chahine, 2007).

Secondly, the financial sector in most of the GCC countries, which is the second highest contributor to the country's GDP after the oil and gas sector, is generally dominated by the banking sector, which is divided into Islamic and conventional banks (Al-Hassan *et al.*, 2010). In contrast to conventional banks, the Islamic banks apply principles of Islamic law (Shariah) in which all forms of exploitation are prohibited (Khalifa, 2003). Further, Islamic banks apply Islamic accounting, which is based on the concept of full disclosure (Haniffa & Hudaib, 2002). Furthermore, the agency problem in Islamic banks is higher than in conventional banks (Safieddine, 2009). Thus, voluntary disclosure is more imperative to them than to conventional banks. This motivates this study to examine the relationship between the bank type and IC disclosure to provide the evidence of whether or not the level of IC disclosure in Islamic banks is higher than for conventional banks.

Thirdly, listed GCC banks are controlled by a few rich families or governments, and, quite often, the chairman is a large shareholder (Chahine, 2007; Saidi & Kumar, 2008; OECD, 2009). This gives the current study the motivation to examine the interaction between these types of ownership structure and board effectiveness to provide evidence under what type of ownership structure board effectiveness protects the minority of shareholders by disclosing more information about IC in the environment where legal protection and law enforcement is low (Al-Shammari *et al.*, 2008).

Finally, the GCC banks are chosen because any effect of corporate governance in the banking sector will affect the other sectors in the country (OECD, 2009). Moreover, the business nature of the banking sector is “intellectually” intensive; thus, voluntary

disclosure of IC is helpful for shareholders and the corporate board is expected to play an important role in increasing the level of IC disclosure (Li *et al.*, 2012).

1.3 Problem Statement

IC disclosure in the banking sector is considered as vital since banking is one of IC-intensive sectors (Li *et al.*, 2012) and IC in this sector is more important than physical capital (Kamath, 2007; El-Bannany, 2008). However, Juhmani (2008) found that IC disclosure was lower in Bahrain. This may be due to ownership structure in GCC. In contrast to banks in developed countries, GCC banks have a concentrated ownership structure, which triggers agency problems between the majority and minority shareholders (OCED, 2009). The owners of GCC banks are usually large, rich families related to the rulers and clan rulers (Saidi & Kumar, 2008). In addition, the chairman is a shareholder and/or a relative of the owners (Chahine, 2007). For these reasons, GCC firms provide little information in their annual reports (Al-Aqeel & Spear, 2007; OCED, 2009), which leads to a lower level of disclosure in the banking sector and a higher level of information asymmetry in this sector (Chahine, 2007).

Accordingly, mechanisms that can be used and that could lead to increase level of disclosure in the annual report are the board of directors and audit committee effectiveness (Jensen & Meckling, 1976). It has been suggested that the enhancement of the board of directors in terms of board size, board composition, meetings and leadership structure could improve board effectiveness and its capacity to monitor the management, and, thus, increase the possibility of providing more voluntary information to outside investors (Chobpichien *et al.*, 2008; Lefort & Urzúa, 2008; Singh & Van der Zahn., 2008; Akhtaruddin *et al.*, 2009). As mentioned earlier, governance mechanisms operate

interdependently with overall effectiveness depending on the particular combination. The combination of mechanisms can be considered better to reduce the agency cost because a particular mechanism's effectiveness depends on the effectiveness of others (Rediker & Seth, 1995; Davis & Useem, 2002). According to Karamanou and Vafeas (2005), and Mangena and Pike (2005) audit committee characteristics, such as independence, financial expertise, size and meetings are a measurement of its effectiveness. However, DeZoort *et al.* (2002) argue that the audit committee effectiveness framework could increase considerably if audit committee characteristics are studied together.

The policy makers in the stock exchange of the GCC emphasize the role of the board of directors and the audit committees to ensure that the annual financial reports of the companies are reliable and ensure disclosure of information, which would prove beneficial to the users of the financial statements (Saidi & Kumar, 2008; OCED, 2009). However, it should be noted that the intensity of the board of directors' effectiveness in monitoring the conflict between the majority and minority of shareholders is greatly affected by information asymmetry (Boone *et al.*, 2007; Linck *et al.*, 2008). Thus, in an environment of weak legal protection of minority interests, the board of directors' monitoring is limited internally through information asymmetry directed by management. This argument supports the hegemony theory. Further, Chen and Nowland (2010) stated that information asymmetry makes the monitoring activities conducted by the board of directors less effective. Transparency in the annual reports could not be achieved by the intensity of the board of directors' monitoring in companies where information asymmetry is high. Therefore, it is also essential for this study to examine the moderating

effect of information asymmetry on the relationship between the effectiveness of the board of directors on IC disclosure.

In addition, it should also be noted that the effectiveness of the board of directors depends on the institutional structure of the company (Chobpichien *et al.*, 2008; Young *et al.*, 2008; Desender, 2009; Desender *et al.*, 2012). For example, in companies that are owned or controlled by large shareholders, even with an effective board of directors, the transparency in the annual report cannot be achieved (Chobpichien *et al.*, 2008) because board members may be appointed as a legal faction (Kosnik, 1987). Therefore, the board of directors are often the rubber-stamp of the controlling shareholder (Young *et al.*, 2008). As discussed earlier, the GCC listed companies are usually owned by family members of the company or the chairman is the largest shareholder. As such, this may not be possible under ownership concentration; large shareholders who have access to corporate information are less motivated to disclose private information to external shareholders. Thus, this study introduces ownership as the moderator variable to provide some insight into whether or not the ownership structure has an effect on the relationship between the effectiveness of the board of directors and IC disclosure.

According to Chahine and Tohmé (2009), in Arab countries where companies are controlled by large shareholders and are affected by political ties and family involvement, one of the monitoring mechanisms that may be effective in monitoring and addressing the various agency problems is institutional investors. Allen and Gale (1999) argued that monitoring mechanisms, such as institutional investors, have a role in mitigating agency problems. They act as mechanisms to protect minority shareholder interests (Jensen, 1993; Hashim & Devi, 2007). They do so by introducing the necessary checks and

balances for agency problems of CEO duality, while allowing for the benefits of focused leadership (Chahine & Tohmé, 2009). However, not all institutional investors will have the same capabilities to protect minority shareholders. Foreign institutional investors may have greater experience, monitoring capabilities, and credibility than domestic investors (Douma *et al.*, 2006). Thus, this study examines the relationship between the type of institutional investor and IC disclosure.

According to Al-Hassan *et al.* (2010), the financial sector in the GCC is relatively highly concentrated. However, the relative degree of financial sector concentration is different among GCC countries (Al-Muharrami & Matthews, 2009; Al-Obaidan, 2008). Theoretically, it is argued that increasing banking industry concentration leads to less competitive conduct (see, Al-Muharrami *et al.*, 2006; Maudos & Guevara, 2007; Al-Obaidan, 2008; Delis & Papanikolaou, 2009). Since, voluntary disclosure of IC could provide a signal to competitors of possible value creating opportunities, which lead firms to reduce disclosure of IC in order to maintain competitive advantage. Thus, it could be said that the level of IC disclosure in banks that work under different levels of market concentration will be different. This study examines the relationship between industry market concentration and IC disclosure.

According to Al-Hassan *et al.* (2010), Islamic banks have grown in recent years to become a prominent source of financial intermediation in the Gulf countries, controlling, on average, 24 per cent of the region's banking system assets. However, in contrast with conventional banks, Islamic banks are organized under and operate upon principles of Islamic law (Shariah) which is Godly, ethical, humanly, moderate and balanced. In addition, it requires risk sharing and prohibits the payment or receipt of interest (riba).

Therefore, all forms of exploitation are prohibited in an Islamic business system (Khalifa, 2003). Thus, it has been argued that voluntary disclosure as well as transparency is more imperative to Islamic banks than to conventional banks (Ariffin *et al.*, 2004; Farook & Lanis, 2007). This study examines whether the type of bank (Islamic banks vs. conventional) influences the level of IC disclosure in the banking sector.

1.4 Research Questions

This study is designed to answer the question related to identifying the current level of IC disclosure of GCC banks and investigating its relationship with monitoring mechanisms, and whether the relationship between IC disclosure and board of directors' effectiveness, as important mechanisms, is affected by the type of ownership and information asymmetry. Specifically, this study tries to answer the following questions:

- (1) What is the level of IC disclosure in GCC listed banks?
- (2) What is the relationship between the characteristics of the board of directors effectiveness at an aggregate level (as score) and at the individual level, namely, board size, board independence, board meetings, duality role and board committees, with IC disclosure in GCC listed banks?
- (3) What is the relationship between the characteristics of the audit committee effectiveness at an aggregate level (as score) and at the individual level, namely, audit committee size, audit committee independence, audit committee meetings, and audit committee financial expertise with IC disclosure in GCC listed banks?
- (3) What is the relationship between the type of institutional ownership (domestic vs. foreign) and IC disclosure in GCC listed banks?

- (4) What is the relationship between the level of industry market concentration and the level of IC disclosure in GCC listed banks?
- (5) What is the relationship between bank type and IC disclosure?
- (6) To what extent does chairman ownership, family and government control affect the relationship between the effectiveness of the board of directors and IC disclosure in GCC listed banks?
- (7) To what extent does information asymmetry affect the relationship between the effectiveness of the board of directors and IC disclosure in GCC listed banks?

1.5 Research Objectives

Primarily, the aim of this study is to assess the extent to which the banks in the GCC publicly disclose their IC and investigate its relationship with the monitoring mechanisms and whether the relationship between IC disclosure and board of directors' effectiveness, as important mechanisms, is influenced by the type of ownership and information asymmetry. The specific objectives are:

- (1) To determine the level of IC disclosure in the annual reports of GCC listed banks.
- (2) To examine the relationship between the characteristics of the board of directors and audit committee effectiveness at the individual and aggregate levels with IC disclosure in GCC listed banks.
- (3) To examine the relationship between the type of institutional ownership (domestic vs. foreign) and the level of IC disclosure in GCC listed banks.
- (4) To examine the relationship between the level of industry market concentration and the level of IC disclosure in GCC listed banks.
- (5) To examine the relationship between bank type and IC disclosure.

- (6) To examine whether chairman ownership, family and government control moderate the relationship between the effectiveness of the board of directors and the level of IC disclosure of GCC listed banks.
- (7) To examine whether the information asymmetry moderates the relationship between the effectiveness of the board of directors and the level of IC disclosure of GCC listed banks.

1.6 Significance of Study

A number of studies have been conducted in different countries with regards to corporate governance factors or other factors that are theoretically argued to be related to determining IC disclosure. The countries include Australia (Brüggen *et al.*, 2009), India (Kamath, 2008), Malaysia (Gan *et al.*, 2008), Ireland (Brennan, 2001), Italy (Bozzolan *et al.*, 2003), South Africa (April *et al.*, 2003), UK (Li *et al.*, 2012) and Sweden (Olsson, 2001). However, researchers introduced somewhat mixed evidence concerning the determinants of the voluntary disclosure of IC. In addition, these empirical investigations mainly reflect the experiences from developed and emerging markets, which have a different culture, socio-economic situation, and political norms from those predominant in Arab countries, particularly GCC countries. Consequently, empirical investigations or surveys that may be carried out in the GCC region may be limited. Furthermore, majority of previous studies have concentrated on investigating the relationship between corporate governance and the IC disclosure of non-financial companies, even though IC is one of the major determinants of competitive advantage in the banking sector (Ranjith, 2007; Ahuja & Ahuja, 2012) and corporate governance is more important in the banking sector than in any other sector because of the effect of this sector on other sectors in the country (OECD, 2009). This study extends the IC disclosure studies by examining the

relationship of the board of directors and audit committee effectiveness, ownership structure and industry market concentration with IC disclosure in the banking sector in the GCC countries, which have the same culture, socio-economic, and political norms. Therefore, the significance of this study stems from the following aspects:

1.6.1 Theoretical Contribution

By adopting the idea that governance mechanisms are best viewed as an overall bundle of governance mechanisms rather than in isolation and by adopting the assumption of agency theory, this study extends IC disclosure studies by examining the aggregation impact of board characteristics, namely, board size, board independence, board meetings, duality role and board committees on managers' incentives to increase the IC disclosure. More specifically, this study extends IC disclosure studies by examining the relationship between the score of effectiveness of the board of directors and IC disclosure. Further, this study, by examining the individual relationship of board characteristics (i.e., board size, board independence, board meetings, and duality role and board committees) with IC disclosure, extends IC disclosure studies by examining the relationship between the IC disclosure and board meetings. Board frequency meetings are considered as a resource that leads to board diligence or the measure of board activity, which enhances the effectiveness of the board of directors (Conger *et al.*, 1998; Vafeas, 1999; Xie *et al.*, 2003; Ebrahim, 2007; García Lara *et al.*, 2009). However, IC disclosure studies (Cerbioni & Parbonetti, 2007; Li *et al.*, 2008; Taliyang & Jusop, 2011; Ruth *et al.*, 2011) do not examine the relationship between the IC disclosure and board meetings. Furthermore, the current study fills the gap in the existing literature by examining the relationship between audit committee effectiveness and IC disclosure. In addition to examining the relationship

of the characteristics of the audit committee (i.e. independent audit committee members, expertise of audit committee members, audit committee meetings) in isolation from each other with IC disclosure like the previous studies (Li *et al.*, 2007; Gan *et al.*, 2008; Li *et al.*, 2008), which may be the reason why such literature provides inconclusive results, this study also extends IC disclosure studies by examining the relationship between the score of audit committee effectiveness and IC disclosure.

Most corporate governance research focuses on a universal link between the board of directors and voluntary disclosure (Ho & Wong, 2001; Cerbioni & Parbonetti, 2007; Gan *et al.*, 2008; Ruth *et al.*, 2011; Taliyang & Jusop, 2011). Thus, they neglect the specific context of each company, which might lead to variations in the effectiveness of different governance practices. As a result, such studies provide unclear results. Desender (2009) suggested investigating the interaction between the ownership structure and board composition to shed new light on the contradictory empirical results of past research because the priorities of the board of directors are influenced by the ownership structure. This study contributes to the literature of IC disclosure through examining the types of ownership structure, such as chairman ownership, government ownership and family, as a moderator on the relationship between the effectiveness of the board of directors and IC disclosure, unlike previous studies that considered ownership structure as an independent variable that influences the level of voluntary disclosure. In this study, the role of ownership structure as a moderator variable is investigated as opposed to its role as an independent variable, as in previous research. Ownership structure has been treated as a moderator variable in this study as Chen and Jaggi (2000) and Chobpichien *et al.* (2008) have shown that the quality of the board of directors in firms with managerial and family

controlling ownership may become impaired and their influence on the disclosure quality of a firm's financial reporting may be weaker than in firms without managerial and family controlling ownership. However, this study diverges from these studies by examining the ownership structure as a moderator on the board-IC disclosure relationship. Furthermore, this study diverges from previous disclosure studies by examining the government controlling and chairman ownership as a moderator on the board-IC disclosure relationship, which, according to the knowledge of the researcher, no study has previously examined this relationship.

Further, the study extends the existing voluntary disclosure literature by examining the moderation effect of information asymmetry on the relationship between the effectiveness of the board of directors and IC disclosure. By doing so, this study tries to test the argument of the hegemony theory, which suggests that boards are weak and inefficient in monitoring management because of their reliance on management in obtaining information about the company's operations.

This study examines the effectiveness of alternative monitoring mechanisms in GCC listed banks, i.e. foreign and domestic institutional investors. According to Jensen (1993), and Hashim and Devi (2007), one of the mechanisms to protect minority shareholders' interests is institutional investors. However, Tihanyi *et al.* (2003), Chahine and Tohmé (2009), and Bhattacharya and Graham (2009) argue that the influence of institutional investors as a monitoring mechanism is not constant but varies according to their nationalities. This issue is quite conceivable, particularly in Arab Gulf countries where the legal protection of investor rights and legal enforcement are weak (Chahine, 2007). Further, GCC countries are characterized by having a considerable agency problem

between large and small shareholders (Al-Shammari & Al-Sultan, 2010). However, the empirical study in GCC countries is lacking. Further, the studies from other countries that examined the relationship between the institutional investors at the aggregate level with voluntary disclosure (e.g. Ajinkya *et al.*, 2005; Barako, 2007; Pizarro *et al.*, 2007; Donnelly & Mulcahy, 2008) found somewhat mixed results. Thus, this study extends the voluntary disclosure literature by dividing institutional ownership into domestic and foreign institutional investors.

In addition, based on the assumption of the property cost theory that says management might not disclose information that is related to the competitive advantage of the company, it is expected that the level of IC disclosure in companies that work under a high level of competition is lower than companies that work under a low level of competition. Therefore, this study extends IC disclosure from the lens of property cost theory by examining the relationship between industry market concentration and voluntary disclosure of IC.

Overall, this study contributes to IC disclosure and corporate governance literature by examining the relationship of monitoring mechanisms, namely, effectiveness of the board of directors and audit committee and domestic and foreign institutions with IC disclosure in listed GCC banks. Thus, by focusing on a single industry, analysis of this study is better able to control for differential effects of regulation and political pressure and allows us to assess more directly the influence of monitoring mechanisms on the level of IC disclosure. In addition, since little is known of disclosure practices in the annual reports of Islamic banks, this study, by examining the relationship between bank type and IC disclosure, tries to provide support for agency theory arguments that say that the

agency cost in Islamic banks is higher than in conventional banks. It also looks at arguments that say that disclosure is more important to them than to conventional banks. Thus, the level of IC disclosure in Islamic banks should be a higher than conventional banks. In doing so, this study constitutes a further contribution to disclosure studies and narrows the gap in the Islamic perspective of accounting literature.

1.6.2 Practical Contributions

There are implications from this study for regulators, investors and academic researchers. It is suggested that the regulators can refer to the empirical evidence and make more meaningful recommendations for the GCC listed banks. The findings of this study are useful to regulators and policy makers by helping them to determine a mechanism that protects minority shareholders from expropriation and promotes transparency in capital markets.

IC disclosure increases investors' confidence, thus the results of this study are useful to investors by providing them with an important signal concerning what type of controlling shareholder on the board of directors will protect their interests, especially in an environment where the legal protection and law enforcement is low. Furthermore, future research can build on the findings of this study and identify more governance mechanisms that are applicable to GCC listed banks.

1.7 Organization of Thesis

This thesis is organized into seven chapters. Chapter one provides a background of the study, problem statement, research questions, research objectives, significance of the study, and organization of the study. Chapter Two provides a review of the institutional background of the GCC banks. Chapter Three begins with a literature review on IC followed by a discussion of the theory and related empirical studies on the effectiveness of board of directors, audit committee, interaction between board of directors and ownership structure, institutional ownership, competition and IC disclosure. The theoretical framework and the hypotheses development are presented in Chapter Four. Chapter Five outlines the sampling method, data collection process, definition of variables, and the models used to test the hypotheses. Chapter Six presents the descriptive results of the variables and results from the multivariate testing procedures. This thesis concludes in Chapter Seven with a discussion and summary of the findings, contributions, limitations and the recommendations for future research.

CHAPTER TWO **BACKGROUND OF GCC BANKS**

2.0 Introduction

This chapter presents an overview of GCC banks. The plan of this chapter is as follows. The next section provides an overview of the GCC. In the following section, the major characteristics of the banking industry in the GCC are discussed. Third section discusses the disclosure practices in GCC banks. Finally, the last section in this chapter discusses corporate governance in the GCC banks.

2.1 Overview of GCC

The GCC, according to its charter, is a regional organization established for political and social purposes. It was created by the Arab States of the Gulf to serve as a regional cooperative system as a response to the challenges imposed by contemporary circumstances (Khamis *et al.*, 2010). The objectives set for it encompass health, information, education, energy, industry, mining, agriculture, fishery and livestock, economy, politics, security, culture, as well as legal affairs and administration. Members of the GCC are drawn from the Kingdom of Bahrain, the Kingdom of Saudi Arabia, the Sultanate of Oman, the United Arab Emirates (UAE), the State of Qatar, and the State of Kuwait.

The basic objectives of the Cooperation Council are:

- 1- To undertake the coordination, integration, and interconnection among member states in all fields in order to achieve unity among them.
- 2- To deepen and strengthen relations, links and areas of cooperation now prevailing among their people in various fields.
- 3- To formulate similar regulations in various fields including the following:

- Economic and Financial Affairs
- Commerce, Customs and Communication
- Education and Culture
- Social and Health Affairs
- Information and Tourism
- Legislative and Administrative Affairs

4- To stimulate scientific and technological progress in the fields of industry, mining, agriculture, water and animal resources; establish scientific research; establish joint ventures and encourage cooperation by the private sector for the good of their people.

The GCC have been considered by the world as a significant economic power. According to Reiche (2010), the GCC countries hold about 40% of the proven global oil reserves and 23.6% of the proven global natural gas reserves. However, although the majority of these countries are highly dependent on the export of oil, they are trying to diversify their economies (Al-Jasser & Al-Hamidy, 2003). In the last decade, the GCC countries have made significant progress in building a modern financial sector, and, specifically, banking, due to the crucial role played by this important sector. More specifically, the banking sector is considered to be one of the most economically viable diversification options (Al-Obaidan, 2008).

2.2 The GCC Banking Industry

The history of GCC banking dates back to 1918 when the British first opened a bank in Bahrain (Wilson, 1987). This sector is heavily dependent on the oil sector activities. The construction, real estate and consumer loans are the main lending activities for GCC

banks. The following section highlights the characteristics of the banking industry in the GCC.

2.2.1 The Major Characteristics of the Banking Industry in the GCC

The GCC banking industry has several features that make it unique and different from the banking sectors in many other regions.

2.2.1.1 Industry Market Concentration

The market concentration is related to the concept of industrial concentration, which concerns the distribution of production within an industry. It refers to the combined market share of the leading firms. According to Al-Hassan *et al.* (2010), the banking industry in the GCC countries is characterized as relatively concentrated with a few domestic players dominating the market (see Table 2.1). The following provides details about market concentration for the banking sector in the Gulf countries.

- A. Bahrain. The level of concentration in Bahrain is around 41% (i.e. the total assets of the three largest retail banks constitute 41% of the total assets of the banking sector).
- B. Kuwait. The total assets of the three largest retail banks constitute 64% of the total assets of the banking sector.
- C. Oman. The level of concentration in Oman is around 66% (i.e. the total assets of the three largest retail banks constitutes 66 of the total assets of the banking sector)
- D. Qatar. The banking sector is highly concentrated with the three largest local banks accounting for close to 67% of the total assets of the banking sector.
- E. Saudi Arabia. The banking sector is moderately concentrated with the three largest banks constituting 46% of the total assets of the banking sector.

F. UAE. The banking sector is the least concentrated and the three largest banks constitute 32% of the total assets of the banking sector.

Table 2.1

Concentration of the GCC Banking System, 2007 (as Per cent of Total Banking Sector Assets)

	Top 3 banks	Top 5 banks
Bahrain	40.5	49.5
Saudi Arabia	45.5	66.0
UAE	31.8	47.6
Qatar	67.4	79.7
Oman	65.7	81.1
Kuwait	63.6	81.0

Source: Al-Hasan *et al.* (2010) page 17.

2.2.1.2 Controlling Ownership by Government and Influential Families

The shareholding structures of the GCC banks are often dominated by two groups of owners – governments and families (Chahine, 2007; Chahine & Tohmé, 2009; Al-Hassan *et al.*, 2010). Table 2.2 shows the ownership structure in the GCC banks, at end-2007. As depicted by Table 2.2, family and government are the dominant shareholders in GCC region. The highest average of government ownership exists in UAE (52%) followed by Saudi Arabia, Oman, Qatar, Bahrain and Kuwait with ownership averages of 35%, 30%, 20.7%, 20.4% and 13%, respectively. By the same way of token, Kuwait is ranked the first country dominated by the private domestic shareholders (87%) followed by Qatar, Saudi Arabia, UAE, Bahrain and Oman with ownership averages of 75.6 %, 52%, 47.6%, 41.8% and 40%, respectively. Based on Table 2.2, foreign ownership is not high in the banking sector of the GCC. This is because of the entry barriers and the restrictions of licensing laid down for foreign banks including GCC banks. All GCC countries have foreign ownership limitations with the exception of Bahrain. For instance, Oman restricts

foreign ownership to 35% while in Kuwait and Qatar it should be no more than 49%. In Saudi Arabia, it is confined to 40% for foreign non-GCC nationals and 60% for GCC nationals, while in the UAE it is limited to 40%. This is why the cross-border presence of GCC banks along with foreign banks is confined in the form of a few or single branches. Thus, the banking sector is largely domestically owned (Al-Hassan *et al.*, 2010).

Table 2.2

Ownership Structure of the Domestic Banking System in GCC, end-2007 (in Per cent of Total Assets)

	Government	Private domestic	Private foreign
Bahrain	20.4	41.8	37.8
Saudi Arabia	35.0	52.0	13.0
UAE	52.3	47.6	0.20
Qatar	20.7	75.6	3.70
Oman	30.0	40.0	30.0
Kuwait	13.0	87.0

Source: Al-Hasan *et al.* (2010) page 18.

2.2.1.3 Islamic Banking

According to Al-Hassan *et al.* (2010), Islamic banks have experienced tremendous growth in recent years. They have moved to become a significant source of financial intermediation in the Gulf countries, controlling, on average, 24 per cent of the region's banking system assets. Table 2.3 shows the percentage of the share of Islamic bank assets to total banking system assets for each country. This table indicates that there is an increase in the number of Islamic banks in the GCC countries except Oman.

According to Turk-Ariasa *et al.* (2007), Islamic banks have a competitive edge over their conventional competitors due to certain socio-demographic trends, which include the population growth and the growing affluence of Muslims worldwide, especially across Asia.

Added to these is the awareness and growing desire of Muslims to conduct their financial transactions of investing and borrowing according to Shariah principles while enjoying a full range of banking products and services (Al-Ajmi *et al.*, 2009). Shariah principles whereby interest (riba) is prohibited; money is not treated as a commodity; high prevalence of justice; avoidance of financing any economic activity considered not in the long-term interest of society (examples are prostitution; gambling; production and sale of liquor for intoxication; etc.), and uncertainty (gharar) is prohibited, are the guiding principles of the Islamic banking system (Al-Ajmi *et al.*, 2009; Hamdan, 2009). Because of the market potential of Islamic banks, many conventional banks are tapping into it by developing Shariah-compliant unremunerated deposits in recent years. For example, in Saudi Arabia, conventional banks are aggressively targeting Sharia-compliant deposits through Islamic windows. Similarly, in the UAE most banks have either already launched or have plans in the near-term to launch Islamic banking products, either through a separate Islamic window or a subsidiary.

Table 2.3

Market Share and Average Annual Asset Growth of Islamic and Conventional Banks in Selected Countries (In per cent)

	Share of Islamic Banks' Assets in Total Assets in 2008	Growth Rate of Assets (Islamic Banks)	Growth Rate of Assets (Banking System)	Period
Saudi Arabia	35.0	33.4	19.0	2003-08
Bahrain	29.0	37.6	9.6	2003-08
Kuwait	29.0	23.2	14.3	2003-08
UAE	13.5	59.8	38.1	2003-08
Qatar	11.5	68.8	31.9	2003-08

Sources: Khamis *et al.* (2010) page 67.

2.3 The Disclosure Practices in GCC Banks

The increasing development and opening up of capital markets in the GCC member states and the pressure exerted by the multinational corporations have driven GCC governments to adopt IASs in the hopes to meet greater shareholders, local and international investors' demand for extensive information and for greater comparability in financial reporting (Naser & Nuseibeh, 2003). The GCC member states adopt IASs at some level from 1986 until 1999. In 1986, 1991, and 1996, listed companies in Oman, Kuwait, and Bahrain were mandated to adhere to IASs. Meanwhile, in Saudi Arabia, Qatar and UAE, the central banks mandated banks and finance and investments companies to adhere to IASs in 1992, and 1999 (Hussain *et al.*, 2002). The involvement of foreign ownership in Saudi Banks resulted in the Saudi Arabian Monetary Agency (the agency responsible for registration, supervision and monitoring of activities and reporting of financial institutions) to mandate the firms to adopt IASs in the hopes of providing reliable, understandable, and comparable financial statements to local and foreign investors.

The common adoption of IASs when it comes to banks and other financial institutions in various countries in the world urged the UAE Central Bank to follow the trend in an effort to provide understandable, and comparable financial statements of UAE banks and to improve their level of performance and position (Hussain *et al.*, 2002). In the context of Qatar, the number of foreign banks that are establishing themselves in the country and use IASs resulted in the Qatar Central Bank to mandate that all foreign and national banks adopt IASs. This step was taken to unify accounting standards employed by banks and to keep track of their performance as well as to maximize the degree of comparability of financial reports and in turn, meeting the shareholders' and the public's demand for

information. In sum, all the GCC member states have made it mandatory for all listed banks to adopt IAS (Al-Shammari *et al.*, 2008).

Al-Shammari *et al.* (2008) examined the degree of IAS compliance of GCC firms. They revealed that the degree of compliance in GCC banks is greater compared to their non-financial counterparts because banks are mandated to adopt IAS. Along the same line, the survey conducted by the International Finance Corporate (IFC) and Hawkamah (2008) involving listed companies and banks throughout the MENA region, revealed that banks generally adhere to good practice and regulations of financial disclosures. Findings from the survey also revealed that most of the banks provided financial statements to shareholders either through the local press, annual report or company's website in line with good practice. On the other hand, despite the fact that financial disclosure provided in the annual reports remains relatively strong non-financial disclosures like corporate social responsibility is still weak and should be an element listed under urgent reform considering the importance of the annual report for shareholders and investors. Similarly OECD (2009) suggests that the policy makers in GCC should improve non-financial disclosure standards for banks together with a better regulatory environment which ultimately have a positive effect on a country's growth performance. According to Khamies *et al.* (2010) corporate governance and disclosure need to be enhanced in GCC banks in order to maintain and enhance access to domestic and external financing.

To sum up although importance of non-financial disclosure for investors compared to level of financial disclosure, the level of non-financial disclosure in GCC bank is lower. The policy maker in GCC focus on role of corporate governance to enhances the level of disclosure.

2.4 Corporate Governance

This section highlights the importance of corporate governance and its the challenges in the GCC banking sector.

2.4.1 The Important of Corporate Governance in the Banking Sector

According to OECD (2009), the growth in the GCC stock exchange markets and attraction of more capital from foreign investors are among the motivations behind the importance to make improvements to these markets to be compatible with the international standards; in particular, those issues that should relate to the application of the best practice of corporate governance. Saidi and Kumar (2008) argue that good corporate governance is needed in the GCC due to privatization, liberalization, opening up of financial markets and increased delegation of investment. It would seem that the GCC are desirous of liberalizing and expanding their economies and markets with a view to attracting international capital flows. Although the GCC markets may appeal to international investors, the attainment of these goals and the ability to sustain them will require that the regulators are pressurized to put in place well-governed financial markets. This is because, one of the important things, from an investor's perspective, is that there is visible movement in the right direction that would bring about security and improvement in the GCC's overall corporate governance framework across the region. This will contribute to confidence building among the investors (Saidi, 2011). In other words, corporate governance best practice should play an important role in respect of the attractiveness of the foreign capital to be invested in the GCC stock exchange markets since corporate governance might be, to a large extent, an illustration of the stock exchange markets' credibility and efficiency.

The recent financial crisis and wave of corporate scandals, according to Khamis *et al.* (2010), is a pointer to the role and value of governance mechanisms if the objective is to strengthen the efficient operation of the market and protect the interests of shareholders. According to the GCC Board Directors Institute (2011), the financial crisis points to the need for GCC banks to focus their energy and creativity on the adoption of better corporate governance practices. Such a move will rebuild trust, and serve to maintain confidence at all times, from crises to recovery and economic booms and back again. The practices of companies should display a strong commitment to secure shareholders' value by prompt and transparent disclosure of financial and non-financial information.

The policy makers and business leaders are seeing that sound corporate governance can be a source of competitive advantage and equitable treatment of shareholders. Thus, from the policy makers' perspective, sound governance practices are important for two reasons. First sound corporate governance can be a source of competitive advantage for the banks and enhance the efficiency of the market. Second, GCC banks can play a central role in instilling a culture of good corporate governance, which is so vital for private sector development in the GCC region where most companies are non-listed and family-owned enterprises (Saidi, 2011).

As a result of these pressures, except Kuwait, all GCC countries have incorporated their own corporate governance system either through code or law. The first code in the GCC was issued in 2002 by Oman, and, in 2010, Bahrain became the latest GCC country to draft a code (Saidi, 2011). Table 2.4 shows the board and audit committee structure based on the Code of corporate governance of each county. Table 2.4 implies that in GCC countries the board and audit committee structure are largely similar.

The strict enforcement of the practices of the corporate governance code in the context of the GCC countries is controlled by four main factors: capital market regulators using the current price correction in GCC stock markets in the hope of upgrading corporate governance frameworks; public pressure of intervention owing to the prior pressure of widespread public contribution in IPOS; GCC capital market authorities where the Muscat and Abu Dhabi exchanges laid down the codes in 2003 and 2004, respectively, and other GCC countries including UAE, Saudi Arabia, Bahrain and Qatar in 2007; and increased corporate activity of GCC corporations in the international platform, which contributes to enhancing the standards of the private sector in line with international standards. The GCC corporations carried out a total of USD25.9 billion acquisitions in the UK, Europe, and North America in 2010 (Heineman, 2010).

The central banks of the GCC countries have modified their banking regulations to encapsulate corporate governance related needs including establishing transparency and disclosure in financial statements, establishment of audit, nomination and compensation committees along with enhancing risk management (Dabdoub, 2009). GCC banks are now required to provide corporate governance-related information to central banks as part of their annual reporting cycle.

Table 2.4

Board and Audit Structure in GCC Based on Code of Corporate Governance

	Bahrain	Oman	Qatar	Saudi Arabia	UAE
Non-executive Directors	At least 50% of the board should be non-executive	The majority of board members should be non-executive directors	The majority of board members should be non-executive directors	The majority of board members should be non-executive directors	The majority of board members should be non-executive directors
Board Independence	At least three Independent directors. One-third should be independent in controlled companies	One third Independent	One third Independent	One third independent (or 2 members, whichever is greater)	One third Independent
The roles of the Chairman and CEO	Should be separate	Should be separate	Should be separate	Should be separate	Should be separate
Board size	No more than 15 Members			Not less than 3 not more than 11	
Meeting Frequency	4 times	4 times	6 times		4 times
Board committees	Audit Nomination Remuneration Corporate Governance	Audit committee	Audit Nomination Remuneration	Audit Nomination Remuneration	Audit Nomination Remuneration
Size of audit committee	At least 3 members	At least 3 independents	At least 3 independents	At least 3 independents	At least 3 independents.
Audit committee Independence	Majority Independent	Majority Independent	Majority Independent	Majority Independent	Majority Independence
Audit committee committee chair	An independent	An independent	An independent if the Committee is not Fully independent		An independent
Audit committee financial Expert	Majority should be financial experts	At least one financial Expert			
Audit committee meeting	At least 4 meetings	At least 4 meetings	At least 4 meetings		

Source: Hawkamah institute for corporate governance (2010).

2.4.2 Challenges of Corporate Governance in GCC

Bhattacharyay (2004) identifies seven obstacles that Asian countries face in respect of corporate governance. These obstacles are (1) excessive government intervention; (2) highly concentrated ownership structure; (3) weak external discipline in the corporate sector; (4) weak legal systems and regulatory framework; (5) lack of quality information; (6) lack of investors' protection; and (7) lack of a developed capital market, all of which undermines the effectiveness of the corporate governance mechanism employed in Asia.

Saidi and Kumar (2008) argue that the GCC is facing the same challenges concerning corporate governance as is being faced in other Asian countries. For instance, the traditional lack of awareness of corporate governance issues in the GCC is down to the region's historic isolation from the global economy, large regional banks ready to provide cash for companies and strong economic growth. Adawi and Rwegasira (2011) argue that the development of corporate governance in the GCC region is lagging behind their counterparts because the GCC markets are in the infant stage with flushed liquidity, while main markets flourish. Nevertheless, despite this positive development, growth and liberalization, GCC stock markets remain underdeveloped with insufficient protection to minority investors, and stock markets are small compared to their South East Asian and Latin American counterparts (Chahine & Tohme, 2009; Marashdeh & Shrestha, 2010).

According to Chahine (2007), and Rocha *et al.* (2011), the concentrated ownership in GCC banks represents one of the most important determinants of the prevailing governance culture in the region. In the GCC, many banks are part of large and closely controlled business groups that established banks to service commonly owned or controlled companies. Thus, because of the concentration of ownership, the important

issue of corporate governance in the GCC is conflicts of interest between the large and small shareholders. Contrary to the conflicts of interest between outside shareholders and managers in a diffused ownership structure, such as that commonly found in the UK and the US, the conflicts in the GCC are between large and small shareholders (Chahine & Tohmé, 2009). Unlike western economies, many banks in the GCC are family owned and family managed or directed by the major shareholders who are often also directors and managers. The Gulf's family-owned businesses, which account for some 90% of commerce in the region, often shy away from disclosing details of their business affairs. This lack of transparency, in addition to the concentration of ownership in the hands of family members, weak external discipline and lack of investors' protection, creates several issues that might affect the strength of the corporate governance mechanism, as follows.

First, according to Rocha *et al.* (2011), the related-party relationships and transactions are often not easily identifiable, because ownership structures and the interests of both owners and board members may not be comprehensively disclosed. Where a controlling ownership is not well defined and the ultimate owner may be several degrees removed from the immediate shareholding, connections can exist through affiliates or within a complex network of individuals and companies. In these cases, related-party transactions can create significant concentrations of credit risk to the bank. Although legislation exists in most countries defining related parties and prescribing the disclosure or reporting requirements, the definitions may not encompass the full contingent of possible connections or parties that are actually related to the given bank. Furthermore, many

banks have not yet developed their own internal systems that are dedicated explicitly to identify, monitor and report related parties.

Second, according to the GCC Board Directors Institute (2011), the boards of banks lack diversified composition, including a larger representation of independent board members and an adequate mix of relevant experience. Many boards represent the direct interests of the controlling owners and have few outside independent members who could counterbalance the interests of other stakeholders. The GCC board members interviewed in 2009 have identified that the top obstacle to stating the roles and accountabilities of the board is clearly either too much or too little engagement of shareholders in the board's decision-making processes. In another survey, conducted in 2011, board members identified ineffectual skills and the composition of the board as the top impediment to defining their roles as board directors. For example, because the majority of the listed banks are ownership concentrated and controlled, and managed by the major shareholders, it is difficult to define an independent director as one who does not own shares in the company.

Third, compliance with the laws and regulations is often low, in particular with respect to risk management, internal audit, and control procedures, and disclosed financial information is often incomplete. Non-financial disclosure, including disclosure on performance that is publicly mandated, is inadequate (IFC-Hawkamah, 2008).

Fourth, the chairman's role is equivocal, and open to many roles. Essentially, the chairman's role includes managing board dynamics and, in particular, motivating and eliciting valuable participation from all board members. However, board members could

be frightened or unwilling to express their worries before a chairman who is confident because he is the controlling shareholder or related to the controlling shareholder (GCC Board Directors Institute, 2011).

Finally, the concentration of ownership and involvement of shareholders on the board lead to the ambiguity of roles between the board and the management. In addition, the concentration of ownership and involvement of shareholders on the board create the information asymmetry between the management and outside directors who are supposed to protect the interests of the minority (Chen & Nowland, 2010). In addition, in the 2011 survey carried out among GCC board members, few board members agree that they get the right information to plan ahead for meetings (although, more than half do agree that they do receive appropriate information). These findings from a survey of the GCC board members may either indicate that board members have receded on these fronts or that the majority of board members have recognized the need for instituting more effective board meetings (GCC Board Directors Institute, 2011).

2.5 Summary

In this chapter, the important and major characteristics of the banking industry in the GCC are discussed. Further, the chapter discusses the importance and challenges of corporate governance in the GCC banks. In the following chapter, the literature review pertinent to the variables of the study is presented.

CHAPTER THREE

LITERATURE REVIEW

3.0 Introduction

This chapter presents the studies that have been conducted on intellectual capital (IC) disclosure. Section one reviews the importance of IC disclosure followed by the theoretical IC disclosure framework. Section two looks at how corporate governance might be defined and the role of the board of directors, audit committee, institutional ownership, and market concentration as monitoring mechanisms. Section three looks at the differences between Islamic banks and conventional banks and the possible effect this might have on the level of disclosure. Section four considers the interaction between the ownership structure and the board of directors as a monitoring mechanism. Section five reviews the previous studies that have investigated the relationship between the board of directors, ownership and voluntary disclosure. Finally, section five provides a brief summary of the chapter.

3.1 Intellectual Capital (IC)

Intellectual capital is part of a company's intangible assets in today's business environment. However, despite the significance of IC as an integral part of a firm's value creating process (Sullivan, 2000) and as a driver for an organization's competitive advantage (Bollen *et al.*, 2005), the literature provides many interchangeable terms of IC, which include intangibles, intangible assets, intangible resources, intellectual capital, and intellectual property. The variety of terms is accompanied by a spectrum of definitions for each term. Kaufmann and Schneider (2004) in their review of the literature have shown that there are no terms and definitions of IC that are acceptable to all researchers

and analysts. According to Andriessen and Stam (2004), IC is all the intangible resources that are available to an organization that give a relative advantage, and which, in combination with other assets, are able to produce future benefits. Stewart and Ruckdeschel (1998) defines IC as the packaging of useful information representing the intellectual material that has been formalised, captured, and leveraged to create wealth by producing assets with higher value. Meanwhile, Bontis *et al.* (1999) view IC as resources that will contribute to the value-creating process in the organization.

According to Edvinsson (1997), IC is the ability to transform knowledge and intangible assets into wealth creating resources. He divides IC into two categories – human capital and structural capital. In the case of human capital, Edvinsson also distinguishes between knowledge, skills, competencies and expertise of employees, values, culture and the philosophy of the organization. Notwithstanding all the elements, IC is the base for the competitive advantage of a company. He further argues that human capital, unlike the structure, cannot be owned by the organization. According to Kaplan and Norton (1992) the IC component presents a balanced scorecard that consists of three interlinking perspectives: customers, internal business processes, and learning and growth.

According to Guthrie and Petty (2000), the Organisation for Economic Co-operation and Development (OECD) describes IC as the economic value of two categories of intangible assets of a company: (a) organisational ('structural') capital and (b) human capital. This

definition is supported by Sveiby (1997), a prominent author who categorizes IC into three subcategories: internal structure, external structure and employee competence¹.

- a. Internal structure refers to structural capital and includes items, such as patents, concepts, research model and development capability, technology and administration system (see for example Abeysekera, 2008; Vandemaele *et al.*, 2005). Organisational culture and spirit are also considered part of the internal structure, as are organisational structure and legal parameters (Guthrie & Petty, 2000).
- b. External capital also refers to customer capital and comprises relationships with customers and suppliers; distributors; strategic, joint venture and reputation franchisees; and contractors (Guthrie & Petty, 2000; Li *et al.*, 2008).
- c. Employee competence refers to individual skills, education and experience and their capacity to act in a wide variety of situations. A similar definition, which is human capital, also refers to employee competence (Brennan, 2001; Li *et al.*, 2008;).

3.1.1 The Importance of IC Disclosure

Disclosing information related to IC in the corporate annual report comes with a cost. Williams (2001) argues that voluntary disclosure of IC could affect the competitive advantage of a company by providing signs to competitors of possible value creating opportunities. According to Vergauwen and Alem (2005), companies might be at a competitive disadvantage when they disclose sensitive information to outside investors. However, from the literature, it could be said that voluntary disclosure of IC has many

¹ The words ‘structural capital’ and ‘organisational capital’ are sometimes used to refer to ‘internal capital’ by prior researchers. ‘External capital’ is also referred to as ‘relational capital’ and ‘customer capital’ in the literature. ‘Employee competence’ and ‘employees’ are some of the terms used interchangeably with ‘human capital’. In addition, the term ‘capital’ has been replaced with ‘structure’ by some authors (Beattie & Thomson, 2007).

advantages to a company, investors and the capital market as a whole. The advantages are discussed below:

- (1) Improving the external reporting of IC has closed the gap between book value and market value. According to Sveiby (1997), IC is the primary generator of share price value in modern knowledge based organizations, and, especially, as an important part of the share value excess over book value or the accounting valuation of the tangible assets. Therefore, IC disclosure reduces the gap between the book value and market value that has resulted in some intangibles, such as customer loyalty or employee competences, which cannot be considered “assets”, to be recognized in the financial statement, and, also, because, occasionally, some intangibles are assigned a lower value on the balance sheet than their recognized market value. Therefore, IC disclosure acts as a defence against distortion of GAAP-related financial calculations (Bontis, 2003).
- (2) The voluntary disclosure of IC provides information concerning the real value and future performance of a company. Therefore, IC disclosure increases the value of the relevance of the financial statements and it is considered as relevant information for investors and users (Holland, 2001; Bukh *et al.*, 2005). According to April *et al.* (2003), De Pablos (2003) and Rodgers (2003), companies have a competitive advantage when they measure, report and manage their IC effectively because they have identified all the assets (tangible and intangible) that create the company value. Therefore, failure to provide relevant information about IC may lead to a deterioration of the companies’ financial position and a loss of competitiveness in the long run (Cañibano *et al.*, 2000).
- (3) IC can give rise to agency problems as insiders in the company or major shareholders can take advantage of such information to earn the profit (Holland, 2001). Aboody and

Lev (2000) argue that the information asymmetry is more acute for investments in IC than for investments in physical and financial assets, because IC is unique to specific firms and cannot be inferred by looking at other firms. Hence, IC disclosure reduces the agency problem, and is an important signal to the investors about the affairs of companies in an intense globally competitive economic environment.

(4) The voluntary disclosure of IC increases the ability of companies to raise capital because the stakeholders can better estimate the companies' risk (Bontis, 2003; Andriessen & Stam, 2004). According to Williams (2001), the voluntary disclosure of intangible assets can help to reduce the uncertainties of the investors and banks and allows companies to have greater access to funds. Therefore, better assessment and belief in the company's future wealth creation capabilities might raise the company share price, and, thus, the market capitalization. Similarly, Edvinsson and Malone (1997) posit that the reporting on IC might be considered an attempt to resolve uncertainty about the firm, which leads to an increase in the stock price, reduction in volatility of stock prices and a decrease in capital cost (Kristandl & Bontis, 2007; Li et., 2010).

(5) IC reporting provides companies with the opportunity to take advantage of increased transparency to capital markets, establishing trustworthiness with stakeholders and is a valuable marketing tool, thereby enhancing an organization's reputation (Kooistra & Zijlstra, 2001). According to Toms (2002), disclosure of IC information could be self-perpetuating in terms of enhancing IC value given that intangible asset creation occurs through enhanced reputation.

As a result to the importance of IC and the limited value-relevance of traditional financial reports, a number of academic studies (e.g. Aboody & Lev, 1998; Holland, 2006) have called for firms to disclose more information about IC. These studies argue that IC information is a key factor in the process of valuing firms by investors. For example, after interviewing fund managers and analysts, Holland (2006) concludes that the market demands IC information and has incentives to create and use the information concerning the role of IC in corporate value-creation when making investment decisions. Rajgopal *et al.* (2003) also suggest that analysts consider IC information when they make earnings forecasts.

3.1.2 Measurement of IC Disclosure

IC creates important value in many knowledge-based industries, such as software, hardware and financial services. Despite the fact that identifying and reporting IC is not easy, several models to measure and report IC have been developed by academics, consultants and practitioners. Popular models used to construct reports on IC include Kaplan and Norton's Balanced Scorecard (Kaplan & Norton, 1992), Sveiby's Intangible Assets Monitor (Sveiby, 1997) and Skandia's Value Scheme (Edvinsson & Malone, 1997).

Norton and Kaplan's Balanced Scorecard was created to help managers to transform an organization's strategy into a reliable set of performances that will provide a framework for a strategic measurement and management system. Based on this model a company's performance is measured by indicators covering four major focus perspectives: financial perspective, customer perspective, internal process perspective and learning perspective (Kaplan & Norton, 1992). The Balanced Scorecard indicators are based on the strategic

objectives of the firm. This measurement model of intangible assets was developed considering the ability of a company to exploit and develop its intangible assets.

The Skandia's Value Scheme (Edvinsson & Malone, 1997) suggests that a company's value results from the interaction between people (human capital) and the company's organisational structural capital, and, when added together, are equivalent to IC (Edvinsson & Bounfour, 2004). Under Skandia's Value Scheme, human capital represents the combined knowledge, skill, and ability of a company's employees to meet the task at hand, while structural capital includes any organisational capability that supports employee productivity (for example, software and databases) or anything that gets left behind at the office when the employees go home (Bontis, 2001). Customer capital, under this model, also represents the relationship developed by employees with key customers (Bontis, 2001). Thus, in this framework, customer capital is considered as one of the expansions from structural capital.

However, the Intangible Assets Monitor (Sveiby, 1997) is a method for measuring IC and a presentation format that displays a number of relevant indicators for measuring IC in a simple fashion. Based on this model, IC has been classified into three categories (1) employee or people competence; (2) internal or organisational structure; and (3) external or customer structure. This classification suggests that all asset structures, whether tangible physical products or intangible relations, are the result of human action, and, ultimately, depend on people to survive (Sveiby, 1997) and that non-financial measures can provide a means of complementing financial measures (Huang *et al.*, 2007).

Petty and Guthrie (2000, p.158) state that “Sveiby’s framework provides a structure to construct ‘intellectual capital accounts’ and enables informed decisions to be made regarding firms’ value”. As highlighted in Table 3.1, this framework of IC has been used in numerous research studies. For example, the study by Guthrie and Petty (2000), which was the first study on IC disclosure, used the IC classification proposed by Sveiby in 1997 but renamed the categories of IC as internal capital, external capital and human capital instead of internal structure, external structure and employee competence. Following that, several authors studying IC disclosure used Guthrie and Petty’s, 2000 framework, for example, in Ireland (Brennan, 2001), Sweden (Olsson, 2001), Italy (Bozzolan *et al.*, 2003) and Sri Lanka (Abeysekera & Guthrie, 2005). Brennan (2001) carried out a similar study of companies in Ireland. The author analysed the annual reports of 11 listed companies and ten private companies. The author used an identical framework as that used by Guthrie and Petty (2000) to code data for the content analysis of annual reports and reported results similar to the Australian study.

Adopting Guthrie and Petty’s (2000) framework with some modifications, Bozzolan *et al.* (2003) investigated the annual reports of 30 non-financial companies listed on the Italian Stock Exchange in 2000. They conclude that company size and industry influence the amount (degree) of IC disclosure in Italian companies. Adopting Guthrie and Petty’s (2000) framework, Vandemaele *et al.* (2005) analysed the trend of IC disclosure in annual reports over three years (1998, 2000 and 2002) for 180 companies from the Netherlands, Sweden and the UK. They found that, on average, Swedish sample companies disclosed more about IC than the Dutch and UK companies. Similarly, April *et al.* (2003), Goh and Lim (2004) and Woodcock and Whiting (2009) adopted Guthrie

and Petty's (2000) framework to analyse the content of the annual reports of the 20 largest South African companies, 20 largest Malaysia companies and 70 largest Australian companies, respectively. Yau *et al.* (2009) adopted Guthrie and Petty's (2000) framework to examine the annual reports of 60 Malaysia companies in 2003. They have documented that internal capital is the highest reported category in Malaysia companies.

Recently, Li *et al.* (2008) and (2012) adopted Guthrie and Petty's (2000) framework with some modification to analyse the annual reports of 100 UK companies. The modification included three IC categories and 61 IC components. In China, Yi and Davey (2010) used three IC categories and 21 IC components to examine the extent and quality of IC disclosure of Chinese (mainland) companies.

The majority of IC disclosure studies are based on the annual reports as the source of data (see Guthrie & Petty's, 2000; April *et al.*, 2003; Li *et al.*, 2008; Woodcock & Whiting, 2009; Abeysekera, 2010; Yi & Davey, 2010). They are mostly used in many IC disclosure studies because they are regularly produced and present an historical account of the concerns of the company and management thoughts (Guthrie & Petty, 2000; Guthrie *et al.*, 2004). According to Abeysekera and Guthrie (2005), Abeysekera (2008), and Campbell and Abdul Rahman (2010), the annual reports are an appropriate vehicle for investigating the comparative positions of the disclosure of intangibles between firms, industries and countries.

As highlighted in Table 3.1 the methods that are most commonly used to analyse the IC disclosure in the majority of IC disclosure studies are content analysis and the disclosure index. Content analysis has been conducted on annual reports by a number of IC

researchers (e.g. Brennan, 2001; Olsson, 2001; Bozzolan *et al.*, 2003; Li *et al.*, 2008; Abeysekera, 2010; Yi & Davey, 2010). This is because these researchers consider content analysis a good instrument to measure comparative positions and trends in reporting. Weber (1985) defines content analysis as a research methodology that utilizes a set of procedures to make valid inferences from text. In other words, content analysis consists of dividing the text into meaningful entities and coding these entities according to well-defined rules (Aerts, 2005). A central idea in content analysis is that many words in the text are classified into much fewer content categories. Each category may consist of one, several, or many words. Words, phrases, or other units of text classified in the same category are presumed to have similar meanings. Guthrie *et al.* (2004) point out that content analysis of annual reports has emerged as the most popular research method of IC disclosure studies in recent years.

The disclosure index method is one that provides a quantification of the extent of disclosure for the items investigated (Marston & Shives, 1991). The disclosure index expresses the percentage of the items found in a document with respect to the total number of items contained in the list. This method has been used by many researchers (Olsson, 2001; White *et al.*, 2007; Li *et al.*, 2008; Singh & Van der Zahn, 2008)

Table 3.1

Summary of IC Disclosure Studies and How they Measure IC Disclosure

Study & Country	Sampling	Framework for categorizing IC	Unit of analysis	Data sources
Guthrie and Petty (2000) Australia,	20 listed (19 largest, 1 best practice) 1998	24 elements Modified Sveiby (1997)	Sentences	Annual report
Brennan (2001) Ireland	11 listed knowledge-based	Guthrie & Petty (2000) framework	IC element disclosed or not within each report. Frequency within sample (proportion of companies disclosing IC) and average number per company	Annual report
Williams (2001) UK	31 randomly selected from FTSG 100 index 2000	50 items from literature 50 items from literature	Disclosure index	Annual report
April <i>et al.</i> (2003) South Africa	20 largest listed	Guthrie & Petty (2000) framework	Disc. Index	Annual report
Bozzolan <i>et al.</i> (2003)	Italian 30 2001	Guthrie & Petty (2000) framework	Sentence	Annual report
Goh and Lim (2004)	20 largest Malaysia companies 2001	Guthrie & Petty (2000) framework	Sentences	Annual report
Abeysekera and Guthrie (2005) Sri Lanka	Top 30 listed companies for 1998 and 1999.	Guthrie & Petty (2000) framework	Sentences	Annual report
Vandemaele <i>et al.</i> (2005)	The Netherlands, Sweden and the UK 180 companies, 1998, 2000 and 20	22 elements Modified Guthrie and Petty (2000)	Word	Annual report

Table 3.1 (*continued*)

Study & Country	Sampling	Framework for categorizing IC	Unit of analysis	Data sources
Chang <i>et al.</i> (2009) Taiwan	142 IPO prospectuses from 1992 to 2006	18 elements Modified Svieby (1997) as in Guthrie & Petty (2000) Internal, external and human capital	Content analysis 1 or 0	Annual report
White <i>et al.</i> (2007)	96 biotechnological Companies 2005	78 items in 5 categories for Bukh <i>et al.</i> (2005) Internal external, human capital, forward –looking information History information	Disc. Index	Annual report
Singh and Van der Zahn (2008) Singapore =	444 IPO 2006	81ITEMS 6 IC categories hum resources , customers , IT, process, R&D and strategic statements	Disc. Index	IPOs
Li <i>et al.</i> (2008) UK	100 selected from 6 seectors 2005	61 items Modified Svieby (1997) as in Guthrie and Petty (2000)	Word	Annual report
Abeysekera (2010) Kenya	26 market capitalism 2003	45 elements Modified CPA Austria CMA Canada, IFAC	Sentence	Annual report
Yau <i>et al.</i> (2009) Malaysia	Top 30 &30 bottom listed companies 2003	Guthrie & Petty (2000) framework	Sentence	Annual report
Woodcock & Whiting (2009)	70 Australian companies 2007	Guthrie & Petty (2000) framework	Sentence	Annual report

3.2 Theoretical Disclosure Framework

There are many reasons why firms provide information beyond that which is mandated by regulation. Some theories try to explain those reasons within a coherent theoretical framework (see for example, Williams, 2001; Firer & Walliams, 2003; White *et al.*, 2007; Gan *et al.*, 2008; Li *et al.*, 2008; Singh & Van der Zahn, 2008), such as agency, institutional, political cost, signalling, stockholder, accountability, proprietary costs and legitimacy theory. However, no single theory can explain the phenomena of disclosure completely (Leventis & Weetman, 2004). Depoers (2000) advocates that agency theory is the most widely applied theoretical framework in explaining why firms chose to disclose voluntary information. Ho and Wong (2001) argue that agency theory provides framework to explain the relationship between the corporate governance and voluntary disclosure. Cerbioni and Parbonetti (2007) argue that voluntary disclosure of IC presents a good example to apply agency theory, in the sense that managers have more information about the company than external owners and investors. Thus, the voluntary disclosure of IC primarily works to reduce information asymmetries as one of the corporate governance mechanisms. Deegan (2007) argues that institutional theory is the newly emergent theory in the financial reporting context and complements agency theory (Carpenter *et al.*, 2001). The management decision to voluntarily disclose information is also affected by the nature of market competition (e.g. Darrough, 1993). This research uses proprietary costs theory, hegemony theory and institutional theory in addition to agency theory, which will be used as the main theory in explaining voluntary disclosure in this study.

3.2.1 Agency Theory

Agency theory supposes that the firms are a nexus of contracts between the owners and managers who are charged with using the resources of firm (Jensen & Meckling, 1976). According to this theory, managers have more information about the firms than the owners, and this information asymmetry adversely affects the ability of the principal to effectively monitor whether their interests are being properly served by the agent (Adams, 1994). It would be difficult and costly for the principal to monitor the agent's action. Consequently, the principal cannot be sure that the agent has performed his duties properly. The main objective of the theory is to explain the relationship between the principal and agent and the implementation of effective governance mechanisms that reduce agency problem and minimize agency costs by ensuring the effective alignment of interests of both parties – principal and agent. For example, Lubatkin *et al.* (2005) explain why agency problem creates corporate governance concerns as follows: at its most basic level, agency theory is concerned with problems that can arise in any cooperative exchange when one party (the principal) contracts with another (the agents) to make decisions on behalf of the principal. However, contracts tend to be incomplete and subject to hazard because of the nature of people (e.g. self-interest, bounded rationality, risk aversion), organizations (goal conflict among members), and the fact that information in organizations is typically distributed asymmetrically, makes it costly for principals to know what the agents have actually accomplished. Agency problems develop because agents can hide information and/or take actions that favour their own interests. This gives principals the motivation to invest in monitoring and giving incentives to management.

Jensen and Meckling's (1976) theory seeks to avoid or reduce the agency cost resulting from the conflict of interests between the agent and the owners. Agency costs are the sum of bonding costs, monitoring costs, and residual cost. Monitoring costs are salaries and other expenditure paid by the owner to control, measure, and observe the performance of the agent. In spite of the existence of the agency cost and agency problems explained above, the new structure of diffused ownership leads to such conflicts of interests. This problem is well known amongst both outside investors and corporate managers alike. The enhancement of internal and external monitoring mechanisms could be basically attributed to solving the agency problem. These mechanisms lead to increased agency cost. Fischel (1981) notes that: as residual claimants on the firm's income stream, shareholders want their agents – the firm's managers – to maximize wealth. Because managers cannot capture all of the gains if they are successful, and will not suffer all of the losses should the venture flop, they have less incentive to maximize wealth than if they themselves were the principals. Instead, managers have an incentive to consume excess leisure, prerequisites, and, in general, be less dedicated to the goal of wealth maximization than they would be if they were not simply agents.

Providing information can be one way to reduce agency costs (Jensen & Meckling, 1976). Therefore, it is argued that increased disclosure is one way to mitigate the information asymmetry that exists between principals and agents, thus reducing agency costs. Therefore, agency theory conceives disclosure as a mechanism that decreases the costs resulting from conflicts between managers and shareholders (compensation contracts) and from conflicts between the firm and its creditors (debt contracts). Consequently, disclosure works as a mechanism to control manager's performance

because when managements know that the shareholders try to control them by contracting and monitoring, they use incentives to convince the shareholders that they are acting in the best interests of the shareholders. One way to obtain this trust is to provide the shareholders with information (Watson *et al.*, 2002).

3.2.2 Institutional Theory

According to Carpenter *et al.* (2001), institutional theory should be viewed as a complement to agency theory rather than a competing theory. According to this theory, companies are limited by the social systems in which they operate. In other words, the decisions of the managers must comply with all the rules and social conventions if they are to receive support and legitimacy (DiMaggio & Powell, 1983). Therefore, it can be said that this theory explains why the accounting practices differ between countries or between the sectors in the same country. For example, the manager of a company that works in a country where there is legal protection of investors will decide to disclose more information to outsiders in order to comply with all the rules and social conventions or follow the actions of other organizations as a result of coercive, normative, or mimetic pressures if they are to receive support and legitimacy.

According to Deegan (2007), the institutional theory can explain the voluntary reporting practices through two dimensions; isomorphism and decoupling. DiMaggio and Powell (1983) define isomorphism as a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions. As such, in order to avoid attracting criticism as well as facing legitimacy problems, these organizations, which operate within the same environmental conditions, may conform to

expectations of the norm. As such, isomorphic processes refer to organizations' adaptations and changes in their voluntary corporate reporting practices.

DiMaggio and Powell (1983), who introduced the concept of isomorphism, believe that competitive and institutional types of isomorphism might be a source of pressure for the companies. By competitive isomorphism, they refer to similar organizations due to market competition (Di Maggio & Powell, 1983), which focuses on population ecologists (Hannan & Freeman, 1977). This means that companies are influenced to make voluntarily disclosure when they see industry leaders, competitors, and network members doing the same in order to gain legitimacy and enhance their chances of survival. In order to do so, they should have an effective board of directors. Consequently, institutional theory focuses on the maintenance role of a governing board in response to institutional pressure that is focused on indoctrinating the organisation by interpreting the external environment (Hung, 1998).

3.2.3 Hegemony Theory

The hegemony theory postulates that the board of directors to be a *de jure* as opposed to a *de facto* governing body of the firm. On the basis of this theory, corporate management is responsible for the running and controlling of the firm (Scott, 1997) while the board of directors is dominated by management. This hinders the board from carrying out its responsibility of supervision and control over management (Mace, 1971). The theory also postulates the liberalist assumptions; for instance, the management's self-serving inclination reflects the individual utility maximizing behaviour. Hence, the theory asserts that the board of directors is merely a statutory addition which is controlled by management; it has a passive role in strategy and directing the firm (Mace, 1971).

The advocates of the hegemony theory contend that in this scenario (dominating management), the independent directors' capability of fulfilling their monitoring and overseeing role is questionable (Abdullah, 2004). Specifically, they argued that the boards are weak and ineffectual entities with monitoring roles (Mallette & Fowler, 1992). Owing to the CEO's dominant role in selecting directors, it is contended that independent directors are not capable of generating independent judgment and this brings to question the independent directors' quality (Abdullah, 2004). The addition of independent directors who are not involved in corporate activities and overseeing the daily firm activities may hinder effectiveness of board of directors to monitor the management. Thus, it suggested that because of the reliance of independent directors on the CEO in gathering information regarding the operation of the firm, monitoring role of effectiveness of board of directors is affected by the level entrenchment of management. Based on this theory, it has been suggested that information asymmetry is an indicator of entrenchment of management; the lower information, the lower the entrenchment of management. This would allow non-executives to participate in making decision and in controlling the management. With a high degree of information asymmetry, entrenchment of management will increase and managers play a significant role in the decision making while non-executives would not be able to control managers because they do not have sufficient knowledge about the firm or the power delegated to them by shareholders is actually exercised by the management (Demb & Neubauer 1992). Based on hegemony theory, information asymmetry is one of the mechanisms for management control that influences the effectiveness of board of directors

3.2.4 Proprietary Costs Theory

Gray and Roberts (1989) argue that voluntary disclosure has its costs and benefits. The biggest costs related to voluntary disclosure are the cost of competitive disadvantage and cost of data collection and processing. According to Verrecchia (1983), when a company discloses more information in its annual report to investors, its competitive position will be damaged in product competition. Therefore, it can be said, that in the case of proprietary costs, a firm has to compare between the benefits of voluntary disclosure of important information that helps investors to make decisions and increases transparency against the costs that may result from competitors having access thereto. Hence, it could be said that voluntary disclosure of important information depends on the nature of market competition. According to proprietary costs theory, disclosing information not only involves cost but could also harm companies when the same information could be used by competitors and other parties in a way that is harmful for the reporting company. Thus, proprietary cost is one of the reasons that prevent companies limiting their voluntary disclosure of information (Wagenhofer, 1990). The absence of this cost might encourage companies to disclose more in order to help investors to make decisions and reduce information asymmetry, and, consequently, the cost of capital (Verrecchia, 1983). According to Verrecchia (1983), the higher the proprietary costs associated with the disclosure, the less negatively investors react to the withholding of relevant information, thus the less probability of companies voluntarily disclosing information.

3.3 Definitions of Corporate Governance

Shleifer and Vishny (1997) define corporate governance as follows: Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment. Likewise, it has been defined by John and Senbet (1998) as the mechanism by which the shareholders of a corporation exercise control over corporate managers to ensure that their interests are protected.

According to the Cadbury Committee (1992), corporate governance can be regarded as a set of mechanisms through which firms operate when ownership is separated from management or is a system by which companies are directed and controlled. Therefore, it is created to solve the problems that exist due to the separation between the management and ownership. This definition has been supported by one of the most widely accepted definitions presented in the OECD principles of Corporate Governance that reflects the broader approach to corporate governance: corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders.

Monks and Minow (1995) define corporate governance as the relationship between the various participants in determining the direction and performance of corporations; the key participants in this definition are the shareholders, management and board of directors. Pound (1995) argues that shareholders, management and the board of directors are the critical group in corporate governance. Thus, this study adopts this owner-manager – board relationship – centred view of corporate governance in shaping a company's direction and control.

Based on the above definition, the governance problems that need be solved vary depending on the ownership structure, for example, in the case of diffuse ownership, shareholders cannot control the management's performance. The key corporate mechanism to solve this problem is to have a board of directors with a majority of independent directors. However, when companies are controlled by the largest shareholder, they have the ability to monitor the management, thus, the primary governance issue here, is how to prevent the largest shareholders from exploiting the minority shareholders. The aim of the current study is to examine the relationship between the board of directors and IC disclosure in companies controlled by large shareholders and work under different competitive environments.

3.3.1 Board of Directors

The Board of directors is one of the important elements in internal corporate governance mechanisms. According to Lefort and Urzúa (2008), Chobpichien *et al.* (2008), Singh and Van der Zahn (2008), Akhtaruddin *et al.* (2009) and Khodadadi *et al.* (2010), the board of directors is a central institution in the internal governance of a company, which provides a key monitoring function in dealing with agency problems. Fama and Jensen (1983) argue that by exercising its power to monitor and control management, the board of directors can reduce agency conflicts based on the perception that managers may have their own preferences and may not always act on behalf of the shareholders, and, thus, the board of directors should monitor them (Limpaphayom & Connelly, 2006). In addition, the board of directors, as an internal corporate governance mechanism, will have a direct impact on ensuring adequate returns for shareholders (Weir *et al.*, 2002). One of board of directors' duties is to optimize shareholder value (Coles *et al.*, 2001). The board of

directors is argued to play an important role in protecting the interests of various stakeholders against management's self-interests (Cerbioni & Parbonetti, 2007; Li *et al.*, 2008; Ruth *et al.*, 2011; Taliyang & Jusop, 2011). According to Hermalin and Weisbach (2003), the optimal solution to solve the agency problems that modern companies face is the board of directors.

The enhancement of the board of directors in terms of board size, board composition and leadership structure could improve board effectiveness and its capacity to monitor the management, and, thus, increase the possibility of providing more voluntary information to outside investors(Singh & Van der Zahn, 2008; Akhtaruddin *et al.*, 2009; Khodadadi *et al.*, 2010; Taliyang & Jusop, 2011). Goh (2009) argues that independence, size, frequency of meetings, and the duality of the chief executive officer (CEO) are the key factors that determine the effectiveness of the board and enhance the transparency of a company. Similarly , Chobpichien *et al.* (2008) suggest that independence, size, and meeting frequency, and the duality of the chief executive officer (CEO) and chair positions (CEO duality) are factors that determine the quality of the board that forces management to disclose more information to outside parties. Cerbioni and Parbonetti (2007) suggest that a small board chaired by an independent director, and composed of a majority of independent directors who play an active role on the audit, nominating and compensation committees, is important in improving the overall quality of corporate voluntary disclosure. These elements, if present, would enhance the monitoring role of the board of directors. Following Hill (1999), who posits that it is desirable to have a system of overlapping checks and balances and that none of the mechanisms of accountability is a panacea to all the problems faced by companies, this study examines

the relationship between a bank's board size, composition, CEO duality and board committees on voluntary disclosure of IC.

3.3.1.1 Board Size

Board size or the number of directors on the board is an important factor in determining the effectiveness of the board (Singh & Van der Zahn, 2008; Akhtaruddin *et al.*, 2009; Khodadadi *et al.*, 2010). Akhtaruddin *et al.* (2009) argue that a larger board is able to monitor the management because with the increase in the number of directors, the experience and expertise of the board will increase, which, in turn, contribute significantly to the board's performance. Therefore, a large board size would improve the board effectiveness of companies to support the management in reducing agency costs that resulted from poor management and would lead to better financial results. According to Kyereboah-Coleman and Biekpe (2005), larger boards are better for corporate performance because they have more capabilities and expertise in assisting management in decision making and are harder for a powerful CEO to dominate. This results in improving governance, especially in enhancing a company's management and financial performance. Dalton and Dalton (2005) argue that in addition to providing access to exponentially more resources and networking opportunities, larger boards expand the number of individuals on whom the CEO and other executives can rely on for advice and counsel. Larger boards also provide opportunities to broadly enhance the diversity of the board, including experience, skill sets, gender and race. The results from Akhtaruddin *et al.* (2009) support these arguments, by reporting a positive relationship between board size and voluntary disclosure in Malaysian companies.

However, Jensen (1993) argues that having a larger board of directors in the corporation make it less effective as it makes it harder for the CEO to be monitored by the board. Moreover, he argues that once the board gets too big, it becomes difficult to co-ordinate and process problems. On the other hand, smaller boards reduce the possibility of free riding by individual directors, and improve their decision-making processes. Lipton and Lorsch (1992) argue that as the board size increases, boards might become less effective at monitoring management. They recommend that board membership should be between eight and nine, and that any additional benefits that can be gained from increased monitoring by additional membership will offset the costs linked with slow decision-making, coordinating of effort and easier control of the CEO. According to De Andres *et al.* (2005), the benefits of better management control by the larger board of directors are offset by the potential disadvantages from coordination, communication, and decision making problems. Coles *et al.* (2005) argue that small boards are more cohesive, and more productive, and have the ability to monitor activities more effectively. These arguments have been supported by a number of studies that find that a small board increase market value or performance (Yermack, 1996; Hermalin & Weisbach, 2003). With regard to voluntary disclosure, Cerbioni and Parbonetti (2007) found a negative relationship between board size and IC disclosure. Their findings are consistent with the notion that board size is inversely related to board monitoring quality.

From the above discussion it could be concluded that two views determine the consequences of the board size. The first view suggests that with an increase in the size of the board, the effectiveness of the board of directors will increase. This view is based on the assumption that with an increase in the number of board members, the diversity of

the board (i.e. the experience, expertise and independence of the board) will increase. Thus, with a lack of diversity among board members, an increase in the size of the board will not strengthen the effectiveness of the board of directors. The second view suggests that a small board can strengthen the effectiveness of the board of directors. The assumption of this view is that excessive boards are less likely to function effectively because the CEOs have sufficient power to control operations and decisions, as decisions are difficult to reach due to prolonged discussions. Based on the second view, it could be said that a lack of diversity of board causes boards to function less effectively.

3.3.1.2 Board Independence

The degree of board independence is seen as a primary incentive to the board monitoring mechanism to monitor the activities of management. Jensen and Meckling (1976) point out that the agency problems could be mitigated though boards whose composition are non-executive directors or outsiders in majority by attempting to control and monitor the management's opportunistic behaviour. Fama and Jensen (1983) suggest that the board's effectiveness in monitoring management is a function of the combination of insiders and outsiders who serve on the board.

Christopher (2005) suggests that independent directors on the board add value to an organization by increasing responsibility, providing self-governing judgment, increasing the network of business connections for the board and executives and moderating the power of the chair and/or CEO, who, in some organizations, may be overly powerful. As a result of their independence from firm management, the non-executive or outside directors are believed to provide superior benefits to the firm (Judge *et al.*, 2003). Similarly, Roberts *et al.* (2005) note that if an outside director is an active participant, the

independence of mind that such a director brings to the team can be a valuable contribution to the functioning executives in their leadership of the business, and monitoring and controlling of the executives' conduct. Moreover, they argue that the non-executives can both support the executives acting individually and collectively, and, thus, are able to create accountability within the board in relation to both strategy and performance.

According to agency theory, the independent directors and the voluntary disclosure are important corporate mechanisms that are used to reduce the conflict between the manager and the owner (Jensen & Meckling, 1976). Independent directors can reduce the conflict between the manager and owner by monitoring and controlling the action of executive directors (Haniffa & Coke, 2002) while a higher level of disclosure allows the principals to identify the opportunistic behaviour and sanction the agents, who will be less motivated to carry out such behaviour.

With regard to voluntary disclosure, Jansen and Fama (1993) argue that an increase in the number of independent directors enhances the level of voluntary disclosure because it increases the level of the monitoring role of the board of directors by reducing information asymmetry, thus reducing the chance of the management to withhold information for their own benefit (Akhtaruddin *et al.*, 2009). Similarly, Chobpichien *et al.* (2008) argue that a high proportion of independent directors on the board enhances its quality resulting in an increase in the level of voluntary disclosure in the annual reports of companies. Singh and Van der Zahn (2008), Akhtaruddin *et al.* (2009), Khodadadi *et al.* (2010), and Taliyang and Jusop (2011) suggest that increasing the number of independent directors on the board enhances the possibility of providing more voluntary information

to the external world because they have an incentive to defend or build their reputation as expert monitors (Patelli & Prencipe, 2007). Chau and Gray (2010) argue that because the independent directors are representing the shareholders, their presence on the board of directors leads to an increase in effective monitoring by the board resulting in an increase in the level of voluntary disclosure of corporate information. Yuen *et al.* (2009) suggest that the presence of a regulatory environment enhances the strength of the association between the proportion of independent directors and the level of voluntary disclosure.

Despite the above arguments, the findings of previous studies that are reviewed at the end of this chapter are unclear. For example, Li *et al.* (2008) find a positive significant relationship between voluntary disclosure and the proportion of outsiders on the board in the UK. Similarly, Arcay *et al.* (2005), Huafang and Jianguo (2007) and Akhtaruddin *et al.* (2009) find positive relationship between the proportion of outsiders on the board and voluntary disclosure in Spain, Australia and Malaysian. The findings of these studies support the idea that board independence can strengthen the effectiveness of the board of directors, which, in turn, will be able to enforce the management to disclose more information to outside. Ho and Wong (2002), Taliyang and Jusop (2011) do not find any relationship between outside directors on the board and voluntary disclosure in Hong Kong and Malaysia. Eng and Mak (2003), Lakhal (2005), and Gul and Leung (2004) find a significant negative relationship between the proportion of independent directors on the board and voluntary disclosure in Singapore, Hong Kong, and France. These studies conclude that since the voluntary disclosure might affect the competitive advantage of the company, the board independence works as substitutive for it.

3.3.1.3 Board Meetings

One of the responsibilities of the directors is attending meetings and by doing so they have the privilege of voting on key decisions (Ronen & Yaari, 2008). According to Carcello *et al.* (2002), the diligence of the board includes factors, such as the number of board meetings and the behaviour of individual board members surrounding such meetings (preparation before meetings, attentiveness and participation during meetings, and post-meeting follow-up). The only one of these factors that is publicly observable is the number of board meetings (Carcello *et al.*, 2002). Thus, board meetings are considered as a resource that leads to board diligence, and, in turn, enhances board effectiveness (Conger *et al.*, 1998; Vafeas, 1999; Xie *et al.*, 2003; García Lara *et al.*, 2009). Overall, the frequency of meetings of the board of directors is likely to contribute to the effectiveness of its oversight function, particularly in matters concerning the financial reporting process, resulting in improved transparency in the annual report. Conger *et al.* (1998) suggest that more frequent board meetings improve a board's effectiveness. The meetings are a key dimension of board operations (Vafeas, 1999) and an indicator of the effort put in by the directors (Ronen & Yaari, 2008). Active boards that meet more frequently are more likely to perform their duties in accordance with shareholders' interests (Vafeas, 1999) and put more effort into monitoring the integrity of financial reporting, and, thereby, improving the disclosure.

Jensen (1993) argues that the board should be comparatively active, and that boards are required to become more active in the presence of problems and conduct meetings on a frequent basis. Board activities appear to influence IC disclosure because of their ability to reduce agency cost and information asymmetry (Lorca *et al.*, 2001). In this context,

board diligence, as proxied by meeting frequency, results in more effective monitoring function, and, in turn, minimises the agency problems resulting in lower information asymmetry (Boon Foo & Mat Zain, 2010) and a greater level of internal control system and financial reporting process oversight (Yatim *et al.*, 2006; Zhang *et al.*, 2007).

3.3.1.4 CEO Duality

There are two points of view concerning the consequences of role duality, where the chief executive officer (CEO) or managing director is also the chairman of the board (Abdullah, 2004; Abdul Rahman & Haniffa, 2005; Lin, 2005). The proponents of the stewardship theory believe that the combination of the two roles (i.e. CEO duality) enhances the decision making process and allows a CEO with strategic vision to guide the board to implement a company's objectives with the minimum of interference from the board. Under the stewardship theory, it is believed that the CEO view themselves as stewards of the organisation; allowing a cooperative relationship to exist between the CEO and the chairman, and the board of directors (Lin, 2005). As a steward of the firm, his or her actions are likely to achieve organisational rather than self-serving objectives. According to Carapeto *et al.* (2005), a company can achieve superior performance when the CEO exercises complete authority and his role is both unambiguous and unchallenged.

However, from the agency theory perspective, the separation between the CEO's roles and chairman (COB) can strengthen the monitoring role of the effectiveness of the board of directors, which, in turn, reduces the agency cost (Fama & Jensen, 1983; Gul & Leung, 2004). This is because when someone holds two top positions they are more likely to follow strategies that advance personal interests and which could harm the firm as a

whole (Jensen & Meckling, 1976). Mallette and Fowler (1992) noted that in a situation where the roles are combined, there is tendency of making decision, which may have the potential of causing conflict of interests. In addition, where their roles are combined, the CEO may put in place the agenda of the board and this may likely affect or control the choice of board of directors. They concluded that duality of CEO may challenge the monitoring ability of the board on executives. According to Rechner and Dalton (1991), to facilitate more effective monitoring and control of the CEO, agency theory suggests splitting the board chair position from the CEO position. This view is supported by Jensen (1993) who argues that separating the CEO and chairman positions is important to ensure the board's effectiveness. Thus, in the absence of a clear separation between the chairman and the CEO, the board is considered as ineffective because the CEO monitors his own decisions and activities (Bliss *et al.*, 2007). Further, Petra (2005) argues that it is unreasonable to believe that the CEO/chairman will evaluate themselves objectively. Therefore, the agency theory puts full support for the separation between the CEO and chairman positions in order to strengthen the effectiveness of the board of directors.

In respect of the consequences of CEO and chairman positions on voluntary disclosure, Fama and Jensen (1983), and Jensen (1993) argue that the separation between the CEO's roles and chairman (COB) facilitates the reduction of agency costs and increases the level of voluntary disclosure. Moreover, they argue that duality decreases the level of voluntary disclosure and increases the agency problems due to CEO entrenchment and a decline in board independence from corporate management. According to agency theory, CEO duality weakens the monitoring role of the board of directors through constraining the independence of the board. Thus, the CEO may pursue opportunistic behaviour and

withhold information for his own benefits (Jensen & Meckling, 1976; Fama, 1980; Fama & Jensen, 1983; Singh & Van der Zahn, 2008; Akhtaruddin *et al.*, 2009; Khodadadi al., 2010). Ho and Wong (2001) argue that the level of voluntary disclosure will be lower in a company in which the CEO is chairman because disclosing more information to the investing public will be determined by the chairman-CEO. Therefore, in this case, the chairman-CEO will not disclose unfavourable information in the corporate annual report. Similarly, Akhtaruddin *et al.* (2009) argue that when the CEO is not the chairman, the level of voluntary disclosure will be higher because the chairman will monitor the board of directors and CEO. As a result, the CEO would not be able to pursue opportunistic behaviour or withhold information for his own benefit.

However, despite the extensive studies that have been conducted on this issue, the conclusions concerning CEO duality and voluntary disclosure are somewhat mixed. For example, Lakhal (2005), Arcay *et al.* (2005), Huafang and Jianguo(2007), and Akhtaruddin *et al.* (2009) find a negative relationship between CEO duality and voluntary disclosure in France, Spain, China and Malaysian. The studies conclude that CEO duality weaken the monitoring role of the board of directors through constraining the independence of the board, and, thus, are in accordance with the arguments of agency theory. However, Ho and Wong (2002), and Matoussi and Chakroun (2008) find no relationship between outside directors on the board and voluntary disclosure in both Hong Kong and Tunisia. Thus, despite the majority of findings supporting agency theory, some studies fail to provide such support. However Lam and Lee (2008) report that CEO duality benefits the non-family firms whilst the separation between the CEO's role and the chairman can benefit the family firms. This is because the board of the family firms

are more likely to be dominated by the insiders; hence, the chairman should be independent from the management to avoid a conflict of interest. Thus, it can be concluded that in companies that are controlled by a large shareholder, CEO duality leads to an increase in the entrenchment of management, which, in turn, harms the effectiveness of the board of directors.

3.3.1.5 Board Committees

According to Hoitash *et al.* (2009) and Engel *et al.* (2010), the board of directors delegates some of its duties to various sub committees in order to carry out its role, which is, according to agency theory, monitoring the management and protecting the interests of the shareholders. Therefore, it could be said that the sub-committees of boards play a critical role in determining the effectiveness of the board of directors, make them more efficient in performing their tasks, and become more accountable for their actions. This is because small groups or teams are more cohesive and effective than full board since communication is more efficient and directors expertise is more focused. In short, board committees can enhance board effectiveness (Hoitash *et al.*, 2009; Engel *et al.*, 2010).

It has been argued that audit committees, remuneration committees and nomination committees monitor or oversee committees that focus on the board's monitoring role by providing an objective and independent review of corporate affairs (Fama & Jensen, 1983; Cerbioni & Parbonetti, 2007). Vafeas (2000) argues that board committees can determine the effectiveness of its monitoring activities regarding information asymmetries. Therefore, in order to enhance the effectiveness of the board of directors, corporate governance codes in GCC has recommend the adoption of board committees, in particular, audit, compensation and nomination committees.

To sum up, many studies have examined the relationship between the characteristics affecting the board of directors and voluntary disclosure. However, the findings of these studies remain inconclusive. One of the reasons that might explain this outcome is the different institutional settings. Yuen *et al.* (2009) suggests that the presence of regulatory environment enhances the strength of the association between the proportion of independent directors and the level of voluntary disclosure. García-Meca and Sánchez-Ballesta (2010) argue that the relationship between corporate governance and voluntary disclosure depend on the legal and institutional setting. They found a positive relationship between the board independence and voluntary disclosure in those countries in which investor protection is high.

The other reason that might explain the mixed results is that the previous studies examined the board of directors and voluntary disclosure under different types of ownership structure and ignored the fact that corporate governance mechanisms act as complementary or substitutive for each other. Chobpichien *et al.* (2008) argue that the quality of the relationship between the board of directors and voluntary disclosure is affected by the ownership structure. They find that non-executive larger shareholder-controlling ownership positively moderates the relationship between the quality of the board of directors and voluntary disclosure, while family ownership negatively moderates the relationship between the board of directors and voluntary disclosure.

Based on the above discussion, the motivation for this study to examine the relationship between the board of directors and the voluntary disclosure of IC are twofold. First, this study will examine this relationship between the board of directors and voluntary disclosure of IC in the banking sector, which is subject to more intense regulation than

other sectors. Second, this study will examine the types of ownership structure, such as chairman ownership, government ownership and family, as moderator for this relationship. Therefore, this study will provide evidence under what type of ownership of the board of directors acts as complementary to disclosure. By doing so, this study extends the study of Chobpichien *et al.* (2008) but differs from it by examining chairman ownership and government ownership in addition to the information asymmetry as a moderator for the relationships between board effectiveness and IC disclosure in the banking sector.

3.3.2 Effectiveness of Audit Committee

According to Pincus *et al.* (1989), the aim of audit committees is to assist the outside directors of the board to achieve their statutory duties, particularly with regard to audit quality and oversight of financial reporting (by selecting external auditors) through selecting the external auditor (subject to shareholder approval) and reviewing the firm's financial statements, audit process, and internal accounting controls by meeting separately with senior financial managers and auditors (Cadbury Report, 1992). In addition to these responsibilities, the audit committee should be able to challenge management, internal auditors, and external auditors to show that they are acting in the firm's best interests. Hence, it has been suggested that active audit committee is one of internal mechanisms that reduce agency cost (see Ho & Wang, 2001; Saleh *et al.*, 2007; Engel *et al.*, 2010). According to Lin *et al.* (2009), one of the duties of the audit committee as a governance mechanism is mitigating the agency problems by reducing information asymmetry between the stakeholders and managers. Therefore, the expectation that the audit committee would influence IC disclosure derives from the

notion that corporate governance mechanisms are designed to reduce agency problems (Fama & Jensen, 1983), and enhancing disclosure is perceived as one way of reducing these agency problems (Healy & Palepu, 2001).

According to Tengamnuay and Stapleton (2009), the effectiveness of the audit committee is perceived as one of the mechanisms that reduces the information problems, which, in turn, leads to better financial disclosure and more transparent reports. Therefore, it could be said that the function of the audit committee goes far beyond the traditional financial audit, as it increases public confidence in the credibility and the objectivity of financial reporting by enhancing the quality of monitoring and reducing benefit from withholding information. Support this idea, recent evidence has shown that the audit committee enhances the level of social and environmental reporting (Jones & Solomon, 2010), which overlaps with IC disclosure (see e.g. Cordazzo, 2005). Li *et al.* (2012) argue that because IC disclosure provides the information about the real value and future performance of a company, the role of the audit committee as monitoring mechanisms not only concerns the financial reporting process, but also extends to including IC information in order to reduce the information asymmetry.

According to Kalbers and Fogarty (1993), the audit committee will be effective when its oversight responsibilities are carried out competently. It has been suggested that the effectiveness of the audit committee depend upon its characteristics (Bedard *et al.*, 2004; Saleh *et al.*, 2007; Rainsbury *et al.*, 2008; Akhtaruddin *et al.*, 2009; Lin *et al.*, 2009; Pomeroy, 2010; Won *et al.*, 2011; Lary & Taylor, 2012; Aboagye-Otchere *et al.*, 2012; Sun *et al.*, 2012; Siti Rochmah & Ghazali, 2012; Salleh & Stewart., 2012). For example, in order for the audit committee to achieve its duties, it should have independent

members from management (Carcello *et al.*, 2006; Saleh *et al.*, 2007; Lin *et al.*, 2009; Won *et al.*, 2011). Akhtaruddi *et al.* (2009) argue that an audit committee with the majority of its members independent can effectively monitor the management and reduce the opportunity for fraudulent reporting because there is less interference from management (Akhtaruddin & Haron, 2010).

Many empirical studies support the view that the independent members enhance the effectiveness of the audit committee to oversee the financial reporting. For example, among them, Xie *et al.* (2003), and Bedard *et al.* (2004) have found the proportion of independent members on audit committees have a negative relationship with earnings management in the USA. Similarly, Saleh *et al.* (2007) find a negative relationship between earnings management and the percentage of independent members on audit committees in Malaysia. Ahmad-Zaluki and Wan-Hussin (2009), and Won *et al.* (2011) find a positive relationship between the percentage of the independent members on the audit committee and the accuracy of management earnings forecasts in Malaysia and Australia. In the USA, Goh (2009) finds that a more independent board is associated with timelier remediation of material weaknesses.

Another attribute that strengthens the effectiveness is audit committee expertise (DeFond *et al.*, 2005; Pomeroy, 2010; Won *et al.*, 2011; Lary & Taylor, 2012; Aboagye-Otchere *et al.*, 2012; Sun *et al.*, 2012). Beasley *et al.* (2009) argue that to overcome the issue of oversight by the audit committee, its members are required to have knowledge of accounting concepts and the auditing process to enhance their understanding of the financial reporting process. According to DeZoort *et al.* (2002), the main role of the audit committee includes the protection of shareholders, and that the way in which the audit

committee achieves its role is by ensuring the committee comprises qualified members, with the authority and the resources to overcome diligent oversight. The empirical studies conducted provide evidence that financial expertise is important in order for the audit committee to discharge its responsibilities efficiently. In the USA, Xie *et al.* (2003), Bedard *et al.* (2004), and Agrawal and Chadha (2005) find a negative relationship between earnings management and the percentage of members who are expert on the audit committee. Saleh *et al.* (2007), and Lin *et al.* (2009) in Malaysia and Hong Kong, found the same result. In the USA, Goh (2009) examined the relationship between the audit effectiveness and timelier remediation of material weaknesses. He found that financial expertise is positively related with timelier remediation of material weaknesses. Hoitash *et al.* (2009) find that the percentage of members on the audit committee with financial expertise is positively related with the quality of financial reporting. Zhang *et al.* (2007) finds that the firms that are more likely to have the internal control problem are those that have members who lack financial expertise.

The audit committee meetings act as an indicator of its effectiveness (Xie *et al.*, 2003; Li *et al.*, 2008; Goh, 2009). Saleh *et al.* (2007) argue that to achieve its job, the audit committee should not only comprise independent members but should also be active. To be active, the members of the audit committee should have frequent meetings. Previous studies provide meaningful results concerning the importance of holding many meetings. For example, Xie *et al.* (2003), Saleh *et al.* (2007) and Lin *et al.* (2009) find a negative relationship between earnings management and the frequency of meetings of audit committees in the USA, Malaysia and Hong Kong. In the USA, Goh (2009) finds the frequency of meetings of the audit committee to be positively related to timelier

remediation of material weaknesses. Hoitash *et al.* (2009) find that the frequency of meetings of the audit committee has a positive relationship with the quality of financial reporting. Won *et al.* (2011) find a positive relationship between the frequency of meetings of the audit committee and the accuracy of management earnings forecasts in Australia.

Regarding the influence of an audit committee on voluntary disclosure, Forker (1992) argues that the audit committee is an effective monitoring tool to reduce agency costs and improve disclosure. Yuen *et al.* (2009) argue that the audit committee is a governance mechanism in the company to encourage the management to disclose more information in its corporate annual reports. Akhtaruddin *et al.* (2009) suggest that the percentage of the size of the audit committee to total members on the board is associated with the level of disclosure and vice versa. They also hypothesize that this relationship will be significant if the majority of its members are independent because audit committees with more outside directors indicate less interference from management to enable them to be independent, and produce better quality financial reporting (Akhtaruddin & Haron, 2010).

Previous studies that examine the relationship between the effectiveness of audit committees and IC disclosure are small in number and provide unclear results. For example, in the UK, Li *et al.* (2007) find a significant positive relationship between audit committee size and voluntary disclosure of IC. Similarly, Li *et al.* (2008, 2012) find audit committee size and meetings of audit committee to have a positive relationship with voluntary disclosure of IC in the UK. Gan *et al.* (2008), and Taliyang and Jusop (2011) find that the frequency of meetings of the audit committee has a significant positive

relationship with voluntary disclosure of IC in Malaysia but they do not find any relationship between the proportion of independent members on the audit committee and IC disclosure. However, Abeysekera (2010) finds a significant positive relationship between the proportion of independent members on the audit committee and IC disclosure in Kenya. Ho and Wong (2002) find a significant positive relationship between the existence of the audit committee and voluntary disclosure in Hong Kong. Similarly, Arcay *et al.* (2005) find a positive relationship between the existence of the audit committee and voluntary disclosure in Spain. In Malaysia, Akhtaruddin *et al.* (2009) find no relationship between size of audit committee as a percentage of board size and voluntary disclosure.

From the findings of the previous studies, it could be said that the reason why those studies provide unclear results might be their narrow focus and omission of variables that could influence the effectiveness of audit committees. For example, some studies only examined the role of independent members but did not take into account other characteristics that could influence the effectiveness of the audit committee, such as their frequency of meetings and knowledge of accounting concepts and the auditing process.

DeZoort *et al.* (2002) argue that the audit committee effectiveness framework could be understood and considerably improved if the audit committee elements are studied together. Bedard *et al.* (2004) suggest that outside members with financial background are important characteristics that enable the audit committee to monitor the financial reporting. They find that independent members with financial expertise have a negative relationship with earnings management for US companies. Similarly, Xie *et al.* (2003) argue that audit committees whose members possess a financial background and conduct

frequent meetings serve as an internal control mechanism. They find that the presence of financial expertise on the audit committee and frequency of meetings are negatively associated with earnings management for 282 companies in the United States. Agrawal and Chadha (2005) suggest that independent directors with financial expertise are valuable in overcoming the oversight in financial reporting. They find a negative relationship between independent AC members with financial expertise and earnings management for 159 US companies. Mustafa and Youssef (2010) finds that an independent member of an audit committee who is a financial expert is able to reduce misappropriation of assets, and that an independent member of the audit committee with financial expertise is less likely to misappropriate assets compared to an independent member of the audit committee with no financial expertise.

It can be seen from the above arguments that the ability of independent audit committee members to improve the financial reporting quality depends on their knowledge of accounting concepts, the auditing process and the frequency of meetings. Thus, examining the characteristics of audit committees in isolation from each other may be the reason why past studies provided unclear results. The narrow focus and omission of variables, which are the limitations of previous studies, give this study two motivations. This study extends IC disclosure studies by examining the relationship between independent audit committee members, expertise of independent audit committee members, and audit committee meetings with IC disclosure. In addition, the study will examine the effect of the score of audit committee's characteristics on IC disclosure.

3.3.3 Institutional Ownership

Institutional investors are special groups that are more informed compared with individual investors (Donnelly & Mulcahy, 2008). Gillan and Starks (2000) argue that compared to the individual investors, institutional investors are professional shareholders who have the ability to collect and to treat information that will enhance the company's performance. They play a crucial role in limiting the opportunistic behaviour of management. Bos and Donker (2004) also argue that institutional investors are able to detect the opportunist behaviour of management because they possess the financial know-how and are able to interpret the information disclosed in the annual reports. Thus, it is suggested that institutional investors constitute one of the important components that reduce the agency problem because they are able to monitor the management compared with individual investors (Al Mazan *et al.*, 2005).

El-Gazzar *et al.* (1998) argue that the institutional investors are not only better informed but they usually focus on the long-term performance of the firm. Moreover, they argue that this type of investor may help to reduce any opportunistic financial reporting for two reasons. The first one is because they have a significant stake in the company's shares, so they have the motivation to monitor the activities of management to ensure that managers do not engage in non-value maximizing behaviour. The second is they are able to collect and analyse information about the firm. Moreover, the potential benefits from their monitoring are more likely to exceed the costs of these activities (Bhattacharya & Graham, 2009). Therefore, it is expected that the large institutional investors will play a significant monitoring role in a firm's corporate governance mechanism and become

active in influencing the strategic policies of the firms if not the firms' management practice (Cremers & Nair, 2005).

According to Ruiz Mallorquí and Santana Martín (2009), institutional investors enhance the effectiveness of corporate control in two ways. First, when they plan to invest, they first seek information about the company's corporate governance effectiveness and avoid those firms whose managers are entrenched in their ways of management. Second, compared to individual investors, institutional investors have a high stake in the company's shares, which requires them to have a stronger incentive to control management. Mitra (2002) also argues that the institutional investors improve the quality of the corporate governance through their disciplinary power. According to Chahine and Tohmé (2009), institutional investors provide mechanisms to protect minority shareholders' interests compared to other internal corporate mechanisms, such as board size and the proportion of outside directors, which may not protect the minority shareholders' interests in companies that are controlled by the largest shareholders.

Although institutional investors work as a monitoring mechanism, the empirical studies that examined the relationship between voluntary disclosure and institutional ownership provided inconsistent results. For example, Donnelly and Mulcahy (2008), who examined the relationship between board structure, ownership and voluntary disclosure for Irish companies, find no relationship between the voluntary disclosure and institutional ownership. Barako (2007) conducted a study aimed to provide evidence concerning the determinants of voluntary disclosure for Kenyan companies. He finds that institutional investors enhance the level of disclosure for Kenyan companies. Ajinkya *et al.* (2005) find that institutional investors positively affect the properties of earnings forecasts.

Using data for 70 Chilean listed firms from 1995-2005, Pizarro *et al.* (2007) examined the relationship between insider and institutional ownership with transparency and earnings quality. They find that insider and institutional ownership (the two variables) have a negative relationship with transparency levels and earnings quality.

From the previous studies mentioned above and those that are reviewed in Section 3.7, it is clear that there is a lack of studies investigating the relationship between institutional ownership and IC disclosure. In addition, the previous studies mentioned above assumed, generally, that institutional investors have the same role in a firm's decisions, so they took institutional ownership as aggregated level and they did not divide institutional investors according to the type of investor or their nationality. Gillan and Starks (2003), Tihanyi *et al.* (2003), Ferreira and Matos (2008), Bhattacharya and Graham (2009), Chahine and Tohmé (2009), and Rashid Ameer (2010) argue that institutional investors influence is not constant but varies according to the type of investor and their nationality. Therefore, it could be said that the reason for the inconsistency in results of previous studies is the adoption of aggregate ownership as the measure of institutional investors' power without considering how this power may vary according to the type of investor and their nationality.

Chen *et al.* (2007) argue that the largest strategic shareholder with long-term orientation has monitoring capabilities to control management. According to Douma *et al.* (2006), a strategic shareholder who is a long-term investor is better able to monitor the management than a non-strategic shareholder. When a company has a stake in the other company, which is in the same industry, it is called a strategic shareholder.

Chahine (2007) argues that better monitoring of the firm and its management take place when the bank is one of the majority owners. Similarly, Chahine and Tohmé (2009) argue that a strategic shareholder is better able to solve the agency problem and enhance the company value than other traditional corporate governance. They do so by introducing the necessary checks and balances for the agency problem of CEO duality, while allowing for the benefits of focused leadership. Hence, strategic shareholders are important for external monitoring to reduce agency problems in Arab companies whose concentrated ownership are often affected by political ties and family (Chahine & Tohmé, 2009).

Gillan and Starks (2000) argue that not all institutional investors have the same capability to reduce agency problems. They suggested that foreign institutional investors would play a more significant role in promoting change in corporate practices than domestic. Rashid Ameer (2010) argues that foreign institutional investors have superior monitoring ability of the managers than domestic investors because they bring with them different cultural and ethical values, and norms that might produce changes in the corporate internal controls and ethical practices. Rashid Ameer (2010) finds that an increase in foreign bank ownership led to an increase in cash holding and a reduction in inventory holding compared to local bank ownership for 256 non-financial companies in Japan, Korea, Indonesia, Malaysia, Singapore and Thailand. Ferreira and Matos (2008) argue that foreign institutions are able to enhance the company performance by indirect or direct monitoring of the management – direct through the intervention of institutions in voicing the interests of shareholders to corporate management acts and indirect through work as a group to divest their investment in a company.

The current study is interested in whether these investors are effective in influencing corporate management and boards towards increasing the level of voluntary disclosure. However, because not all institutional investors will have the same capabilities to monitor the management, this study will extend the existing IC disclosure literature by dividing institutional ownership into foreign investors and domestic institutional investors.

3.4 Product Market Competition

In product market competition, a firm can enhance its performance, capture market share and offer its products and services at a competitive price by using its resources efficiently and by reducing management's self-serving behaviour and having a superior management team. Therefore, the product market works as a type of restricted market for corporate control, whereas firms with superior management teams are likely to capture a share in the product market and enhance firm performance. Firms with poor governance arrangements are likely to suffer from poor performance, experience financial distress, and, possibly, even go bankrupt (Denis, 2001).

According to Hart (1983), competition works as a disciplinary mechanism on the leadership in firms by providing the owner with information about the management performance, which can be used to mitigate moral hazard problems. Allen and Gale (1999) argue that the competition among firms is one of the effective corporate governance mechanisms that reduce the agency problems between the managers and shareholders because it disciplines the management with competitors' management which is strongest. Moreover, they argue that competition is one of the reasons that make the level of effectiveness between the countries different.

Arun and Turner (2003) argue that one of the factors that lead to an improvement in corporate governance in the banking sector in developing countries, is the level of competition between banks in these countries. Similarly, Unite and Sullivan (2003) argue that the increase in the competition between the banks is the result of the entry of foreign competitors, which, indirectly, force domestic banks to be more efficient and to become less dependent on relationship-based banking practices. His argument is based on the premise that competition leads to success in the development of institutional and legal frameworks for corporate governance and capital market regulation.

Karuna (2010) argues that the competition increases the agency cost, which enhances the monitoring mechanisms because it increases the need for leaders to engage in more complex forward-looking activities to gain a competitive position through cost reduction or quality improvements that make leaders' performance less observable. He examined the relationship between competition and corporate governance, which is measured by board size, board independence and the extent of shareholder rights. He finds that, on average, firms in more competitive industries have smaller boards, more outside directors on the board, a higher likelihood of the CEO and chairman-of-the-board roles being separate, stronger shareholder rights, and stronger overall governance. His findings indicate that the "one-size-fits-all" notion to corporate governance does not hold empirically because the need for good corporate governance is determined based on the situation in which the firm is operating.

According to Li (2010), in the case of competition, the manager's decision whether or not to disclose the information is affected by the objective. The first one is to disclose more information in order to reduce the information asymmetry between the management and

shareholders and reduce the capital cost. The second is to avoid disclosing more information in order to reduce the proprietary cost that might result from rival companies.

Darrough and Stoughton (1990), and Botosan and Stanford (2005) argue that firms disclose more information (when operating in a competitive environment) in greater competition for two reasons. First, a firm discloses more information in order to delay potential competitors from entering its market, and, second, is to reduce the cost of capital by reducing the information asymmetry between the management and the investors. Harris (1998) provide empirical evidence implying that firms in less competitive industries are less likely to report high-quality accounting information. Overall, the results in these studies suggest that higher quality of information prevails in more competitive environments.

Trabelsi *et al.* (2008) provide evidence concerning the determinants of internet financial reporting for 87 Canadian companies. In their study they find that the level of competition negatively influences the decision to maintain a website and use it to voluntarily disclose additional information.

Kent and Ung (2003) examined the relationship between market competitions and disclosure of forward information relating to earnings performance in 50 Australian listed companies for the period from 1990-1992. They found that no relationship existed between competition and disclosure of forward information relating to earning performance.

Li (2010) argues that the effect of competition on the level of voluntary disclosure depends on the nature of competition. If competition comes from potential entrants, the

level of voluntary disclosure increases but if the competition comes from existing competitors. The level of disclosure decreases. Based on this argument, Li (2010) examined the relationship between the nature of competition and voluntary disclosure (forward-looking disclosures of profits and investments) for US firms that issue either a profit or an investment-forecast. He finds that the level of voluntary disclosure is positively related to competition from potential entrants while it is negatively related with competition from existing rivals.

From the discussion above, although voluntary disclosure of IC could provide the signal to competitors of possible value creating the opportunities that lead firms to reduce the disclosure of IC in order to maintain the competitive advantage, it can be seen there is a lack of studies examining the relationship between the competition and IC disclosure. Despite the fact that competition is one of the factors that lead to the effectiveness of internal corporate governance, which reduces agency costs and increases the level of disclosure, the majority of studies that examined the relationship between the corporate governance and IC disclosure do not add competition to their model.

This study extends the previous studies by examining the relationship between the market concentration and IC disclosure. This based on theoretical arguments that say industry market concentration has negative effect on level of competition between firms that work in same industry (see, Al-Muharrami *et al.*, 2006; Maudos & Guevara, 2007; Al-Obaidan, 2008; Delis & Papanikolaou, 2009). The idea that there is an inverse relationship between industry market concentration and competition has its roots in the structural-conduct-performance hypotheses that argues that the higher the concentration in a market, the lower the competition, providing a theoretical relationship between market structure

(concentration) and conduct (competition) (Bikker & Haaf, 2002; Abbasoglu *et al.*, 2007; Rezitis, 2010).

3.5 Bank Type

There are two types of bank in the banking sector in the GCC, Islamic and conventional banks. According to Safieddine (2009), agency problems are more complicated in the banking sector than others due to the responsibility of managers who have to protect the funds of all providers including depositors. Consequently, it has been argued that the banking sector requires a separate agency analysis because of the uniqueness of the agency relationships (Hagendorff *et al.*, 2007). Safieddine (2009) argues that despite being a subset of the banking industry, agency problems in Islamic financial institutions are more complicated than conventional financial institutions because Islamic financial institutions exhibit different dynamics in terms of operations and a somewhat different nature of relationships among the parties involved.

According to Archer *et al.* (1998), the nature of Islamic bank operations, which are based on a Shariah-compliant manner, distinguishes Islamic banks from conventional corporations and widens the issue of separation of ownership and control underlying the agency theory because Islamic banks must adhere to both the regulations set by the supervisors and the Islamic principles of Shariah. In addition, it calls for alternative modes of trading where the underlying products are real assets or services. As such, shareholders of Islamic banks need the manager not only to maximize the value of their investments, but have a more compelling duty to achieve these objectives in a Sharia-compliant manner (Archer *et al.*, 1998). Thus, while agency problems in conventional companies arise when managers do not work to maximize shareholder wealth, any

divergence by managers of Islamic financial institutions from placing all supplied funds in Shariah-compliant investments creates an additional source of agency problems (Aggarwal & Yousef, 2000).

Other reasons that make the agency structures and relationships in Islamic financial institutions more complicated than those faced by conventional banks come from the prohibition of interest, which poses agency problems that extend beyond the issues of complying with Sharia law. According to Aggarwal and Yousef (2000), instead of earning a fixed rate of return on investments like conventional banks that do not prohibit riba (interest) or gharar (speculation), the Islamic banks adopt contracts based on equity participation, profit-sharing (Mudaraba), and profit and loss sharing (Musharaka) arrangements. Such types of contract in Islamic banks create accounts that are called investment account holders (IAHs). An investment account is an instrument of neither pure debt nor pure equity. Depositors in conventional banks enjoy a certain level of deposit insurance, and do not share in risks while in a Musharaka (equity participation contract), the profits and losses are shared between the bank and the investor. Consequently, structures where the cash flow rights of IAHs are separated from their control rights are created. Furthermore, the contracts created between the Islamic banks and investment account holders allow the banks to share in profits and not in risks or losses and forbid IAHs from intervening in the management of their funds. Thus, managers of Islamic banks are presented with opportunities to extract personal benefits at the expense of the interests of investment account holders (Archer *et al.*, 1998).

Safieddine (2009) argues that due to the uniqueness of the agency problems in Islamic banks that stem from the managers' duty to abide by Sharia and the separation of cash

flow and control rights for investment account holders, governance mechanisms that aim at safeguarding the interests of shareholders in conventional corporate structures might not be sufficient in the setting of Islamic financial institutions. Moreover, he argues that Sharia Supervisory Boards constitute one of the solutions that might mitigate the agency issues pertinent to Islamic banks. According to Farook and Lanis (2007), and Tapanjeh (2009), Islamic banks employ Sharia supervisory boards in addition to adopting other internal corporate governance mechanisms like conventional banks to limit the divergence of interests between Islamic investors and the management of the Islamic bank.

Ariffin *et al.* (2007) argue that as Islamic banks are based on profit sharing arrangements, transparency in Islamic banks is more important compared to conventional banks, because investment account holders require greater information to monitor their investments. Similarly, Farook and Lanis (2007) argue that as the Sharia Supervisory Boards and investment account holders, Islamic banks will be under greater pressure than conventional banks to disclose more information.

3.6 Ownership Structure and Monitoring Role of Board of Directors

Agency theory is the theoretical underpinning of the board's monitoring function. This theory explains the conflicts of interest that result from the separation of ownership and control in organizations (Berle & Means, 1932; Fama & Jensen, 1983). According to agency theory, the board of directors is appointed in order to protect the shareholder interest by monitoring the actions of "agents" – managers (Jensen & Meckling, 1976). Enya and Sommer (2010) argue that when the separation of ownership and management increase, the agency costs and information asymmetry will increase. Due to these costs,

there is a greater need for monitoring by outside directors on the board. Therefore, the role of monitoring by the board is expected to increase as the separation of the ownership and control widens (Fama, 1980; Zahra & Pearce, 1989).

From the arguments above, it can be said that the need for a monitoring role by the board is determined by the level of agency problem. For example, if the owner is the manager there is no agency problem, therefore, there is no need for monitoring by the board. In addition, it can also be seen that if the company's manager holds a substantial number of the shares of the company, agency problem will be lower. In other words, if there is less separation of ownership and control, agency costs will be lower, which, in turn, reduces the need for costly monitoring by outside directors. Therefore, companies whose stocks are closely held by management are expected to use the lowest proportion of outside directors among all stock companies (Enya & Sommer, 2010). According to Jensen and Meckling (1976), when insider ownership is high, the monitoring role of corporate boards decreases. Desender (2009) argues that when the controlling shareholders are actively involved in the management of the company, agency problems related to the dispersion of the ownership and control are resolved.

Desender (2009) argues that to understand the role of the board of directors, it is important to first understand the national institutions, such as the ownership structure and the enforceability of corporate regulations. For example, when the ownership is diffused, the need of the monitoring by the board will be higher than when the ownership is concentrated. This is because shareholders have a little stake in the company's share, so they have less incentive to engage in monitoring managers since all the costs of monitoring are incurred while only a small fraction of the benefits are gained (the typical

free rider problem). In this case, monitoring by the board is necessary to solve the agency problems between the management and shareholder. Information asymmetry is one of these problems. The board of directors will solve this problem by enforcing the management to increase the level of disclosure, thus it is expected that the monitoring role by the board increases the level of disclosure when ownership is diffused.

However, in the case of ownership concentration the need of the monitoring role by the board is reduced because the larger shareholders are able to monitor the management and get the information that they need. Shleifer and Vishny (1986) argue that large shareholders have a strong incentive to monitor the managers because of their significant economic stakes. Even when they cannot monitor the management by themselves, large shareholders can facilitate third-party takeovers by splitting the large gains on their own shares with the bidder. Heflin and Shaw (2000) argue that due to their ability to monitor the management, the large shareholders have access to private, value-relevant information. Therefore, the level of information asymmetry between them and the management is lower than a corporation with many small owners. In a company that is controlled by the largest shareholder, the role of the board of directors may not be to enforce management to disclose more information in order to reduce the level of the information asymmetry between the shareholder and the management but may be used by larger shareholders as the channel to get information about the company or support the management. Thus, they work as substitute of voluntary disclosure (Ho & Wang, 2001; Eng & Mark, 2003). In this case, it can be predicted that the relationship between the board of directors and the level of disclosure is not like the relationship between the board of directors and the level of disclosure when ownership is diffused.

However, it should be noted that not all types of ownership concentration have the same ability to monitor management. Therefore, their need to be monitored by the board will be different based on their ability to monitor management. Jiang and Habib (2009) suggest dividing concentrated ownership into various classes to infer the real impact of differential controlling properties on managerial disclosure decisions. Their suggestion is based on the idea that treating ownership concentration as a whole masks important information regarding differential monitoring incentives and the skills of different ownership groups. For example, if the controlling shareholders are actively involved in the management, their need to monitor the role of corporate boards will be lower than outside controlling shareholders (Jensen & Meckling, 1976; Chobpichien *et al.*, 2008; Desender 2009). Beatty and Zajac (1994) find a negative relationship between the levels of board ownership and the level of firm monitoring. Whidbee (1997) examined the relationship between the ownership structure and board composition for 190 US bank holding companies and found that the proportion of outside board directors is lower in the companies whose CEOs have a high equity stake. From these empirical results, it is clear that the need of board monitoring is lower as a result of the ability of shareholders who are actively involved in the management to monitor management and get the information that they need. Based on the above arguments, many researchers have suggested that as management or board ownership increases, the level of voluntary disclosure decreases. For example, Eng and Mark (2003) find a negative relationship between managerial ownership and voluntary disclosure for 158 Singapore listed companies. Similarly, Li *et al.* (2007) find a significant negative relationship between director shareholding and voluntary disclosure of IC for 100 UK knowledge-rich companies. Similarly, Firer and

Walliams (2003) find a significant negative relationship between insider ownership and voluntary disclosure of intellectual capital for 390 Singapore listed companies.

Chobpichien *et al.* (2008) argue that when the CEO has a high stake in the company's share, it will become more difficult for shareholders to control the management because a CEO with a higher level of ownership has greater capacity to be free from discipline by the company board, shareholder, or market for control. Chobpichien *et al.* (2008) find that CEO ownership moderates negatively the relationship between the quality of the board of directors and voluntary disclosure for non-financial companies listed in Thailand.

According to Achmad (2007), the level of the information asymmetry, which leads to the agency cost, is lower in the companies that are controlled by family members because the owner appoints the members of management who have a special relationship with them. Therefore, through the communication channels between the owner and the members of management the information problem is solved. The agency problem, which is increased due to separation between management in the company that is controlled by family members, is not served compared with the company that is controlled by non-family members. Similarly, Miller and Le Breton-Miller (2006) argue that the agency cost in family owned firms is lower than in other firms. This is because the close relationship between the family members gives them motivation to protect the company assets and reduces motivation of self-interest between the family members. Thus, the monitoring costs that arise due to a need to appoint outside directors to monitor the management in family owned firms is lower.

Ali *et al.* (2007) argue that compared to the non-family firms, the family firms face less severe hidden-action and hidden-information arising from the separation of ownership and management because families tend to hold undiversified and concentrated equity position, have good knowledge about their firm's activities and substantial representation by family members as directors (Anderson & Reeb, 2003). Hence, the need for monitoring by the board in these companies will be different from non-family firms. According to Anderson and Reeb (2004), controlling families are more likely to appoint independent directors for advice on running the company rather than monitoring management activities.

However, the controlling shareholders (families) are able to solve the agency problem between the shareholder and management, they expropriate the minority shareholder. The controlling shareholders (families) tend to reduce the level of voluntary disclosure. This can be seen from the empirical studies that found a negative relationship between voluntary disclosure and family ownership. For example, Akhtaruddin *et al.* (2009) find that family controlled has a negative relationship with voluntary disclosure for 110 Malaysian listed companies. Ho and Wang (2001) find that the percentage of family members on the board is negatively associated with the voluntary disclosure of Hong Kong listed companies for 1997. Gan *et al.* (2008) find that family has a negative impact on the level of voluntary disclosure of IC for the 100 largest companies listed in Malaysia.

Chen and Jaggi (2000) examined the relationship between board independence and financial disclosure for 87 Hong Kong companies and find the relationship between the

two variables to be positive. They also find this relationship to be stronger in companies that are controlled by non-family owners compared to those controlled by family owners.

Chan and Gray (2010) suggest that the need for monitoring by the board, independence and voluntary disclosure is reduced in a company that is controlled and owned by family members because the controlling family members have both substantial representation on the board and own a substantial share of the company. In this case, the controlling family members are able to access information that they need and monitor management. Chan and Gray (2010) examined the relationship between the board independence and voluntary disclosure for 273 Hong Kong companies and find that voluntary disclosure is positively related with board independence. However, this relationship is weak in the companies that are controlled and owned by family members.

Jaggi *et al.* (2009) examined whether family ownership has an effect on the relationship between the board independence and earnings management for 309 Hong Kong companies and find a weak relationship between the board independence and earnings management in the companies that are controlled and owned by family members. They argue that monitoring by the board, independence and controlling family members are a substitute for controlling earning management.

Chobpichien *et al.* (2008) argue that the relationship between the board of directors and the voluntary disclosure in emerging markets is affected by the largest shareholder-controlling ownership. Chobpichien *et al.* (2008) find that in the presence of non-executive, largest shareholder-controlling ownership positively moderates the relationship, but in the presence of family ownership, larger shareholder-controlling

ownership negatively moderates the relationship between the board of directors and voluntary disclosure.

The findings of the empirical studies mentioned above, support Badrinath *et al.* (1989), Del Guercio (1996), Falkenstein (1996) and Bennett *et al.* (2003) who argue that because of the disparity in the monitoring costs incurred and the incompatible monitoring power held by different types of dominant shareholders, ownership concentration, as a whole, may fail to provide sufficient information to infer the motivation for disclosure. These findings also support the idea that if the owner is a member of the board of directors, the need for monitoring by the board is lower than when the owner is outside of the board. For example, if the largest shareholder of the company is the government, the need for monitoring by the board increases. According to Li (1994), when the government is a major shareholder in the company, the separation between management and owner increases the agency cost because the government (major owner) has little incentive to monitor the management. In this situation, more outside directors are needed in order to monitor management and resolve this problem. The board of directors becomes important, legitimate and accountable to the public (Li, 1994).

Caves (1990) argues that state-owned firms have been assumed to pursue maximization of political support, which can be achieved by adding more outside directors on the board in order to increase transparency. His argument is supported by Li (1994) who found that the percentage of outside directors on the board increases when government ownership increases in the company. Jiang and Habib (2009) find that voluntary disclosure is positively related with government ownership of companies, which means that when the government is the controlling shareholder the level of voluntary disclosure increases.

Similarly, Eng and Mark (2003), and Yuen *et al.* (2009) find that government ownership has a positive impact on the voluntary disclosure. Firer and Walliams (2003), and Gan *et al.* (2008) find that government ownership has a positive impact on the disclosure of IC.

From the discussion above, it can be said that the influence of the ownership structure on the relationship between the board of directors and IC disclosure varies according to the identity and the type of ownership. Shareholders in firms with dispersed ownership have a collective need to use the board of directors to monitor management, while large shareholders in firms with concentrated ownership are individually motivated to monitor management, have a lot of influence beyond the board, have access to valuable information and alternative corporate governance mechanisms to discipline the managers if necessary. Furthermore, if the controlling owners are also actively involved in the management of the company, the need to monitor by the board of directors is reduced. Thus, the need to monitor by the board of directors is lower in companies that are family controlled compared with those that are government controlled.

From the theoretical argument and the empirical studies mentioned above, it can be seen that one reason that may account for the inconsistency in the results of the previous research is that these studies have looked at the ownership and board of directors in isolation. Therefore, they ignore the substitutability and complementarity of these two mechanisms. Ward *et al.* (2009) argue that it is best to look at corporate mechanisms as a bundle of mechanisms to protect shareholder interests and to provide insights into whether or not these governance mechanisms act in a complementary or substitutable fashion (Chobpichien *et al.*, 2008). Eng and Mak (2003) argue that disclosure acts as a substitute for monitoring. It could be said that with a widely varying ownership structure,

the quality of board monitoring over disclosure is likely to vary across firms. The aim of this study is to use the types of ownership, namely, chairman ownership, family ownership and government ownership, as moderators of the relationship between the board of directors and disclosure.

3.7 Empirical Studies

A review of the literature has revealed that a number of studies (see Table 3.2) have been conducted to provide the reasons why there are variations in the level of voluntary disclosure among companies. Some studies have been carried out to provide evidence from the GCC. These studies are explained below.

3.7.1 Studies on Voluntary Disclosure in the GCC

A review of the literature reveals a number of studies on financial reporting in GCC (Alsaed, 1995; Naser & Nuseibeh, 2003; Al-Sehali & Spear, 2004; Al-Razeen & Karbhari, 2004; Alsaed, 2006; Al-Shammary & Al-Sultan, 2010). These studies address the different aspects of voluntary disclosure in GCC, such as disclosure quality, the importance of information disclosure, and risk.

AL-Shammary and Al-Sultan (2010) conducted a study to provide evidence concerning the relationship of voluntary disclosure in the annual reports of 170 Kuwaiti companies listed on the Kuwait Stock Exchange in 2007 and governance characteristics, namely, proportion of non-executive directors and proportion of family members to total number of directors; CEO duality and audit committee. Their findings are as follows: the existence of a voluntary audit committee is significantly and positively related to the extent of voluntary disclosure. The remaining independent variables namely, the

proportions of non-executive directors, the percentage of family members, CEO duality, and leverage and audit type were not significant.

Using multiple linear regression analysis, Hassan (2009) examined the relationship of the level of corporate risk disclosure in the annual reports of UAE companies with company size, level of risk, industry membership and the corporate reserve based on positive accounting and institutional theory. The empirical findings indicate that variations in level of corporate risk disclosure are associated with the level of risk and corporate industry membership. However, the company size and corporate reserve are not significantly associated with the level of corporate risk disclosure.

Naser *et al.* (2006) conducted a study aims to examine relationship between some characteristics of Qatari companies and the voluntary disclosure of corporate social. Their results indicate that the size, business risk and corporate growth are significant in explaining the variation of corporate social disclosure by the sampled Qatari companies.

Based on a sample of non-financial Saudi companies listed on the Saudi Stock Exchange, Naser and Nuseibeh (2003) assess information disclosure quality before and after the establishment of the Saudi Organization for Certified Public Accountants (SOCPA). Three types of information disclosure are included in the study: compulsory, voluntary related to compulsory, and voluntary unrelated to compulsory. They compare the extent of corporate disclosure before and after the creation of the SOCOPA. The results indicate that all industries except for the electricity sector had complied with the compulsory requirements. Regarding the two types of voluntary disclosure, Saudi firms disclose

information more than the minimum required by the law but the disclosure is still low. In fact, the level of disclosure is almost the same before and after SOCPA.

Alsaed (2006) investigates the relationship between some characteristics of Saudi companies and the extent of voluntary disclosure. The outcomes indicate that company size affects the extent of voluntary disclosure; however, other variables do not affect the level of company disclosure.

Aljifri (2008) conducted a study to provide evidence concerning the extent of disclosure in the annual reports of 31 listed companies in the UAE and the underlying factors that affect the level of disclosure. He hypothesized that four main factors would affect the extent of disclosure in the UAE, namely, company size, leverage, profitability and sector type. The findings indicate only sector type has significant relationship with level of disclosure.

Using the data from Kuwait-listed companies in 2005 Al-Shammari (2007) investigated the key determinants of Internet financial reporting (IFR). He finds that company size, liquidity, auditor and industry to be the key predictors of IFR by Kuwait-listed companies. Larger companies with lower liquidity, and audited by Big four audit firm's affiliates are more likely to engage in IFR.

Hossain and Hammami (2009) find that age, size, complexity, and assets-in-place have a positive impact on the level of disclosure in the annual reports of 25 listed companies on the Doha Securities Market (DSM) in Qatar.

Recently an empirical study by Adawi & Rwegasira (2011) examined the association between corporate governance and voluntary disclosure practices in the UAE listed companies. The findings indicate that the primary factors leading to the increase in the corporate board effectiveness in voluntary practicing disclosure are the board composition and the selection of experienced directors.

3.7.2 Empirical Evidence on Corporate Governance and Voluntary Disclosure from non – GCC countries

Corporate disclosures are an important area of financial reporting and several studies have been conducted to examine the association between corporate governance attributes and disclosure in annual reports.

Ho and Wong (2001) examined the association between main corporate governance attributes including the proportion of independent directors to the number of board directors, the presence of voluntary audit committee, CEO duality and the family members' percentage on the board, and the level of voluntary disclosure. The study sample consisted of financial and non-financial listed Hong Kong firms for the year ended 1997. The findings revealed that independent directors and CEO duality are not associated with the level of voluntary disclosure. The presence of audit committee is however, significantly and positively linked with the level of voluntary disclosure whereas the percentage of family members is negatively linked to voluntary disclosure level.

Eng and Mak (2003) examined the impact of three attributes of ownership structure, namely, managerial ownership, blockholder ownership, government ownership and board composition on corporate voluntary disclosure. They used an aggregated disclosure score

to measure voluntary disclosure of strategic, non-financial and financial information. Their sample was based on 158 Singapore listed companies in 1993. Their findings show that lower managerial ownership and large government ownership are associated with an increase in the level of voluntary disclosure, while total block holder ownership is not related to disclosure. Furthermore, their findings show that an increase in outside directors reduces corporate disclosure. They argue that outside directors may act as a substitute for monitoring through public disclosure. Therefore, there is a negative relation between the proportion of outside directors and voluntary disclosure.

Lakhal (2005) conducted a study on French companies to provide empirical evidence concerning whether corporate governance combined attributes – composition of board size, CEO duality, institutional and ownership concentration – have any relationship with voluntary earnings disclosures made by the managers of French firms. The findings show that significant negative associations between voluntary earnings disclosures and ownership concentration exist while voluntary earnings disclosure has a positive association with institutional ownership. However, voluntary earnings disclosure is negatively related to the existence of a unitary leadership structure and the proportion of outside directors. He concludes that the proportion of outside directors on the board may have other substitutive mechanisms when the monitoring level of the firm is high.

Gul and Leung (2004) examined the linkage between board leadership structure in terms of CEO duality, the proportion of expert outside directors on the board and voluntary corporate disclosures. The sample comprised 385 Hong Kong listed companies for 1996. The results show that CEO duality and higher proportion of expert outside directors are associated with lower voluntary disclosures. However, after introducing an interaction

term between CEO and the proportion of expert outside directors in the regression to test moderating role of the proportion of expert outside directors on the CEO duality/disclosure relationship, they find that the negative association between CEO and disclosure levels is weaker for firms with increase the proportion of expert outside directors. The regression also shows that larger firms, firms with higher ROE, firms with higher growth opportunities and loss firms voluntarily disclosed more information in the annual reports.

Using univariate analyses and based on data from 117 firms listed on the Madrid Stock Exchange, Arcay *et al.* (2005) carried out a study to examine the relationships among corporate characteristics, the governance structure, namely, independent directors, CEO duality, size, directors` ownership and the appointment of an audit committee with voluntary disclosure. The results show that firm size, along with some mechanisms of corporate governance, such as the proportion of independent directors on the board, the appointment of an audit committee, and directors' shareholdings and stock option plans, are positively related to voluntary disclosure. They also observed that these governance practices are significantly affected by cross-listings and by the ownership structure of the company.

Huafang and Jianguo (2007), using an OLS-regression model, examined the effect of ownership structure and board composition on the level of voluntary disclosure. The sample was drawn from 559 firms companies listed on the SSE of China at the end of 2002. The findings show that higher block holder ownership and foreign listing/shares ownership are associated with increased disclosure; however, managerial ownership, state ownership, and legal-person ownership are not related to disclosure. The findings

also indicate that an increase in independent directors increases corporate disclosure and that CEO duality is associated with lower disclosure. They conclude that an effective corporate-governance mechanism will materialize to improve the level of voluntary disclosure in China.

Patelli and Prencipe (2007) studied the relationship between independence of the board of directors and voluntary disclosure. The sample comprised 175 Italian non-financial listed companies for 2006. The aim of their study was to provide insight into whether independence of the board of directors is the controlling mechanism that reduces the conflict between the majority and minority of shareholders in sitting where the companies are controlled by larger shareholder. They find that independence of board of directors has a significant positive relationship with the level of voluntary disclosure. This result is also found after using an alternative definition of formal/legal definition of independence, which is based on the exclusion from independent directors, and those, who at the same time, are involved in several boards, and/or those who have been members of the same board for a long period of time.

Li and Qi (2008) conducted a study to test the influencing factors on voluntary disclosure for 100 firms listed on the Shanghai and Shenzhen Stock Exchanges from 2003 to 2005. They find that ownership concentration and the big listed companies have considerable influence on the voluntary disclosure whereas the influence of debt to asset ratio and ratio of return-on-equity on condition of the voluntary information disclosed is not very obvious.

Based on legitimacy theory and the framework of corporate governance mechanisms, Lui and Taylor (2008) examined the effect of media attention, proposed change (Shareholder Activism Event), size (exposure to scrutiny) of composition of board and remuneration committee existence on disclosure of executive remuneration. The sample is based on 225 companies, which were selected randomly from the top 1000 Australian companies. They used linear multiple regression as the basis of analysis to test determination of the extent of disclosure of executive remuneration. Their results reveal that while media attention does not have any influence on the extent of executive remuneration disclosure, expected shareholder activism and company size are found have a significant impact on disclosure. In respect of corporate governance attributes, the results show that while the composition of the board is found to have a significant impact on disclosure, the existence of a remuneration committee is found to have no effect on disclosure.

Using the annual reports of 108 non-financial firms listed on the Helsinki Stock Exchange for the periods of 2005, 2006, 2007 and 2008, Nalikka (2009) conducted a study to examine the impact of the gender diversity represented by three groups of variables: female Chief Executive Officer, female Chief Financial Officer and the proportion of females on the board of directors on voluntary disclosure of financial information. The results indicate that only one variable, namely, female Chief Financial Officer (FCFO), is positive and significantly associated with voluntary disclosure in annual reports, while the gender diversity, as measured by female Chief Executive Officer and proportion of female board of directors, has no significant impact on voluntary disclosures in annual reports.

Akhtaruddin *et al.* (2009), using the regression model, examined the corporate governance attributes, namely, the proportion of independent directors on the board, board size, the size of the audit committee as a percentage of the members on the board, outside directors, family control, and their influence on voluntary disclosure for 110 Malaysian non-financial companies. The results of their study show that while a larger board and a higher proportion of independent directors are associated with more voluntary disclosure, the percentage of audit committee members to total members on the board was not proven to be related to voluntary disclosure. They suggest that the quality rather than size of the audit committee is generally effective in ensuring more corporate transparency. Furthermore, the results indicate that family controlled firms are less transparent and more conservative in the release of information.

Using panel data of listed Tunisian non-financial companies for the years 2003-2005, Matoussi and Chakroun (2009) examined the relationship between the board size, CEO duality, board composition, quality of corporate governance, ownership concentration, family ownership, and managerial ownership, interactions between the composition of the board of directors, ownership concentration and voluntary disclosure in annual reports. The results reveal that only the managerial ownership and a good quality of corporate governance have significant relationship with voluntary disclosure.

3.7.3 Empirical Evidence on Voluntary Disclosure of IC

Development in the IC disclosure literature is the incorporation of theoretical reasoning and investigation of firm specific factors to explain why companies voluntarily disclose IC. Since the earliest attempts by Williams (2001), April *et al.* (2003), and Bozzolan *et al.* (2003), an increasing number of explanatory theories and influences on IC disclosure

have been suggested and tested. The explanatory factors tested include company size, type of industry; listing age IC performance; and corporate governance variables, such as board composition or independence, ownership structure or concentration, audit committee, size, frequency of audit committee meeting and CEO duality.

Using the data for 100 selected UK firms from 1997-2000, Williams (2001) examined the relationship between IC performance and IC disclosure. The results show that there is a weak relationship between IC performance and IC disclosure. Li *et al.* (2008) examined the relationship between ownership concentration independence and size and the frequency of the audit committee, CEO duality controlled by size age, ROA and IC disclosure. In a sample of 100 UK firms, they find that all variables display a positive relationship with IC disclosure except for CEO duality, which shows a negative relationship with IC disclosure. Similarly, Li *et al.* (2012) find a positive relationship between size and the frequency of the audit committee and IC disclosure for UK listed firms.

Based on the signalling and agency theories and using data from 100 UK knowledge-rich companies, Li *et al.* (2007) find that market factors – market-to-book ratio price and volatility – have a significant positive association with IC disclosure except age. However, turning to corporate governance mechanisms, they find that share concentration has a negative association with IC disclosure and that directors' shareholding is significantly negative, while board composition does not significantly affect IC disclosure but audit committee size is significantly positive. Furthermore, they find that size has a significant positive association with IC disclosure while industry has a positive association but is not significant. This result is in contrast with the findings of a

study conducted by Kamath (2008) in which industry has a significantly positive association with IC disclosure while size has a positive association but is not significant.

Firer and Walliams (2003) investigated the relationship between insider ownership, government ownership, concentrated ownership and IC disclosure for 390 Singapore Public companies. They find that insider ownership and concentrated ownership have a negative relationship with IC disclosure while government ownership has a positive relationship. Singh and Van der Zahn (2008), using 444 Singapore IPOs in 2006, find that ownership retention and corporate governance structure (independence of directors and CEO duality. chairman is non-executive) have a positive relationship with IC disclosure while proprietary costs have a negative effect on IC disclosure.

White *et al.* (2007) conducted a study on 96 Australian biotechnology companies to determine the factors that influence their IC disclosure. The findings show that firm leverage, board independence and firm size are determinants for the level of voluntary IC disclosure, while no correlation is shown between disclosure practice and the level of ownership concentration. However, Woodcock and Whiting (2009), using data from 70 Australian companies, find that company's ownership concentration, leverage level, and listing age does not influence the level of IC disclosure, while (Big Four) auditing firms and industry show higher levels of IC disclosure.

Using 142 Taiwan IPO prospectuses from 1992 to 2006, Chang *et al.* (2009) investigated the relationship between profitability, firm size and the share of stocks held by the board of directors and IC disclosure. They find that high profitability and large company size (defined by the number of employees) have a positively significant correlation with all

the dimensions of intellectual capital disclosure while the sales and stock ownership of the board of directors have no significant influence.

Based on agency and institutional theory, Gan *et al.* (2008) examined the relationship between ownership structure, namely, family-owned, government-linked companies and diffused ownership and corporate governance characteristics, which include board size, board leadership, cross leadership, board composition, audit committee size and the frequency of audit committee meetings, and voluntary disclosure of IC. The sample, using the top 100 market capitalization and 58 Government-linked firms listed on Bursa Malaysia, shows that family controlled companies are less inclined to disclose voluntary information on IC. The only corporate governance variable that is able to predict the voluntary disclosure of IC disclosure is frequency of audit committee meeting, which shows a significant positive relationship with human capital disclosure.

Based on the resource dependency theory, Abeysekera (2010), using data from 26 Kenya companies examined the relationship between size of the board, board, independence of the audit committee, audit type with IC disclosure. They find that larger boards and more independent directors of audit-type committee have a positive significant correlation with intellectual capital disclosure.

Table 3.2:

Summary of some Studies that have Examined the Relationship Between Board of Directors, Ownership and Voluntary Disclosure.

Study	Sample and location	Corporate governance variables (CGV)	Voluntary disclosure (VD)	Relationship (CGV&VD)
Ho & Wong (2001)	Financial and non-financial companies listed in Hong Kong the end of 1997	1-Proportion of independent directors to size of board 2-CEO duality 3- Existence of audit committee 4- The percentage of family members on the board	Aggregated voluntary disclosure index	1-no 2- no 3- significant positive 4- negative relationship
Williams (2001)	100 selected UK firms from 1997-2000	IC performance	Voluntary disclosure of intellectual capital disclosure	weak relationship
Eng & Mak (2003)	158 Singapore listed companies in 1993	1-Managerial ownership, 2-Blockholder ownership 3-Government ownership 4- Board composition	Aggregated voluntary disclosure index	1-negative 2 – no 3- positive 4-negative
Lakhal (2005)	listed France companies in 2003	1-Proportion of independent directors to size of board 2-CEO duality 3- Institutional and 4-Ownership concentration	Earnings voluntary disclosure	1- negative 2- negative 3- positive 4- significant negative
Firer & Walliams (2003)	390 Singapore Public companies 2003	1-Insider ownership 2-Government ownership, 3-Concentrated ownership	Voluntary disclosure of intellectual capital disclosure	1- negative 2- positive 4- negative

Table 3.2 (*continued*)

Study	Sample and location	Corporate governance variables (CGV)	Voluntary disclosure (VD)	Relationship (CGV&VD)
Gul & Leung (2004)	385 Hong Kong listed companies for 1996	1-CEO duality 2- The proportion of expert outside directors on the board (PENEDs)	Aggregated voluntary disclosure index	1-negative 2- weak
Arcay <i>et al.</i> (2005)	117 firms listed on the Madrid Stock Exchange in 2005	1- Independent directors 2-CEO duality 3- Size, 4- Directors` ownership, 5- Existence of audit committee	Aggregated voluntary disclosure index	1-positive 2-no 3- negative 4- positive 5- positive
Huafang & Jianguo (2007)	559 firms listed on the SSE of China at the end of 2002	1-CEO duality 2-Independent 3-Block holder ownership 4-Foreign ownership, 5-Managerial ownership 6-State ownership 7-Legal-person ownership	Aggregated voluntary disclosure index	1- negative 2- positive 3- positive 4- positive 5- no 6- no 7- no
Li <i>et al.</i> (2007)	100 UK knowledge-rich companies	1-Ownership concentration 2-Directors' shareholding 3-Board composition , 4-Audit committee size.	Voluntary disclosure of intellectual capital disclosure	1- negative 2- significant negative association 3- weak relationship 4- positive
White <i>et al.</i> (2007)	96 Australian biotechnology companies	1-Ownership concentration. 2- Independence of directors	Voluntary disclosure of intellectual capital disclosure	1- no relationship 2- positive

Table 3.2 (*continued*)

Study	Sample and location	Corporate governance variables (CGV)	Voluntary disclosure (VD)	Relationship (CGV&VD)
Chang et al (2009)	142 Taiwan IPO prospectuses from 1992 to 2006	Ownership of the board of directors	Voluntary disclosure of intellectual capital disclosure	no significant influence.
Patelli & Prencipe (2007)	175 Italian non-financial listed companies for 2006	Independence of board of directors	Aggregated voluntary disclosure index	Positive
Lui & Taylor (2008)	225 Australian companies 2007	1-Composition of board 2- Remuneration committee existence	The extent of disclosure of executive remuneration	1-positive 2-no
Singh and Van der Zahn. (2008)	444 Singapore IPO in 2006	1-Ownership retention 2-Independence of directors 3- Chairman is non-executive	Voluntary disclosure of intellectual capital disclosure	1- positive 2- positive 3- positive
Gan <i>et al.</i> (2008)	Sample is based on top 100 market capitalization and 58 Government-linked firms listed on Bursa Malaysia	1-Family-owned, 2-Government-linked companies , 3- Diffused ownership 4- Board size, 5-CEO duality, 6-Composition, 7- Audit committee size	Voluntary disclosure of intellectual capital disclosure	1- negative 2- weak 3 weak 4- no 5- no 6- no 7- positive
Li & Qi (2008)	100 firms listed on Shanghai and Shenzhen Stock Exchanges from 2003, 2004, 2005	Ownership concentration	Aggregated voluntary disclosure index	Positive

Table 3.2 (*continued*)

Study	Sample and location	Corporate governance variables (CGV)	Voluntary disclosure (VD)	Relationship (CGV&VD)
Li & Qi (2008)	100 firms listed on Shanghai and Shenzhen Stock Exchanges from 2003, 2004, 2005	Ownership concentration	Aggregated voluntary disclosure index	Positive
Nalikka (2009)	108 non-financial firms listed on the Helsinki Stock Exchange(2005, 2006, 2007, 2008)	1-Female CEO, 2-Female CFO 3-Proportion of females on the board of directors	Voluntary disclosure of financial information.	1-no 2- significant positive 3-no
Akhtaruddin <i>et al.</i> (2009)	110 Malaysian non-financial companies 2002	1-Proportion of independent nonexecutive directors on the board 2- Board size 3-The size of the audit -Family control	Aggregated voluntary disclosure index	1- positive 2- positive 3- no relationship 4- negative
Li <i>et al.</i> (2008)	100 selected UK firms	1-Ownership concentration 2-Independence 3-CEO duality 5- Size of audit committee	Voluntary disclosure of intellectual capital disclosure	1- positive 2- positive 3- negative 6- Positive
Woodcock & Whiting (2009)	From 70 Australian companies	1-Ownership concentration 2-Auditing firms	Voluntary disclosure of intellectual capital disclosure	1- no relationship 2- positive

Table 3.2 (continued)

Study	Sample and location	Corporate governance variables (CGV)	Voluntary disclosure (VD)	Relationship (CGV&VD)
Yuen <i>et al.</i> (2009)	200 publicly-listed companies on the Shanghai Stock Exchange in China.	1- Concentration of ownership; 2- Government ownership 3- Individual ownership 4- CEO duality 5- Board independence, 6- The existence of audit committee.	Aggregated voluntary disclosure index	1- negative 2- positive 3- positive 4- negative 5- positive 6- positive
Khodadadi <i>et al.</i> (2010)	106 listed companies on Tehran Stock Exchange during 2001-2005	1-Percentage of independent directors on the board 2-CEO duality 3-Institutional investors 4- audit type	Aggregated voluntary disclosure index	1- positive 2- negative 3- positive 8- Positive 1-no
Taliyang and Jusop (2011)	A sample of 150 companies listed in Bursa Malaysia 2009	1-Board independence 2-CEO duality 3-Size of audit committee 7- Audit committee meetings		2-no 3-no 4- Positive

3.8 Summary

From the review of the literature mentioned above, it can be said that the studies that have investigated the relationship between board of directors, ownership structure and voluntary disclosure in different countries or in the same country provide somewhat mixed results. For example, in China, Li and Qi (2008) found that firms with high managerial ownership have a high level of voluntary disclosure, while Huafang and

Jianguo (2007) found that managerial ownership is not related to disclosure. Huafang and Jianguo (2007) found an increase in independent director increases corporate disclosure, which is in contrast with what was found by Ho and Wang (2001). In Malaysia, for example, Akhtaruddin *et al.* (2009) found that a larger board and board composition lead to a higher level of voluntary disclosure, which is in contrast with what was found by Gan *et al.* (2008). Examples of studies conducted in different countries have produced mixed results. Hongxia and Ainian (2008) found that ownership concentration has a positive influence on voluntary disclosure, while Lakhal (2005) found that ownership concentration has a negative influence on voluntary disclosure. Abeysekera (2010), Akhtaruddin *et al* (2009) found that a larger board has a significant positive correlation with IC disclosure while Gan *et al.* (2008) found that board size is not related to IC disclosure.

According to Lim *et al.* (2007), one reason for the different results among previous studies seems to be due to differences of operationalization of disclosure. Further, Lim *et al.* (2007) argued that not all types of voluntary disclosure are driven by board composition, but only those that represent key decisions made by the board. They found that board composition has a positive association with voluntary disclosure of forward looking information and strategic information but does not have any bearing on the voluntary disclosure of financial or historical non-financial information. Therefore, the conflicts in the results of some of the earlier studies may be due to differences of operationalization of voluntary disclosure, which make the comparison between the previous studies difficult. From here comes the motivation for this study to re-examine the board of directors and IC disclosure in GCC banks.

According to Ward *et al.* (2009), one of the reasons that may explain why previous studies provide somewhat mixed results is that they looked at corporate governance mechanisms in isolation from each other and how each one of the corporate governance mechanisms solves the agency problems. Thus, previous studies ignored the fact that corporate governance mechanisms complement or substitute each other or that the effectiveness of one mechanism depends on the others. Descender (2009) argued that examining the interaction between the ownership structure and board composition can shed new light on the contradictory empirical results of past research that has tried to link board composition or structure to disclosure directly. A closer look at the interactions between the shareholders structure and the boards' priorities may then help us to better understand why, in some instances, outside directors is associated with better voluntary disclosure, while in others, it is not. This study takes into account the effect of type of ownership and information asymmetry on the relationship between board effectiveness and IC disclosure to provide insight concerning whether the effectiveness of the board of directors will work as a substitute for or complement voluntary disclosure.

CHAPTER FOUR

RESEARCH FRAMEWORK AND HYPOTHESES DEVELOPMENT

4.0 Introduction

This chapter explains the theoretical framework of this study and presents the hypotheses to be tested. Section 4.1 presents and discusses the theoretical framework used in this study. Section 4.2 presents the hypotheses development. Section 4.3 summarises this chapter.

4.1 Theoretical Framework

In modern companies, there is a separation between managers and owners. Consequently, the managers have better access to a company's private information than the owners. Agency theorists suggest that in the presence of information asymmetries, managers will take decisions to increase their interest. These decisions may not lead to maximize shareholder wealth (Berle & Means, 1932). Several corporate governance mechanisms have been suggested to make sure that managers act in the interests of shareholders. Some of these mechanisms are internal while others are external. These mechanisms either complement or substitute each other.

According to Jensen and Meckling (1976), voluntary disclosure is one of the corporate governance mechanisms. This is because it could reduce the information asymmetry between the manager and the owner through the provision of information about financial and non-financial performance achieved by managers. Therefore, voluntary disclosure presents a good example on which to apply agency theory, in the sense that managers have more information about the company than the owner, they can make credible and

reliable communication to the market and they can enhance the value of the company by reducing the costs of the agency relationship.

According to Jensen and Meckling (1976), and Williamson (1984), voluntary disclosure reduces the agency costs that result from the separation between shareholders and management. Williamson (1984) argues that any transactions made by management may lead to the creation of information asymmetries. He also argues that voluntary disclosure can mitigate the information asymmetries and provide a greater transparency that enables investors to anticipate future transactions for valuation purposes. Therefore, it can be argued that because IC is the key driver of the company's competitive advantage, voluntary disclosure of IC disclosure is expected to mitigate opportunistic behaviour and the information asymmetry problem, and, thus, primarily works as one of the corporate governance mechanisms (Cerbioni & Parbonetti, 2007).

Based on the agency theory, it has been suggested that internal corporate mechanisms, such as board of directors (e.g. Cerbioni & Parbonetti, 2007; Singh & Van der Zahn, 2008; Li *et al.*, 2008; Taliyang & Jusop, 2011; Ruth *et al.*, 2011) and audit committees (e.g. Gan *et al.*, 2008; Akhtaruddin *et al.*, 2009; Akhtaruddin & Haron, 2010; Li *et al.*, 2012), are important corporate mechanisms to solve the agency problem by reducing the opportunistic behaviour of management and information asymmetry. Those studies have suggested that the board of directors and audit committee reduce information asymmetries by forcing managers to disclose more information.

Similarly, Cerbioni and Parbonetti (2007) argue that internal governance works complementarily to corporate disclosure and the application of more governance

mechanisms will assist the company to maintain its internal control. They further argue that it will work as an “intensive monitoring package” to reduce the opportunistic behaviour of management and information asymmetry. Managers should not withhold information for their own benefit, so the level of voluntary disclosure in the company’s annual report is expected to increase (Cerbioni & Parbonetti, 2007; Chobpichien *et al.*, 2008; Li *et al.*, 2008). Cerbioni and Parbonetti (2007) contend that a good corporate governance structure, which is led by an independent director, and comprises a majority of independent directors who are vital for the audit, nominating and compensation committees, is critical for overall quality enhancement and appropriate voluntary disclosure because these factors contribute to the serious monitoring role of the board of directors.

Based on the idea that the impact of internal governance mechanisms on corporate disclosure is complementary; an increase (decrease) of the characteristics that enhance the effectiveness of the board and audit leads to an increase (decrease) of the IC of voluntary disclosure. From this idea, (impact of internal governance mechanisms on corporate disclosure is complementary), the level of IC disclosure in a company, which comprises characteristics that enhance the board and audit’s effectiveness is higher compared to other companies that do not. It could also be said that the level of IC in a company that has other governance mechanisms that provide an intensive monitoring package for a firm to reduce opportunistic behaviour and information asymmetry, like institutional ownership, is better than those companies that lack such mechanisms.

Based on the mentioned theory, many researchers suggest a positive relationship between the elements that enhance mentoring mechanisms and the level of voluntary disclosure.

For example, Chobpichien *et al.* (2008), Lefort and Urzúa (2008), Akhtaruddin *et al.* (2009), and García-Meca and Sánchez-Ballesta (2010) suggest a positive relationship between the percentage of independent directors and the level of voluntary disclosure. Gan *et al.* (2008) suggest a positive relationship between the size of audit committee, frequency of meeting of audit committee and the level of voluntary disclosure. Cerbioni and Parbonetti (2007) suggest a negative relationship between CEO duality, board size and level of voluntary disclosure.

However, since disclosure is not costless, companies could prefer to reduce the costs associated with information asymmetries by improving corporate governance instead of increasing the level of disclosure. Therefore, the relationship is a substitutive one - one monitoring mechanisms can substitute for another; as a consequence, companies will not improve both voluntary disclosure and internal corporate governance at the same time (Ho & Wong, 2001; Cerbioni & Parbonetti, 2007; Chobpichien *et al.*, 2008), but will strategically choose to improve one at the expense of the other one (Rediker & Seth, 1995). Because the cost associated with information asymmetries can be reduced by using the existing 'internal monitoring packages', why should companies disclose information, such as intellectual capital, if doing so could lead to competitive disadvantage to investors' rights (Cerbioni & Parbonetti, 2007).

From the discussion mentioned above, it could be said that the variation in the results of previous studies is due to the variation of institutional structure that the relationship between board effectiveness and voluntary disclosure (Ho & Wong, 2001; Cerbioni & Parbonetti, 2007; Singh & Van der Zahn, 2008; Li *et al.*, 2009) have been examined within. It has been argued that the information asymmetry makes the monitoring

activities conducted by the board of directors less effective (Chen & Nowland, 2010). Thus, in situations under which the information asymmetry problem is high, the board will be less effective. Further, it has been argued that the intensity of the monitoring role of the board of directors is affected by the ownership structure (Bennett *et al.*, 2003; Chobpichien *et al.*, 2008; Desender, 2009; Desender *et al.*, 2012). For example, if the relationship is examined in a company that is controlled by a larger shareholder who dedicates individual effort to monitoring and has access to superior information, and, since disclosure is not costless, the board of directors might not enforce the management to disclose more information to outside. Therefore, it has been argued that the examination of corporate governance in isolation from each other is the reason why previous studies provided somewhat mixed results.

The aim of this study is to extend the previous studies by examining the relationship between the effectiveness of the board of directors and audit committee, foreign and domestic institutional ownership, market concentration and bank type with IC disclosure in GCC banks, after considering control factors that have been found as important in explaining the level of the disclosure in firms (i.e. leverage, size and profitability). Further, since the board of director is a central institution in the internal governance of a company which provides a key monitoring function in dealing with agency problems (Ho & Wong, 2001; Cerbioni & Parbonetti, 2007; Singh & Van der Zahn, 2008; Li *et al.*, 2008), the study extends the previous studies by providing evidence concerning the issue of whether the effectiveness of the board of directors to enhance the level of disclosure is affected by the ownership structure and information asymmetry. To achieve this aim, the study examines the moderation effect of type of ownership and information asymmetry

on the relationship between the boards' effectiveness score and IC disclosure. In addition, since governance mechanisms operate interdependently with overall effectiveness depending on the particular combination, the study extends the previous studies by examining the relationship in banks, which are subject to a more intense regulation compared to other firms as they are responsible for safeguarding depositors' rights, guaranteeing the stability of the payment system, and reducing systemic risk (Andres & Vallezado, 2008). The research framework and description of variables are shown in Figure 4.1

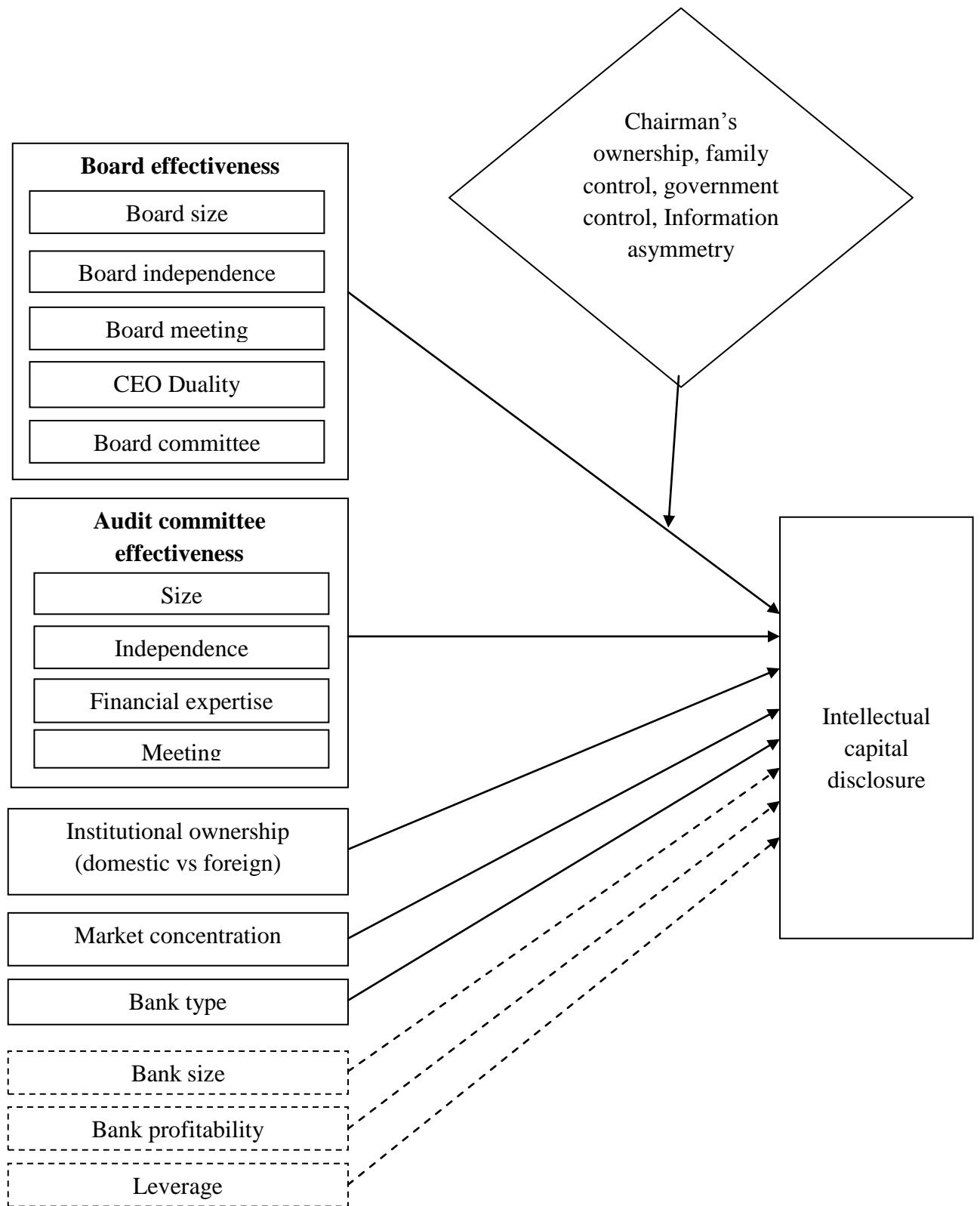


Figure 4.1
Theoretical Framework

4.2. Hypotheses Development

In this section, the hypotheses are developed. First, the relationship of the characteristics of the board of directors, an essential internal corporate governance mechanism with IC disclosure, is investigated.. Second, the characteristics of the audit committee are investigated. Third, the relationship of the type of institutional ownership with IC disclosure is discussed. Fourth, the relationships of market concentration and bank type with IC disclosure are investigated. Lastly, the moderating effect of the type of ownership and information asymmetry on the effectiveness of the board of directors – IC disclosure relationship – is discussed.

4.2.1 Characteristics of Board of Directors

4.2.1.1 Board Size

Board size or the number of directors on the board is regarded as one of the determinants of the effectiveness of the board (Singh & Van der Zahn, 2008; Akhtaruddin *et al.*, 2009; Khodadadi *et al.*, 2010). On the one hand, it has been suggested that with an increase in the number of directors on the board, the experience and knowledge that comes from different sources will increase; hence, large boards can strengthen the effectiveness of the board of directors (Akhtaruddin *et al.*, 2009). On the other hand, a larger number of members might present barriers in reaching a unified decision on important issues. These barriers can be explained through many reasons: first, larger groups usually have more communication and coordination problems because of the larger number of potential interactions between group members (Lipton & Lorsch, 1992). Second, larger decision making groups experience less levels of motivation and satisfaction due to the lack of

participation usually observed in large decision making groups. Therefore, larger boards may be less likely to become involved in strategic decision making (Goodstein *et al.*, 1994).

Jensen (1993) argues that the board of directors, which includes a large number of members, is inefficient. The reason for this is that the CEO will be unable to control the discussions involving a large number of members owing to the difficulty of coordinating among, and dealing with the problems faced by the company. Therefore, it has been suggested that a small number of board members may be an effective tool to appropriately control the executive management. Along the same lines, Lipton and Lorsch (1992) recommend between eight and nine board members. If the board needs increased monitoring to obtain more benefits, adding members will act in offsetting the costs associated with slow decision making. Goodstein *et al.* (1994) posit that smaller boards comprising four to six members might be more efficient, as they are able to make quicker strategic decisions, albeit larger boards are better equipped to monitor the actions of top management. In relation to this, Lefort and Urzúa (2008) find a positive relationship between the small size and the performance of companies, while Yermack (1996) states that firms with smaller boards, consisting of less than ten directors perform better than firms with larger boards. Previous studies that have examined the relationship between the board size and voluntary disclosure provide somewhat mixed results, for example, Arcay *et al.* (2005), and Cerbioni and Parbonetti (2007) find a negative relationship between board size and voluntary disclosure. Their findings are consistent with the assumption that the number of director on the board is inversely related to the effectiveness of the board of directors. However, Akhtaruddin *et al.* (2009) find a

positive relationship between board size and voluntary disclosure. They conclude that a large board can strengthen the effectiveness of the board as a result of the increase in the experience and knowledge that comes from different sources. More specifically, a larger board will strengthen the effectiveness of the board if it has experience, knowledge, and opinions from different sources. Otherwise, the communication and coordination problems that result from the increase in the size of the board will prevent the board of directors from monitoring the management.

According to the GCC Board Directors Institute (2011), the GCC bank boards lack a diversified composition (i.e. lack of representation of independent board members and an adequate mix of relevant experience). Further, many boards represent the direct interests of the controlling owners. For this reason and consistent with an agency framework, it is more likely that a large board in the GCC banks destroys corporate value and monitors activities less effectively. Thus, the hypothesis developed for the present study is as follows:

H₁: There is a negative relationship between board size and IC disclosure.

4.2.1.2 Board Independence

Independent directors are persons who serve on the board of a firm but do not act in any sort of executive capacity. According to Jensen and Meckling (1976), the boards dominated by independent directors may help to mitigate the agency problem by monitoring and controlling the opportunistic behaviour of management. Fama and Jensen (1983), Pfeffer and Salancik (2003), Chobpichien *et al.* (2008), Lefort and Urzúa (2008), Akhtaruddin *et al.* (2009), and García-Meca and Sánchez-Ballesta (2010) argue that outside directors are important to determine the board's effectiveness in monitoring and

controlling the opportunistic behaviour of management, because they have the motivation to make decisions that protect their reputational capital. Therefore, independent directors differ from the inside directors, who are possibly closely aligned with the CEO interests, and are likely to form an alliance and embed themselves with the CEO to the disadvantage of shareholders' interests.

Chobpichien *et al.* (2008), Singh and Van der Zahn (2008), Akhtaruddin *et al.* (2009) and Khodadadi *et al.* (2010) argue that an increase in the number of independent directors on the board leads to the enhancement of the possibility of providing more information to the external world because they strengthen a company's internal control and provide an 'intensive monitoring package' for a firm to reduce opportunistic behaviour and information asymmetry. Under such an intensive monitoring environment, managers are unable to withhold information for their own benefit; so the level of voluntary disclosure will increase in corporate annual reports (Ho & Wong, 2001; Patelli & Prencipe, 2007; Chobpichien *et al.*, 2008). Empirically, although the majority of studies have found that board independence enhances the level of voluntary disclosure in corporate annual reports (e.g. Arcay *et al.*, 2005; Patelli & Prencipe, 2007; Huafang & Jianguo, 2007; White *et al.*, 2007; Li *et al.*, 2008; Singh & Van der Zahn, 2008; Khodadadi *et al.*, 2010), some studies do not find a relationship between them (e.g. Ho & Wong, 2001; Gan *et al.*, 2008).

Yuen et al (2009) suggests that the presence of a regulatory environment enhances the strength of the relationship between the board independence and the level of voluntary disclosure. This study attempts to examine the relationship between the proportion of independent directors on the board and IC disclosure in banks in the GCC, which are

subject to a more intense regulation. Thus, based on the argument for board independence, this study leads to the following hypothesis:

H₂: There is a positive relationship between the proportion of independent directors on the board and IC disclosure.

4.2.1.3 Board Meetings

According to agency theory, diligence of the board of directors would reflect the board's commitment in discharging its role as an agent in the company (Jensen & Meckling, 1976). Board frequency meetings are considered as a resource that leads to board diligence (Conger *et al.*, 1998; Vafeas, 1999; Xie *et al.*, 2003; García Lara *et al.*, 2009). Ebrahim (2007) argue that the frequency of board meetings may be the measure of board activity, which enhances the effectiveness of the board of directors. According to Chobpichien *et al.* (2008), an important dimension of board operations is board activity, which is measured by the frequency of board meetings. Lipton and Lorsch (1992) found that the most common problem faced by directors is time constraints to carry out their duties. Xie *et al.* (2003) find a negative relationship between the level of earnings management and the frequency of board meetings and suggest that board meetings provide effective monitoring mechanisms of corporate financial reporting. Overall, the board meeting frequency is likely to contribute to the effectiveness of the board of directors, which, in turn, increases the level of disclosure (Chobpichien *et al.*, 2008).

Carter and Lorsch (2004) claim that the time that a board spends together in meetings is the most important that directors have to perform their duties. It is during board meetings that the whole board is engaged in the business of the company, that ideas are contested and that a collective view is developed, which is then conveyed to management.

Therefore, in an environment like GCC banks where information asymmetry is high, the frequency of meetings is important to strengthen the effectiveness of the board of directors in order to take decisions that protect the interests of shareholders and increase the level of disclosure. Thus, based on the argument for board meetings, this study leads to the following hypothesis:

H₃: There is a positive relationship between the frequency of board meetings and IC disclosure.

4.2.1.4 CEO Duality

Duality occurs when the same person undertakes the roles of both CEO and chairman. CEO duality can implement strategic decisions with minimum board intervention (Rechner & Dalton, 1991). However, from the agency theory perspective, someone who holds two top positions (CEO duality) is more likely to follow strategies that advance personal interests to the harm of the firm as a whole (Jensen & Meckling, 1976). Similarly, Mallette and Fowler (1992) argue that in combined roles, the chairman of the board has to make decisions that potentially lead to conflicts of interest. Moreover, in combined roles, the CEO can set the board's agenda and can influence (if not control) the selection of directors for the board. They conclude in their study that CEO duality can challenge a board's ability to monitor executives. Therefore, to facilitate more effective monitoring and control of the CEO, agency theory suggests splitting the board chair position from the CEO position (Chaganti *et al.*, 1985).

In respect of the relationship between the CEO duality and voluntary disclosure, Forker (1992) asserts that the individual holding both posts might suppress unfavourable information to outsiders thereby affecting the quality of disclosure. The chairman of the

board, independent of management, shows a greater monitoring capacity by the board as perceived by shareholders. Hence, when the CEO dominates both positions it may imply that less monitoring is exercised over the company's managers and their behaviour (Finkelstein & D'Aveni, 1994; Agrawal & Chadha, 2005). Empirically, although the majority of studies found that the CEO is associated with lower voluntary disclosure (e.g. Lakhhal, 2005; Gul & Leung, 2004; Huafang & Jianguo, 2007; Li *et al.*, 2008; Khodadadi *et al.*, 2010), some studies did not find a relationship (Ho & Wong, 2001; Arcay *et al.*, 2005; Gan *et al.*, 2008).

In the GCC banks, which are controlled by large shareholders, where information symmetry is high or the chairman is a large shareholder, CEO duality might increase the entrenchment of management, which, in turn, might prevent the board of directors from monitoring the management. Thus, it is reasonable to suggest that banks with CEO duality are more likely to be associated with the disclosure of a lower quality of information since the board is less effective in monitoring management and ensuring a higher level of disclosure. In line with agency theory, the proposed hypothesis to be tested is as follows:

H₄: There is a negative relationship between CEO duality and IC disclosure.

4.2.1.5 Board Committees

The board of directors has a key role in corporate governance, and, for the achievement of diverse roles, the board delegate some duties to its board committees. With the establishment of board committees, the directors may effectively and efficiently perform their duties and may be more accountable for their decisions as board committees enable directors' specialization in specific areas, which allows them to conduct an in-depth

discussion concerning the main issues in their relevant groups. In other words, board committees may lead to the enhancement of board effectiveness (Hoitash *et al.*, 2009; Engel *et al.*, 2010). According to Vafeas (2000), the structure of the board has a role in determining the effectiveness of monitoring strategies in the light of information asymmetries. The guidelines and the legislation in GCC countries pertaining to corporate governance suggest the employment of board committees, specifically audit, remuneration (compensation) and nomination.

Researchers consider that the audit, remuneration and nomination committees act as monitoring committees that concentrate on the board's monitoring activity and provide both an objective and independent review of the firm's affairs. Based on the agency perspective (Fama & Jensen, 1983), the audit, compensation and nominating committees conduct particular roles in the decision making procedure. Cerbioni and Parbonetti (2007) argue that the board of directors should have three committees – audit, nominating and compensation – in order to be more effective, and, in turn, affect the amount and quality of voluntary disclosure. The audit committee is responsible for reviewing the financial reports and reporting process to improve internal systems. The remuneration committee performs the difficult tasks of deciding executives' compensation, as there is an important incentive to align the interests of managers and shareholders. Adopting a nomination committee is essential to achieve good governance, since the task of selecting qualified directors can be performed in greater depth.

As expected, Laing and Weir (1999) find that companies having audit, nominating and compensation committees perform better than those that do not. Therefore, audit, nominating and compensation committees are viewed as monitoring mechanisms for

management performance. This supports the view that board committees can enhance the effectiveness of the board of directors. Thus, it is quite interesting to examine the board committees on the IC disclosure in the banking sector in the GCC. The proposed alternative hypothesis is as follows:

H₅; There is a positive relationship between the board committees and IC disclosure.

4.2.1.6 Score of Effectiveness of the Board of Directors

Chobpichien *et al.* (2008) argue that independence, size, frequency of board meetings, and non-duality of the chief executive officer (CEO) are the important factors that determine the effectiveness of board that forces management to disclose more information to outside parties. Singh and Van der Zahn (2008) and Ruth *et al.* (2011) state that the enhancement of board of directors in terms of board size, board composition, and leadership structure could improve board effectiveness and its capacity to monitor the management to the extent of increasing the possibility of providing more information about IC to outside investors. Cerbioni and Parbonetti (2007) suggest that the board is effective in improving the IC disclosure when it is small in size, has independent chairman with majority of its members also been independent, has active members in audit, nomination, and compensation committee. These elements, if present, would enhance the monitoring role of board of directors. However, it has been suggested that the optimal combination of these mechanisms can be considered better to reduce the agency cost and to protect the interest of all shareholders because the effectiveness of corporate governance is achieved via different channels (Cai *et al.*, 2008). According to Chobpichien *et al.* (2008) and Ward *et al.* (2009), it is important to look at corporate mechanisms as a bundle of mechanisms to protect shareholder interests and not in

isolation from each other because these governance mechanisms act in a complementary or substitutable fashion (Chobpichien *et al.*, 2008). This is in addition to Hill (1999) who has posited that it is desirable to have a system, which consists of several checks and balances mechanisms, and none of them is accountable by itself to provide solution to all the problems faced by companies. Beekes and Brown (2006) and O'Sullivan *et al.* (2008) provide evidence that better-governed firms make more informative disclosure to the market. Based on the above arguments, this study suggests that when the characters that enhance the effectiveness of board of directors increase, the level of IC disclosure also increases. Thus, the following hypothesis is proposed;

H₆; There is a positive relationship between the score of the effectiveness of the board of directors and IC disclosure.

4.2.2 Characteristics of Audit Committee

4.2.2.1 Audit Committee Size

The strength of the effectiveness of audit committees depends on their adequate resources (DeFond & Francis, 2005; Mangena & Pike, 2005; Li *et al.*, 2012; Siti Rochmah & Ghazali., 2012). Felo *et al.* (2003) maintain that a large audit committee is able to identify and address potential problems in the financial reporting process because it has sufficient resources to assume a significant monitoring role. Likewise, Bédard *et al.* (2004) posit that bigger audit committees are more likely to identify and address likely difficulties in the financial reporting process, as it is likely to provide and ensure effective monitoring through its expertise, strength and multiplicity of views. This suggests that the size of the audit committee is a critical factor in firms in order to deliver meaningful corporate reporting (Klein, 2002). According to Anderson *et al.* (2003), larger audit

committees provide a greater monitoring function, as there are more members to undertake the various tasks involved in monitoring the financial reporting process. Further, Akhtaruddin *et al.* (2009) suggest that the percentage of the size of the audit committee to total members on the board is associated with the level of disclosure and vice versa.

The above arguments have been supported by the empirical studies that find that a large audit is negatively associated with earnings management (Yang & Krishnan, 2005; Cornett *et al.*, 2008; Lin & Hwang, 2010), negatively associated with the firm's cost of debt (Anderson *et al.*, 2003), has a positive influence on financial reporting quality (Felo *et al.*, 2003) and is positively associated with voluntary disclosure of IC (Li *et al.*, 2007; 2008; 2012). These results of the empirical studies suggest that a large audit committee size strengthens the effectiveness of the audit committee in order to work as a monitoring mechanism.

From the above discussion, it could be said that larger audit committees provide a greater monitoring function in overseeing the management and reducing the information asymmetry. Therefore, it is reasonable to expect that the size of the audit committee is associated with the extent of IC disclosure for GCC banks. Thus, based on the arguments above, the following hypothesis is proposed:

H₇; There is a positive relationship between the size of the audit committee and IC disclosure.

4.2.2.2 Audit Committee Independence

According to Pincus *et al.* (1989), and Rainsbury *et al.* (2008), the aim of the establishment of the audit committee is to assist the outside directors of the board to achieve their duties, which are monitoring the management and protecting the interests of shareholders. However, achieving the mentioned task by audit committees depends on their independent members from the management and their qualifications (Ruth *et al.*, 2011; Won *et al.*, 2011; Aboagye-Otchere *et al.*, 2012; Li *et al.*, 2012; Siti Rochmah & Ghazali, 2012). According to Aboagye-Otchere *et al.* (2012), from the agency theory perspective, the independent members in the committee are important to strengthen the monitoring role of the audit committees, which helps shareholders to monitor the activities of management, and, hence reduce the benefits from withholding information. This is because the independent members in the committee are not related to management, so they will be able to enhance the quality and credibility of the reporting, and reduce information asymmetry (Carcello *et al.*, 2002; Mangena & Pike, 2005).

Empirically, many studies have documented that audit independence plays an important role in enhancing the ability of the audit committee to maintain the integrity and quality of the corporate financial reporting process. For example, they find that dependent members on the audit committee reduces the earnings management (Klein, 2002; Xie *et al.*, 2003; Bedard *et al.*, 2004; Saleh *et al.*, 2007; Won *et al.*, 2011), increases the accuracy of management earnings forecasts (Ahmad-Zaluki & Wan Hussin, 2009) and is associated with timelier remediation of material weaknesses (Goh, 2009). The results of these studies suggest that audit committee independence plays a significant role in enhancing the effectiveness of the audit committee.

Regarding the influences of the audit committee on voluntary disclosure, Forker (1992) argues that the audit committee is an effective monitoring tool to reduce agency costs and improve disclosure. Akhtaruddin *et al.* (2009) also suggest that the level of voluntary disclosure is positively related to the proportion of independent members on the audit committee because audit committees with more independent directors indicate less interference from management to exercise their independence (Akhtaruddin & Haron, 2010). Similarly, Mohamad and Sulong (2010) suggest that the proportion of independent directors on the audit committee leads to an increase in the level of voluntary disclosure. These arguments are based on the agency theory, which states that an increase in the independent members on the audit committee enables the principals to monitor the agents' activities and reduce the possibility of withholding information.

Notwithstanding the above arguments, the previous studies provide somewhat mixed results. While Abeysekera (2010) finds a positive relationship between independent directors on the audit committee and voluntary disclosure, Ruth *et al.* (2011) and Li *et al.* (2012), do not find a relationship between independent non-executive directors on the audit committee and voluntary disclosure. However, according to Yuen *et al.* (2009) and Ruth *et al.* (2011), when the regulatory environment is present it improves the relationship's strength of the percentage of independent directors and the extent of voluntary disclosure. This study examines the relationship between the proportion of independent directors on the audit committee and IC disclosure in a regulated industry, i.e. the banking sector. Hence, in line with the agency theory and the above arguments, it is reasonable to expect that as the proportion of independent members on the audit

committee increase, the ability of the agent to withhold information will reduce. Thus, the following hypothesis is proposed:

H₈: There is a positive relationship between the proportion of the independent directors on the audit committee and IC disclosure.

4.2.2.3 Audit Committee Financial Expertise

Audit committee expertise is regarded as one of the most crucial factors in an audit committee's effectiveness (Abbott *et al.*, 2004; DeFond *et al.*, 2005; Saleh *et al.*, 2007; Krishnan & Visvanathan, 2008; Pomeroy, 2010; Won *et al.*, 2011; Lary & Taylor, 2012; Aboagye-Otchere *et al.*, 2012; Sun *et al.*, 2012; Siti Rochmah & Ghazali, 2012; Salleh & Stewart, 2012). DeZoort *et al.* (2002) argue that an audit committee is able to protect stakeholder interests by ensuring reliable financial reporting when it has qualified members. Salleh and Stewart (2012) argue that through financial expertise, the audit committee will be able to understand the technical accounting procedures and standards, and it will be more concerned with financial reporting accuracy. Beasley (2009) argues that audit committees can effectively carry out their duties when their members have accounting and auditing knowledge. This is because they can ask the management and auditor probing questions and identify problems. Therefore, they will contribute leadership to the audit committees (McDaniel *et al.*, 2002).

In respect of the relationship between audit committees financial expertise and the level of voluntary discourse, it has been suggested that committee financial expertise strengthens the effectiveness of the audit committee to monitor the management and reduce the information asymmetry by increasing the level of disclosure. For example, Akhtaruddin and Haron (2010) argue that a higher proportion of expert members on the

audit committee leads to the improved effectiveness of the audit committee, through which the audit committee improves the internal control, reduces the information asymmetry and enhances the corporate voluntary disclosure. Aboagye-Otchere *et al.* (2012) find that as the number of accounting/finance experts on the audit committee increases the level of disclosure increases. They justify their results based on the idea that people with an accounting/finance background are able to understand and interpret the reports prepared by financial managers. Thus, the non-disclosure of items that are pertinent and helpful to stakeholders will be readily recognised and their disclosure in the annual reports ensured.

Based on the above arguments and empirical evidence, it could be proposed that the audit committee's expertise enhances the effectiveness of the AC, which is perceived as one of the mechanisms to reduce the information problem. Consequently, an AC that has a high proportion of financial expertise will be more likely to improve the monitoring of corporate financial reporting and internal control, which reduces the information asymmetry in the bank. Therefore, the level of IC disclosure will increase in the annual report. Thus, the following hypothesis is proposed:

H₉: There is a positive relationship between the proportion of the financial expertise on the audit committee and IC disclosure.

4.2.2.4 Audit Committee Meetings

According to Menon and Williams (1994), Won *et al.* (2011), Li *et al.* (2012) and Siti Rochmah and Ghazali (2012), to achieve its job, the audit committee should not only comprise independent members but should also be active. To be active, the members of the audit committee should have frequent meetings. Saleh *et al.* (2007) argue that the

audit committees are only able to achieve their duties when they have frequent meetings. According to Raghunandan and Rama (2007), the number of audit committee meetings is the important variable that distinguishes between an active audit and non-active audit committee because through the number of meetings held, the degree of effort that the committee exerts in overseeing financial reporting is established. Thus, through the frequent meetings, the audit committees will better serve as monitoring mechanisms (Xie *et al.*, 2003). Additionally, the findings of previous studies (Xie *et al.*, 2003; Saleh *et al.*, 2007; Goh, 2009; Hoitash *et al.*, 2009; Won *et al.*, 2011) suggest that frequent meetings are important for the audit committee in order to work as good monitoring mechanisms. Due to the importance of the audit committee meetings in increasing the effectiveness of the audit committee, the Code on corporate governance of GCC recommends that the audit committee should have at least four meetings per year.

In respect of the relationship between the frequency of meetings with the level of voluntary discourse, many studies have documented that frequent audit meetings strengthen the effectiveness of the audit committee. For example, Persons (2009) finds a significant positive relationship between the frequency of committee meetings and earlier voluntary ethics disclosure. Gan *et al.* (2008), and Taliyang and Jusop (2011) find a significant positive relationship between the frequency of audit committee meetings and IC disclosure. Recently, Li *et al.* (2012) find a significant positive relationship between the frequency of audit committee meetings and IC disclosure in the top 100 UK companies. They concluded that more frequent meetings mean a high-level oversight of all corporate reporting issues, including IC disclosure.

Accordingly, an active audit committee that meets more frequently might be expected to undertake their responsibilities in a more conscientious manner than committees that meet either infrequently or never. Consequently, audit committees that hold more meetings each year will be more likely to improve the monitoring of corporate financial reporting and internal control, therefore, they will be better able to reduce the agency costs by increasing the level of IC disclosure. Thus, the following hypothesis is proposed:

H₁₀: There is a positive relationship between the frequency of the audit committee meetings and IC disclosure.

4.2.2.4 Audit Committees Effectiveness

Governance mechanisms operate interdependently with overall effectiveness depending on the particular combination. As mentioned earlier, the optimal combination of mechanisms can be considered to reduce the agency cost better because a particular mechanism's effectiveness depends on the effectiveness of others (Rediker & Seth, 1995; Davis & Useem, 2002). DeZoort *et al.* (2002) argue that the audit committee effectiveness framework could increase considerably if the audit committee characteristics are studied together. Agrawal and Chadha (2005) suggest that independent directors with financial expertise are valuable in providing oversight financial reporting. Similarly, Mustafa and Youssef (2010) argue that audit committee independence is not effective unless the members are financial experts. Xie *et al.* (2003) argue that an audit committee whose members have a financial background and have frequent meetings serves better as an internal control mechanism and enhances oversight of the financial reporting. Saleh *et al.* (2007) argue that independent members who have financial

expertise but do not attend meetings will not enhance the effectiveness of the audit committee in increasing the quality of financial reporting.

The number of previous studies that examines the relationship between effectiveness of audit committee and IC disclosure are small and provide unclear results. From the findings of such previous studies, it seems that the effectiveness of independent audit committee members to improve the disclosure depends on their expertise, auditing process and frequency of meetings. Therefore, examining the characteristics of the audit committee in isolation of each other may explain why those studies provide an unclear result. By giving a score to an audit committee based on its characteristics, this study proposes a positive association between the audit committees effectiveness score and IC disclosure. Thus, based on the arguments above, the following hypothesis is proposed:

H₁₁; There is a positive relationship between the score of the effectiveness of the audit committee and IC disclosure

4.2.3 Institutional Ownership (Domestic and Foreign)

As mentioned in Chapter 3, institutional ownership enhances the effectiveness of corporate governance (Gillan & Starks, 2000; Mitra, 2002; Cremers & Nair, 2005; Donnelly & Mulcahy, 2008; Ruiz Mallorquí & Santana Martín, 2009), which reduces the agency problem and any opportunistic financial reporting (Gillan & Starks, 2000; Bos & Donker, 2004) through two factors. Firstly, by owning a significant part of the company so they have the motivation to monitor the activities of management to ensure that managers do not engage in non-value maximizing behaviour. Secondly, because they have greater expertise, they will be able to interpret information disclosed in the annual

reports (Barako, 2007; Bhattacharya & Graham, 2007; Ferreira & Matos, 2008; Ruiz Mallorquí & Santana Martín, 2009).

Hashim and Devi (2007), and Chahine and Tohmé (2009) argue that the institutional investors are the mechanism to protect the interests of minority shareholders in companies controlled by large shareholders rather than other internal corporate mechanisms, such as board size and the proportion of outside directors. From these arguments, it can be said that the institutional investors are important mechanisms that protect the minority interests by increasing the level of disclosure. The findings of previous studies from various countries support these arguments. Barako (2007) find that institutional investors enhance the level of disclosure for Kenyan companies. Ajinkya *et al.* (2005) find that institutional investors positively affect the properties of earning forecasts. Lakhal (2005) find that institutional investors have a positive relationship with voluntary earnings disclosure in French companies. Khodadadi *et al.* (2010) examine the relationship between institutional ownership and voluntary disclosure for 106 companies listed on the Tehran Stock Exchange during 2001-2005. They find that voluntary disclosure is positively related to institutional ownership.

Despite the institutional investor's ability to mentor management and reduce the agency problem, their monitoring capabilities differ according to their nationality (Tihanyi *et al.*, 2003; Gillan & Starks, 2003; Bhattacharya & Graham, 2007; Ferreira & Matos, 2008; Chahine & Tohmé, 2009; Rashid Ameer, 2010). It was found that foreign institutions are more able to monitor the management and reduce the agency problem than domestic institutions.

According to Chahine and Tohmé (2009), and Douma *et al.* (2006), the ability of domestic institutional investors to monitor the management and reduce the agency problem is usually affected by existence of ties and networks in the domestic business environment. Rashid Ameer (2010) argue that foreign institutional investors have superior strategies in monitoring managers as compared to domestic investors because they bring with them different cultural, ethical values and norms that might produce changes in the corporate internal controls and ethical practices (Gillan & Starks, 2003; Ferreira & Moatos, 2008; Chahine & Tohmé, 2009). Moreover, compared with domestic investors, foreign investors are less informed and face higher costs of acquiring information to monitor management. In addition, the foreign institutions take into account considerable risks, such as political and legal risks when they want to invest in foreign countries. For this reason, they will choose companies that have good corporate governance with more transparency and avoid companies that do not have good corporate governance with less transparency. This issue is quite conceivable, particularly in Arab countries where foreign institutional shareholders are more likely to outperform their domestic counterparts in terms of experience, organizational, monitoring and technological capabilities, and credibility (Chahine & Tohme, 2009). According to Kobeissi and Sun (2010), the percentage of foreign institutions in GCC banks is higher compared to banks from the Middle Eastern and North African (MENA) region. Kobeissi and Sun (2010) find that the presence of foreign institutional investors in the banking industry in the Middle Eastern and North African (MENA) region is associated with a relatively better performance. Therefore, this study expects that given the heterogeneity

in monitoring and organizational capabilities between domestic and foreign institutional, they will have a different impact on IC disclosure.

Therefore, based on the above arguments, the following hypotheses are proposed:

H_{12a}: There is a positive relationship between domestic institutional ownership and IC disclosure.

H_{12b}: There is a positive relationship between foreign institutional ownership and IC disclosure.

H_{12c}: The positive relationship of foreign institutional ownership is significantly higher than the positive relationship of domestic institutional ownership.

4.2.4 Industry Market Concentration

The banking industry in GCC countries is characterized as relatively concentrated with a few domestic players dominating the market (Al-Hassan *et al.*, 2010). The term industry concentration refers to the combined market share of the leading firms. Theoretically, it is argued that increasing banking industry concentration leads to less competitive conduct (see, Maudos & De Guevara, 2007; Al-Obaidan, 2008; Al-Muharrami & Matthews, 2009; Delis & Papanikolaou, 2009). The idea that there is an inverse relationship between market concentration and competition has its roots in the structural-conduct-performance hypothesis that argues that the higher the concentration in a market, the lower the competition, providing a theoretical relationship between market structure (concentration) and conduct (competition) (Bikker & Haaf, 2002; Abbasoğlu *et al.*, 2007; Rezitis, 2010).

Voluntary disclosure has benefits and costs; one of the costs related to voluntary disclosure is the cost of competitive disadvantage (Gray & Roberts, 1989). This means that disclosing more information to the outside will damage the competitive position of the company in product markets. According to Wagenhofer (1990), the cost of competitive disadvantage is considered as one of the reasons that interprets why companies limit voluntary disclosure of information. Therefore, competition is one of the determinants of the level of disclosure (Verrecchia, 1983). According to Guo *et al.* (2004), the companies that work in a highly competitive (less concentration) environment are hesitant to disclose important information to avoid damaging their position in the product markets. Williams (2001) argues that the firms reduce the level of voluntary disclosure of the IC in order to maintain competitive advantage because disclosure of more information about it could provide the signal to the competitors of possible value creating opportunities, which, if taken by the competitors, may damage their position in product markets in the future. Li (2010) also argues that in case of competition, the managers avoid disclosing more information in order to reduce the property cost that might result from information revelation. They found competition to be negatively related to voluntary disclosure. Trabelsi *et al.* (2008) find that the level of competition negatively influences the decision to maintain a website and use it to disclose the additional information.

From the discussion above, it is reasonable to expect that banking industry concentration may influence a bank's IC disclosure because of its impact on competition. Therefore, as a result of the importance of IC in determining the competitive advantage of the companies, it can be said, that the banks that work in a highly competitive, less

concentrated market disclose less information about IC in their annual reports. Thus, in line with the property cost theory, the following hypothesis is proposed:

H₁₃: There is a positive relationship between the extent of IC disclosure and the level of industry market concentration.

4.2.5 Bank Type

Chobpichien *et al.* (2008) and Young *et al.* (2008) argue that voluntary disclosure is considered a useful way of enhancing outsider protection, because it is a signal to the shareholders of whether the firm is committed to its shareholders, majority or minority, and whether they are treating them in a fair and equitable manner. According to Young *et al.* (2008), disclosure is one of the ways that protects the minority shareholders in countries with weak legal protection.

In the Islamic economy, the primary characteristic is to provide a just, honest, fair and balanced society in accordance with Islamic ethical values and rules (Tapanjeh, 2009). According to Ahmad (2000), Islamic business is renowned for its ethical norms and social commitments based on the moral framework of Shariah. Similarly, Khalifa (2003) comments that Islamic economics is Godly, ethical, humanly, moderate and balanced. Consequently, all forms of manipulation and abuse are forbidden in Islamic business and must be in accordance with the ethical rules of Shariah.

According to Haniffa and Hudaib (2004), disclosure has its basis on two aspects of Islamic accounting: firstly, the concept of social accountability, and, secondly, the concept of complete disclosure. Therefore, it can be said that the concept of conservatism of information disclosure is prohibited in Islamic accounting (Alam, 1998). Baydoun and

Willett (2000) argued that full disclosure means disclosing everything that is of importance to users to take decisions. Similarly, Haniffa and Hudaib (2004) claim that full disclosure means disclosure of all relevant and reliable information that assists external users in deciding issues regarding the economy and religion and in helping individuals in management to perform their jobs in a way that fulfils their accountability to God and society. Thus, since Islamic banks must comply with the precepts of Shariah in all their activities including reporting. To achieve their accountability and commitment in catering to the needs of both the Muslim community and wider society banks should disclose relevant and reliable information in their annual reports. Moreover, Haniffa and Hudaib (2004) argue that in complying with the concept of social accountability and the full disclosure concept in contrast with conventional banks, Islamic banks should disclose both quantitative and qualitative information in their annual reports. This should include their mission and objectives, information concerning their management, human and non-human resources/techniques and the interaction between. In addition, it should include the current and prospective, all of which are important for users of the annual reports of Islamic banks.

According to Aribi and Gao (2010), Shariah compliance is the very essence of an Islamic bank and its banking business. Therefore, in order to make full disclosure to help the investors to take decisions, achieve fairness between the shareholders and reduce conflicts between them and management, Islamic banks employ a special form of monitoring in addition to adopting other internal corporate governance mechanisms like conventional banks. These are called Shariah supervisory boards (Farook & Lanis, 2007; Tapanjeh, 2009).

Farook and Lanis (2007) argue that an increase in the size of the Shariah supervisory board leads to an increase in the capacity of internal monitoring mechanisms. Based on the idea that the impact of internal governance mechanisms on corporate disclosure may be complementary and that the effectiveness of one mechanism depends on the other, Farook and Lanis (2007) suggest a positive relationship between the number of Shariah supervisory board members and the level of CSR disclosure. They find that the relationship between the size of Shariah supervisory board and levels of CSR disclosure is significant and positive.

Ariffin *et al.* (2007) argue that because Islamic banks have their basis on a profit sharing arrangement, voluntary disclosure as well as transparency is more important to them than to conventional banks owing to the account holders' requirement of greater information in overseeing their investments. Their argument is supported by Farook and Lanis (2007) who have found the relationship between the investment account holders' rights and the level of CSR disclosure is significant and positive.

From previous studies and based on the above arguments, Islamic banks will be under greater pressure from the Shariah supervisory boards and investment account holders than conventional banks to disclose more information. Thus, the following hypothesis is proposed:

H₁₄: Islamic banks are more likely to have a higher level of IC disclosure than conventional banks

4.2.6 Ownership as Moderator

GCC banks are controlled by a few rich families or governments, and, generally, the chairman is a major shareholder (Chahine, 2007). This study conjectures that these types of controlling shareholder in GCC are likely to moderate the relationship between the effectiveness of the board of directors and IC disclosure. Three arguments are presented in support of this conjecture. The first argument is that when insider ownership is high, the monitoring role of corporate boards decreases (Jensen & Meckling, 1976). Secondly, controlling families are more likely to choose independent directors to support the management rather than monitor it (Johnson *et al.*, 1996; Anderson & Reeb, 2004). Finally, due to their ability to control the management, the controlling shareholders may elect outside directors to fulfil the law, and, therefore, in this case, the board of directors are often the rubber stamp of controlling shareholders (Young *et al.*, 2008) or they use these directors as a substitute for disclosure (Eng & Mak, 2003).

4.2.6.1 Chairman Ownership

As mentioned in Chapter 3, when the separation between ownership and control increases, the agency costs will increase, which, in turn, leads to a greater need for monitoring by the board of directors (Fama & Jensen, 1983; Enya & Sommer, 2010). However, if the majority of shares of the company are owned by the managers, there will be less separation between the ownership and control and low agency costs, which, in turn, leads to less need for costly monitoring by the board of directors because the conflict between the agent and principal can be solved by the managerial ownership (Jensen & Meckling, 1976; Akhtaruddin & Haron, 2010; Enya & Sommer, 2010). The need for monitoring by the board of directors in the companies that have high management or

board ownership is evidenced by empirical studies that found a negative relationship between board ownership and outside directors, which is an important element in enhancing the monitoring role of the board of directors (Mak & Li, 2001; Lasfer, 2006).

Although board ownership can solve the classical agency problem, the question is, does it protect the minority interest? This question arises because increasing the level of board ownership creates a power base that induces management to create conditions that are conducive to managerial entrenchment. Consequently, the outside shareholders are unable to monitor the management's opportunistic behaviour. The opportunistic behaviour in the companies where management or board ownership is high can be seen from the empirical studies that found a negative relationship between management and board ownership with voluntary disclosure (Eng & Mak, 2003; Firer & Walliams, 2003; Li *et al.*, 2007; Chang *et al.*, 2007).

La Porta *et al.* (1999) argue that ownership controlled by the board encourages controlling shareholders to engage themselves in expropriation. However, Hoi and Robin (2010) argue that the expropriation of the minority shareholders is higher when the chairman, compared to other board members, is a controlling shareholder. This is because when the chairman is a major shareholder, he is individually motivated to monitor management, he has a lot of influence beyond the board, and he has access to valuable information and, if necessary, has alternative corporate governance mechanisms to discipline the managers. Piesse *et al.* (2011) argue that in Arab countries the chairman is the company's top authority and the primary source of information for the board through his ability to utilise personal resources to collect information and devise company strategies. Moreover, they argue that if the chairman is a major shareholder he has the

authority to propose new board members and this demonstrates his control over the board and ensures that his power is rarely challenged.

This study attempts to examine the chairman's ownership, which acts as a moderator in the relationship between the effectiveness of the board of directors and IC disclosure in banks in the GCC. The structure and the monitoring role of the board are likely to be shaped by board ownership based on the agency theory, which states that high managerial or board ownership is associated with a board that is less likely to monitor and protect the interests of all shareholders. In addition, since the IC disclosure is not costless, the chairman would prefer to reduce the costs associated with information asymmetries on his own to get the information that he needs to make a decision. Thus, it could be predicted that in countries where the legal protection of minority shareholders is weaker, the chairman's ownership is likely to negatively moderate the relationship between the effectiveness of the board of directors and IC disclosure. Thus, this study develops the following hypothesis to test this expectation:

H₁₅; Chairman ownership negatively moderates the relationship between the level of the board of directors' effectiveness and the IC disclosure of banks in the GCC.

4.2.6.2 Government Control

According to Chahine (2007), the average of Government ownership in GCC commercial banks is 26.35%. According to Li (1994), when the government is a major shareholder in the company, the agency cost is increased because it has little incentive to monitor the management. Eng and Mak (2003) claim that agency costs are higher in cases of government-owned companies compared to others due to the contrasting objectives that are present between the commercial enterprise's profit gaining goals and the nation's interests.

As mentioned in Chapter 3, when the agency cost and the information asymmetry are high, the need for the monitoring role of the board of directors is increased in a company where the government is a larger shareholder, in order to monitor the management and enhance the level of disclosure. Li (1994) argues that more outside directors are needed to monitor management and resolve the agency problem in a company in which the government is a major shareholder. They find that the percentage of outside directors on the board increases when government ownership is increased in the company.

Caves (1990) argues that the state-owned firms have been assumed to pursue the maximization of political support, which can be achieved by adding more outside directors on the board. The application of this argument is that when the government is a major shareholder, it is able to appoint outside directors to monitor managers and increase the voluntary disclosure by which the government can fulfil its accountability role to the public at large and pursue maximization of political support (Caves, 1990). Makhija and Patton (2004) suggest that companies with large governmental shareholdings might choose to disclose more to fulfil their accountability role to the public at large. This argument is supported by empirical studies, which found a positive relationship between the level of voluntary disclosure and government ownership. Jiang and Habib (2009) find that voluntary disclosure is positively related to government ownership, which means that when the ownership of the government increases in the company, the level of voluntary disclosure increases. Eng and Mak (2003) find a positive relationship between voluntary disclosure and government ownership. Firer and Williams (2003) find a positive relationship between the voluntary disclosure of intellectual capital and government ownership for 390 Singapore Public companies.

From the above discussion, it can be seen that as the government ownership becomes large, the agency problem will increase, and, consequently, the need for the monitoring role by the board is increased to monitor the management and enhance the level of disclosure. Therefore, it can be said that when the government is the controlling shareholder in the company, the level of effectiveness of the board of directors and IC disclosure complement each other. Thus, the following hypothesis is developed:

H₁₆: The government control positively moderates the relationship between the level of the board of directors` effectiveness and the IC disclosure of banks in the GCC.

4.2.6.3 Family Control

According to Ali *et al.* (2007), family firms face less information agency problems because of the separation between the ownership and management. This is because family firms often plan for a much longer investment than other shareholders. Thus, families are likely to have a strong incentive to monitor managers. Similarly, Tarmize Achmad (2007) argues that family firms can solve the agency problem by directing their members on the management or board of directors.

On the other hand, family firms face more challenges in the form of agency problems stemming from the conflict between controlling and non-controlling shareholders. In other words, the controlling families overshadow the rest of the minority shareholders (Ali *et al.*, 2007). This is because the control enjoyed by the founding families gives them power to seek private benefits at the expense of other shareholders in several ways. Controlling families will have a motivation to expropriate minority shareholders by appointing less independent directors, with substantial representation by family members as directors (Anderson & Reeb, 2004). Family firms also expropriate non-controlling

shareholders by maintaining the lack of transparency; this can be seen from empirical studies that found a negative relationship between family ownership and voluntary disclosure (Ho & Wong, 2001; Gan *et al.*, 2008; Akhtaruddin *et al.*, 2009).

Chen and Jaggi (2000), and Chan and Gray (2010) find that the relationship between the percentage of independent directors on the board and voluntary disclosure is stronger in companies that are controlled by non-family members than in the companies controlled by family members. Chobpichien *et al.* (2008) find that family ownership negatively moderates between the quality of the board of directors and voluntary disclosure for non-financial companies in Thailand. Jaggi *et al.* (2009) find that the family ownership negatively moderates the relationship between independence and earnings management.

This study attempts to examine the role of family control on the relationship between the effectiveness of the board of directors and IC disclosure in the GCC where controlling family ownership is widespread and the legal protection of minority shareholders is weaker (Chahine, 2007). Moreover, GCC controlling families, being Arabs, possess deep-seated traditional values and norms (e.g. personal relations, preference for individuals from tribes, etc.), which could influence their intentions and behaviour (Ali, 1990). Within this weak regulatory framework, the controlling family can expropriate minority shareholders by appointing closely related directors, which might reduce the effectiveness of corporate governance mechanisms (Fan *et al.*, 2007), which increases the level of disclosure.

Based on the above argument, this study proposes that family control through family ownership is likely to negatively moderate the relationship between the effectiveness of

the board of directors and IC disclosure. Thus, this study develops the following hypothesis to test this expectation:

H₁₇; Family control negatively moderates the relationship between the level of the board of directors` effectiveness and the IC disclosure of banks in the GCC.

4.2.6.4 Information Asymmetry

According to Jensen and Meckling (1976), and Fama and Jensen (1983), outside directors are perceived to be tools to protect the shareholders' interests through monitoring managerial opportunism and enhancing the level of disclosure, which reduces agency risk. However, McNulty *et al.* (2002) argue that outside directors are always less informed regarding the company operations compared to their executive colleagues due to their notable operating distance from management. Consequently, the outside directors are incapable of spending enough time with the executive colleagues, and, therefore suffer from information asymmetry by providing the outside directors with incomplete control (Mace, 1971). Hill (1995) further expands on the issue by stating that non-executive control is hampered through information asymmetry manipulated by management. This problem could escalate if the company is managed by major shareholders who have selfish agendas that are contrary to the outside shareholders' agendas, which, consequently, disallow the executive to provide more information for the outside directors (Fan & Wong, 2002). Thus, information asymmetry in the company hinders non-executive members from gathering necessary information on management activities, e.g. information needed by the non-executive members for performance evaluation. Therefore, OCED (2009) suggested to policy makers in the GCC to allow outside directors to easily obtain information needed by them in order to make the board governance effective in protecting all shareholders.

From the discussion above, it can be observed that one of the reasons for the mixed results obtained by previous studies concerning the relationship between the effectiveness of the board of directors and IC disclosure (Cerbioni & Parbonetti, 2007; Li *et al.*, 2008; Taliyang & Jusop, 2011; Ruth *et al.*, 2011) is information asymmetry. This is an indicator of the entrenchment of management, such that the lower the information, the lower the entrenchment of management. This would allow non-executives to participate in making decisions and in controlling the management. With a high degree of information asymmetry, entrenchment of management will increase and the managers will play a significant role in decision making while the non-executives would not be able to control managers because they do not have sufficient knowledge about the firm or the power delegated to them by shareholders is actually exercised by the management (Demb & Neubauer, 1992).

Based on the hegemony theory, information asymmetry is one of the mechanisms for management control, which influences the effectiveness of the board of directors. This study proposes that, as the level of information asymmetry increases, the ability of the board of directors to enforce the management IC disclosure decreases. Therefore, in line with the hegemony theory, the following hypothesis is proposed.

H₁₈: The level of information asymmetry negatively moderates the relationship between the level of the board of directors` effectiveness and IC disclosure.

4.3 Summary

This chapter started with an overview of the theoretical framework of this study. The chapter identified several variables for the board and audit committees and other alternative mechanisms like institutional ownership and market concentration and developed a number of hypotheses concerning the influence of IC disclosure. The hypotheses concerning the

moderation effect of ownership on the relationship between the effectiveness of the board of directors and IC disclosure are developed at the end of the chapter. The measurement of variables and the collection of data are described in the following chapter.

CHAPTER FIVE

RESEARCH METHOD AND DESIGN

5.0 Introduction

This chapter presents the sampling and data collection procedures employed in this study. The issues of sources of data and measurement of the variables used in this study are also presented. The plan of the chapter is as follows. The next section explains the sources and the criteria for data. The following section explains content analysis. The third section provides the measurement of variables. The last section discusses the data analysis technique.

5.1 Sample Selection and Data Sources

The population of this study comprises all the listed banks in GCC countries during the period 2008-2010. The listed banks were chosen for the study because of their greater commitment and exposure to investors in respect of mandatory and voluntary reporting than unlisted banks. The annual reports of years in 2008, 2009 and 2010 were chosen as they are the latest available data on variables of study that could be collected. Further, this study was conducted on the GCC banking sector for the following reasons. First, the banking sector is ideal industry for studying IC disclosure, as it is one of the IC-intensive sectors (Li *et al.*, 2012). In this sector, IC is considered to be more important than physical capital (Kamth, 2007; El-Bannany, 2008). Second, the selection of the banking sector is because the current financial reporting model is not appropriate for IC-intensive sectors (Amir & Lev, 1996; Francis & Schipper, 1999). Consequently, disclosure by participants in the capital market concerning IC in firm valuation is crucial for the companies in this sector. Therefore, the role of corporate governance in encouraging IC

disclosure is particularly important in the banking sector to cope with the critical information asymmetries created by the limitations in the financial reporting model (Li *et al.*, 2012). Third, it is known that the banking sector is a regulated industry and that the strength of the governance structure in this sector differs from other sectors. Therefore, by focusing on a single industry, analysis of this study is better able to control for differential effects of regulation and allows us to assess more directly the influence the monitoring mechanisms on the level of IC disclosure of GCC listed banks because the homogeneous nature within one industry generates better control of the industry context (Pollalis, 2003). Therefore, the probability that the results in this research are attributable to spurious correlation resulting from unobserved heterogeneity is considerably reduced (Blackwell & Weisback, 1994). Consequently, the study of a single industry with a smaller sample that detects the reasonably substantial effects can be undertaken (Slater & Atuahene-Gima, 2004).

As mentioned in Chapter Two, the GCC countries comprise six Arab states – the Kingdom of Saudi Arabia, Kingdom of Bahrain, Kuwait, Qatar, United Arab Emirates, and Oman. The GCC countries share many characteristics that place them under a common umbrella. These characteristics include a common language (Arabic), shared religious and cultural heritage, similar geographical conditions, infrastructure, and economic structures (Abdul-Gader, 1997). For this reason, previous studies used the GCC countries as one country (see, Al- Muharrami *et al.*, 2006; Chahine, 2007; Al-Hassan *et al.*, 2010; Al-Khoury, 2011). Accordingly, the sample used for testing the hypotheses consists of all listed banks in the GCC in 2008, 2009 and 2010 for which the total number

is 210 bank-years: 68 in 2008, 71 in 2009 and 71 in 2010. The samples in this study must have the following criteria:

1. Banks listed on GCC Stock Exchanges.
2. The banks published their annual report between 2008 and 2010 on their website or on the stock exchange of the respective country.
3. The annual report was accessible and contained the complete information needed.

Based on the above criteria, all Kuwaiti listed banks (11 banks) and several banks in other GCC countries were excluded from the sample due to missing relevant information². The final sample consists of 137 out of 210 banks from each country over the period as follows: UAE (43), Bahrain (34), Saudi (28), Oman (16) and Qatar (16) (see Table 5.1).

Table 5.1
Number and Type of GCC Banks Included in this Study

Type of the bank	Saudi Arabia	Kingdom of Bahrain	United Arab Emirates	Oman	Qatar	Kuwait	Total
Commercial banks	19	17	34	16	11	0	97
Islamic banks	9	17	10	0	5	0	41
Total	28	34	43	16	16	0	137

The types of data acquired for this study include: (1) IC disclosure, (2) ownership structure of the bank, (3) characteristics of board and audit committee members, (4) market concentration and bank type, and (5) bank assets, leverage and profitability. All

² Information about corporate governance variables especially the independent directors on the board and audit committee, and ownerships structure that is not aviable in the annual reports.

the above data are secondary data in nature. Data concerning a bank's IC disclosure and other variables are derived from its annual report except market concentration, which is obtained from the Central Banks of the GCC. The annual reports are obtained from the stock exchange in countries or the bank websites. The choice of annual reports as a source of information for IC research is made for several reasons. First, management regularly signal important issues using this reporting mechanism, and annual reports also represent the corporate concern in a comprehensive and compact manner (Abeysekera & Guthrie, 2005). Second, annual reports are considered the most prevalent and acknowledged document regularly produced by the companies in the GCC countries. They are also regarded as the key means by which information about the company is provided (see Belal, 2000; Khan *et al.*, 2009 for a review). Thus, in this study, annual reports are extensively analysed.

5.2 Content Analysis

To measure IC disclosure, this study employs content analysis. Content analysis is a technique for gathering data that involves codifying qualitative and quantitative information into predefined categories to derive patterns in presenting and reporting information. Content analysis seeks to analyse published information systematically, objectively and reliably (Krippendorf, 1980; Guthrie & Parker, 1990). This analysis is a widely used research technique in the accounting literature to analyse voluntary disclosure in corporate reports (Unerman, 2000). It is a dominant method for assessing the extent of an organization's IC disclosure (e.g. Brennan, 2001; Goh & Lim, 2004; Guthrie *et al.*, 2006; Steenkamp & Northcott, 2007; Striukova *et al.*, 2008).

To employ content analysis, it is essential to determine a document that should be analysed. As mentioned before in this study, the annual report is chosen as a source of text rather than other channels of disclosure. Abu-Baker and Nasser (2000) indicate that other channels of disclosure – Internet, advertising and promotional leaflets – have limited use to the majority of companies in developing countries, consequently, it is very likely that one will most likely find the information displayed in the formal annual report. Accordingly, and in keeping with the majority of the literature in this field of research, this study focuses on the annual report as a source of text. Further, employing content analysis needs to identify the categories of disclosure. In this study, IC is allocated into one of three major categories. These categories are internal, human and external capital. Within internal capital, there are eight items, within external capital there are seven items and within human capital there are six items, making 21 items in total, as shown in Table 5.2.

Furthermore, it is also essential for employing content analysis to determine the unit of analysis. The unit of analysis is one of the most fundamental and important decisions in the process of content analysis (Weber, 1985). Different measuring units can be used in content analysis. Previous studies have used a number of methods, including words, sentences, lines, pages, per cent of pages, or a mixture of these units, as each method has its own advantage(s) and limitation(s). There is indeed no single accepted unit of capturing (measuring) the amount of IC disclosure. This study follows the earlier researchers, who used the number of sentences as a unit of recording (Hackston & Milne, 1996; Tsang, 1998; Ahmad & Sulaiman, 2004; Maali *et al.*, 2006; Guthrie *et al.*, 2008). Sentences were selected as the recording unit as they are generally deemed to be a more accurate unit of analysis than either the number of pages or the number of paragraphs

(Hackston & Milne, 1996). Milne and Adler (1999) suggest that the sentence provides complete, reliable and meaningful data when used as a recording unit. When the sentence is used as a recording unit, each sentence needs to be read separately from other sentences and categorized as either containing IC information or not. The justification is that when judged against sentences, single words are of little consequence when out of context while paragraphs or sections of pages may contain several distinct meanings or threads that are problematic to code.

However, there are challenges to the use of content analysis, one being subjectivity of interpretation (Deegan & Rankin, 1996; Wilmshurst & Frost, 2000). Content analysts need to demonstrate the reliability of their instruments and/or the reliability of the data collected using those instruments to permit replicable and valid inferences to be drawn from data derived from content analysis (Milne & Adler, 1999). According to Milne and Adler (1999), reliability in content analysis involves two separate issues. First, content analysts can seek to attest that the coded data set they have produced from their analysis is, in fact, reliable. The most usual way to achieve this is by demonstrating the use of multiple coders and reporting that the discrepancies between the coders are few. Alternatively, researchers can demonstrate that a single coder has undergone a sufficient period of training, and the reliability of the coding decisions on a pilot sample could be shown to have reached an acceptable level. A second issue is the dependability of the coding instruments, which is dependent upon the reliability of the coding tools, and is fundamental to ensure decision categories that are well-specified.

Following Milne and Adler (1999) and Guthrie *et al.* (2008), this study uses the following steps in order to increase reliability and validity in recording and analysing data. First, the

disclosure categories adopted from well-grounded, relevant literature, i.e. Zaman Khan and Ali (2010) who adapted their framework from well-grounded, relevant literature, i.e. Sveiby (1997), and Guthrie and Petty (2000). Second, the sentence was selected as the measurement unit to increase the validity of the content analysis (Milne & Adler, 1999). Third, the coder underwent a sufficient period of training, and a pilot study was conducted in order to reach an acceptable level of the reliability of the coding decisions. According to Weber (1990), testing a sample of documents in a pilot study before conducting the main content analysis gives the researcher practical experience that may improve the reliability result of the content analysis. In addition, this will enable the researcher to become more familiar with the process of content analysis. In doing so, random annual reports were chosen and analysed to ensure the usability of the framework. The researcher then analysed the content of annual reports of thirty banks surveyed as pilot work completed prior to gathering the primary data for this study. Throughout the pilot work, difficulties concerning, *inter alia*, the interpretation of the decision rules were noted and clarified. Solutions were discussed with the supervisor and other academics that have previous experience in using content analysis. To assist with the uniformity of scoring, one researcher completed the research instrument. Furthermore, to increase the dependability of the measurement, rescore³ was conducted on ten banks, which were randomly selected, three weeks after the initial analysis.

³ Rescoring increase dependability by ascertaining whether the initial categories identified and their measurement are remained stable at different times (stability). In order to achieve a high level of stability, the coder needs to be consistent over time. The result of the ten banks was almost stabilized. Thus, this indicates that the coder is consistent over time.

5.3 Operational Definitions and Measurements of Variables

Variables are categorized into dependent and independent, moderator variables and control variables. The dependent variable is IC disclosure, independent variables are the board size, board independence, board meeting, CEO duality, and board committees, audit committee size, audit committee independence, audit committee meetings, audit committee financial expertise, foreign and domestic institutional ownership, bank type and level of market concentration. Moderator variables are chairman ownership, family and government control and information asymmetry. Control variables are ROA, leverage and bank size.

5.3.1 Dependent Variable: IC Disclosure

To preserve the comparability of this study with previous research, the categories and sub-categories of IC captured are based on the index developed in a recent study by Zaman Khan and Ali (2010). The reasons for adopting Zaman Khan and Ali's framework are: firstly, they developed their framework based on Sveiby's framework, which was later modified by Guthrie and Petty (2000). Zaman Khan and Ali's framework is more-or-less the same as Guthrie and Petty's framework, which has been adopted and employed by other studies (e.g. Brennan, 2001; Bozzolan *et al.*, 2003; Goh & Lim, 2004; Vandemaele *et al.*, 2005; Yau *et al.*, 2009). Zaman Khan and Ali's (2010) framework captures IC reporting by allocating qualifying content into one of three major categories, which are internal, human and external capital. Within internal capital there are eight items, within external capital there are seven items and within human capital there are six, making 21 items (see Table 5.2). Thus, Zaman Khan and Ali's (2010) framework is similar to Guthrie and Petty's framework who categorise IC into internal, human and

external capital. However, in terms of items their framework has less items than what Guthrie and Petty's framework has i.e., 24 items. Therefore, Zaman Khan and Ali's (2010) framework does not contain a high number of items as this increases the complexity of the instrument (Beattie & Thomson, 2007) and may potentially increase coding errors (i.e. reliability) (Milne & Adler, 1999).

It is important to mention here that under external capital, Guthrie and Petty's framework used items, such as brand, distribution channel and favour contract, whereas Zaman Khan and Ali's framework uses bank reputation instead. Khan and Ali's framework is constant with Campbell and Abdul Rahman (2010) who use favour contract as an indicator under the item of corporate reputation. Further, by using corporate reputation as an item under external framework Zaman Khan and Ali's framework is the same as Li *et al.* (2008), Campbell and Abdul Rahman (2010), and Yi and Davey (2010). In respect of human capital, Zaman Khan and Ali's framework differ from Guthrie and Petty (2000) by adding the item extent of employee training and excluding the item "vocational qualification". However, by adding the item, extent of employee training, Zaman Khan and Ali's framework is similar to Yi and Davey (2010) and by excluding the item, vocational qualification, Zaman Khan and Ali's framework is in line with Cerbioni and Parbonetti (2007), and Yi and Davey (2010).

Secondly, as their framework was applied on the banking sector, only those items that have been consistently identified as relevant and likely to be disclosed by banks were included. They removed some items from Sveiby's framework, on the grounds that these would be better reported within the internal management reports of banks and recognizing the fact that IC disclosure is a new phenomenon in the banking sector.

Further, their study remains one of the few undertaken in the banking sector in an emerging economy context. Thus, it is a suitable benchmark for further studies in the banking sector in emerging economies.

Table 5.2

IC Framework Adopted for the Study

Internal capital	External capital	Human capital
1. Patent	1. Customers	1. Training
2. Copyright	2. Customer loyalty	2. Employees' educational qualification
3. Corporate culture	3. Banks' market share	3. Work related Knowledge
4. Management philosophy	4. Business collaboration	4. Work related competencies
5. Management process	5. Franchising Licensing	5. Know how
6. Information system	6. Banks' reputation for services	6. Entrepreneurial spirit
7. Networking system		
8. Financial relations	7. Bank name	

Source: Zaman Khan and Ali (2010, page 56)

5.3.2 Measurements of Independent Variables

This section explains the definition of the independent variables and their measurement, including:

5.3.2.1 Characteristics of the Board of Directors

5.3.2.1.1 Board Size

Board size is the total number of directors on the board of the bank, which is inclusive of the CEO and chairman at the end of each accounting year. This includes executive directors and non-executive directors. Following Cerbioni and Parbonetti (2007), Chahine (2007), and Arouri *et al.* (2011), this study measures the board size by determining the total number of directors available on the board for each accounting year.

5.3.2.1.2 Board Independence

Board independence is the proportion of independent directors on the board. Based on the agency theory, when the proportion of independent non-executive directors on the board increases, the board of directors becomes able to monitor the management and protect the interests of the shareholder. This study measures the board independence by summing the total number of independent directors on the board divided by the total number of board members (Kyereboah & Biekpe, 2005; Cerbioni & Parbonetti, 2007; Li *et al.*, 2008).

5.3.2.1.3 Board Meetings

Board meeting is measured as the number of meetings held by the board of directors during the accounting year. The same measure has been used by previous studies as a proxy for the meeting of the board of directors (Xie *et al.*, 2003; Goh, 2009; García Lara *et al.*, 2009).

5.3.2.1.4 CEO Duality

The CEO duality takes place when the chairman of the board of directors is also the CEO of the company. Although the same person holding the posts leads to more knowledge about the company, the nature of work and company business environment, at the same time it adds to the strength of this person and gives him decision-making power, which affects the effectiveness of the board of directors because it is difficult to monitor him. This study follows Peng *et al.* (2007), Cerbioni and Parbonetti (2007), Li *et al.* (2008), and Al-Shammari and Al-Sultan (2010) who measure this variable using a dummy variable taken as one if duality exists and zero otherwise.

5.3.2.1.5 Board Committees

Board committees enhance the effectiveness of the board of directors. According to Cerbioni and Parbonetti (2007), nominating, audit and compensation committees are needed for the board of directors to be more effective, and, in turn, affect the amount and quality of voluntary disclosure. This study measures board committees by giving one for banks that have three committees – nominating, audit and compensation – and zero otherwise (Ishak, 2004; Cerbioni & Parbonetti, 2007).

5.3.2.1.6 Board of Director Effectiveness Score

This study follows the direction of prior studies (e.g. Hanlon *et al.*, 2003; Brown & Taylor, 2006; Chobpichien *et al.*, 2008; Singh & Van der Zahn, 2008) and uses a composite governance score to measure the effectiveness of the board of directors. The score is a composite measure that sums the value of the five dichotomous characteristics of the board to create a bank-specific summary measure of the effectiveness of the board of directors, which takes a score bounded by 0-1 (see Table 5.3). The higher score is an indicator of the higher effectiveness of the board of directors. The five binary characteristics that are included in this measurement are board independence, board committees, board size, board meeting and CEO duality, ranging from 0-5.

Table 5.3

Constructing the Board of Directors' Effectiveness Score

Board of Directors' Effectiveness Score (BoDE_Score)	It is bounded by “1-0,” with a higher score indicating a higher effectiveness of the board.
Board size	Board size is assigned “1” if number of directors on the board is less than the sample median and “0” otherwise.
Board independence	Board independence is assigned “1” if proportion of independent directors on the board is higher than the sample median, and “0” otherwise
Board meetings	Board meetings is assigned “1” if the number of meetings held by the board during the year is higher than the sample median, and “0” otherwise.
CEO _ Duality	This characteristic is coded “1” if the CEO is not the chairperson of the board, and “0” otherwise.
Board committees	Board of directors committees is assigned “1” if the bank has three committees – nominating, audit and compensation – and “0” otherwise.

Source: Chobpichien *et al.* (2008) and Singh and Van der Zahn (2008)

5.3.2.2 Characteristic of Audit Committee

5.3.2.2.1 Audit Committee Size

Audit committee size is the number of audit committee members for each accounting year. A similar measure is employed by previous studies (Gan *et al.*, 2008; Li *et al.*, 2008; Goh, 2009).

5.3.2.2.2 Audit Committee Independence

As mentioned before, independence is an important condition to be met by the members of audit committees. The independence of the audit committee refers to the number of independent non-executive directors on the audit committee. Audit committee independence is measured by the proportion of independent director on the audit committee (Klein, 2002; Goh, 2009).

5.3.2.2.3 Audit Committee Financial Expertise

Audit committee financial expertise is considered to be the proportion of audit committee members who have experience or a qualification in accounting or finance. This includes members of professional accounting bodies. The total number of audit committee members with financial expertise divided by the total number of audit committee members is used to compute audit committee financial expertise (Krishnan & Visvanathan, 2008; Goh, 2009).

5.3.2.2.4 Audit Committee Meetings

The scope and oversight function of audit committees are varied. One of the areas of the audit committee oversight is auditor activity. To effectively carry out the oversight function, the audit committee needs to meet frequently. Therefore, it is argued that the number of meetings is used as an indicator of diligence of the audit committee members (Goh, 2009). The same measure has been used by previous studies as a proxy for the meeting of the audit committee (Gan *et al.*, 2008; Goh, 2009; Taliyang & Jusop, 2011; Li *et al.*, 2012). Following these studies, the audit committee meeting is measured by the number of meetings during each accounting year.

5.3.2.2.5 Audit Committee Effectiveness Score

Following DeFond *et al.* (2005), Lara *et al.* (2007), and Krishnan and Visvanathan (2008) the audit committee's effectiveness score is measured as the sum of the value of the four dichotomous characteristics of the audit committee to create a bank-specific summary measure of its audit committee effectiveness, which takes a score bounded by 0-1. The higher score is an indicator of the higher effectiveness of the audit committee. Table 5.4 describes how this study dichotomizes each of the four characteristics.

Table 5.4
Constructing Audit Committee Effectiveness Score

Audit Committee's Effectiveness Score (ACE_Score)	ACE_Score is bounded by “1-0,” with a higher score indicating the higher effectiveness of the audit committee.
Audit committee size	Committee size is coded “1” if the number of members on the committee is higher than the sample median and “0” otherwise.
Audit committee independence	Audit committee independence is coded “1” if the proportion of independent directors on the committee is higher than the sample median and “0” otherwise.
Audit committee financial expertise	Audit committee financial expertise is coded “1” if the proportion of financial experts on the committee is higher than the sample median and “0” otherwise.
Audit committee Meeting	Audit committee meetings are coded “1” if the number of meetings during the year is higher than the sample median and “0” otherwise.

Source: Chobpichien *et al.* (2008) and Krishnan and Visvanathan (2008)

5.3.2.3 Institutional ownership

The GCC stock exchanges require that each listed company discloses the ownership for each individual, a corporation or the government that owns 5% or more of the total equity (Al-Shammari, 2008). In this study, domestic institutional ownership is measured as a percentage of shares owned by domestic financial institutions that own 5% or above to total number of share issued. Foreign institutional ownership is measured as percentage of shares owned by foreign financial institutions that own 5% or above to total number of share issued. By doing so, this study follows Douma *et al.* (2006), and Chahine and Tame (2009).

5.3.2.4 Industry Market Concentration

To measure banking industry concentration, this study considers the most frequently applied measure of concentration, namely, the k-bank concentration ratio (CR_k) (Al-Muharrami & Matthews, 2009; Haskour *et al.*, 2011; Leon, 2012). Simplicity and limited data requirements make the k-bank concentration ratio (CR_k) the most frequently used measure of concentration in the empirical literature (Bikker & Haff, 2002). Furthermore, according to Al-Muharrami and Matthews (2009), the k-bank concentration ratio (CR_k) is a good measure of concentration because it meets the six desirable properties for measures of concentration suggested by Hall and Tideman (1967). These are: a concentration index should be a one-dimensional measure; concentration in an industry should be independent of the size of that industry; concentration should increase if the share of any firm is increased at the expense of a smaller firm; if all firms are divided into k equal parts then the concentration index should be reduced by a proportion 1/k; if all firms are divided into n equal parts then the concentration should be a decreasing function of n; and a concentration measure should be between zero and one.

The k-bank concentration ratio (Con) is based on summing only the market shares of the k largest banks in the market, it takes the form:

$$Con = \sum_{i=1}^k MS$$

5.3.2.5 Bank Type

This variable is measured using a dummy variable. This study gives the value 1 for Islamic bank, 0 otherwise. A bank is perceived as an Islamic bank in this study when it adheres to the principles of Islamic Shariah. Conventional banks that offer Shariah compliant products and services to their clients through what is called an Islamic window will also be assigned 0 because Islamic windows are not independent financial institutions, but specialized set-ups within conventional banks (Hoq *et al.*, 2010).

5.3.3. Moderating Variables

The moderating variables in this study are chairman ownership, family control and government control and information asymmetry. It is suggested that they moderate the relationship between board effectiveness and the IC disclosure.

5.3.3.1 Chairman Ownership

GCC stock exchanges require each listed company to disclose the ownership of shareholders who own 5% or above of the firm total equity (Al-Shammary, 2008). According to Chahine (2007), the chairman in GCC banks is one large shareholder. As discussed before, the chairman will have the incentive to behave against the interests of other smaller shareholders when he is a large shareholder because he will have voting power that might affect the monitoring role of the board. This study is interested in examining whether chairman-large shareholder influences the association between board effectiveness and IC disclosure. The chairman ownership in this study is percentage of shares owned by chairman who own 5% or above to total number of shares issued.

5.3.3.2 Family Control and Government Control

According to Piesse *et al.* (2011), the level of shareholder activism in the MENA region is low, and, consequently, dominant owners with a minimum stake of ownership can effectively control companies. Interestingly, Piesse *et al.* (2011) report there is a case where a dominant shareholder controls the company although he owns less than 5% of the company's equity. Therefore, to examine the moderating effect of family ownership control on the relationship between the board of directors' effectiveness and the level of IC disclosure, this study measures the variable family ownership control as a continuous variable, which is the percentage of total shareholdings of major family shareholders. For the purpose of this study the major shareholder is a shareholder who owns a stake of 5% or above of company shares.⁴ Further, since this study uses family ownership as a moderator variable, the percentage of total shareholdings of major family shareholders who have 5% and above will be divided into high and low ownership, where high indicates the owner has high ability to control and low indicates owner has less ability to control. Thus, this measurement provides evidence concerning whether the moderating effect of family ownership control on the relationship between board of directors' effectiveness and the level of IC disclosure is linear or nonlinear.

The measure of family ownership control discussed above might provide limited information. This is because it ignores the confounding effect of the other types of major shareholder who might pursue different strategic objectives, and, thus, their impact on board effectiveness in enhancing the level of IC disclosure is expected to be different. The measurement of the family ownership control as the total percentage of

⁴ The 5% cut-off is used because the majority of GCC listed banks only disclose the ownership of major shareholders who own 5% or above of the firm total equity.

shareholdings owned by major family shareholders regardless of whether they are the dominant controlling group (i.e., the group that has the majority of cumulative ownership by large shareholders who own 5% and above of shares outstanding to total shares outstanding) may provide limited information (Jiang & Habib, 2009). Therefore, this study also identifies the family control by creating a dummy variable, assigning a value of one for banks if family shareholders own the majority of cumulative ownership by large shareholders who own 5% or above of total shares outstanding and zero otherwise.

Similarly, the same procedures, which are used to compute the two measures of family control discussed above, are used for measuring the government ownership control and examining its moderating effect on the relationship between board of directors' effectiveness and the level of IC disclosure.

5.3.3.3 Information Asymmetry

Information asymmetry is an indicator of entrenchment of management; lower information is lower entrenchment of management, which allows non-executive directors to participate in making decisions and controlling management (Mace, 1971). According to Shleifer and Vishny (1997), the increase in the concentration of ownership leads to the increase in the entrenchment of management. This is because a large owner has sufficient voting power to appoint someone CEO, directors or chairman (Shleifer & Vishny, 1988). Management entrenchment gives members, who act as the controlling shareholders, the right to extract benefits from the firm at the cost of minority shareholders (Shleifer & Vishny, 1997; Chrisman *et al.*, 2005). For example, Attig *et al.* (2006) hypothesised that a large wedge between controlling rights and cash flow rights can increase the likelihood of selfish behaviour of those who are in control. The controlling shareholders can do so

by reducing or delaying the information availability so that other shareholders cannot interfere. The withholding of information can also make the monitoring conducted by the board of directors less effective (Filatotchev *et al.*, 2005; Chen & Nowland, 2010) due to the outside directors always being less informed regarding company operations. Glosten and Milgrom (1985) argue that information asymmetry becomes severe when there are chances of extracting private benefit. Therefore, when the percentage of minority ownership in company increases, the chances for controlling shareholders to extract private benefits will decrease, and, thus, the problem of information asymmetry will not be severe (Bruggen *et al.*, 2009). In this case, the entrenchment of management will decrease, and, thus, the board of directors is able to control the management. This study uses the percentage of minority ownership as a proxy for information asymmetry. This means that the increase in the minority ownership in the bank leads to a decrease in information asymmetry and thus the board of directors is able to control the management.

5.3.4 Control Variables

A review of the voluntary disclosure literature reveals that firm size, profitability and leverage are commonly associated with voluntary disclosure.

5.3.4.1 Bank Size

Generally, firm size affects the disclosure. It is widely used as a control variable in the empirical literature of corporate governance (e.g. Al-Shammari, 2007; Al-Shammari & Al-Sultan, 2010).

The use of bank size as a control variable in this study is motivated by the fact that it has been found to be associated with various firm characteristics. First, preparing and

disseminating detailed annual reports is costly. Smaller firms may not have the necessary resources to produce and disseminate such detailed information (Buzby, 1975). Hence, larger firms are more likely to have an incentive to disclose detailed information because it is relatively less costly for them to do so. Large firms are more likely to have a broad based ownership structure, which requires more comprehensive information to meet the information needs of various groups of users (Jaggi & Low, 2000). Empirical evidence shows a positive association between company size and disclosure (Naser *et al.*, 2006; Al Saeed, 2006; Hossain & Hammami, 2009).

Lehn *et al.* (2003) argue that firm size and growth opportunities are important determinants of the size and structure of boards. They found that board size is directly related to firm size. Coles *et al.* (2001) contend that when the firm is growing, it may seek more board members to help oversee the performance of managers or need new directors who have specialized board services to monitor the new growth.

Size of a company can be measured in a number of ways. For example, Peng *et al.* (2007) measured size based on the natural logarithm of the book value of the total bank assets. In this study, total bank assets are used as a proxy for size and log bank assets is used as a size variable in the multiple regression analyses to avoid the normality issue. In line with De Andres *et al.* (2005), Ahmadu *et al.* (2005) and Peng *et al.* (2007) this study measures firm size by using the natural logarithm of the book value of the total bank assets.

5.3.4.2 Leverage

Debt ratio is defined as the sum of long-term and short-term financial debt or the extent of liabilities as a percentage of total assets. It is argued that debt ratio affects IC disclosure. A positive effect may stem from reducing the free cash flows, exposing the firm more to monitoring by the market. According to Ahmadu *et al.* (2005), large creditors like large stakeholders, also have an interest in seeing that markets take performance improving measures. In discussing agency theory, Jensen and Meckling (1976) argue that more highly leveraged companies incur higher monitoring costs, therefore, as higher debts levels increase agency cost, managers could offer increased monitoring via more effective boards and their committees. Agency theory predicts that as the extent of leverage increases, the board's effectiveness increases.

Leverage has been widely used as a control variable by a number of empirical studies that examined the relationship between corporate governance and IC disclosure, such as (Gul & Leung, 2004; Naser *et al.*, 2006; Al-Shammari, 2007; Al-Shammari & Al-Sultan, 2010), these studies find that the leverage affects voluntary disclosure. Following Alsaeed (2006) and Al-Shammari (2007) this study measures firm leverage by dividing total liabilities by the total assets.

5.3.4.3 Profitability ROA

ROA is used to control for the growth rate and firm performance. Li *et al.* (2008) posit that ROA might result from continuous investment in intellectual capital and that firms might disclose such information to signal the import of their decision in investing in it for long term growth in the value of the firm. They find that ROA has a positive relationship with IC disclosure.

Empirical evidence shows that firms with high firm performance have more incentive to engage in higher disclosure (Gul & Leung, 2004; Naser *et al.*, 2006; Al -Shammari, 2007; Li *et al.*, 2008). Following Naser *et al.*(2006), ROA is calculated as the annual net profit of individual bank before tax divided by average total assets.

Table 5.5
Summary of the Operationalisation of the Study Variables

Variables	Acronym	Operationalisation
Dependent Variable: IC disclosure index	ICD	Total amount of information disclosed
Independent variables		
Board size	BDSIZE	Total number of directors on the board of the bank.
Board independence	BIND	The proportion of independent directors to the total number of directors on the board of the bank.
Board meetings	BODMEET	Number of board meetings during the accounting year.
CEO Duality	CEODUAL	Dichotomous with 1 if the roles of the chairman and CEO are combined and 0 otherwise.
Board committees	BODCOM	Dichotomous by giving one for a bank that has three committees – nominating, audit and compensation – and zero otherwise.
Effectiveness of board of directors	BoDE_Score	Is bounded by “1-0,” with a higher score indicating a higher effectiveness of board of directors.
Audit committee size	AUDZIE	Total number of directors on the audit committee.
Audit committee independence	AIND	Proportion of independent directors serving on the audit committee
Audit committee financial expertise	EXPERT	Proportion of audit committee members with financial expertise.
Audit committee meetings	NUMMEET	Number of audit committee meetings during accounting year.
Effectiveness of Audit committee	ACE_Score	Is bounded by “1-0,” with a higher score indicating a higher effectiveness of audit committee.

Table 5.5 (*continued*)

Variables	Acronym	Operationalisation
Domestic institutional ownership	INSTITUTIONAL	The percentage of shares owned by domestic financial institution that own 5% or above to total number of shares issued.
Foreign institutional ownership	FINSTITUTIONAL	The percentage of shares owned by foreign financial institutions that own 5% or above to total number of shares issued.
Industry market concentration	CON	Is measured by only summing the market shares of the three largest banks in the market.
Bank type	BAKTYP	Dichotomous with 1 for Islamic bank and 0 otherwise.
Moderator variables		
Chairman ownership	CHOWN	The percentage of shares owned by chairman who owns 5% or above to total number of shares issued.
Family control	FAMOWN	Dichotomous with a value of one for banks if family shareholders own the majority of cumulative ownership by large shareholders who have 5% or above of total shares outstanding.
Government control	GOWN	Dichotomous with a value of one for banks if the government own the majority of cumulative ownership by large shareholders who have 5% or above of total shares outstanding.
Information asymmetry	IA	The percentage minority ownership as proxy of Information asymmetry
Control variable		
Size of the bank	BSIZE	Natural log of total assets
Leverage	LEV	The ratio of total liabilities to total assets
Profitability	ROA	The annual net profit of individual bank before tax divided by average total assets.

5.4 Data Analysis Technique

Several statistical techniques can be used to obtain accurate conclusions about IC disclosure. Accordingly, the data were analysed using descriptive and inferential statistics. Frequency count and percentage are used in descriptive statistics to define the research data, in keeping with Sekaran (2000), while the statistical tools of maximum, minimum, mean, standard deviation, and variance are appropriate for measuring the central tendency.

Correlation and multiple regressions are used for inferential statistics. The Pearson correlation is used to measure the significance of linear bivariate between variables (Zikmund, 2003; Babbie, 2004). To determine the relationship between the independent, moderating and dependent variables, and the direction, degree and strength of the relationship, hierarchical regressions are used (Hair *et al.*, 1998).

5.4.1 Correlations

The researcher is also interested in testing the relationship between the variables for his hypotheses. Pearson's correlation coefficients established the relationships among the variables (Zikmund, 2003; Babbie, 2004). Pearson's correlation is used to see any relationship between the independent variables and the dependent variable. Through Pearson's correlation, the reader can identify whether there is any relationship between the variables. It shows the strength and direction of the relationship. However, as a rule of thumb, multicollinearity may be a problem if a correlation is more than 0.90 or several are more than 0.70 in the correlation matrix formed by all the independent variables (Cohen & Cohen, 1998).

5.4.2 Multiple Regression Analysis

The main advantage of mutative techniques is that they can cope with multiple variables in trying to understand complex relationships that are beyond the univariate and bivariate methods (Hair *et al.*, 1998). As mentioned in chapter one, objectives 2, 3, 4, are to examine whether some of the monitoring mechanisms have a relationship with IC disclosure. Since this study is interested in examining the relationship between the characteristics of the board of directors and audit committee at the individual and aggregate level with the IC disclosure in addition to other monitoring mechanisms, the following models are used to achieve these objectives.

Model 1:

This model examines the relationship between board and audit committee characteristics at the individual level and other independent and control variables with IC disclosure.

$$ICD = \beta_0 + \beta_1 BODSIZ + \beta_2 BIND + \beta_3 BODMEET + \beta_4 CEODUAL + + \beta_5 BODCOM + \beta_6 AUDZIE + \beta_7 AUDIND + \beta_8 AUD EX+ \beta_9 AUDMEET + \beta_{10} FINSTITUTIONAL + \beta_{11} DINSTITUTIONAL + \beta_{12} BAKTYP + \beta_{13} CON + \beta_{14} ROA + \beta_{15} LEV + \beta_{16} BSIZE + e$$

Where:

ICD = Intellectual capital disclosure, BODSIZ = Board size, BIND = Board independence, BODMEET = Board meetings, CEODUAL = CEO duality, BODCOM = Board committees, AUDZIE = Audit committee size, AUDIND = Audit committee independence, AUD EX= Audit committee financial expertise, AUDMEE = Audit committee meetings, FINSTITUTIONAL = Foreign institutional ownership, INSTITUTIONAL = Domestic institutional ownership, BAKTYP = Bank type, CON = market concentration, ROA = Return on assets, LEV = Leverage, BSIZE = Bank size.

Model 2:

This model examines the relationship between score of board and audit committee effectiveness and other independent and control variables with IC disclosure.

$$ICD = \beta_0 + \beta_1 BoDE_Score + \beta_2 ACE_Score + \beta_3 FINSTITUTIONAL + \beta_4 DINSTITUTIONAL + \beta_5 CON + \beta_6 BAKTYP + \beta_7 ROA + \beta_8 LEV + \beta_9 BSIZE + e.$$

Where:

ICD = Intellectual capital disclosure, BoDE_Score = Score for effectiveness of board of directors, ACE_Score = Score for effectiveness of audit committee, FINSTITUTIONAL = Foreign institutional ownership, INSTITUTIONAL = Domestic institutional ownership, CON = Industry market concentration, BAKTYP = Bank type, ROA = Return on assets, LEV = Leverage, BSIZE = Bank size.

5.4.3 Hierarchical Regression

Hierarchical regression determines the order of entry of the variables. F-tests are used to compute the significance of each added variable (or set of variables) to the explanation reflected in R-square (Cohen & Cohen, 1983). This hierarchical regression procedure is an alternative to comparing betas for the purpose of assessing the importance of the independent variables. In more complex forms of hierarchical regression, Cohen (1983) stated that the model may involve a series of moderating variables, which are dependent with respect to some independent variables, but are themselves independent with respect to the ultimate dependent variable. Hierarchical multiple regression may then involve a series of regressions for each moderating effect in relationship between the independent and dependent variables (Zikmund, 2003; Babbie, 2004).

The moderating variables in this study are chairman ownership, family control, government control and information asymmetry. They are suggested to moderate the relationship between board effectiveness and the IC disclosure. In other words, the relationship between board effectiveness and IC disclosure is contingent on the percentage of chairman ownership, type of controlling shareholder, e.g. family or government and the level of information asymmetry. Therefore, to achieve this objective, multiple hierarchical regression analysis is conducted to test the moderators.

Following Baron and Kenny (1986), the data is regressed in several steps. The first step includes the control variable (size, leverage and profitability) and the IC disclosure. In the second step, the independent variables are regressed against the dependent variable, followed by the third step where the independent variables are multiplied by the moderators and regressed against the dependent variables. Finally, all of them (the control variable, the independent variables and the interaction between the independent variable and moderators) are regressed with the dependent variables. These models are as follows:

$$\text{Step 1: } \text{ICD} = a + \beta_1 \text{BSIZE} + \beta_2 \text{LEV} + \beta_3 \text{ROA} + e.$$

$$\text{Step 2: } \text{ICD} = a + \beta_1 \text{BSIZE} + \beta_2 \text{LEV} + \beta_3 \text{ROA} + \beta_4 \text{BoDE_Score} + e.$$

$$\text{Step 3: } \text{ICD} = a + \beta_1 \text{BSIZE} + \beta_2 \text{LEV} + \beta_3 \text{ROA} + \beta_4 \text{BoDE_Score} + \beta_5 \text{CHOWN} + \beta_6 \text{GOWN} + \beta_7 \text{FAMOWN} + \text{IA}_8 + e.$$

$$\begin{aligned} \text{Step 4: } \text{ICD} = & a + \beta_1 \text{BSIZE} + \beta_2 \text{LEV} + \beta_3 \text{ROA} + \beta_4 \text{BoDE_Score} + \beta_5 \text{CHOWN} + \beta_6 \\ & \text{GOWN} + \beta_7 \text{FAMOWN} + \text{IA}_8 + \beta_9 \text{BoDE_Score} * \text{CHAIRMAN} + \\ & \beta_{10} \text{BoDE_Score} * \text{FDUM} + \beta_{11} \text{BoDE_Score} * \text{GDUM} + \\ & \beta_{12} \text{BoDE_Score} * \text{IA} + e. \end{aligned}$$

Where:

BoDE_Score = Score for effectiveness of the board of directors which can range from 0–5.

CHOWN = Chairman ownership.

FAMOWN = Family control.

GOWN = Government control.

IA = Information asymmetry.

5.5 Summary

This chapter discussed in detail sample selection, data sources and variable measurements. Further, this chapter discussed the techniques that are used to test the hypothesis. The findings of the study are discussed in the following chapter.

CHAPTER SIX

FINDINGS

6.0 Introduction

The hypotheses for this study were developed in Chapter 4. Further, in Chapter 5, the measurements of variables and data collection process were discussed. In this chapter, the type of data analyses employed and results of analyses are presented. The plan of this chapter is as follows. In the next section, the descriptive statistics of all variables employed in the regression model are presented. In the following section, the results of the diagnostic test are discussed. Section 6.3 presents the results of the multiple regression models. The results of the moderating effect of ownership structure are reported in section 6.4. Section 6.5 presents the results of additional tests. The chapter ends with Section 6.6 summary and conclusion.

6.1 Descriptive Statistics

6.1.1 Descriptive Statistics of IC Disclosure

The descriptive statistics of intellectual capital (IC) disclosure are reported in Table 6.1. Further, IC disclosure is categorized into three categories – internal, external and human capital. With regard to overall IC disclosure, Panel A in Table 6.1 shows that the average number of IC disclosure sentences disclosed is 86.72. The maximum value is 175 sentences and minimum is 17 sentences. This indicates that all the banks in the sample provided at least 17 sentences about IC disclosure. In respect of the trend of IC disclosure in annual reports over three years, Panel A in Table 6.1 shows that the average of IC disclosure is 86, 87, 88 in 2008, 2009, 2010 respectively. This indicates level of IC disclosure increase by the time but the increase of the IC is not significant.

Table 6.1
Descriptive Statistics for IC Categories and Subcategories

	Minimum sentences	Maximum sentences	Mean Sentences		Std. Deviation	
	Year					
			2008	2009	2010	All
Panel A:						
Overall ICD	17.00	175.00	86.00	87.00	88.00	86.72
Internal capital	10.00	140.00	44.50	46.00	47.00	47.80
External capital	6.00	75.00	29.00	31.00	33.00	31.72
Human capital	1.00	46.00	14.00	14.00	15.00	14.37
Panel B: IC subcategories						
Internal capital :						
Patent	0.00	8.00	0.50			1.23
Copyright	1.00	5.00	0.30			0.80
Corporate culture	0.00	23.00	8.46			5.01
Management philosophy	1.00	34.00	12.37			6.84
Management process	3.00	39.00	16.89			8.91
Information system	1.00	12.00	3.07			2.15
Network system	1.00	10.00	2.05			1.50
Financial relationship	1.00	17.00	7.16			3.31
Human capital :						
Training	1.00	13.00	4.90			3.63
Employees educational	1.00	14.00	4.59			3.51
Work related knowledge	1.00	14.00	4.44			3.38
Work related competences	1.00	13.00	4.11			2.63
Know how	0.00	5.00	0.75			1.15
Entrepreneurial	0.00	4.00	0.70			1.06
External capital :						
Customer	2.00	24.00	11.50			5.82
Customer loyalty	1.00	12.00	5.60			3.10
Banks' market share	1.00	17.00	4.11			3.16
Business collaboration	1.00	13.00	3.15			2.78
Franchising	0.00	7.00	2.67			1.97
Bank reputation	1.00	22.00	4.00			4.08
Bank name	1.00	11.00	2.73			2.41

In respect of IC disclosure categories, Panel A of Table 6.1 shows that disclosing information about internal capital is the category most disclosed in GCC banks. All banks in the sample provide at least some information about their internal capital (with a minimum of 10 sentences). The average disclosure is 47.83 sentences with banks having the highest score (140 sentences). A possible explanation for this result is that banks in the GCC put more emphasis on information systems, strengthening infrastructural assets facilities, reconfiguring management philosophies in order to operate in the heart of the customer by reducing the lead time through using information technology infrastructure. The result that shows that internal capital is the most reported category in GCC banks is in line with the results from previous IC disclosure studies. For example, Bozzolan *et al.* (2003) find that reporting on the internal capital is the category most disclosed for Italian companies. Ali *et al.* (2008) find that disclosing information about the capital structure (internal capital) dominated scoring in Bangladesh. Similarly, Yau *et al.* (2009) find that reporting on the internal capital is the category most disclosed for Malaysian companies.

Further, Panel A in Table 6.1 also shows that reporting information about external capital is the second category disclosed for GCC banks. The average disclosure score is 31.72 sentences with banks having the highest score of 75 sentences and a minimum score of 6 sentences. This result (disclosing information about external capital is the second most reported category for GCC banks) is consistent with the findings from prior IC disclosure studies. For example, Bozzolan *et al.* (2003) also find that reporting on the external capital is the second priority for Italian companies. Ali *et al.* (2008) find that disclosing information about external capital is the second dominant score for Bangladesh companies. Similarly, Wagiciengo and Belal (2012) find that external capital is the

second most reported category for South African companies. This might be because external capital is considered the most important by firms focussing on the disclosure of those elements of IC that are most pertinent to the stakeholder (Vergauwen *et al.*, 2007). Flöstrand (2006) points out the nexus between external capital and financial performance. Thus, a possible explanation for the widespread use of the information of external capital is the likelihood of being closely linked to cash flows and earnings. To explain, when a bank has a high market share, reputation and meeting the customer needs, the cash flow and earnings will increase in this bank because it will have more customers. Thus, in order to increase the confidence of their customers and shareholders, the bank will disclose more information about the elements of external capital.

The human capital is the least reported category. Panel A of Table 6.1 shows that the average disclosure score for human capital is 14.37 sentences ranging from a low of 0 to a high of 46 sentences. Human capital is the least reported category by GCC banks, which might be because managers are apprehensive of certain information being used by competitors even though they would like to provide the public with additional useful information (Ali *et al.*, 2008). Thus, concern about competitors using the information might be the reason that makes the banks in the GCC hesitate to disclose more information about human capital. The result is consistent with findings from prior IC disclosure studies (Bozzolan *et al.*, 2003; Ali *et al.*, 2008; Yi & Davey, 2010).

In addition, Panel B in Table 6.1 provides information about the nature of disclosure made by the sample firms based on IC subcategory. With regard to internal capital attributes, management processes is the most frequently reported. All the banks reported this item, with a mean disclosure score of 16.89 sentences. The maximum value is 39 and

the minimum is 3 sentences. This indicates that all banks provided at least 3 sentences about management processes. The three subcategories for internal capital most frequently reported after management process are 12.37 sentences for management philosophy, 8.46 sentences for corporate culture and 7.16 for financial relationship. However, patent and copyright are the least disclosed items not only in this category but also among the total IC items. This could be due to a lack of knowledge of measuring such items or a lack of consensus about the need for such disclosures.

In respect of external capital attributes, Panel B of Table 6.1 shows that the customers are the most frequently reported. All the banks reported this item, with a mean disclosure score of 11.50 sentences. The maximum value is 24 sentences and the minimum is 2, which indicates that all banks provided at least 2 sentences about customers. This item is followed by customer loyalty, banks' market share and banks reputation, which have a relatively higher disclosure level among the external capital items being reported. Franchising licensing and bank name are the least frequently reported attributes with a low disclosure of 2.67 and 2.73, respectively.

Among the human capital items, Panel B of Table 6.1 shows that the training item and employees' education are the highest rated items with an average of 4.90 and 4.59, respectively. Know how and entrepreneurial are the least frequently reported attributes with an average of 0.75 and 0.70 sentences, respectively. These results support researchers in the field of innovation and economists that consider that the GCC States lag behind the developed countries (Barry & Kevin, 2009; Shafiqur Rahman, 2010) because of (a) unsuitable climate for business and governance, (b) limitations in level of education of

human capital, (c) inadequate programmes for human capital learning and knowledge technology, and (d) insufficient budget for research and development.

6.1.2 Descriptive of IC Disclosure Based on Bank Type

A summary of the disclosures made by both Islamic banks and conventional banks is presented in Table 6.2, indicating that all the sample reports provided IC disclosure. Table 6.2 shows that the mean of sentences disclosed by Islamic banks is 87 compared to 85.5 by conventional banks. However, the result of the t-test, as shown in Table 6.2, implies that the difference between the mean of sentences of Islamic banks and conventional banks is not significant. Further, the result of the t-test, as shown in Table 6.2, implies that although the differences in the level of disclosure varied across the different IC categories between the two groups, the differences are not significant. Overall, despite the difference in the number of companies between the two groups, the results of the t-test indicate that the differences are not significant. Thus, based on the results of the t-test, it could be concluded that the level of IC disclosure is not higher in Islamic banks than conventional banks.

Table 6.2
Mean of Sentences of IC Disclosure by Bank Type

	Islamic banks	Conventional banks	t-test
Panel B: Main IC categories			
Total ICD	87.00	85.50	0.60
Internal capital	43.98	44.41	0.71
External capital	30.10	30.50	0.89
Human capital	14.51	13.80	0.66
Panel B: IC Subcategories			
Internal capital			
Patent	0.22	0.30	0.72
Copyright	1.80	1.20	0.48
Corporate culture	8.30	7.41	0.15
Management philosophy	18.21	16.86	0.26
Management process	13.94	11.71	0.33
Information system	2.80	3.13	0.54
Network system	2.28	3.10	0.35
Financial relationship	8.70	6.90	0.52
Human capital			
Training	4.96	4.88	0.92
Employees education	4.71	4.50	0.83
Work related knowledge	4.73	4.63	0.63
Work related competences	4.64	3.98	0.40
Know how	1.50	1.60	0.85
Entrepreneurial	1.80	1.60	0.52
External capital			
Customers			0.71
11.91		11.31	
Customer loyalty	5.85	5.81	0.60
Banks' market share	3.50	4.32	0.19
Business collaboration	2.70	2.30	0.28
Franchising	2.66	2.68	0.92
Bank reputation	4.00	3.99	0.93
Bank name	2.62	2.76	0.80

6.1.3 Descriptive Statistics of Independent Variables

The previous section presented the descriptive statistics for the dependent variable of this study. This section presents the descriptive statistics of other variables of study. Table 6.3 and Table 6.4 present the descriptive statistics of the continuous and dichotomous variables, respectively. With regard to the descriptive statistics of the continuous variables, Table 6.3 shows that the average of board size reported in this study is 9. This average is similar to the studies done by Chahine (2007) and Arouri *et al.* (2011) for GCC listed banks. However, this average for board size in GCC banks is considered slightly higher in comparison with what has been found in other studies in other countries. For example, the average of board size is 7.7 for Singaporean companies (Cheng & Courtenay, 2006), 7.1 for South African companies (Mangena & Chamisa, 2008).

In terms of board independence, the descriptive statistics indicate that GCC banks have complied with the recommendations of the Code on Corporate Governance in GCC countries to have at least one third of the board comprising independent directors. The average independent directors in GCC banks is considered moderate, compared with an average of 0.65 and 0.64 in the USA (Byard *et al.*, 2006; Kanagaretnam *et al.*, 2007, respectively). With respect to frequency of board meetings, the statistics indicate that the average number of board meetings of the board of directors is 6 in the GCC banks. Although the average number of board meetings of the board of directors provides evidence that, generally, the banks in the GCC follow the recommendation of the Code on Corporate Governance (i.e. at least 4 meetings per year), some boards of directors hold fewer meetings than what the code recommends.

Table 6.3
Descriptive Statistics for Continuous Variables

	Minimum	Maximum	Mean	Std. Deviation
Board size	5.00	13.00	9.14	1.70
Board independence	0.11	0.92	0.54	0.22
Board meetings	3.00	12.00	5.90	2.00
Effectiveness of board of directors	0.00	0.100	0.51	0.21
Audit committee size	2.00	5.00	3.36	0.72
Audit committee independence	0.20	0.90	0.66	0.20
Audit committee financial expertise	0.00	0.67	0.38	0.12
Audit committee meetings	2.00	8.00	4.60	1.07
Effectiveness of audit committee	0.00	0.75	0.28	0.16
Foreign institutional ownership	0.00	0.35	0.06	0.11
Domestic institutional ownership	0.00	0.63	0.12	0.14
Government ownership	0.00	0.70	0.24	0.21
Family ownership	0.00	0.81	0.14	0.17
Chairman ownership	0.00	0.25	0.02	0.41
Information asymmetry	0.02	0.85	0.38	0.20
Market concentration	0.24	0.64	0.43	0.12
ROA	-0.06	0.10	0.02	0.02
Leverage	0.10	0.91	0.72	0.19
Log of total assets	7.36	10.89	9.81	0.67

Table 6.4
Descriptive Statistics of Dichotomous Variable

	CEO duality	Bank type	Board committees
Coding	1(If CEO is chairman)	1(Islamic bank)	1 (Bank has at least three committees)
Number of banks in sample	41.00	43	53
Percentage	29.7%	31.2%	38%

The statistics also indicate that 29.7% of banks in the GCC have a dual leadership structure, i.e. where the CEO is also the chairperson for the board of directors. This result indicates that there is an improvement in the leadership structure of GCC firms compared to that reported previously. For instance, a statistic of 43% was reported for the study period 2000 to 2007 in GCC banks (Chahine & Tohmé, 2009). In addition, although the audit, nominating and compensation committees are important to enhance the effectiveness of the board of directors, the statistics indicate that only 38% of banks in the GCC have audit, nominating and compensation committees. The average score for the effectiveness of the board of directors is 0.51 with the maximum score 0.100 and the minimum score 0.

Regarding audit committees, the descriptive statistics indicate that in the majority of the GCC countries the average size of audit committee is 3.36 members and that 0.66 of the audit committee members are independent directors following the recommendation of the Code on Corporate Governance that independent directors should dominate the audit committee. However, the minimum value of 0.20 for audit independence indicates that in some banks the audit committee is dominated by non-independent directors on the board of directors. In respect of financial expertise on the audit committee, on average, 0.38 of the audit committee members have financial expertise. The zero minimum value for the financial expertise on their audit committee indicates that there were banks that did not have financial expertise on their audit committee. This outcome suggests that although it is recommended by the Code on Corporate Governance in GCC countries for banks to have at least one member of the audit committee with financial expertise, some banks breached the rules. The audit committee of GCC banks meets more than 4 times per

annum on average. This statistic indicates that although the average number of meetings for the audit committee in the majority of GCC banks is 4.6 as recommended by the Code on Corporate Governance, some audit committees have fewer meetings than what the code recommends. The average score for the effectiveness of the audit committee is 0.28 with the maximum score 0.75 and the minimum score 0.

In respect of ownership structure, Table 6.3 shows that the percentage of large governmental shareholdings for the sample ranges from 0 to 70% with an average value of 24 %. This average is similar to the study done by Chahine (2007), who finds that the average of government ownership in GCC banks is 26%. Compared to domestic, the percentage of foreign institutional shareholdings for the sample ranges from 0 to 35%, with average shareholdings of about 6%. This average is similar to the study done by Farazi *et al.* (2011) for GCC banks for the period 2001 to 2008. In terms of family ownership, the percentage varies from 0 to about 81%, with an average of 14%. Chairman ownership for the sample ranges from 0 to 25% with an average shareholding of about 2%.

In addition, the descriptive statistics indicate that 31 % of GCC listed banks in the studied sample are Islamic banks. In terms of market concentration, the descriptive statistics indicate that the average market concentration for the GCC banking sector for the entire three-year period is 43%. The banking industry in Oman is ranked as the highest concentrated market with CR3 of 64.33% followed by Qatar (61%), Saudi Arabia (44.33%), UAE (42%), and, finally, Bahrain (26%).

In terms of the controlled variables, Table 6.3 shows that the log size of banks varies with a minimum of 7.3 and a maximum of 10.89. The sample has an average leverage level of 72% and a ROA of 2%. The negative sign of the ROA implies that some banks experience a loss during the investigation period.

6.2 Diagnostic test

Before running the multiple regression analysis, it should be noted that there are several classic assumptions in any multiple regression analysis. These are normality, linearity, multicollinearity, heteroscedasticity and autocorrelation. All of these tests are tested accordingly.

6.2.1 Outliers

Outliers are observations which have unique characteristics that make them different from other observations (Hair *et al.*, 2006). There are several methods to check outliers. Standardized residual, a widely used method to detect for any outliers, is used in this study. Observations with a high standardized residual which have the potential to be influential outliers are identified and removed (Hair *et al.*, 2006).

6.2.2 Normality Test

Normality, being the fundamental assumption in data analysis, refers to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution. Hair *et al.* (2006) term it as the benchmark for statistical methods. As it is a requirement for one to use the F and t statistic, the variation from the normal distribution needs to be small. For large variations, this renders all statistical tests resulting from the

analysis invalid. There are several ways in which one could describe the distribution if it differs from the normal distribution.

In other words, the normality for each variable may be checked in a number of ways, such as using a histogram with normality plot and the Kolmogorov-Smirnov, skewness and kurtosis value. As the Kolmogorov-Smirnov normality test is very sensitive, the standard skewness and kurtosis have been adapted in this study. Skewness and kurtosis are among the most popular approaches in describing the shapes or distribution of a data set. The data are said to be normal if the standard skewness is within ± 1.96 and standard kurtosis is between ± 3.0 (Haniffa & Hudaib, 2004; Abdurrahman & Ali, 2006). However, for skewness, Kline (1998) and Hair *et al.* (2006) suggest a higher threshold of ± 3 . For kurtosis, Kline (1998) suggests a higher threshold of ± 10 .

The results from this approach (see Table 6.5) lead to the conclusion that the data set has no serious violation of the normality assumption; therefore, it is assumed that the data are normally distributed.

Table 6.5
Normality Test for Model

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
IC disclosure	0.36	0.21	-0.50	0.41
Board size	-0.16	0.21	-0.59	0.41
Board independence	-0.01	0.21	-1.02	0.41
board meetings	0.73	0.21	0.69	0.41
CEO duality	0.90	0.21	-1.21	0.41
Board's committees	-0.27	0.21	-1.47	0.41
Effectiveness of board of directors	0.46	0.21	0.69	0.41
Audit committee size	1.18	0.21	1.11	0.41
Audit committee independence	-0.61	0.21	0.13	0.41
Audit committee financial expertise	1.06	0.21	0.28	0.41
Audit committee meetings	0.08	0.21	0.71	0.41
Effectiveness of audit committee	0.24	0.21	-0.25	0.41
Foreign institutional ownership	1.53	0.21	0.73	0.41
Domestic institutional ownership	1.27	0.21	1.26	0.41
Bank type	0.82	0.21	-1.34	0.41
Industry market concentration	0.27	0.21	-0.61	0.41
Chairman ownership	2.12	0.21	3.60	0.42
Government ownership	2.04	0.21	3.44	0.42
Family ownership	2.10	0.21	4.81	0.42
Information asymmetry	1.58	0.21	2.43	0.42
ROA	0.11	0.21	3.90	0.41
Leverage	-1.47	0.21	1.24	0.41
Log of total assets	-1.01	0.21	1.82	0.41

6.2.3 Linearity

The relationship between the dependent variable and independent variables should be linear. To test the linearity assumption of the regression model, a histogram of distribution of the residuals is plotted. The line of distribution shows a normal curve, which, in turn, shows that the data is in accordance with normal assumption. The linearity of the relationship between the dependent and independent variables represents the degree to which the change in dependent variables is associated with the independent variables (Hair et al., 1998). Therefore, in regression, nonlinearity is not a problem if the

standard deviation of the dependent variables is more than the standard deviation of the residuals. Table 6.6 shows that the standard deviation of the dependent variables is more than the standard deviation of the residuals.

Table 6.6

The Standard Deviation of IC Disclosure and the Residuals

Variable	Std. Dev	
	Model 1	Model 2
ICD	35.31	5.31
Residual	29.8	30.71

6.2.4 Multicollinearity

Before the regression results are considered valid, the degree of multicollinearity and effect on the results are examined.

Multicollinearity is the inter-correlation of the independent variables. Multicollinearity decreases the ability to predict the measure and ascertain the relative role of each independent variable. Substantial multicollinearity between independent variables is not good as the estimated regression coefficient becomes unreliable. To check for multicollinearity, this study looks at the correlation matrix (r) for the bivariate analyses between independent variables and the variance inflation factor (VIF). As a rule of thumb, multicollinearity may be a problem if a correlation is more than 0.70 in the correlation matrix formed by all the independent variables (Cohen & Cohen, 1998). According to Hair *et al.* (2006), acceptable values for collinearity are considered from the tolerance value of more than 0.1 or the VIFs value of less than 10 to indicate little or no multicollinearity. Furthermore, a maximum VIF value in excess of 10 is often taken as an indication that multicollinearity may influence the least squares estimates. Accordingly, a

large VIF value and small tolerance value indicates that there is a multicollinearity problem.

Table 6.7 presents the correlation matrix for the dependent, independent and control variables. The correlation coefficients between variables are obtained from Pearson tests. Overall, there are a number of statistically significant correlations between board characteristics, audit characteristics, and control variables and the correlation is no more than 0.70. Thus, Table 6.7 indicates that there is no multicollinearity problem. Further, the results of the standard tests on VIFs in Table 6.8 indicate that there is no multicollinearity problem, as the VIFs are below the threshold value of 10.

Table 6.7
Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
1 ICD	1																		
2 BODSIZ		0.16*	1																
3 BODIND			0.37***	0.94	1														
4 BODMEET				0.24***	0.12	0.07	1												
5 CEO DUAL					0.12	0.03	0.024	0.02	1										
6 BODCOM						0.07	-0.010	-0.18*	0.08	0 .07	1								
7 AUDSIZ							0.25**	0.21**	0.29***	0.23**	0.09	0.02	1						
8 AUDIND								0.07	0.12	0.16*	0.08	0.02	-0.04	.128	1				
9 AUDEX									0.09	-0.09	0.01	0.04	-0.13	0.15*	-.236**	-0.05	1		
10 AUDMEET										0.29***	0.14*	-0.03	0.10	-0.04	0.13	-.045	-0.07	.064	
11 FINSTITUTIONAL											0.49***	0.21**	0.24**	0.05	0.18*	0.02	.192*	0.13	-.072
12 DINSTITUTIONAL												0.06	0.10	0.01	0.17*	0.14*	.092	0.05	-.127
13 BAKTPY													-0.04	0.05	-0.04	0.16*	-.151	-0.04	
14 CON													0.01	0.02	0.33***	0.13	-.03	.371***	
15 ROA													0.05	-0.04	0.09	0.34**	-0.08	-.12*	
16 LEV													0.42***	0.11	0.29***	0.18*	0.15*	0.00	
17 BSIZE													0.22**	0.31***	0.10	0.03	-0.17*	-0.02	

Where: *, **, *** = p-value < .10, .05, .01, respectively.

ICD = Intellectual capital disclosure, BODSIZ = Board size, BIND = Board independence, BODMEET = Board meetings, CEODUAL = CEO duality, BODCOM = Board committees, AUDZIE = AC size, AUDIND = AC independence, AUDEX = AC financial expertise, AUDMEE = AC meetings, FINSTITUTIONAL = Foreign institutional ownership, DINSTITUTIONAL = Domestic institutional ownership, BAKTPY = Bank type, CON = Market concentration, ROA = Return on assets, LEV = Leverage, BSIZE = Bank size.

Table 6.8
The Results of Standard Tests on VIF

	Collinearity Statistics			
	Tolerance		VIF	
	Model 1	Model 2	Model 1	Model 2
Board size	0.78		1.28	
Board independence	0.71		1.39	
board of director meetings	0.76		1.30	
CEO duality	0.81		1.22	
Board's committees	0.86		1.15	
Effectiveness of board of directors		0.90		1.10
Audit committee size	0.68		1.46	
Audit committee independence	0.91		1.09	
Audit committee financial expertise	0.85		1.16	
Audit committee meetings	0.86		1.15	
Effectiveness of audit committee		0.90		1.10
Foreign institutional ownership	0.81	0.93	1.23	1.07
Domestic institutional ownership	0.85	0.91	1.17	1.09
Bank type	0.82	0.89	1.20	1.11
Industry market concentration	0.68	0.75	1.45	1.32
ROA	0.78	0.89	1.27	1.11
Leverage	0.81	0.88	1.22	1.12
Log of total assets	0.75	0.88	1.33	1.12

6.2.5 Heteroscedasticity

Heteroscedasticity means that the variance of a variable must be constant, showing similar amounts of difference across the range of values for the independent variable. Heteroscedasticity is a problem if the variance of the residuals is non-constant, indicating that residuals should be randomly dispersed throughout the predicted value of the dependent variable. In other words, if the model is well-fitted, there should be no pattern to the residuals plotted against the fitted values. There are graphical and statistic tests to evaluate heteroscedasticity.

Graphical Test

To detect the existence of heteroscedasticity, residuals from the model are plotted against the predicted value of the IC disclosure and against each explanatory variable to determine whether the error terms of the model had constant variance. The distribution of residuals can be seen from the scatter plot graph, as shown in Figure (6.1). Based on the results of the test for heteroscedasticity, it can be seen from the figure that the spread of data does not form a certain pattern and that data are spread around the null number. The scatter plot graph indicates that the data used in this study (the whole sample) are considered free from heteroscedasticity (Hair *et al.*, 1998).

Statistical Method

To examine the existence of heteroscedasticity, STATA packages' analyses (statistical method) are employed. To detect the problem of heteroscedasticity, the White test is used, as suggested by Gujarati (1995). This test includes the regression of the square error from the ordinary least squares (OLS) regression on the dependent variable in the model. The null hypothesis for the test of variance homogeneity is conducted. The hypotheses will be rejected if the *p*-value exceeds 0.05. From Table 6.10 of heteroscedasticity the *p*-value exceeds 0.05. Thus, the data used in this study (the whole sample) are considered free from heteroscedasticity.

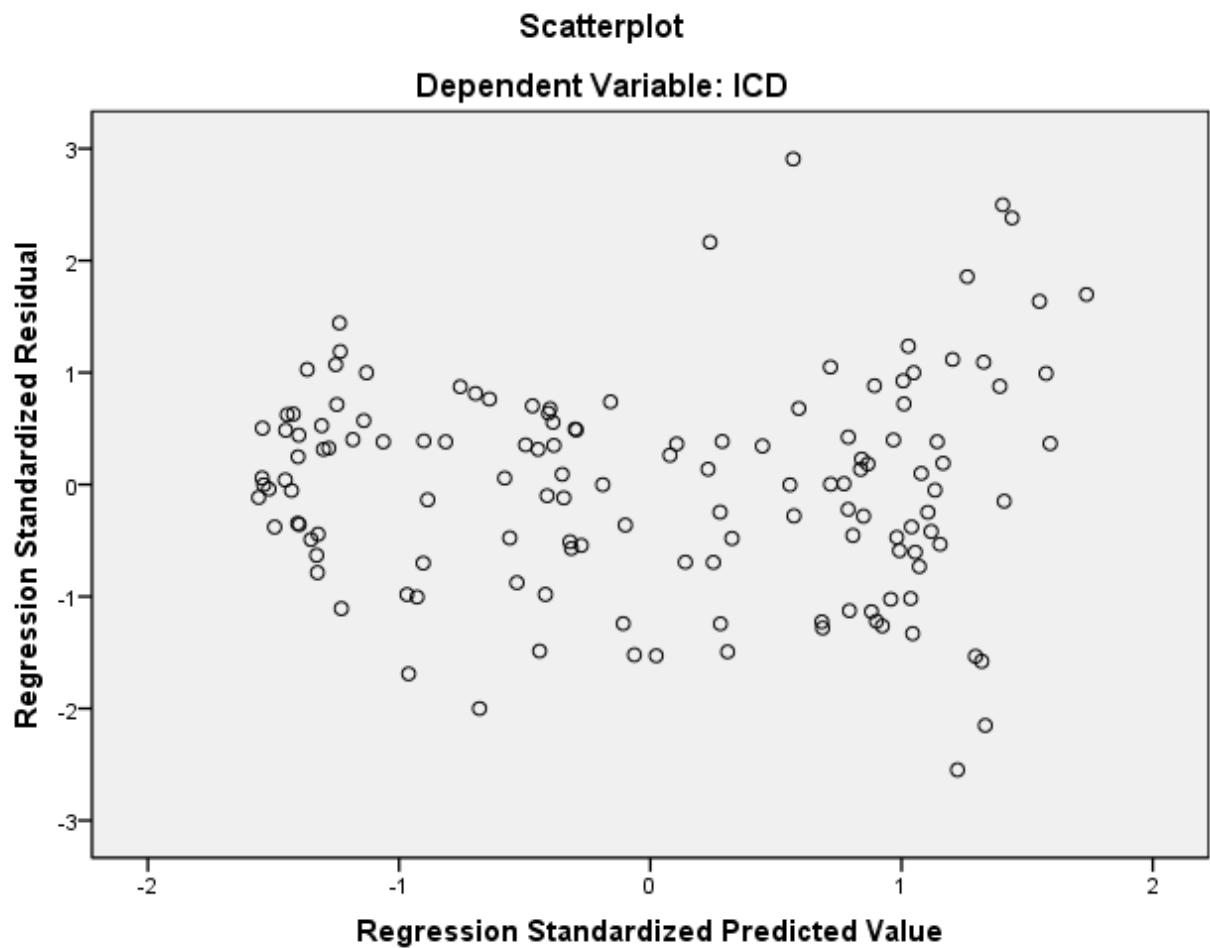


Figure 6.1
Heteroscedasticity

Table 6.9
White Test for Heteroscedasticity

Source	chi2	Df	P
Model 1	138.00	137.00	0.46
Model 2	59.06	53.00	0.2637

6.2.6 Autocorrelation

The next test is on autocorrelation or as it is also called the correlation coefficient. The autocorrelation function can be used to answer the question of whether the sample data set are generated from a random process.

The Durbin-Watson test is employed to determine whether the error terms in all regressions are auto correlated. For detecting whether there is any autocorrelation or not in the data set used, it can be seen from the value of the Durbin-Watson (DW) test. The DW test is frequently used as a statistical test for detecting autocorrelation. In this regard, Kazmier (1996) stated that the value of the test statistic can range from 0 to 4.0, and is approximately 2.0 when there is no autocorrelation present with respect to the residual.

Generally, if the value of the statistic is below 1.4, it indicates the existence of a strong positive series of correlation, while, a value greater than 2.6, indicates the existence of a strong negative series correlation (Kazmier, 2003). The Durbin-Watson value (DW) can be seen by using the SPSS program together with the coefficient of determination (R^2) and the value of Standard Error Estimation (SEE). The Durbin-Watson value is above 1.4 and below 2.6.

6.3 Result of Regression

6.3.1 Result of Model One

After the assumptions of regression were met, in this section an analysis of the relationship between IC disclosure as dependent variable and board of directors' characteristics, audit committee's characteristics, institutional ownership, bank type, concentration as independent

variables, and firm size, leverage and ROA as control variables using a multiple regression technique is conducted. The outputs of multiple regressions are shown in Table 6.10.

Table 6.10

Multiple Regression Results

$ICD = \beta_0 + \beta_1 BODSIZ + \beta_2 BIND + \beta_3 BODMEET + \beta_4 CEO DUAL + \beta_5 BODCOM + \beta_6 AUDZIE + \beta_7 AUDIND + \beta_8 AUD EX + \beta_9 AUDMEET + \beta_{10} FINSTITUTIONAL + \beta_{11} DINSTITUTIONAL + \beta_{12} BAKTYP + \beta_{13} CON + \beta_{14} ROA + \beta_{15} LEV + \beta_{16} BSIZE + e$

Variables	Predicted sign	Coefficients	t-stat	Sig
Constant			-2.37	.019
BODSIZ	-	-0.063	-0.87	0.38
BODIND	+	0.24***	3.29	0.00
BODMEET	+	0.17***	2.44	0.02
CEO DUAL	-	0.03	0.53	0.59
BODCOM	+	0.09*	1.35	0.18
AUDSIZ	+	0.14**	1.85	0.06
AUDIND	+	-0.00	-0.02	0.98
AUDEX	+	0.07	1.08	0.27
AUDMEET	+	0.18***	2.77	0.00
FINSTITUTIONAL	+	0.33***	4.73	0.00
DINSTITUTIONAL	+	-0.04	-0.60	0.54
CON	+	-0.22***	-2.98	0.00
BAKTPY	+	0.01	0.01	0.99
ROA	+	0.09*	1.35	0.18
LEV	+	0.24***	3.47	0.00
BSIZE	-	0.12 **	1.73	0.08
Adjusted R Square	0.52			
F	8			
Sig	0.00			
Durbin-Watson	1.6			

*, **, *** = p-value < .10, .05, .01, respectively, one-tailed

ICD = Intellectual capital disclosure, BODSIZ = Board size, BIND = Board independence, BODMEET = Board meeting, CEO DUAL = CEO duality, BODCOM = Board committees, AUDZIE = AC size, AUDIND = AC independence, AUD EX = AC financial expertise, AUDMEE = AC meeting, FINSTITUTIONAL = Foreign institutional ownership, INSTITUTIONAL = Domestic institutional ownership, BAKTYP = Bank type, CON = Industry market concentration, ROA = Return on assets, LEV = Leverage, BSIZE = Bank size.

6.3.1.1 Board Size

As shown in Table 6.10, there is no relationship between board size and IC disclosure. The t-value ($t = -0.87$, $P > 0.05$) indicates that the level of IC disclosure is not significantly related to board size. Hence, the result is contradictory to H_1 , which predicted that as the number of directors increases, the level of IC disclosure will decrease. Thus, this study's results contradict the study by Jensen (1993) who found that boards of directors comprising seven or eight people function less efficiently making it simpler for the CEO to control them. In addition, the findings also differ from Conger *et al.* (1998) who suggest that to become an "empowered board", it should be small enough to create a unified group.

However, the findings of this study are consistent with the results of Mak and Li (2001), and Lakhel (2005) who find that board size does not have a significant relationship with voluntary disclosure. Furthermore, this finding is in line with Arouri *et al.* (2011) who find an insignificant relationship between board size and bank performance in the GCC. They conclude that the absence of a real application for the appropriate principles and standards of corporate governance in listed GCC banks might be the reason that explains the effect of board size on bank performance.

Another explanation for the insignificant relationship between the board size and bank's IC disclosure in the GCC is that the number of directors on the board might not reflect the directors' skill and knowledge, which are more valuable for a board to function effectively or it has not shown serious attention to IC disclosure. GCC Board Directors Institute (2008) reveals that most of the selected directors on the boards of GCC banks lack the necessary skills and adequate understanding of the banking environment. Bonn

(2004) recognizes that board size is only a factual number of directors, and does not reflect the directors' skill and knowledge, which are more valuable for a board to function effectively. Thus, it could be said that the size of the board is not an issue if the board members possess the relevant skill to monitor the financial reporting process.

6.3.1.2 Board Independence

Table 6.10 shows that the relationship between the proportion of independent directors on the board and IC disclosure is positive and significant. The t- value ($t = 3.29, P < 0.01$). This means that as the proportion of independent directors on the board increases, the level of IC disclosure increases. Thus, H_2 is supported. This finding provides support for the arguments of the agency theory and the claim that outside directors significantly enhance board effectiveness and reduce the agency problem (Fama & Jensen, 1983; Pfeffer & Salancik, 2003). In addition, the results are consistent with the studies that suggested and found that the effect of the proportion of independent directors on voluntary disclosure is complementary (Arcay *et al.*, 2005; Patelli & Prencip, 2007; Huafang & Jianguo, 2007; Lui *et al.*, 2008; Li *et al.*, 2008; Khodadadi *et al.*, 2010).

Furthermore, the findings of this study are consistent with the results of other accounting research that found that outside directors enhance the monitoring role of the board of directors. For example, it has been found that the outside directors reduced financial statement fraud (Beasley, 1996), reduced earnings management (Peasnell *et al.*, 2005), improved audit quality (Salleh *et al.*, 2006) and reduced abnormal accruals (Koh *et al.*, 2007). All these studies observed that independent directors are a good monitoring mechanism to monitor the management and enhance the quality of financial reporting in companies.

In summary, the results from the multivariate regression are consistent with the proposition of the agency theory, which suggests that independent non-executive directors on boards are associated with effective monitoring. Based on the proposition of the agency theory, the independent non-executive directors complement their monitoring function by enforcing the management to disclose more information to outside investors. Thus, this result supports the view that directors are seen as a monitoring mechanism to ensure that management act in the interests of all shareholders by disclosing more information to outside investors.

6.3.1.3 Board Meetings

The results of this study show that IC disclosure is positively related to the frequency of meeting of the board of directors. The t value ($t = 2.44$, $P < 0.05$). This indicates that as the number of meetings increases, the level of IC disclosure will increase. Thus, H_3 is supported. This result is consistent with Xie *et al.* (2003) and supports Ebrahim (2007) who argues that the frequency of board meetings might be the measure of board activity, which enhances the effectiveness of the board of directors.

A possible explanation that the frequency of board meetings is one of the key determinants of the effectiveness of board of directors in the banking sector in the GCC is because in an environment like the GCC banks where the information asymmetry is high (Chahine, 2007), outside directors are always less knowledgeable about company operations than their executive colleagues (McNulty *et al.*, 2002). In this environment, the meetings are occasions for direct, face-to-face communication and for the exchange of ideas. Carter and Lorsch (2004) claim that the time that a board spends together in meetings is the most important that directors have to perform their duties. It is during

board meetings that the whole board is engaged in the business of the company, that ideas are contested and that a collective view is developed, which is then conveyed to management. Therefore, the board meeting is the forum in which directors learn the most about their company, and when they make joint decisions. Through the frequency of meetings, the independent directors will get the information that helps them to protect the interests of shareholders from discussions with their executive colleagues. Hence, the frequency of meetings is important for the board of directors to take decisions that protect the interests of shareholders and increase the bank's performance. More specifically, without meetings the other characteristics of the board of directors will be useless.

6.3.1.4 CEO Duality

The results in Table 6.10 indicate that there is no significant difference in the level of IC disclosure between the banks in the GCC that combined the role of the CEO and chairman and the banks that separated between the role of the CEO and chairman. The t value ($t = 0.53$, $P > 0.05$). This means that IC disclosure is not significantly related to CEO duality. Thus, the findings of this study do not support the agency theory, which suggests that separating the roles of the chairman and the CEO is important to enhance the broad independence (Chaganti *et al.*, 1985) and that CEO duality may reduce the effectiveness of the board of directors in monitoring the management (Agrawal & Chadha, 2005). Further, the result of this study is not consistent with previous studies by Forker (1992), and Gul and Leung (2004) who find that CEO duality has a negative relationship with voluntary disclosure.

However, this result is consistent with Li *et al.* (2008) who do not find a significant relationship between voluntary disclosure of IC disclosure and CEO duality. Further, this

result is consistent with Ho and Wong (2001), Barako *et al.* (2006), and Cheng and Courtenay (2006) who find that voluntary disclosure is not significantly related to CEO duality. The insignificance of board leadership structure might be because most banks in the GCC practice separate leadership structure.

Another apparent reason that contributes to the insignificant findings of this study is attributed to the chairman's lack of independence and lack of knowledge of company affairs or there is no distinction between the roles of the chairman and the CEO. For making the split work, it is important for the boards to distinguish between the roles of the chairman and the CEO – the chairman runs the board while the CEO manages the company (Felton & Wong, 2004). Therefore, in order to achieve this change in governance culture and to correct the imbalance in the board focus, the corporate board will need to define clear roles for itself, the chairman and the CEO. However, although most banks in the GCC practice separate leadership structure, the roles of the chairman and the CEO are not defined clearly in the majority of the codes on corporate governance in the GCC (Adawi & Rwegasira, 2011), which might explain the results of this study.

6.3.1.5 Board Committees

The results reported in Table 6.10 show that board committees are positively related to IC disclosure. The *t* value ($t = 1.35$, $P < 0.010$). This result means that the level of IC disclosure in banks that have audit, nominating and compensation committees is higher than banks that do not have all these committees. Hence, H_5 is supported. Thus, this result supports the idea that the board committees – audit, nominating and compensation – help to improve sound corporate governance that can play an important role in

improving the overall quality of corporate voluntary disclosure (Fama & Jensen, 1983; Menon & Williams, 1994; Vafeas, 1999).

The significant results of the board committees at 0.10 per cent in the GCC banks setting could be attributed to the lack of explicit and detailed guidelines about the monitoring duties of board committees (Al-Abbas, 2009; Arouri *et al.*, 2011). In addition, the establishment of board committees is relatively new to the banking sector in the GCC. The majority of GCC banks did not have an audit committee before 2007 (Adawi & Rwegasira, 2011). In summary, board committees in the GCC are still developing and the GCC regulator needs to complete the recommendations to strengthen the role of audit committees (Arouri *et al.*, 2011). During the development process, there is a learning process for independent directors to acquire their knowledge and skills in monitoring management and deterring opportunistic management.

6.3.1.6 Audit Committee Size

The result shows that IC disclosure is positively related to the size of the audit committee. The *t* value ($t = 1.85$, $P < 0.05$). This result implies that an increase in the number of directors on the audit committee leads to an increase in the level of IC disclosure, and supports the argument that when audit committees are well resourced they will be able to monitor the management (DeFond & Francis, 2005). In GCC banks, this study argues that larger audit committees play an important role to oversee the information provided in the annual report.

Overall, this result is consistent with Li *et al.* (2008), and Li *et al.* (2012) who find that size of audit committee is positively related to IC disclosure in UK firms. Furthermore, the result is consistent with the findings of Cornett *et al.* (2008) on earnings management.

6.3.1.7 Audit Committee Independence

Table 6.10 shows that the proportion of independent directors on the audit committee is not significantly related to IC disclosure. The t value ($t = 0.02$, $P > 0.05$). This implies that the independent directors on the audit committee to oversee the financial reporting process are not strong enough to influence IC disclosure. Although outside directors should be associated with strong governance, the findings in this study suggest that independent directors on the audit committee are ineffective. Thus, H_8 is not supported. This result is consistent with Gan *et al.* (2008), and Akhtaruddin *et al.* (2009) who argue that the difference in law and corporate governance systems between other countries and Anglo Saxon countries, might explain the insignificant findings for the association between the audit committee and IC disclosure. In addition, the results of this study are consistent with Al-Abbas (2009) who find no relationship between the independent directors on the audit committee and earnings management in Saudi firms.

The contradictory results between the board independence and audit committee independence suggest that these two mechanisms react differently towards IC disclosure. This result is puzzling because independent directors on the audit committee are also independent directors on the board. The results could be driven by the nature of the job undertaken by the independent directors in respect of the committee on which they serve. Based on their findings, Pomeroy and Thornton (2008) argue that independent directors of the audit committee are only effective in improving audit quality, but not financial statement quality; thus, it could be said that independent directors on audit committee do not explain variations in the extent of voluntary disclosure. This might possibly be because the roles of the directors on the audit committee may only approve mandatory

disclosure to shareholders. However, based on responsibility, the directors on the board have wider roles within the operation of the business, in addition to just monitoring the financial reporting process. In this context, independent directors on the board possess more knowledge about the banks, which then leads to an increase in IC disclosure.

6.3.1.8 Audit Committee Financial Expertise.

Financial expertise measures in this study follow Krishnan and Visvanathan (2008) who define financial experts as directors who have qualifications or experience in accounting or finance. Financial expertise on the audit committee is not significantly associated with IC disclosure. The t value ($t = 1.08$, $P > 0.05$). This implies that the merit of financial expertise to oversee the financial reporting process is not strong enough to influence IC disclosure. Hence, H_9 is not supported. The findings of this study are not consistent with prior studies that examined the relationship between the presence of a financial expert on the board with financial reporting quality, such as Xie *et al.* (2003) and Bedard *et al.* (2004), who find that lower earnings management is associated with the presence of a financial expert on the board. However, the results are in line with Li *et al.* (2012) who find there is no significant relationship between the audit committee financial expertise and IC disclosure in UK listed firms.

A possible explanation for the insignificant finding between financial expertise on audit committee and IC disclosure is the significant dominance of directors on audit committees who do not have financial expertise. The descriptive analysis indicates that an average of only 30% of audit committee members have financial expertise. It is argued that directors who do not understand the accounting numbers may not be able to ask the right questions or understand the answers, which may possibly explain the insignificant

findings of this study. Another explanation is the measurement variable. This study only focuses on the audit committee members who have a qualification or experience in accounting or finance. Perhaps, each director comes from a different professional category that could add value to the bank. For example, in a Korean study, Choi *et al.* (2007) focus on different professional backgrounds of directors to investigate the effects of director's quality on the firm performance. They examine different professional backgrounds of outside directors, such as lawyers, accountants, bankers, politicians, government officials, academicians as well as executives of affiliated and non-affiliated firms. Their results show a positive contribution of executives of non-affiliated firms and academicians on firm performance. As supported by the resource dependency theory, both insiders and outsiders on boards have important human capital to provide advice and counsel (Hillman & Dalziel, 2003). Representation from lawyers, financial representatives, top management from other firms, marketing specialists, former government officers are argued to facilitate advice and counsel as they bring with them important expertise, experience and skills (Hillman & Dalziel, 2003). Perhaps, investigation on the different professional background of directors will provide an interesting avenue for future research.

6.3.1.9 Audit Committee Meetings

H_{10} proposes a positive association between frequency of meetings of audit committee and IC disclosure. The results reported in Table 6.10 show that audit activity, as measured by the frequency of meetings, is positively related to IC disclosure. The t value ($t = 2.77$, $P < 0.05$). This result demonstrates that the higher the frequency of meetings the greater the control of the managers, and better IC disclosure. Therefore, frequency of

meetings reflects the diligence of the committee members (Raghunandan & Rama, 2007). In addition, this result provides evidence for the argument that frequent audit committee meetings contribute to stronger governance. Thus, the result supports H_{10} . This result is consistent with Persons (2009) who find a significant positive relationship between the audit committee frequency meetings with earlier voluntary ethics disclosure in 154 USA companies. Furthermore, this result is in line with Gan *et al.* (2008) who find a significant positive relationship between the frequency of audit committee meeting and IC disclosure in the top 100 market capitalization and 58 Government-linked firms listed on Bursa Malaysia.

6.3.1.10 Institutional Ownership

Foreign and domestic institutional ownership are the third group of independent variables. As shown in Table 6.10, the coefficient signs are as predicted between the foreign and IC disclosure. The t value ($t = 4.7$, $P < 0.05$). This means that as the percentage of foreign ownership increases, the level of IC disclosure will increase. Thus, H_{12b} is supported. This result suggests that the foreign institutional works as a good monitoring mechanism to solve the agency conflict between the large and monitory shareholders in GCC banks. This result supports the idea that foreign institutions are able to monitor the management and reduce the agency problem (Tihanyi *et al.*, 2003; Gillan & Starks, 2003; Bhattacharya & Graham, 2007; Ferreira & Matos, 2008; Chahine & Tohmé, 2009; Rashid Ameer, 2010).

The results of this study are constant with Hanifa and Cooke (2002) who find a significant positive relationship between foreign ownership and the level of paper-based disclosure. Furthermore, this finding is in line with Arouri *et al.* (2011) who find a

positive and significant relationship between the foreign ownership and bank performance in the GCC. They conclude that foreign ownership in GCC banks facilitates a stronger outside monitoring of management and reduces the agency cost.

However, Table 6.10 shows that the relationship between the domestic and IC disclosure is not significant. The t value ($t = -0.6$, $P > 0.05$). The result indicates that although domestic institutional investors have more bank shares than foreign, they do not have a significant effect on the management to disclose more information about the IC to outside investors. Therefore, the result does not support the agency theory (Jensen & Meckling, 1976). This might be due to the entrenchment problem where domestic institutional investors would probably only pursue their own interests as compared to all shareholders interests. Nevertheless, since the variable has been found to be insignificant, perhaps at low levels of domestic institutional ownership, an increase in institutional ownership increases the effective monitoring of managers, which reduces agency costs and increases IC disclosure. However, at high levels of institutional ownership, an increase in institutional ownership may increase the complicity of the institutional owners with managers in expropriating wealth from individual shareholders, which reduces IC disclosure.

In brief, from these results, it can be said that the domestic institutional investors do not work as a monitoring mechanism like foreign institutional investors in GCC banks to solve the agency problem between the large and small shareholders in the GCC. A plausible explanation for this result is that the monitoring role of domestic institutional ownership is often influenced by the existing ties and networks in the local business environment (Claessens *et al.*, 2000; Dharwadkar & Brandes, 2000; Douma *et al.*, 2006).

This effect will happen in Arab companies inasmuch as they are an extremely collectivistic people among whom there is considerable ease in social connections and the creation of groups. Therefore, they obtain the information about the bank through their relationship with the management. Since disclosing information about IC might affect the competitive advantage, domestic institutional will not enforce the management to disclose IC to the outside. Nevertheless, this social dynamic serves to boost the capacity for political or group ties, which might present a measure of inertia to the organization and reduce the impact of corporate governance mechanisms (Chahine & Tohmé, 2009).

6.3.1.11 Industry Market Concentration

It has been argued that as the level of concentration increases the level of competition will decrease. Thus, the level of IC disclosure will increase when the level of market concentration increases. However, the coefficient sign is not as predicted as the relationship between the concentration and IC disclosure is negative and significant. The t value ($t = -2.9$, $P < 0.01$). Thus, H_{14} is rejected in this study. Based on the idea that there is an inverse relationship between market concentration and competition (i.e. the higher (lower) the concentration in a market, the lower (higher) the competition), therefore the result means that as the competition increases the level of IC disclosure increases. This finding does not support the argument of the propriety cost theory. However, the results of the study are consistent with the agency theory argument, which says that the competition enhances the effectiveness of the board of directors, and thus works as an external corporate mechanism. Furthermore, this result supports Hart (1983) and Li (2009) who argue that competition works as a disciplinary mechanism on the leadership in firms through providing the owner with information about the performance

of the management that can be used to mitigate moral hazard problems because it disciplines the management with competitors` management, which is stronger (Allen & Gale, 1999).

A possible explanation for the result is based on the agency theory and institutional theories that introduced the concept of isomorphism and believe that competitive and institutional types of isomorphism might be sources of pressure for the organizations. This means that informal institutional pressures to correct deviant behaviour arise from the behaviour of industry leaders, peers, and network associates. Amid uncertainty about the ramifications of disclosing deviant behaviour, the focal firm will observe how other industry members have dealt with deviance. In other words, when the focal firm sees other firms in the industry voluntarily disclosing IC information to their investors, it may also be compelled to do likewise. Thus, as the level of competition between the banks increase the level of IC disclosure will increase.

6.3.1.12 Bank Type

It is expected that the level of IC disclosure in Shariah-compliant banks is higher than in non-Shariah-compliant banks because a Shariah-compliant bank will be under greater pressure from the SSB and investment account holders than a non-Shariah-compliant bank. The results shown in Table 6.10 imply that the relationship is not significant between bank type and IC disclosure. The result of this study is inconsistent with Aribi and Gao (2010) who find that the overall level of CSRD is greater for Shariah-compliant banks than non-Shariah-compliant banks in GCC countries. They find that the mean of words disclosed by Shariah-compliant banks was 1,160 compared to 750 for non-Shariah-compliant banks. However, Aribi and Gao (2010) find that level of disclosure

varied across the different themes between the two groups. They found that the proportion of Shariah-compliant banks reporting on philanthropy and Shariah board report was higher than that of non-Shariah-compliant banks; this is probably because the two categories (philanthropy and Shari'a board report) were required by the AAOIFI standards. However, after they excluded these two categories, the difference between the two groups of institutions was not statistically significant. Therefore, it could be said that the differences in methodology explain why the result of this study differ from the study of Aribi and Gao (2010).

A possible explanation for the result of this study (i.e. the level of IC disclosure in Shariah-compliant banks is not higher than for non-Shariah-compliant banks) is that both groups operate in the identical political, social and economic environment, which perhaps reflects the accounting-globalization interrelation that may affect their accounting practice (Gallhofer & Haslam, 2006). This makes Shariah and non-Shariah-compliant banks follow the same accounting practice, which might reduce any differences regarding the disclosing of information about IC to outside.

Another possible explanation of this result is based on institutional theorists who emphasize the role of isomorphism, whereby organizations follow the actions of other organizations as a result of coercive, normative, or mimetic pressures. Since the primary feature of an Islamic economy is to provide a just, honest, fair and balanced society, as envisioned by Islamic ethical values and rules, Shariah-compliant banks are seen by investors as being more transparent than non-Shariah-compliant banks, especially in countries where the majority of investors are Muslims. Thus, the board of directors in non-Shariah-compliant banks should follow the board of directors in Shariah-compliant

banks in order to be respected by Islamic investors. Therefore, the isomorphism might be a source of pressure for the non-Shariah-compliant banks to adapt and change their voluntary corporate reporting practices to follow the practices of Shariah-compliant banks. This is clear from adapting Islamic windows by some non-Shariah-compliant banks.

6.3.1. 13 Controlled Variables

There are three variables that function as control variables in studying IC disclosure. These variables are bank size, leverage and profitability. The results of these variables are as follows.

ROA

As shown in Table 6.10 there is positive relationship between ROA and IC disclosure. The t- value ($t = 1.35$, $P < 0.10$) indicates that the level of IC disclosure is significantly related to ROA. This suggests that banks with high profitability increase their IC disclosure. Thus, the finding of this study is consistent with the signalling theory that says that the management of profitable firms are interested in disclosing detailed information to the market in order to avoid undervaluation of their firms and to increase investor confidence. Further, this result supports agency theory, which posits that management of better performing firms are motivated to make voluntary disclosures to maximise their own benefits, particularly in order to obtain ongoing support for the continuance of their position and compensation. The result of study is consistent with previous mainstream literature (Li *et al.*, 2008; Li *et al.*, 2012).

Leverage

The results reported in Table 6.10 show that leverage is positively related to IC disclosure. The t value ($t = 3.47, P < 0.01$). This result means that as the percentage of total debt to total assets increases the level of IC disclosure increases. This result supports the agency theorists who state that voluntary disclosure is one of the monitoring mechanisms that reduce the agency cost. Based on the agency theory, highly leveraged companies incur higher monitoring costs, therefore as higher debt levels increase agency cost, the board of directors in these companies will increase the level of disclosure in order to reduce the agency cost. Furthermore, this result is in line with a number of empirical studies that leverage has an effect on voluntary disclosure (Gul & Leung, 2004; Naser *et al.*, 2006; Al-Shammari, 2007; Al-Shammari & Al Sultan, 2010).

Bank Size

As shown in Table 6.10, there is a relationship between log of banks` total assets and IC disclosure. The t value ($t = 1.7, P < 0.05$) indicates that the level of IC disclosure is significantly related to log of total assets. This result supports the argument of agency theory that says that a large firm reduces their agency cost and information asymmetry though increasing the information to outside (Jensen & Meckling, 976). In addition, larger firms face greater political costs due to their economic, environmental and social impact and visibility, and, therefore, they disclose more in those areas to avoid possible government intervention through extra scrutiny, taxes and regulations (Buzby, 1975; Cooke, 1989; Inchausti, 1997).

Overall, the findings are in line with studies that investigated the relationship between IC disclosure in corporate annual reports and firm size and found a positive association (e.g. Li *et al.*, 2008; Li *et al.*, 2012).

6.3.2 Board of Directors and Audit Committee Effectiveness Score

In this section to measure the board and audit committee effectiveness, a score is created using the board and audit committee characteristics to test if there is an aggregated effect of these characteristics on IC disclosure. This method is based on the idea that the impact of internal governance mechanisms on corporate disclosure is complementary. In as much as an increase (decrease) of the characters that enhance the board and audit committee effectiveness leads to an increase (decrease) in the level of voluntary disclosure. In addition, this method is based on the idea that the effectiveness of corporate governance may be achieved via different channels (Cai *et al.*, 2008) and that a particular mechanism's effectiveness may depend on the effectiveness of others (Rediker & Seth, 1995; Davis & Useem, 2002). Similarly, O'Sullivan *et al.* (2008) argue that investigating the overall corporate governance mechanisms gives a stronger effect of measurement than just examining them individually.

As discussed in Chapter Five, the score construction adopted here is similar to that used by Gompers *et al.* (2003), Hanlon *et al.* (2003), Brown and Caylor (2006), Farook and Lanis (2007), Singh and Van der Zahn (2008) and Goh (2009) who aggregate the number of characteristics of corporate governance to produce an aggregate score of corporate governance. Applying the same reasoning, this study examines whether board of directors' characteristics, as a whole, and audit committee characteristics, as a whole, to capture their aggregate association within banks, are associated with IC disclosure.

Table 6.11 reports the results of regression using the score of board and audit committee effectiveness instead of examining board and audit characteristic individually with IC disclosure, as happened in model one. The results of the score of board and audit committee effectiveness with IC are positive and significant at 0.01 and 0.05,

respectively. This finding indicates that as the level of the effectiveness of board of directors and audit committee increase (increase of the characters that enhance the board and audit committee monitoring) the level of IC disclosure in bank annual reports increases. This result supports the positive relationship between the level of effectiveness of the board of directors and the audit committee with IC disclosure. The results of the other independent variables support the results of the primary regression expect the ROA.

Table 6.11
Multiple Regression Results Model Two

	Beta	T	Sig
BoDE_Score	0.17***	2.47	0.01
ACE_Score	0.14**	2.06	0.04
DINSTITUTIONAL	-0.03	-0.49	0.62
FINSTITUTIONAL	0.41	5.96	0.00
CON	-0.16***	-2.20	0.02
BAKTPY	0.03	0.52	0.64
ROA	0.06	0.87	0.38
LEV	0.32***	4.58	0.00
BSIZE	0.19***	2.67	0.00
R ²	0.43		
F	11.0		
Sig	0.00		
Durbin-Watson	1.5		

*, **, *** = p-value < .10, .05, .01, respectively, one-tailed.

Variables: ICD = Intellectual capital disclosure, BoDE_Score = Score for effectiveness of board of directors, ACE_Score = Score for effectiveness of audit committee, FINSTITUTIONAL = Foreign institutional ownership, INSTITUTIONAL = Domestic institutional ownership, BAKTPY = Bank type, CON = Industry market concentration, ROA = Return on assets, LEV = Leverage, BSIZE = Bank size.

6.4 Hierarchical Regression Result

This section examines the moderating effect of different types of ownership (government, family and chairman ownership) and information asymmetry on the relationship between the effectiveness of the board of directors and IC disclosure. The results provide answers to the final research objectives and hypotheses of the study.

In order to test the effect of ownership structure and information asymmetry as moderators on the relationship between the effectiveness of the board of directors and IC disclosure, hierarchical regression is utilized. This regression has been suggested by many authors as a commonly used technique in identifying the moderating effects (Baron & Kenny, 1986; Frazier *et al.*, 2004 Auh & Menguc, 2005; Kim *et al.*, 2008). According to Baron and Kenny (1986), hierarchical regression is suggested as an appropriate method for determining the moderating effect of a quantitative variable on the relationship between other quantitative variables. According to Aguinis *et al.* (2008), testing hypotheses about moderating effects using hierarchical regression analysis is a straightforward procedure.

As mentioned in Chapter Five, family and government are measured as continuous and dummy variables. As continuous variables, the family is the percentage of total shareholdings of major family shareholders who own a stake of 5% or above of bank shares. As a dummy variable, family is measured by assigning a value of one for banks if major family shareholders own the majority of cumulative ownership by large shareholders who own a stake of 5% or above of bank share. The same procedures are used to measure government.

Section 6.4.1 presents the results of continuous variables. The results for the dummy variables are discussed in Section 6.4.2.

6.4.1 The Moderating Effect of the Ownership Structure and Information Asymmetry on the Relationship between the Effectiveness of the Board of Directors and IC Disclosure

According to Aiken and West (1991), to detect moderator effects, interaction terms must be created. The interaction term is the product of multiplying the predictor variable with the moderator variable. Therefore, the interaction term raises concerns about the multicollinearity problem between interaction terms with their component terms. To avoid this problem, the predictor and moderator variables were standardized (Frazier *et al.*, 2004; Aguinis *et al.*, 2008). Standardizing (i.e., z scoring) also makes it easier to interpret the effects of the predictor and moderator and help to provide a meaningful interpretation (Frazier *et al.*, 2004; Aguinis *et al.*, 2008). After interaction terms have been created, everything should be in place to structure a hierarchical multiple regression equation using SPSS to test for moderator effects. To do this, variables are entered into the regression equation through four steps. The first step is to test the control variables; the second step is to test the independent variable; the third step is to test the moderating variables; and the final step is to test the interaction terms of the independent variable and moderating variable. The steps used are in accordance with the suggestion by Baron and Kenny (1986), and Frazier *et al.* (2004). Only the changes in R^2 would indicate that there is a significant moderator (Hair *et al.*, 2006). In cases where the variable is a moderator variable, a post-hoc graph would then be drawn to show the effect of the moderator in the relationship between the predictor and criterion variables. Hence, the test will be able to achieve the last objectives of this study as to whether the government, family and chairman ownership and information asymmetry are moderators and if they are a moderator, do they interact with the effectiveness of the board of directors. As shown in Table 6.12, when the bank size, leverage and ROA are entered as control variables into the

regression model, in the first step, the coefficient of determination adjusted (R^2) was found to be 0.21, indicating that the 0.21 of the level of IC disclosure can be explained by the bank size, leverage and ROA. Step 2, by adding the independent variable, the adjusted R^2 increased to 0.26. This R^2 change (0.05) is significant. This implies that an additional 5 per cent of variation in IC disclosure is explained by the effectiveness of the board of directors. The effectiveness of the board of directors has a significant and positive relationship with IC disclosure at the 0.01 level of significance. These results provide support for arguments that say there is a positive relationship between the effectiveness of the board of directors and IC disclosure. Table 6.12 also shows that by adding ownership structure and information asymmetry in Step 3, R^2 is not significantly changed. This result indicates that there is no major effect from ownership structure and the information asymmetry on IC disclosure. In the final step when the interaction was entered, the adjusted R^2 increased from 0.26 to 0.40. This R^2 change (0.14) is significant. This indicates that the ownership structure and information asymmetry moderates the relationship between the effectiveness of the board of directors and IC disclosure.

According to Kim *et al.* (2008) and Noor (2010), to determine which type of ownership has a significant effect on the relationship between the effectiveness of the board of directors and IC disclosure, the beta coefficient for interaction has been used. Upon inspection of the beta coefficient for interaction terms, there is a significant interaction at 5 per cent between government, family ownership and information asymmetry, and effectiveness of the board of directors. Since government, family ownership and information asymmetry work as a moderator variable, a post-hoc graph was then drawn to show their effect on the relationship between the effectiveness of the board of directors and IC disclosure.

Table 6.12

The Moderating Effect of Different Types of Ownership and Information Asymmetry on the Relationship between the Effectiveness of the Board of Directors and IC Disclosure

	Step 1	Step 2	Step 3	Step 4
	CV	IV	MV	MV*IV
ROA	0.04 (0.53)	0.05 (0.60)	0.07 (0.80)	0.01 (0.23)
LEV	0.42*** (4.80)	0.39*** (5.00)	0.39*** (4.48)	0.33*** (3.90)
BASIZE	0.15* (1.66)	0.14 (1.62)	0.17 (1.82)	0.07 (0.72)
BoDE_Score		0.21*** (2.50)	0.19** (1.86)	0.11 (1.16)
CHOWN			-0.13 (1.45)	-0.16 (1.16)
GOWN			0.03 (0.37)	0.6 (2.10)
FAMOWN			0.02 (0.28)	-0.04 (0.29)
IA			0.01 (0.04)	0.07 (0.49)
BoDE_Score x CHOWN				0.11 (0.49)
BoDE_Score x GOWN				0.67*** (2.35)
BoDE_Score x FAMOWN				-0.22** (2.50)
BoDE_Score x IA				0.21** (2.30)
R ²	0.21	0.26	0.28	0.40
Adjusted R ²	0.19	0.22	0.21	0.34
R ² change	0.21	0.05	0.02	0.14
F change	7.90	6.80	0.50	5.10
Significant F change	0.00	0.00	0.137	0.00
Durbin Watson				1.66

Note: **CV** - Control Variables, **IV**- Independent Variables, **MV**- Moderator Variables.

*, **, *** = p-value < .10, .05, .01, respectively, one-tailed.

Variables: ROA = Return on assets, LEV = Leverage, BSIZE = Bank size, BoDE_Score = Effectiveness of the board of directors, CHOWN = Chairman ownership, GOWN = Government ownership, FAMOWN = Family ownership, IA = Information asymmetry.

However, Table 6.12 shows that the interaction effectiveness of the board of directors with chairman ownership is not significant. This implies that chairman ownership does not work as a moderator for the relationship between the effectiveness of the board of directors and IC in GCC banks. A possible explanation of this result is that the chairman in GCC banks is related to the government or family (Chahine, 2007). These types of ownership have different goals and abilities to monitor the management. Compared to family, the goal of government is transparent in order to fulfil its accountability role to the public at large and pursue maximization of political support. Thus, chairman, which is related to the government will enhance the IC disclosure and choose the outside directors in order to fulfil the accountability role of the government to the public at large and pursue maximization of political support. However, if the chairman is related to the family he will appoint his relatives on the board, and, due to the effect of IC disclosure on the competitive advantage of the company he will not enhance the level of IC disclosure.

6.4.1.1 The Moderating Effect of the Government Ownership

From Table 6.12 it can be seen that the beta coefficient for the interaction between government ownership and effectiveness of the board of directors is positive and significant at 0.05. This suggests that government ownership positively moderates the relationship between the effectiveness of the board of directors and IC disclosure. This means that as the percentage of government ownership increases in the bank the effectiveness of the board of directors lead to increase the level of IC disclosure. Thus, H_{16} is supported.

The moderating effect of government ownership on the relationship between the effectiveness of board of directors and IC disclosure is illustrated in Figure 6.2. It appears

from the figure that higher government ownership is associated with higher IC disclosure. When the level of the effectiveness of board of directors is low the level of IC disclosure is low in companies with high and low government ownership. However, when the level of the effectiveness of board of directors is high the level of IC disclosure is high in companies with high and low government ownership but the effect of the effectiveness of the board of directors on IC disclosure in companies with high government ownership is stronger than in companies with low government ownership.

The coefficient of the interaction between government ownership and effectiveness of board of directors and Figure 6.2 suggest that the effect of the effectiveness of the board of directors is high on IC disclosure in banks with high government ownership in which the agency cost is higher than the banks with low government ownership. This result implies that when government ownership is high in banks, the government has the ability to control the bank, which, in turn, has the ability to appoint a board of directors that are able to monitor managers and increase the voluntary disclosure by which the government can reduce the agency cost. Thus, this result supports the agency theory (Jensen & Meckling, 1976; Fama & Jensen, 1983), which states that a company with high agency costs will try to reduce them by increasing the board monitoring activities and the amount of voluntary disclosure. From this result, it is clear that when the government ownership increases in the bank the level of the effectiveness of the board of directors and the level of IC disclosure increase in order to reduce the agency cost. IC disclosure is expected to provide a more intensive monitoring package for a firm to reduce opportunistic behaviour and information asymmetry. In addition, it is the key driver of the company's competitive advantage and disclosing information about it allows the shareholders to better anticipate

the company risk. Thus, the board of directors in banks with high government will look to IC disclosure as a mechanism that fulfils the goals of government to the public at large and pursues maximization of political support.

This results of the study support Caves (1990), Firer and Walliams (2003), Makhija and Patton (2004), and Jiang and Habib (2009) who argue that state-owned firms have been assumed to pursue maximization of political support, which can be achieved by adding more outside directors on the board and disclosing more information to outside to fulfil their accountability role to the public at large. From these findings, it can be seen that as government ownership in a company increases the agency problem will increase, consequently, the need for the monitoring role of the board of directors increases to monitor the management and enhance the level of disclosure. Therefore, it can be said that when the government is controlling the shareholders in a company the level of effectiveness of the board of directors and IC disclosure complement each other to reduce the agency cost.

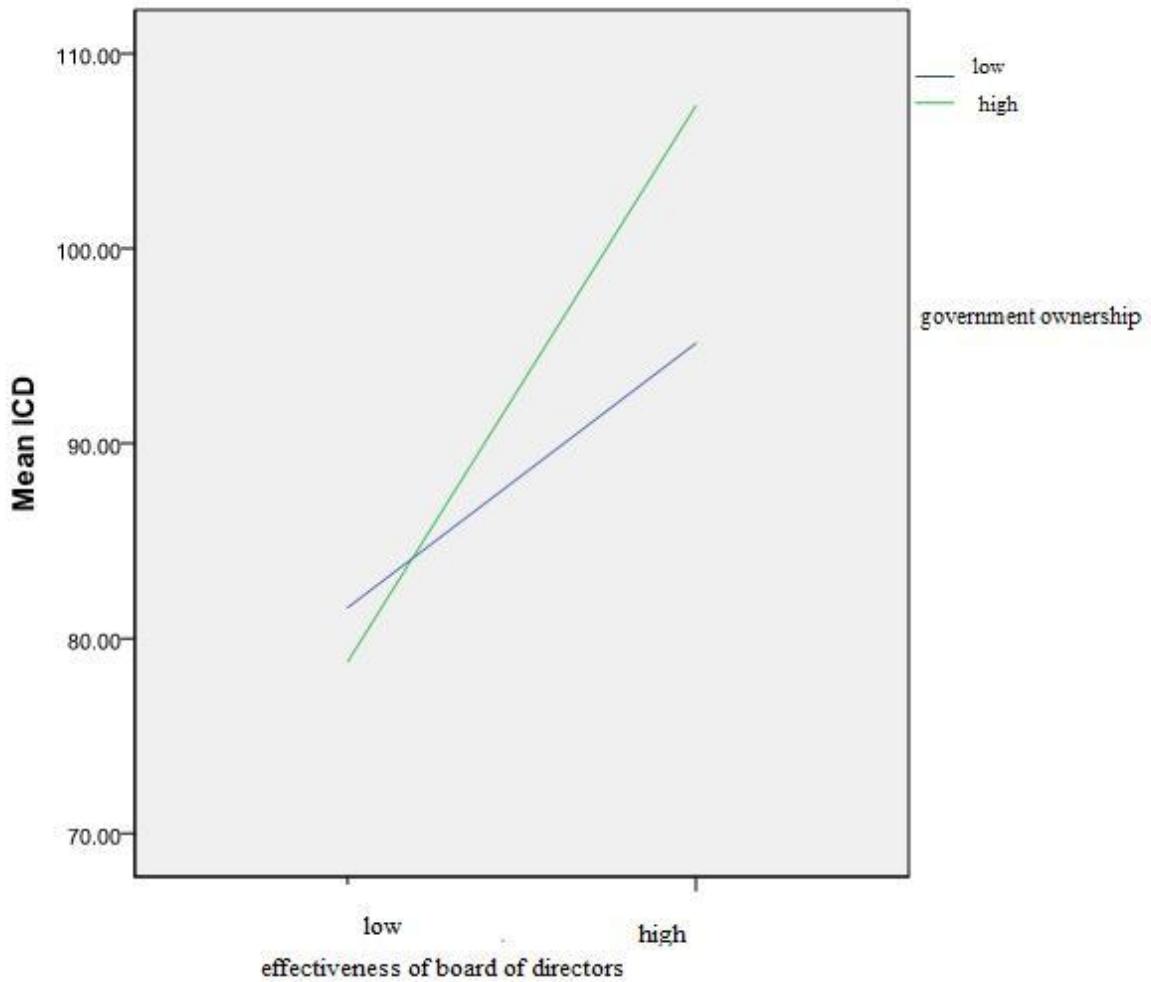


Figure 6.2
The moderating effect of the government ownership

6.4.1.2 The Moderating Effect of Family Ownership

Regarding the interaction between family ownership and the effectiveness of the board of directors, Table 6.12 shows that the beta coefficient for the interaction between family ownership and the effectiveness of the board of directors is negative and significant at 0.05. This suggests that family ownership negatively moderates the relationship between the effectiveness of the board of directors and IC disclosure. The moderating effect of family ownership on the relationship between the effectiveness of the board of directors and IC disclosure is also illustrated in Figure 6.3. It appears from the figure that high

family ownership is associated with lower IC disclosure. When the level of the effectiveness of the board of directors is low the level of IC disclosure is lower in companies with high family ownership than companies with low family ownership. However, when the level of the effectiveness of board of directors is high the level of IC disclosure is lower in banks with high family ownership, whereas the level of IC disclosure increases in companies with low family ownership when the level of effectiveness of the board of directors increases. Thus, H_{17} is supported. This result is consistent with the arguments that say that as the family ownership increases in a company, the board of director works as substitutes for voluntary disclosure. This is because when the family ownership increases in the bank, family shareholders are able to control the bank, through which they appoint their members on the board in order to monitor the management and follow the law that enforces the companies to appoint the independent directors on their board. Thus, as the voluntary disclosure of IC is not costless, the family shareholders use the board of directors as a channel to get the information for their decision.

Further, the results of this study provide support for the assumption that in the companies with high family ownership the agency problem is changed from agency problem between the management and owner to a problem between the larger shareholders and smaller shareholders in countries where there is no protection for minority shareholders. This result also supports Ali *et al.* (2007), who claim that politically powerful families in control of public firms have been able to expropriate wealth from minority shareholders. Furthermore, this result supports La Porta *et al.* (1999) who argue that a poor legal environment would facilitate the controlling shareholder's expropriation of minority

shareholders. GCC countries have weak legal protection for shareholders, and, therefore, provide a suitable environment for the expropriation of minority shareholder's wealth. As agency theory predicts, this study provides empirical evidence suggesting that, compared to banks with low family ownership, firms with high family ownership are more likely to provide lower levels of voluntary disclosure, which is an example of the expropriation of minority shareholders.

The results of this study also support the studies that found that family-owned firms are less likely than non-family owned firms, to voluntarily disclose information in their annual reports. This finding is consistent with Ho and Wong (2001), and Gan *et al.* (2008). These previous studies all reported an inverse relationship between family ownership and the voluntary disclosure of information. In addition to the findings, this study is consistent with the findings of Chen and Jaggi (2000), and Chau and Gray (2010) who find that the relationship between the board independence and voluntary disclosure is stronger in a company that is controlled by non-family members than in a company that is controlled by family members. Furthermore, the results of this study are in line with Chobpichien *et al.* (2008) who find that family ownership negatively moderates the relationship between the quality of the board of directors and voluntary disclosure for non-financial companies in Thailand.

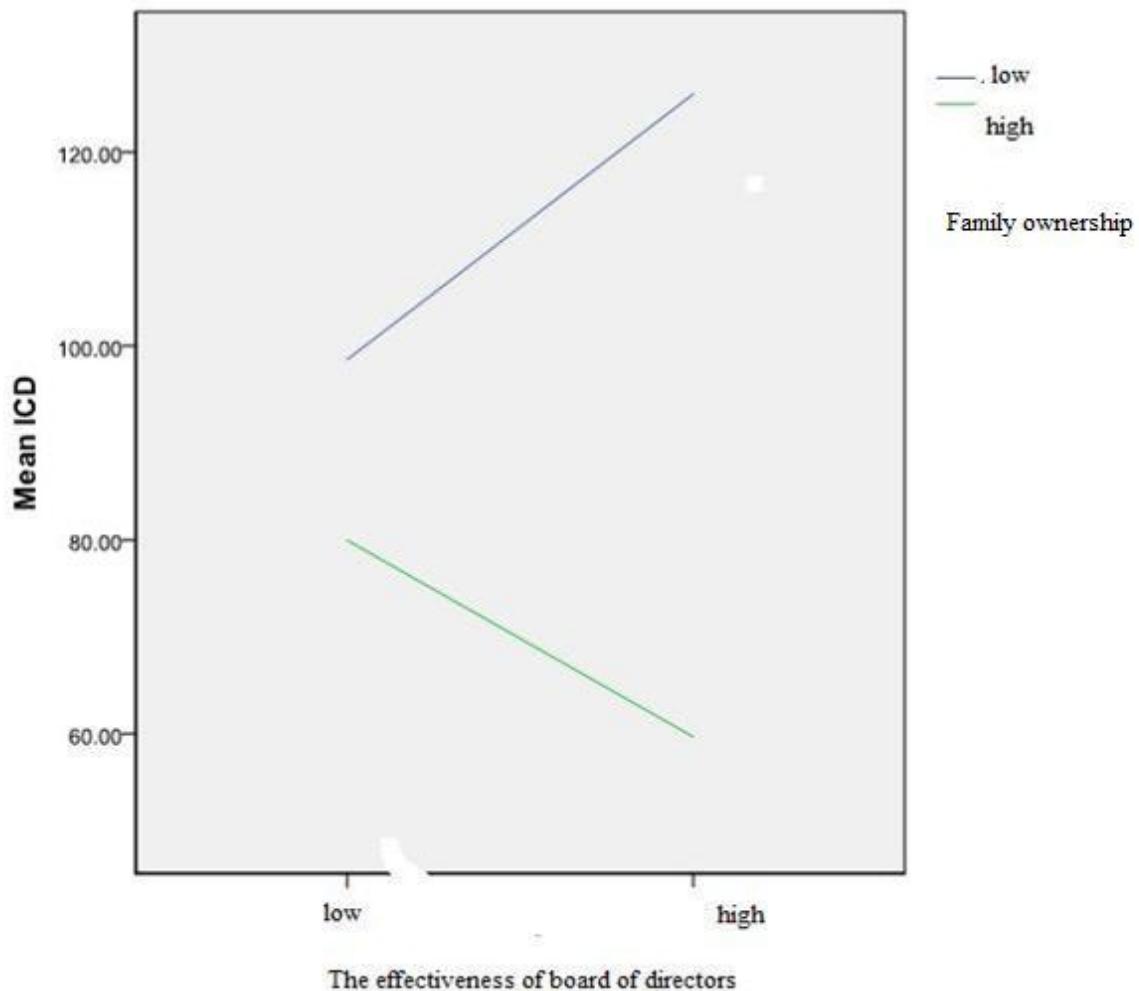


Figure 6.3
The moderating effect of the family ownership

6.4.1.3 The Moderating Effect of Information Asymmetry

It has been suggested, that as the percentage of minority shareholders increase in the bank the level of information asymmetry decreases. This study uses the percentage of the minority as the proxy for information asymmetry. From Table 6.12, it can be seen that the beta coefficient for interaction between information asymmetry and effectiveness of board of directors is positive and significant at 0.05. This suggests that as information

asymmetry decreases (i.e. the percentage of minority shareholders increases in the bank), there is a positive relationship between the effectiveness of the board of directors and IC disclosure. The moderating effect of information asymmetry (percentage of minority shareholders) on the relationship between the effectiveness of the board of directors and IC disclosure is also illustrated in Figure 6.3. It appears from the figure that lower information asymmetry (higher minority shareholders) is associated with higher IC disclosure. When the level of the effectiveness of the board of directors is low the level of IC disclosure is low in companies with a high or low information asymmetry. However, when the level of the effectiveness of board of directors is high the level of IC disclosure is higher in banks with low information asymmetry (higher percentage of minority shareholders) than in companies with high information asymmetry (few minority shareholders). Thus, H_{18} is supported.

This result suggests that as information asymmetry decreases (i.e. percentage of minority shareholders increases in the bank), the need for the monitoring role of the board of directors to monitor the management will increase because the shareholders do not have the motivation to monitor management. In other words as information asymmetry decreases, the entrenchment of management will reduce in the bank, thus the board of directors are able to control the management and protect the minority interests through disclosing more information about the IC. The results of this study provide empirical evidence for arguments that say that information asymmetry is an indicator of the entrenchment of management. Lower information asymmetry is lower entrenchment of management and allows for non-executives to participate in making decisions and controlling management. With a high degree of information asymmetry, entrenchment of

management will increase and managers play a significant role in the decision-making while non-executives are not able to control managers because they do not have sufficient knowledge about the firm so they became ineffective controlling mechanisms to protect minority shareholders. Furthermore, the findings of this study provide support for the managerial hegemony theory, which argues that the information asymmetry is one of the mechanisms for management control and has an impact on the effectiveness of the board of directors.

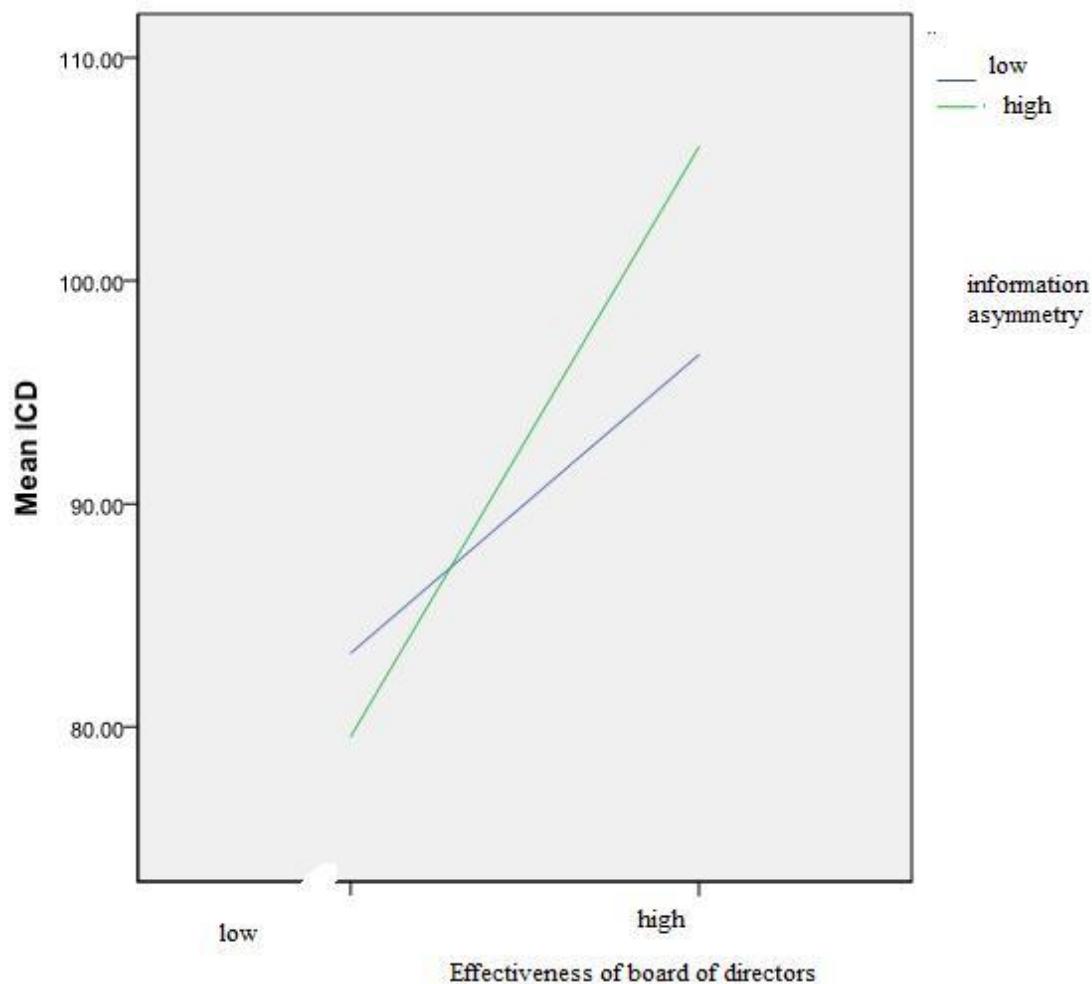


Figure 6.4
The moderating effect of information asymmetry

6.4.2 The Moderating Effect of Family Control and Government Control

In section 6.4.1 this study measures the variable family ownership control as a continuous variable by the percentage of total shareholdings of major family shareholders (i.e. a family shareholder who owns a stake of 5% or above of company shares). However, this measure of family ownership control might provide limited information because it ignores the confounding effect of the other types of major shareholders who might pursue different strategic objectives, and, therefore, are expected to influence the effectiveness of the board of directors in enhancing the level of IC disclosure differently. Therefore, it has been suggested that the shareholder will be controller in the company if he has the majority of cumulative ownership by large shareholders (Jiang & Habib, 2009). To further investigate this issue, this study also explores the possibility of the influence of family control on the relationship between the effectiveness of the board of directors and IC disclosure by assigning a value of one for banks if major family shareholders own the majority of cumulative ownership by large shareholders who own a stake of 5% or above of company shares and zero otherwise. The same measurement is applied for the government control.

In addition, in the previous section, to determine which type of ownership has a significant moderation effect on the relationship between the effectiveness of the board of directors and IC disclosure the beta coefficient and graphs have been used. Thus, all moderator variables are entered in the third step and their interaction with the predictor in the last step. However, it has been argued that the change of R^2 should be used to determine the moderation effect (Hair *et al.*, 1998). Based on this suggestion, every type of ownership should be entered separately in the third step in the hierarchical regression and its interaction with board effectiveness in the last step in order to determine R^2 for each type of ownership. Therefore, if

there is a significant change in R^2 in the last step and the change in R^2 in the third step is not significant, this means that this type of moderator is a pure moderator. However, if the change in R^2 in the third step and the last step is significant it means that this type of moderator is a quiz moderator. Otherwise, there is no moderation effect for this type of ownership (Chobpichien *et al.*, 2008). In this section, this study follows Chobpichien *et al.* (2008) to determine the effect of family and government control on the relationship between the effectiveness of the board of directors and IC disclosure.

The results shown in Table 6.13 indicate that the coefficients of controls variables and the effectiveness of the board of directors are not significantly different from the results shown in Table 6.12. However, when the government control is entered as a moderator variable in step 3 there is no significant F change. This result indicates that there is no major effect from the moderator variables on the dependent variable. In the final step when the interaction between the government control and effectiveness of the board of directors is entered R^2 increases to 0.33. This R^2 change (0.07) is significant. This indicates that the government control moderates the relationship between the effectiveness of the board of directors and IC disclosure.

In terms of family control, Table 6.13 shows that when the family control was entered as a moderator variable in step 3 there is no significant F change. In the final step, when the interaction between the family control and effectiveness of the board of directors was entered R^2 increased to 0.30. This R^2 change (0.04) is significant. This indicates that the family control moderates the relationship between the effectiveness of the board of directors and IC disclosure. Thus, the result of this measurement supports the results that have been shown in Table 6.12.

Table 6.13

The moderating effect of Family Control and Government Control on the Relationship between the Effectiveness of the Board of Directors and IC Disclosure

Variable	Step 1	Step 2	Step 3		Step 4	
			GOWN	FAMOWN	GOWN	FAMOWN
ROA	0.04 (0.49)	0.07 (0.81)	0.07 (0.81)	0.05 (0.61)	0.09 (1.12)	0.04 (0.46)
LEV	0.42*** (5.40)	0.39 (5.00)	0.35 (4.23)	0.42 (5.36)	0.29 (3.60)	0.41 (5.04)
BSIZE	0.15* (1.71)	0.14 (1.66)	0.14 (1.70)	0.15 (1.92)	0.12 (1.50)	0.19 (2.30)
		0.21** (2.50)	0.23 (2.80)	0.19 (2.35)	0.21 (2.70)	0.17 (2.10)
BoDE_Score			0.14 (1.70)		-0.12 (1.30)	
GOWN					-0.04 (-0.54)	-0.19 (1.40)
FAMOWN						
EFFBOD x GOWN					0.38*** (3.44)	
EFFBOD x FAMOWN						-0.30*** (2.20)
R ²	0.21	0.26	0.28	0.27	0.33	0.30
Adjusted R ²	0.21	0.22	0.24	0.25	0.31	0.27
R ² change	0.21	0.05	0.02	0.01	0.07	0.04
Significant F change	0.00	0.00	0.09	0.55	0.00	0.02

*, **, *** = p-value < .10, .05, .01, respectively, one-tailed

Variables: ROA = Return on assets, LEV = Leverage, BSIZE = Bank size, BoDE_Score = Effectiveness of the board of directors, CHOWN = Chairman ownership, GOWN = Government ownership, FAMOWN = Family ownership.

6.5 Additional Empirical Tests

This section shows a series of additional tests conducted to examine the robustness of the regression models (1, 2 & 3) to further provide supplementary results.

6.5.1 The Moderating Effect of Ownership Structure and Information Asymmetry on the Relationship between the Effectiveness of Audit Committee and IC Disclosure

Previously, it has been mentioned that the board of directors delegates the responsibility for the oversight roles to audit committees, which is now considered as one of the most important committees of the board, because it is responsible for reporting the financial status of the corporation (McMullen, 1996; Beasley *et al.*, 2009) . However, the ability of the audit committee to be effective in carrying out its oversight role may be contingent upon the presence of a strong board of directors. Carcello *et al.* (2006), and Krishnan and Lee (2009), propose that an efficient audit committee is commonly a reflection of an effective delegated board governance. Empirically, previous studies found that firms with good board governance practices are more likely to support and empower the audit committee (Sulng & Mat-Nor, 2008). Dhaliwal *et al.* (2006) reveal that the effectiveness of the board of directors strengthens the monitoring function of the audit committee over reporting disclosure. DeFond *et al.* (2005), Dhaliwal *et al.* (2006) conclude that the association between the effectiveness of the audit committee and accruals quality is related to strong board governance. Thus, the effectiveness of the board of directors plays a key role in enhancing the function of the audit committee. More specifically, it could be said that the effectiveness of the audit committee is affected by the board of directors, which means that any effect on the board of directors will affect the effectiveness of the audit committee. In line with this argument, in the basic analysis (i.e. Table 6.12) the only moderation effect of ownership structure on the relationship between the

effectiveness of the board of directors and IC disclosure have been examined. This is based on the assumption that any type of ownership affects the relationship between the board of directors and IC disclosure, should also affect the relationship between the effectiveness of the audit committee and IC disclosure. To further investigate this issue, this study also explores the possibility of the type of ownership and information asymmetry influence on the relationship between the effectiveness of the audit committee and IC disclosure.

The results shown in Table 6.14 indicate that the coefficients of controls variables are not significantly different from those in the earlier models. However, the results presented in Table 6.14 indicate that the coefficients of the effectiveness of audit committee is not significant, thus, contradictory to the results shown in Table 6.11. This indicates that when the relationship of the effectiveness of the audit committee is examined with IC disclosure in isolation of other monitoring mechanisms like board of directors it has no relationship. Thus, it could be said that the ability of the audit committee of being effective in carrying out its oversight role may be contingent upon the presence of the effectiveness of the board of directors. This result also provides support for Agrawal and Knoeber (1996) who argue that the results on the effectiveness of single mechanism might be misleading. The remainder of the coefficients (i.e. type of ownership as moderator and their interaction with effectiveness of audit committee) show similar results to those found in Table 6.12. Government and family ownership and information asymmetry also have a significant impact on the relationship between the effectiveness of the audit committee and IC disclosure.

Table 6.14

The Moderating Effect of Different Types of Ownership and Information Asymmetry on the Asymmetry on the Relationship between the Effectiveness of Audit Committee and IC Disclosure

	Step 1	Step 2	Step 3	Step 4
	CV	IV	MV	MV*IV
ROA	0.03 (0.04)	.05 (0.11)	0.02 (0.33)	0.03 (0.33)
LEV	0.42*** (5.44)	0.42*** (5.31)	0.41*** (5.11)	0.38*** (4.99)
BSIZE	0.16* (1.98)	0.17* (2.11)	0.17* (1.95)	0.11 (1.38)
ACE_Score		0.09 (1.41)	0.07 (0.81)	0.03 (0.20)
CHOWN			-0.11 (-1.36)	-0.20 (-1.6)
GOWN			0.12 (1.54)	0.11 (1.01)
FAMOWN			0.04 (0.44)	-0.04 (-0.52)
IA			-0.07 (-0.79)	0.04 (-0.57)
ACE_Score x CHOWN				0.15 (1.01)
ACE_Score x GOWN				0.24*** (2.59)
ACE_Score x FAMOWN				-0.24*** (-2.71)
ACE_Score x IA				0.15** (1.60)
R ²	0.22	0.24	0.27	0.38
Adjusted R ²	0.21	0.22	0.23	0.32
R ² change	0.22	0.02	0.04	0.11
F change	12.0	1.30	1.40	5.00
Significant F change	0.00	0.25	0.23	0.00
Durbin Watson				1.5

Note: **CV** - Control Variables, **IV**- Independent Variables, **MV**- Moderator Variables.

*, **, *** = p-value < .10, .05, .01, respectively, one-tailed.

Variables: ROA = Return on assets, LEV = Leverage, BSIZE = Bank size, ACE_Score = Effectiveness of the audit committee, CHOWN = Chairman ownership, GOWN = Government ownership, FAMOWN = Family ownership, IA = Information asymmetry.

6.5.2 Gross Domestic Product (GDP)

Dong *et al.* (2007) comment that cross-country studies demonstrate that country-level factors, such as economic development status, cultural values and legal systems, have a considerable effect on corporate disclosure (Dong *et al.*, 2007). Choi *et al.* (2002) contend that the development of an accounting system and the development of a system of disclosure are similar, and that the level of economic development has a marked effect on the accounting system. Dong et al, (2007) contend that accounting practices are likely to differ between countries with dissimilar levels of economic development. More developed economies are more likely to be subject to the demand for greater disclosure. Furthermore, a high level of disclosure transparency helps generate and uphold the trust in capital markets, which, in turn, leads to a more stable flow of foreign investment into a country (Qu & Leung, 2006).

The assumptions underpinning these arguments are that at the country level a high level of economic development leads to the satisfaction of a large part of the economic needs of individuals. This satisfaction provides an opportunity for society members to move beyond considering only economic issues, to the importance of non-economic issues, such as transparency. At the corporate level, a high economic level of attainment means that there is a substantial probability that the companies have the financial capacity to establish a sophisticated information system allowing them to disclose IC information.

As mentioned earlier, GCC countries share some common economic, cultural, and political similarities, which far outweigh any differences they might have (Al-Muharrami *et al.*, 2006). However, there are some differences between these countries in terms of the gross domestic product (GDP). Thus, the robustness of the results have been further

demonstrated by including GDP as variable in order to provide evidence of whether or not it has any effect on the IC disclosure.

Table 6.15 reports the results of the regression of models one and two. These findings indicate that GDP has a positive relationship with IC disclosure at 0.10 and 0.5 in models one and two, respectively. These results suggest that as GDP in the country increase, the level of IC disclosure increases. This result supports the argument that the more developed the economy, the more demand for disclosure, and that a high level of transparency contributes to creating and maintaining the confidence in capital markets, which, in turn, encourages a better flow of foreign investment into a country (Qu & Leung, 2006). The results of the other independent variables support the results of the primary regression except bank ROA, the significant of which is 0.26 instead of the 0.18 in Table 6.10.

In respect of model three, Table 6.16 shows that when GDP is entered into the first step the R^2 is 30% instead of 21%. This change of R^2 is a result of the significant effect of GDP on the IC disclosure. The remainder of the coefficients do not change significantly from the result shown in Table 6.12

Table 6.15
The Results of Models One and Two with GDP

Model	Model one			Model two		
	Beta	T	Sig	Beta	T	Sig
(Constant)		-2.81	0.00		2.70	0.00
BoDE_Score				0.19	2.71	0.00
ACE_Score				0.13	1.99	0.04
BODSIZ	-0.06	-0.76	0.44			
BODIND	0.26	3.55	0.00			
BODMEET	0.15	2.02	0.04			
CEO DUAL	0.05	0.75	0.45			
BODCOM	0.1	1.44	0.15			
AUDSIZ	0.13	1.73	0.08			
AUDIND	-0.01	-0.13	0.89			
AUDEX	0.07	1.03	0.30			
AUDMEET	0.18	2.77	0.00			
FINSTITUTIONAL	0.32	4.69	0.00	0.41	6.02	0.00
DINSTITUTIONAL	-0.03	-0.54	0.58	-0.02	-0.38	0.70
BAKTPY	0.00	0.08	0.93	-0.02	-0.28	0.77
CON	-0.21	-2.82	0.00	-0.16	-2.13	0.03
ROA	0.08	1.11	0.26	0.05	0.81	0.41
LEV	0.24	3.44	0.00	0.31	4.53	0.00
BSIZE	0.11	1.61	0.10	0.18	2.59	0.01
GDP	0.01	1.58	0.11	0.12	1.87	0.06
R2	0.53		0.45			
F	8.00		10.0			
Sig	0.00		0.00			

*, **, *** = p-value < .10, .05, .01, respectively, one-tailed.

Variables: BoDE_Score = Score for effectiveness of board of directors, ACE_Score = Score for effectiveness of audit committee, BODSIZ = Board size, BIND = Board independence, BODMEET = Board meeting, CEODUAL = CEO duality, BODCOM = Board committees, AUDZIE = AC size, AUDIND = AC independence, AUD EX= AC financial expertise, AUDMEE = AC meeting,, FINSTITUTIONAL = Foreign institutional ownership, INSTITUTIONAL = Domestic institutional ownership, BAKTYP = Bank type, CON = Industry market concentration, ROA = Return on assets, LEV = Leverage, BSIZE = Bank size. GDP = Gross domestic Product.

Table 6.16

The Moderating Effect of Different Types of Ownership and Information Asymmetry on the Relationship between the Effectiveness of the Board of Directors and IC Disclosure

	Step 1	Step 2	Step 3	Step 4
	CV	IV	MV	MV*IV
ROA	0.04 (0.25)	0.03 (0.27)	0.02 (0.19)	0.03 (0.37)
LEV	0.43*** (5.20)	0.40*** (4.89)	0.40*** (4.83)	0.30*** (4.13)
BSIZE	0.11* (1.37)	0.11* (1.37)	0.14* (1.50)	0.09 (0.63)
GDP	0.30*** (3.40)	0.26*** (2.87)	0.29*** (2.90)	0.20** (2.00)
BoDE_Score		0.14** (1.64)	0.07 (0.70)	0.05 (0.35)
CHOWN			-0.13 (-1.47)	-0.15 (1.04)
GOWN			0.01 (0.24)	0.17 (1.72)
FAMOWN			0.02 (0.37)	0.06 (0.19)
IA				0.04 0.09 (0.94)
BoDE_Score x CHOWN				0.09 (0.67)
BoDE_Score x GOWN				0.28** (2.00)
B BoDE_Score x FAMOWN				-0.16** (1.90)
BoDE_Score x IA				0.20** (2.28)
R ²	0.30	0.32	0.33	0.43
Adjusted R ²	0.27	0.28	0.27	0.35
R ² change	0.30	0.02	0.015	0.10
F change	10.0	2.40	0.50	3.90
Significant F change	0.00	0.10	0.72	0.00
Durbin Watson				1.66

Note: CV - Control Variables, IV - Independent Variables, MV- Moderator Variables.

*, **, *** = p-value < .10, .05, .01, respectively, one-tailed.

Variables: ROA = Return on assets, LEV = Leverage, BSIZE = Bank size, GDP = Gross domestic product, BoDE_Score = Effectiveness of the board of directors, CHOWN = Chairman ownership, GOWN = Government ownership, FAMOWN = Family ownership, IA = Information asymmetry.

6.5.3 Global Financial Crisis

Drawing on the proprietary costs theory, it has been suggested that in times of financial crisis companies might not have afforded the costly process of additional voluntary disclosure due to the related preparation and competitive costs. Hence, companies would not have the motivation to provide more voluntary information in times of financial crisis. On the other hand, the financial crisis might have forced companies to disclose more information to outside to legitimize their existence (Haji & Ghazali, 2012). From this argument, it could be said that the financial crisis had a significant effect on the level of IC disclosure. Thus, the robustness of the results has been further demonstrated by including a dummy variable to control for the 2008 global financial crisis, which occurred during this study sample period, taking a value of 1 in the year 2008 and 2009, and 0 otherwise (Hooy & Lee, 2010; Ahrend & Schwellnus, 2012).

The results presented in Table 6.17 show that the dummy variable, global financial crisis, does not influence IC disclosure. The remainder of the coefficients show similar results to those found in Tables 6.10 and 6.11 for model one and model two, respectively. In respect of model three, Table 6.18 shows that when financial crisis is entered in the first step the R^2 is 21%, which is similar to Table 6.12. This indicates that financial crisis has no influence on IC disclosure. Regarding the other coefficients, they show similar results to those found in Table 6.12.

Table 6.17

The Results of Models One and Two with 2008 Global Financial Crisis

Model	Model one			Model two		
	Beta	T	Sig	Beta	T	Sig
(Constant)		-2.81	0.00		2.70	0.00
BoDE_Score				0.17	2.50	0.02
ACE_Score				0.15	2.10	0.04
BODSIZ	-0.06	-0.90	0.37			
BODIND	0.24	3.28	0.00			
BODMEET	0.18	2.44	0.00			
CEO DUAL	0.035	0.52	0.61			
BODCOM	0.09	1.34	0.18			
AUDSIZ	0.14	1.86	0.06			
AUDIND	0.08	1.02	0.27			
AUDEX	0.02	0.05	0.99			
AUDMEET	0.19	2.80	0.00			
FINSTITUTIONAL	0.32	4.55	0.00	0.40	5.87	0.00
DINSTITUTIONAL	-0.05	-0.60	0.54	-0.03	-0.43	0.70
BAKTPY	0.02	0.22	0.97	-0.03	-0.44	0.65
CON	-0.25	-2.90	0.00	-0.17	-2.26	0.02
ROA	0.10	1.36	0.17	0.05	0.96	0.34
LEV	0.24	3.46	0.00	0.31	4.42	0.00
BSIZE	0.13	1.76	0.09	0.18	2.61	0.00
Crisis	-0.13	-0.25	0.79	0.04	0.52	0.59
R ²	0.53			0.44		
F	8.00			10.0		
Sig	0.00			0.00		

*, **, *** = p-value < .10, .05, .01, respectively, one-tailed

Variables: BoDE_Score = Score for effectiveness of board of directors, ACE_Score = Score for effectiveness of audit committee, BODSIZ = Board size, BIND = Board independence, BODMEET = Board meeting, CEODUAL = CEO duality, BODCOM = Board committees, AUDZIE = AC size, AUDIND = AC independence, AUD EX = AC financial expertise, AUDMEE = AC meeting, FINSTITUTIONAL = Foreign institutional ownership, INSTITUTIONAL = Domestic institutional ownership, BAKTYP = Bank type, CON = Industry market concentration, ROA = Return on assets, LEV = Leverage, BSIZE = Bank size., Crises = Global Financial Crisis.

Table 6.18

The Moderating Effect of Different Types of Ownership and Information Asymmetry on the Relationship between the Effectiveness of the Board of Directors and IC Disclosure

	Step 1	Step2	Step 3	Step 4
	CV	IV	MV	MV*IV
ROA	0.47 (0.53)	0.04 (0.43)	0.06 (0.67)	0.02 (0.16)
LEV	0.42*** (4.60)	0.39*** (4.40)	0.37*** (4.28)	0.32*** (3.80)
BSIZE	0.15* (1.68)	0.15* (1.65)	0.17* (1.85)	0.07 (0.76)
	-0.10	-0.06	-0.07	-0.04
Crises	(-0.15)	(-0.08)	(-0.84)	(-0.50)
BoDE_Score		0.22** (2.47)	0.18** (1.85)	0.11 (1.20)
CHOWN			-0.12 (-1.30)	-0.14 (-0.94)
GOWN			0.04 (0.33)	0.61 (2.00)
FAMOWN			-0.03 (-0.30)	-0.02 (0.35)
IA			-0.03 (0.04)	0.04 (0.50)
BoDE_Score x CHOWN				0.05 (0.58)
BoDE_Score x GOWN				0.65** (2.22)
B BoDE_Score x FAMOWN				-0.22** (-2.50)
BoDE_Score x IA				0.22** (2.28)
R ²	0.21	0.26	0.28	0.41
Adjusted R ²	0.18	0.23	0.22	0.33
R ² change	0.21	0.05	0.02	0.13
F change	7.0	6.00	0.7	5.00
Significant F change	0.00	0.014	0.50	0.00
Durbin Watson				1.6

Note: CV - Control Variables, IV- Independent Variables, MV - Moderator Variables.

*, **, *** = p-value < .10, .05, .01, respectively, one-tailed.

Variables: ROA = Return on assets, LEV = Leverage, BSIZE = Bank size, Crises = Global Financial Crisis, BoDE_Score = Effectiveness of the board of directors, CHOWN = Chairman ownership, GOWN = Government ownership, FAMOWN = Family ownership, IA = Information asymmetry.

6.6 Summary

This chapter finalises the empirical investigation and demonstrates new evidence with regard to the effects of monitoring mechanisms, namely, the effectiveness of the board of directors and audit committee, the foreign and domestic institutional ownership, the market concentration in addition to the bank type on IC disclosure. Further, this chapter finalises the empirical investigation and demonstrates new evidence with regard to the moderating effects of ownership structure and information asymmetry on the effectiveness of the board of directors – IC disclosure relationship. A number of key points are summarised below.

First, the empirical results support board independence, board meetings, board committee, audit committee meetings and audit size, however, they do not support the board size, CEO duality and audit committee and financial expertise. One explanation of the insignificant results is that the establishment of a corporate governance system in the GCC needs to take into consideration the unique features of the GCC institutional environment; otherwise, simply following the Western style practices may not achieve the expected monitoring results. Second, the significant relationship between the score of effectiveness of board and audit committee and IC disclosure indicates that the score of effectiveness of board and audit committee is effectively capturing the associations of characters of board and audit committee with IC disclosure. Third, the significant relationships of the foreign institutional ownership and industry market concentration with IC disclosure indicate that they work as monitoring mechanisms in GCC banks.

Last, the empirical results support the moderation effects of family and government control and information asymmetry on the effectiveness of board of directors – IC

disclosure relationship. Interestingly, in the additional analysis this study finds a significant and positive relationship between GDP and IC disclosure. The finding suggests that higher IC disclosure in banks' annual reports is associated with high GDP in the country that the banks work in. The next chapter provides a summary of the key findings in relation to the research questions. The implications and contributions of the study and limitations, avenues of future research are also presented.

CHAPTER SEVEN **SUMMARY AND CONCLUSIONS**

7.1 Introduction

This final chapter presents the overview, summary and conclusion of this study. The chapter also details the implications and limitations of the investigations, as well as suggestions for future research.

7.2 Overview of the Study

This study examines the relationship between monitoring mechanisms and IC disclosure among listed banks in the GCC region. The study extends previous research by simultaneously considering the monitoring mechanisms, namely, board and audit committee effectiveness and institutional ownership, in addition to level of industry market concentration and bank type in relationship to voluntary disclosure on IC. Furthermore, based on the assumption that a firm's ownership structure shapes the incentives and abilities of board members to monitor top management and protect the interests of shareholders, this study uses hierarchical regression to examine the moderating effect of ownership structure and information asymmetry on the relationship between the effectiveness of the board of directors and IC disclosure.

Consistent with agency theory and with prior evidence regarding the effectiveness of certain characteristics of board of directors and audit committee, the present study suggests that boards of directors with a smaller number of members, more independent directors, possesses three committees and has more regular meetings are defined as an effective board. Similarly, an audit committee with more members, comprising more

independent directors, has more financial experts and more regular meetings is also considered as an effective audit committee. Drawing on the argument that corporate governance is a bundle of mechanisms that are not isolated from each other, this study suggests that the level of IC disclosure in banks with a high score of effectiveness of board of directors and audit committee is higher than for banks with a low score of effectiveness for board of directors. In addition, based on the arguments that the monitoring capabilities of institutional investors may differ according to their nationality (Tihanyi *et al.*, 2003; Ferreira & Matos, 2008; Bhattacharya & Graham, 2009; Rashid Ameer, 2010), this study suggests that the foreign institutional ownership has a greater ability to monitor the management and reduce the agency problem than domestic institutional ownership. Furthermore, based on the property cost theory, this study suggests that the level of IC disclosure is high in banks that work in high market concentration than banks that work in less market concentration. Lastly, this study suggests that level of IC disclosure in Islamic banks should be higher than in conventional banks.

Based on the multiple regression analysis, several important findings emerge. First, this study finds that as the level of the score of the effectiveness of the board of directors and audit committee increase (increase in the characteristics that enhance the board and audit committee monitoring) the level of IC disclosure in bank annual reports increase. This result supports the agency theory and the idea that the impact of internal governance mechanisms on corporate disclosures is complementary. This result suggests that certain mechanisms complement each other to become more efficient monitors of the management. A combination (i.e., score) of board characteristics and a combination of

audit committee characteristics can increase the positive association with IC disclosure. Second, when the characteristics of board and audit committee were individually examined with IC disclosure, the results show that board independence, board meetings and board committees have a positive and significant relationship with IC disclosure. However, this study fails to find any significant evidence to show that the board size and CEO duality have a relationship with IC disclosure. This may be because the number of the board of directors might not reflect the directors' skill and knowledge, which are more valuable for a board to function effectively. In terms of the relationship of the audit committee characteristics with IC disclosure, the study fails to find any significant evidence to show that the audit committee helps to solve the agency problem by increasing the level of IC disclosure except size and the audit meetings. This might be due to the lack of explicit and detailed guidelines about the monitoring duties of the audit committee (Al-Abbas, 2009; Arouri *et al.*, 2011).

Second, this study shows that only as the percentage of foreign ownership increases in banks does the level of IC disclosure increase; thus, it can be said that the foreign institutional ownership works as a better monitoring mechanism than the domestic institutional ownership to solve the agency conflict between the large and monitory shareholder in GCC banks. A possible explanation of this result is that the monitoring role of domestic institutional investor is usually affected by the existence of ties and networks in the domestic business environment (Claessens *et al.*, 2000; Douma *et al.*, 2006).

The study shows that as the level of market concentration increases the level of IC disclosure decreases. This finding is consistent with the argument of agency theory,

which says that the competition enhances the effectiveness of the board of directors; thus, it works as an external corporate mechanism (Allen & Gale, 1999; Hart, 1983; Li, 2010). However, this study did not provide evidence that the level of IC disclosure is higher in Islamic banks than conventional banks. Based on the institutional theory, the present study conjectures that the result might be due to both Islamic banks and conventional banks are working in the same environment, and, thus they follow the same accounting practice, which might reduce any differences regarding the disclosing of information about IC to outsiders.

Based on hierarchical regression, the results show that family and government ownership continue to play a significant role in corporate governance in GCC banks. The dominant status of family makes it difficult for non-controlling investors to challenge the family's control. The results show that banks' effectiveness of the board of directors is effective when there is no interference from the family owners. However, the banks' effectiveness of the board of directors led to low IC disclosure when it is interacted with the family owners. In contrast to the dominant status of family, the dominant status of government ownership does not affect the interests of non-controlling investors. The results show that the banks' effectiveness of the board of directors led to an increase in IC disclosure when it is interacted with the government owners. This result supports the agency theory and the argument that when the agency cost increases, the need of board monitoring and voluntary disclosure increase. In the dominant status of government ownership where the agency cost is high, IC disclosure works as a complement to the effectiveness of the board of directors to reduce the agency cost. This result suggests that the board of directors works as a good mechanism to protect the interests of small shareholders in

banks that are controlled by government. However, in the case of the dominant status of family where the agency problem is low the effectiveness of the board of directors works as a substitute for IC disclosure. This result suggests that the board of directors does not work as a good mechanism to protect the interests of small shareholders in banks that are controlled by family.

The hierarchical regression results also support the hegemony theory that says that the board of directors is able to control the management and enhance the level of voluntary disclosure when the information asymmetry is low. The results show that information asymmetry significantly moderates the relationship of the board of directors and IC disclosure. The results provide a clear indication that the board of directors is not effective in monitoring management in an environment where the information asymmetry is high.

7.3 Theoretical Contribution

First, although plenty of literature has addressed the issue of corporate governance using agency theory, most studies focused on developed and emerging countries, which have a different environment from non-developed countries. This study has added to the understanding of agency theory in a developing country, where banks are controlled by controlling owners, in which the agency relationships are complex. The study provides an examination of corporate governance practices in GCC where the government and family are the controlling shareholders in the majority of the listed banks. The study examines a comprehensive set of corporate governance mechanisms to investigate their impact on managers' incentives to increase the IC disclosure. Furthermore, a set of corporate governance mechanisms are aggregated together (i.e. a combination of board

characteristics and a combination of audit committee characteristics). The aggregated analysis shows that individual governance mechanisms need to be aggregated together to be effective in reducing the agency cost. These aggregated findings demonstrate the importance of the application of the agency theory in GCC settings, especially in banks that are not controlled by a family owner and where information asymmetry is low

Second, this study considers the moderating effects of family and government control on the relationship of the effectiveness of the board of directors with IC disclosure. The significant results provide support to the agency theory explanation, that as the level of agency cost in the company increase (decrease), the increase in the effectiveness of the board of directors leads to an increase (decrease) in the level of IC disclosure in order to reduce the agency cost. Therefore, this study accepts the assumption that different types of controlling owner have different motives for the monitoring role of the board and voluntary disclosure. Thus, the relationship between the effectiveness of the board of directors and IC disclosure is determined by the type of controlling owner. The significant results of government and family control indicate that these variables are essential for fully understanding the relationship between the board of directors and voluntary disclosure.

Third, this study considers the moderating effects of information asymmetry on the relationship of the effectiveness of boards of directors with IC disclosure. The significant results provide support to the hegemony theory explanation that in situations under which the information asymmetry problem is high, the board will be less effective. Thus, it will not be able to enforce the management in disclosing information about IC to outside. Therefore, the significant result of information asymmetry indicates that this variable is

essential for fully understanding the relationship between the board of directors and voluntary disclosure. Therefore, the findings of the study indicate that the relationship between the effectiveness of the board of directors and voluntary disclosure may require more than one theory to explain the phenomenon. Based on the direct relationship between the effectiveness of the board of directors and IC disclosure, the results show that the agency theory is appropriate for explaining the phenomenon in the GCC. However, when the moderating effect of information asymmetry is introduced in the relationship, the result in fact supports the hegemony theory.

Fourth, this study examines the effectiveness of alternative mechanisms in GCC listed banks, i.e. domestic and foreign institutional investors. By doing so, this study extends existing voluntary disclosure literature by dividing institutional ownership to domestic and foreign institutional investors. The significant results between foreign institutional investors and IC disclosure provide a clear indication that foreign institutional investors are effective to monitor management and solve the agency problem between the small and large shareholders in an environment where the legal protection of investors is weak.

Lastly, this study extends the previous studies by examining the relationship between market concentration (proxy of competition) and voluntary disclosure of IC. The significant results provide support to the agency theory explanation, that market concentration (proxy of competition) works as an external monitoring mechanism to solve the agency problem. In addition, the insignificant relationship between bank type and voluntary disclosure of IC provides support to the explanation of institutional theory.

In that, firms that work in the same environment will follow the same accounting practice due to the role of isomorphism, whereby organizations follow the actions of other

organizations as a result of coercive, normative, or mimetic pressures, which might reduce any differences regarding disclosing information about IC to outside. Overall, this study indicates that the use of different theories can better explain the phenomenon of IC disclosure.

7.4 Practical and Policy Implications

The findings of this study should be of potential interest to policy makers, investors, creditors and researchers, especially concerning issues relating to IC disclosure and corporate governance practice.

Policy makers may use the findings regarding IC disclosure in relation to governance practice, to recognize the important roles played by the effectiveness of the board of directors as one of the fundamental characteristics of the corporate governance system in the GCC, since their monitoring effects improve the IC disclosure in GCC banks that are not controlled by family owners and there is low information asymmetry. Therefore, policy makers should not assume that the board and audit committee are a good mechanism to protect the interests of shareholders in banks that are controlled by family owners or where the information asymmetry is high. Thus, the policy makers should look to other mechanisms that can be used to protect the interests of shareholders in banks that are controlled by family owners or where the information asymmetry is a high.

The findings of this study also provide evidence for policy makers that the functions of the audit committee need to be strengthened. The number of banks setting up an audit committee has increased significantly since 2007. However, it is argued that many banks establish an audit committee to meet the listing recommendation and refuse to disclose

further information about the members of the committee. Therefore, audit committees in GCC banks are still developing and the GCC regulator needs to strengthen the role of audit committees.

In relation to institutional ownership, the findings indicate a positive contribution of the foreign institutional ownership in enhancing the level of IC disclosure in GCC banks. The foreign institutional ownership is proven to be an incentive mechanism for the managers to work in line with shareholders' interests. However, the lack of a relationship between domestic institutional ownership and IC disclosure implies that domestic institutional ownership, unlike the foreign institutional ownership, does not work as a good mechanism to protect the shareholders' interests. Thus, the findings of this study provide evidence for policy makers to reduce the restrictions on maximum limits to foreign institutional ownership to allow for the foreign institutional investors to monitor the management and improve the internal corporate governance, and, consequently, lead to an increase in the level of disclosure.

The negative significant relationship between market concentration and IC disclosure indicates that an increase in the competition between the banks is a good mechanism that mitigates the agency problems between the large and small shareholders by disclosing more information about IC disclosure. Thus, this result has important implications for the policy makers in GCC countries. The findings of the study indicate that policy makers should increase the relaxation of entry barriers in order to increase the number of banks in their markets.

Investors and auditors should learn from the finding that internal governance mechanisms in firms with family concentrated ownership are not effective in monitoring management. Hence, the auditors should not assume that the reported financial statements have been closely monitored by the board and audit committee. The auditors should demand more information and perform independent audit tasks to ensure that they enhance the level of transparency. The findings of this study will help the investor to determine under what type of ownership the board and audit committee will protect their interests. The findings of this study give investors a sign that in situations under which information asymmetry is high, the board of directors do not play an effective role in enhancing IC disclosure.

Creditors will also benefit from the findings in this study because they have a better understanding of how the ownership structure and attributes of internal governance affect IC disclosure. Based on the results of this study, the creditors should be aware that they cannot simply rely on internal governance under all types of ownership but may demand additional information to assist them in making appropriate decisions.

The findings of this study might be useful to corporate governance researchers who emphasize the issues relating to agency conflict between the minority and controlling shareholders. The investigation of the moderating effect of ownership structure and information asymmetry on the board-IC disclosure relationship provides evidence that the ability of the board of directors to protect minority shareholder depends on the type of controlling shareholder and the level of asymmetry. Therefore, corporate governance researchers for Arab countries should give more attention to the issue of minority based on the institutional aspects of the company and country being researched.

7.5 Limitations

This study contains a number of limitations. The first limitation is related to the issue of generalization of the results. The results of this study are drawn from GCC-listed banks, which are considered regulated industries. Thus, the results of the study may not be applicable to other sectors because the internal strength of the firm's governance structures is affected by firm size and industry. However, overall, the results are in line with prior studies and with agency theory, particularly in relation to the monitoring function of the board of directors and IC disclosure.

Secondly, limitations related to measurement issues. In relation to the measurement of the dependent variable, this study measures the quantity of IC disclosure and not the quality of IC disclosure. Evaluating the quality of information for investors is problematic due to the absence of reliable measurements of quality of disclosure. It is difficult to determine the usefulness of information in a correct manner (Beattie & Pratt, 2002). However, the quantity and quality of information are positively related because of the importance of managers' reputation and the possibility of legal liability (Ettredge *et al.*, 2002). This causes a setback for the findings of this study.

Lastly, limitations related to the source of the data. This study only collected information from the annual reports. Thus, other variables that may affect IC disclosure are not examined. For instance, the qualitative nature of the board of directors and audit committee characteristics are not examined. Further, the relationship between members of the board with those of the audit committee or shareholders is not explored. As such, the effectiveness of their activities, the scope of reference for the audit committee or

support given by the internal auditor on the audit committee, which may have an impact on the IC disclosure, are not included in this study.

Nevertheless, although the above limitations highlight scope for improvement in future IC disclosure studies, it should not detract from the value of this research. As this research follows a rigorous process and achieves its objectives, the usefulness of this research is undeniable.

7.6 Recommendations for Future Research

This study focuses on the relation of IC disclosure as a corporate governance mechanism with other monitoring mechanisms. This study can be considered as exploratory, thus future research should extend this research in several ways, in addition to overcoming its limitations. These ways are as follows: firstly, as the samples used in this study only involve the GCC-listed banks, in future more samples could be included for a longer period of time. The test of the hypotheses could also be extended to different types of firm (i.e., in other sectors) in the GCC to compare the results with the results of this study, in order to provide evidence on whether or not the role of monitoring mechanisms in regulated industries differ from unregulated industries. Further, the test of the hypotheses could also be extended to the same types of firm but in different contexts (i.e. other Arab countries or Asia).

Secondly, this study did not examine the effect of the variable, legal enforcement, on IC disclosure due to the low legal protection of investors' rights and legal enforcement in all the GCC countries. Hence as legal protection of investor rights would affect the policies of voluntary disclosure on IC, studies on corporate governance and IC disclosure in

reducing the agency cost can be further examined by taking into account the complementary and substituting nature of the joint effect of both corporate governance and the legal protection of investor rights. Such research should be carried out in different legal protection settings to provide evidence concerning whether these monitoring mechanisms work as substitutes or are complementary to the legal protection of investor rights and legal enforcement.

Thirdly, this study did not examine the effect of other characteristics of audit and board due to the lack of information. It has been argued that directors who have strong industry backgrounds increase the understanding of the business environment, thus, helping to improve the quality of financial reporting. Cohen *et al.* (2011) argue that audit committee members with industry expertise can improve the effectiveness of the audit committee in overseeing financial reporting because accounting guidance, estimates, and internal controls are often linked to a company's operations within a particular industry. Thus, audit committee members with industry expertise are able to evaluate whether the firms used the appropriate reporting procedures, and make estimations and assumptions that fit accordingly to their business environment. Subsequently, these may reflect the true economic value of a given firm, hence enhancing transparency. Thus, future research should consider whether industry background makes the board of directors and the audit committee more effective.

Lastly, future research should examine whether or not voluntary disclosure of IC, which works as a monitoring mechanism protects the interests of shareholders by enhancing the financial reporting quality. This can be done by considering the importance of the joint effect of both corporate governance and corporate voluntary disclosure of IC as

mechanisms to limit the opportunistic earnings. This indicates whether or not corporate governance and corporate voluntary disclosure of IC complement each other to limit the opportunistic earnings. This suggestion is based on the assumption that the high disclosure quality reduces earnings manipulation (Lapointe-Antunes *et al.*, 2006; Jo & Kim, 2007). Beattie (2005) and Lapointe-Antunes *et al.* (2006) suggest that the studies of voluntary disclosure and earnings management have not been explored fully. Thus, research in this area may provide comprehensive studies in earnings management and voluntary disclosure.

7.7 Conclusion

The study investigates the roles of monitoring mechanisms, namely, the effectiveness of the board of directors and audit committee, foreign and domestic institutional, market concentration and bank type on IC disclosure in GCC listed banks. Further, the study provides evidence that the role of effectiveness of the board of directors to enhance the level of IC disclosure is affected by the ownership structure of the banks. Generally, this study suggests that these monitoring mechanisms do matter in the GCC. However, not all elements of measured effectiveness of the board of directors and audit committee are important as the study finds no evidence that board size, CEO duality, board committees, audit independence and audit expertise are not significantly related to IC disclosure. Nevertheless, the study provides support for the role of elements of measured effectiveness of the board of directors and audit committee when aggregated together in enhancing the level of IC disclosure in GCC listed banks. This study might be the first to report an association that is significant between market concentration and foreign institutional ownership and IC disclosure in banks listed in the GCC.

The significant role of the government, family control and information asymmetry as moderator for the relationship between the effectiveness of board of directors and IC disclosure suggests that corporate governance mechanisms, acknowledged in the Western world as portraying best practice, are not appropriate for the business environment in the GCC. Moreover, these findings demonstrate that because of the different institutional environments, diverse countries display different governance structures. Thus, simply adopting the styles for corporate governance structures from the UK and US in emerging countries like the GCC countries should be reviewed.

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