

International Accounting and Financial Statements' Quality in the  
Context of Transitional Developing Countries: The Case of Iraq

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by

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## Declaration

### *Candidate's Declaration*

I certify that this thesis entitled “International Accounting and Financial Statements’ Quality in the Context of Transitional Developing Countries: The Case of Iraq” has not been accepted in substance for any degree and is not concurrently being submitted for any degree other than that of PhD being studied at the University of Hull. I also declare that this work is the result of my own investigations except where otherwise identified by reference and I have not plagiarised another’s work.

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### *Supervisor's Declaration*

I hereby declare that I have read this thesis and in my opinion this thesis is sufficient in terms of scope and quality for the award of the degree of PhD of Accounting.

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## Abstract

The International Accounting Standards have been adopted almost worldwide, as a single global set of high quality and understandable accounting standards. The adoption decision is predominately driven by economic and political factors to enhance financial statements' quality and investors' rational investment decisions. However, a number of entities' internal and external environmental factors may hinder the adoption decision or limit the implementation of these standards, particularly in transitional developing countries. This study uses Iraq as an example and an interesting setting to study these factors. This study has four main objectives: to investigate in depth factors influencing the application of the international accounting standards, to determine the obstacles to the application of these standards in Iraq, to examine the impact of these obstacles on financial statements' quality in the banking sector, and to assess the professional and ethical role of professional bodies in enhancing the financial statements' quality and overcoming these obstacles. To fulfil these objectives, this study uses exploratory sequential mixed methods research design, using both qualitative and quantitative data collection and data analysis. Drawing on twenty-one individual telephone interviews and a questionnaire survey (n=114), the analysis shows that *i*) the lack of IFRS knowledge, legislation conflict, political and economic instability, security turmoil, and accounting culture were the factors that negatively affected the application of such standards. *ii*) These factors raised technical and behavioural obstacles to the application of these standards. *iii*) Financial statements' quality is highly influenced by technical and behavioural obstacles. *iv*) Professional bodies have a significant role in enhancing the quality of financial statements, mediated by professional accountants' judgements to overcome technical and behavioural obstacles. *v*) In contrast to previous literature findings, the capital market does not influence the application of these standards.

**Keywords:** International Accounting Standards, International Financial Report Standards, Transitional Developing Countries, Throughput Model, Institutional-based Theory, Knowledge-based Accounting view, Institutional Environmental Factors, Financial Statements' Quality.

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## Dedications

I dedicate my thesis to my lovely parents, my father Professor Salem Al-Shaikh and my mother Hanna Al-Sayegh. I cannot thank you enough for the guidance, example and encouragement you have given me throughout my life, and your constant prayers on my behalf. Whatever success I achieve in life is due to you. May Allah bless you both with health and with long life.

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## List of Abbreviations

BO	Behavioural Obstacles
CBI	Central Bank of Iraq
CMB	Common Method Bias
CPA	Coalition Provisional Authority
CPMAAI	Council of Profession Monitoring and Auditing of Accounting in Iraq
CR	Composite Reliability
DA	Descriptive analysis
EU	European Union
FASB	Financial Accounting Standards Board
FASB	Financial Accounting Standards Board
FBSAI	Federal Board of Supreme Audit of Iraq
FSQ	Financial Statements' Quality
GAAP	Generally Accepted Accounting Principles
GAS	Government Accounting System
HCM	Hierarchical Component Model
HOC	Higher-Order Constructs
HOM	Higher-Order Model
HQAS	High-Quality Accounting Standards
IACPA	Iraqi Association of Certified Public Accountants
IAS	International Accounting Standards
IASB	International Accounting Standard Board
IBAAS	Iraqi Board of Accounting and Auditing Standards
IBS	Iraqi Banking Sector
IBT	Institutional-based Theory
IEF	Institutional Environmental Factors
IFRS	International Financial Reporting Standards
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
ISC	Iraqi Securities Commission
ISM	Iraqi Securities Market
ISX	Iraq Stock Exchange
IUAS	Iraqi Uniform Accounting System
IUASBIC	Iraqi Unified Accounting System for Banks and Insurance Companies
IUASCS	Iraqi Unified Accounting System for Cooperative Societies
IUASPS	Iraqi Unified Accounting System for the Public Sector
KBAP	Knowledge-based Accounting Perspective
KBV	Knowledge-based View
L-KN	Lack of IFRS knowledge
LOC	Lower-Order Constructs
NAASs	National Accounting and Auditing Standards
OBO	Overcome Behavioural Obstacles

OTO	Overcome Technical Obstacles
PB	Professional Bodies
PLS	Partial Least Squares
SEM	Structural Equation Modelling
TDC	Transitional Developing Countries
TM	Throughput Model
TO	Technical Obstacles
UAE	United Arab Emirates
UASC	Unified Accounting System Committee
UNSC	United Nations Security Council
WB	World Bank

# Chapter 1 Introduction

## Overview

This chapter provides an overall overview of the thesis. It begins by outlining the research background and problem. Then, it identifies the research objectives and questions, and addresses the importance and motivation of the research. Next, it explains why Iraq was chosen as the case study. Then, it moves to the research significance, approach and methods, and concludes by outlining the thesis structure as shown in the table below:

*Table 1.1 Chapter One Structure*

1	Introduction
01	Background and Research Problem
02	Research Objectives
03	Research Questions
04	Research Importance and Motivation
05	Why Iraq?
06	Research Significance
07	Research Approach and Methods
08	Thesis structure



## 1.1 Background and Research Problem

As a result of the extension of businesses and capital markets worldwide, multinational corporations are faced with many problems in their accounting practices and the shape and content of their financial statements (Moussa, 2010). Therefore, the International Accounting Standards emerged as global accounting standards to reduce financial statements' diversity (Jones & Finley, 2011) and raise the quality of financial statements (Jermakowicz & Gornik-Tomaszewski, 2006).

The International Accounting Standards (IAS) / International Financial Reporting Standards (IFRS) are global financial statements standards based upon clearly articulated principles. In 2001, the International Accounting Standards Board (IASB) combined with the Financial Accounting Standards Board (FASB) issued a joint memorandum to confirm the objective of developing a common set of High-Quality Accounting Standards (HQAS), to be voluntarily or mandatorily applied by the international stock market (IFRS, 2015a).

The IAS/IFRS (IFRS, henceforth) constitute a common global business language, understandable and comparable worldwide by all accountants (Bhattacharjee, 2009; Parlakkaya et al., 2014), that ensures a high level of disclosure and transparency (Poudel et al., 2014). Furthermore, it will assist developing countries to integrate with developed countries economically and enhance capital markets' performance, financial statements' comparability, transparency, competitiveness, and investors' rational decisions (Aharony et al., 2010; Ahmed et al., 2013; Barth, 2013; Bhattacharjee, 2009; Drago et al., 2013). Thus, approximately 130 countries have adopted or expressed their intention to apply the IFRS (Nurunnabi, 2014), predominately driven by economic and political factors (Hassan et al., 2014).

In 2004, the Coalition Provisional Authority (CPA) introduced a number of laws and amended others, after changing the political regime from socialism to capitalism, and the economic system from a centrally planned economy to a decentralized economy with a free market (market-oriented economy) to integrate the Iraqi economy with the global economy (AlmadaPress, 2015; Hassan et al., 2014). However, despite these substantial transformations, the Iraqi economy is still facing obstacles to integration with the global economy. These obstacles are linked with non-adoption of the IFRS (AlmadaPress, 2015).

Although the IFRS adoption decision taken for the Iraqi banking sector was through introducing the Iraqi Banking Law No. 94 of 2004, which explicitly mandated application of the IFRS, the Iraqi private banking sector does not apply these standards yet. Moreover, unfortunately, some information on the IAS website 'Deloitte' is inaccurate, when it states that "*The Iraq Interim Law on Securities Markets (adopted 18 April 2004) requires IFRSs for all companies listed on the Iraq Stock Exchange as follows:...*" (Deloitte, 2016). This inaccurate information misleads some researchers who depend solely on secondary data, such as Zehri and Chouaibi (2013) and Hassan et al. (2014).

## 1.2 Research Objectives

This study seeks to achieve four objectives, as follows:

- O1.* To explore factors influencing the application of IFRS in a transitional developing country (i.e., Iraq).
- O2.* To determine the obstacles to implementation of the IFRS in a transitional developing country (i.e., Iraq).
- O3.* To examine the impact of these obstacles on financial statements' quality.
- O4.* To examine the ethical and professional role of professional bodies in enhancing the quality of financial statements, mediated by professional accountants' judgements to overcome technical and behavioural obstacles.

### 1.3 Research Questions

This study addresses four questions to achieve the research objectives:

- Q1.* What are the key factors influencing the application of the IFRS in transitional developing countries (e.g. Iraq)?
- Q2.* What are the obstacles to the application of the IFRS in transitional developing countries (e.g. Iraq)?
- Q3.* How do these obstacles influence the financial statements' quality?
- Q4.* What is the ethical and professional role of professional bodies in enhancing the quality of financial statements, mediated by professional accountants' judgements to overcome technical and behavioural obstacles?

### 1.4 Research Importance and Motivation

The decision to adopt the IFRS is related to economic reasons (Bhattacharjee, 2009) to enhance economic growth and the global capital market and to support investors' rational investment decisions (Guerreiro et al., 2012). This explains the main trend globally to produce a single set of high-quality accounting standards (Sebastian et al., 2014), by convincing governmental bodies and private entities to convert from national accounting standards to international accounting standards, whether on a voluntary basis (Christensen et al., 2015) or a mandatory basis (Brüggemann et al., 2013; Guerreiro et al., 2012; Manganaris et al., 2015).

Despite the importance of applying the IFRS in transitional developing countries (TDC) to integrate their economies with the global economy, there are several countries that have not yet adopted the standards or have made the adoption decision but have not implemented them yet. The non-adoption, non-implementation or limited application might result from several obstacles, which motivated me to explore them within the entities' external and internal environment.

Recently, in 2015, the governor of the Central Bank of Iraq<sup>1</sup> stressed the need and the importance of applying the IFRS to integrate the Iraqi national economy with the global economy. Moreover, he linked the growth and stability of the national economy with the application of the IFRS and warned of the loss that would be caused by the non-application of IFRS on banks (AlmadaPress, 2015). Likewise, the director of Iraq's Securities Commission argued that it is better to start adopting late than not to start at all. He considered the decision to begin now as a bold decision, because the non-adoption of the IFRS may weaken the foreign investment and slow down the economic growth (AlmadaPress, 2015)<sup>2</sup>. Hence, the research motivation stems from the importance of implementation of IFRS in TDCs to integrate their economies with the global economy.

Furthermore, the vast majority of the international accounting standards literature focuses on the consequences of the implementation of the IFRS. In other words, the vast majority of previous literature looks at the implications of applying the IFRS. However, less attention has been paid to studying the obstacles that might hinder or limit the application of these standards, particularly in TDC that recently converted from socialism to capitalism.

## 1.5 Why Iraq?

Iraq has been chosen as the research setting for the following reasons:

*Economically*, the developing countries carry weight in the global economy, and continually display strong economic growth (Zehri & Chouaibi, 2013). Iraq is an important country in the global economy and capital markets; it is believed that Iraq's oil reserves are second in the world (Shubber, 2009), and currently Iraq accounts for approximately 3% of global oil production (Hassan et al., 2014). Iraq also has many other

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<sup>1</sup> During the introductory seminar on the IFRS application, on Saturday 16/05/2015.

<sup>2</sup><http://www.oneiraqidinar.com/central-bank-confirms-quest-for-the-application-of-international-accounting-standards/>

natural resources, such as gas, phosphates preliminary gypsum, kaolin mud, cement mud, glass silica sands, and sulphur. In addition, foreign investors have a strong interest in Iraq, especially in Iraq's natural resources and infrastructure (Associates, 2011)<sup>3</sup>. Therefore, there is growing interest in Iraq globally, by governments and businesses (Investment, 2014)<sup>4</sup>.

***Transitional country.*** Iraq, as a developing country, has shifted from a socialist political regime and a centrally planned economy to a capitalist political regime and a decentralized economy based on a free market (Hassan et al., 2014). Before 2003 the capital market was limited to national investors. The Company's Act No. 21 of 1997, banned foreign investment; all companies had to be Iraqi companies and all shareholders had to be of Iraqi nationality. However, in 2004 the Company's Act was amended, and investment and the capital market were opened for foreign investors. However, despite all these political, economic, and legal changes, which made the Iraqi economy one of the most open to foreign investment in the region (Looney, 2004), the non-adoption of the IFRS was the main reason for the weakness of foreign investment (AlmadaPress, 2015).

***Literature limitations and misleading.*** There is a scarcity of literature that reflects Iraqi accounting practices. There is only one paper by Hassan et al. (2014) that discusses the development of accounting regulation in Iraq. However, the paper assumes that the IFRS have been adopted because the Coalition Professional Authority has changed the Company's Act No.21 of 1997, however, the reality is opposite to that and this act does not oblige Iraqi companies to apply the IFRS; there is a massive misinterpretation of this law, intentionally or unintentionally. Moreover, Zehri and Chouaibi (2013) wrongly count Iraq among countries that adopt the IFRS because they merely depend on secondary

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<sup>3</sup> <http://www.psd-iraq.org/sites/default/files/Investment%20Map%20Sept2011.pdf>

<sup>4</sup> <http://www.iraq-businessnews.com/media/The-New-Iraq-2014.pdf>

data. Therefore, this study will try to highlight the present Iraqi accounting practices and explore factors influencing the application of the IFRS in the private sector to determine the obstacles that may hinder their application.

*Access to data.* I have access to data from Iraq, via Certified Public Accountants (statutory auditors) and many academicians. I am a Certified Public Accountant, a member of the Iraqi Association of Certified Public Accountants, the Accounting Association, and the Arabic Institute of Certified Public Accountants. I am also a faculty member of Al-Mustansuryah University; thus, I have access to many academicians.

## 1.6 Research Significance

The research significance stems from its originality, academic contributions, and practical implications. The academic contributions add to the knowledge and literature in the IFRS field. The practical implications contribute to investors' knowledge and the accounting profession.

### 1.6.1 Theoretical contributions

The present study is a response to the scarcity of research that explores country-specific factors, especially in transitional developing countries (Albu et al., 2011a). The results of this research add to the theories employed and the IFRS literature in the following dimensions:

**First**, the IFRS adoption literature lacked theory and little attention was paid to explore the adoption at the national level (Judge et al., 2010; Zehri & Chouaibi, 2013). Thus, this research is expected to address this deficiency in theory by means of what, to the best of my knowledge, is a unique research methodology in the IFRS literature, using a combination between the Throughput Model (TM), Institutional-based Theory (IBT), and the Knowledge-based View (KBV). Furthermore, this research is expected to address the scarcity in research at the national level by using data from Iraq.

**Second**, to the best of my knowledge, this is the first study to utilize the Throughput Model in international accounting literature.

**Third**, to the best of my knowledge, this is the first study to utilise the Institutional-based Theory within its three levels (hierarchy) to explain the impact of a comprehensive set of institutional environmental factors that have two different types of influences (positive and negative) on the application of the IFRS in TDC. Previous literature employed this theory to explain only the positive impact and ignored the negative impact.

**Fourth**, to the best of my knowledge, this is the first study to utilise protocol analysis (the think-aloud technique) as a tool for behaviour analysis and cognitive psychology in the accounting literature, in particular in the IFRS literature.

**Fifth**, to the best of my knowledge, this is the first study to highlight the issue of the instability of the business environment of TDCs, as a new dimension that has not been explored before in prior IFRS literature. It adds to the existing IFRS literature by exploring and evaluating the consequences of political instability on economic instability, legal conflict, and security turmoil.

**Sixth**, to the best of my knowledge, this is the first study to explore the implications of the security situation in IFRS literature.

**Seventh**, the theoretical design in this study augmented by the results suggests that this same process can be implemented in different countries and platforms desiring a change to new procedures or standards. That is, using theory and applied results can assist decision-makers in making more consistent and reliable choices about the operationalisation of standards.

**Eighth**, this study could potentially enhance our understanding of the introduction of IFRS in other countries, whose environment is similar to Iraq's, especially those countries that have recently converted from socialism to capitalism.

## **1.6.2 Practical implications**

The practical implications are expected to add to investors' knowledge and the accounting profession and the Iraqi legislature.

### **Implications for Investors' Knowledge:**

To the best of my knowledge, the research findings contribute to a broad-spectrum understanding of Iraq's political, legal, economic, capital market, accounting education, accounting culture, and current accounting practices. Understanding these factors that influence the financial reporting and accounting system followed in Iraq is crucial to foreign investment and investors' decisions. Especially, there is limited information regarding Iraq's accounting system (Hassan et al., 2014). Therefore, this study may contribute to investors' knowledge by providing a better understanding of Iraq's politics, legal, economy, capital market, education, accounting culture and accounting profession, which significantly affect Iraq's business environment and foreign investment.

### **Implications for the accounting profession and the Iraqi Legislature:**

The research findings and recommendations will be forwarded to the key accounting practices makers, whether governmental or non-governmental bodies, which control the accounting profession in Iraq, such as the Federal Board of Supreme Audit of Iraq (FBSAI), the Central Bank of Iraq (CBI), the Council of Profession Monitoring and Auditing of Accounting in Iraq (CPMAAI), and the Iraqi Association of Certified Public Accountants (IACPA). Thus, decision-makers may benefit from the present findings, especially when for the first time these standards are to be applied in the banking sector.

## **1.7 Research Approach and Method**

This study employs an exploratory sequential mixed design within a pragmatist philosophy to achieve the research objectives. Twenty-one participants took part in thirty-four semi-structured in-depth interviews in the first phase. These interviews were conducted with key actors representing governmental bodies and professional



organizations involved in regulating, standards-setting, auditing, and academia, to answer the first and second research questions and achieve the first and second research objectives.

Protocol analysis or the think-aloud technique was employed, using a unique sequence; Retrospective Think-aloud → Concurrent Think-aloud → Retrospective Think-aloud. A deductive thematic analysis approach was adopted to identify, analyse, and report themes. It is a theoretically-flexible approach in analysing qualitative data that provides a more accurate and detailed account of the research phenomena. This approach is mainly driven by the theoretical research framework and described as analyst-driven. A qualitative data analysis software, QSR-NVIVO 10, was utilised in the coding and analysis process.

Two kinds of obstacles were explored: technical and behavioural. The technical obstacles include, for instance, the absence of a transition plan, the non-availability of these standards on the official websites of any authorised body either in the Arabic or English languages, and the lack of qualified professional bodies that oversee the application of these standards. The behavioural obstacles include professional accountants' fear of losing their positions or carrying an extra burden of work, the belief that the IFRS is complex and difficult to apply, the lack of desire to learn a new variant of what they have become accustomed to and the enormous influence of the dominant conservative socialism on financial statements and disclosure. The results of these interviews were employed to develop a rigorous and coherent questionnaire in the second phase, to examine the impact of both technical and behavioural obstacles on the financial statements' quality, and to examine the ethical and professional role of professional bodies (CBI, IACPA, and CPMAAI) in enhancing the quality of financial statements, mediated by professional accountants' judgements to overcome technical and behavioural obstacles.

A structured questionnaire survey was administered, in the second phase, to 342 cases (232 auditors, 70 academics, and 40 banks) from whom 114 valid responses were received. The questionnaire survey was formulated to examine hypotheses developed based on the interview findings and the TM pathways, to answer the third and fourth research questions and achieve the third and fourth research objectives.

This study uses the theoretical lens of the Throughput Model (TM), Institutional-based theory (IBT), and Knowledge-based View (KBV) as the primary theoretical bases that provide insights into how institutional environmental factors may significantly influence the decision-making behaviour of professional accountants in terms of the application of IFRS and how their decisions will affect the quality of financial statements. The TM is a theory of cognitive process-thinking behaviour (Rodgers & Housel, 1987) that explains how individuals make use of their cognitive processes in decision-making. It captures different pathways and stages that may provide a broad conceptual framework for sequencing of the research argument. TM consists of four concepts (Perception, Information, Judgement, and Decision-choice), which are associated with each other in different ways to produce six different pathways of individual decision-making behaviours. The Perception concept of TM is the individual's perception regarding the entities' external environment (i.e. political, legal, economic, capital market, education, security, accounting culture, and professional organizations), which is investigated by the institutional-based theory within its hierarchy (Global Institutions, Governance Structures, and Entities) and three sorts of isomorphic pressures (coercive pressures, mimetic pressures, and normative pressures).

The Information concept of the TM concerns the acquisition of new information regarding the institutional environmental factors by professional accountants, enabling them to revise their perceptions and/or judgements before making their decisions. The

source of information should be independent of participants' opinions; it should be external and not related to the participants' perceptions (opinions).

The Judgement concept of TM reflects professional accountants' judgement in overcoming both technical and behavioural obstacles to produce high-quality financial statements. Finally, the Decision Choice concept of TM is the result of a process thinking model, where every pathway will lead to a different decision, which is one of three choices (full application, partial application, or non-application). The accountants' decision will affect the financial statements' quality, where every pathway will lead to a different quality, classified into three categories (high-quality, medium-quality, or poor-quality).

## 1.8 Thesis Structure

The thesis is divided into eight chapters as shown below:

Chapter One, 'Introduction', introduces the research background, problem, objectives and questions. It explains the research importance and motivation, and the rationale for choosing Iraq as the research location. It identifies the significance of the research and outlines the thesis structure.

Chapter Two, 'Institutional Settings', consists of four sections that provide background information on the political and economic, legal, banking, and capital market contexts.

Chapter Three, 'Literature Review', consists of five sections. The first provides an introduction to previous IFRS literature. The second addresses theory in IFRS literature. The third considers factors influencing the application of IFRS, while the fourth discusses accounting quality. The fifth explores literature on professional accountants' judgement and decision-making.

Chapter Four, 'Theoretical Framework', comprises three sections. It introduces the Throughput Model and the Institutional-based theory as the main theoretical basis of the study, and considers the Knowledge-based View, which helped in identifying the source of IFRS knowledge, parts of the target population, and formulating some of the interview questions.

Chapter Five, 'Methodology', begins by explaining the philosophical underpinnings of the research, and the overall research design and approach. It then presents an explanation of the first (qualitative) phase of the study, including the choice of telephone interview as the data collection method, development of interview questions, verbal protocol (think-aloud), pilot study, interview sampling and participants' profile, the way the telephone interviews were conducted within the protocol analysis stages, and thematic analysis. This is followed by a description of the second (quantitative) phase, including the decision to use an online questionnaire, questionnaire development, measurement scales and coding. It reports the pilot study and administration of the questionnaire, the questionnaire sample and respondents' demographic features. In discussing the analysis procedures, it discusses structural equation modelling, path modelling, and Partial Least Squares - Structured Equation Modelling (PLS-SEM). It ends by addressing ethical considerations.

Chapter Six, 'Interview Findings', is divided into two sections. The first reports themes arising from the interview data, incorporating comparison with previous literature findings, while the second examines the interview findings from the institutional perspective.

Chapter Seven, 'Questionnaire Findings', explains the scanning and cleaning of the data and how nonresponse bias, common method bias and full collinearity were addressed. This is followed by a descriptive analysis. Multivariate analysis of variance

(MANOVA), the hierarchical component model (HCM), and mediation analysis are then performed, leading to model evaluation and a discussion of the findings.

Chapter Eight, 'Conclusions', begins with a summary of the research findings. Then, recommendations are proposed. Lastly, the research limitations are acknowledged, and avenues for future research are identified.

## Chapter 2 Institutional Settings

### Overview

This chapter aims to provide an overall overview of Iraq's institutional settings including the political and economic background. It explains in detail the legislation that governs accounting practices in the Iraqi private business environment, introduces the background of Iraq's private banks, followed by background on the capital market, as shown in Table 2.1.

*Table 2.1 Chapter Two Structure*

2	Institutional Settings
2.1	Political and Economic Background
2.2	Legal Background
2.3	Iraqi Banks' Background
2.4	Capital Market Background
	Summary

## 2.1 Political and Economic Background

After the First World War, Iraq was under British administration as a semi-independent kingdom. In 1932, Iraqi independence was declared, and it was ruled by the Hashemite family (Hassan et al., 2014). From 1914 to 1932, Britain wanted to build a liberal state in Iraq, but it failed (Dodge, 2006). In 1968, The Arab Socialist Ba'ath Party took power. This party adopted a socialist ideology in managing the nation's economy, with central planning and a conservative accounting ideology.

On 22<sup>nd</sup> September 1980, the Iraqi-Iranian war imploded, which lasted for eight years, until 20<sup>th</sup> August 1988. One year before this war, the Iraqi economy was beginning to achieve economic growth as a result of the enormous growth in oil revenue, from about one billion dollars in 1979 to approximately twenty-six billion dollars in 1980, which assisted the government to simultaneously promote the infrastructure, industrial sector, services sector, and military sector (Alnasrawi, 2001). However, this economic growth was suddenly destroyed. The deterioration of the oil industry caused severe reduction in oil exporting and collapse of the government's oil revenue to ten billion dollars in 1981, a drop of approximately 60%, which led to a massive deterioration in the industrial sector, oil exporting capacity and infrastructure, and a massive increase in foreign debt (Alnasrawi, 2001). In addition, a number of social problems and structural problems arose, such as inflation, the drafting of rural workers into the army, increased dependence on foreign workers and food imports, and the militarisation of Iraq's economy<sup>5</sup> (Alnasrawi, 2001; Foote et al., 2004).

On 2<sup>nd</sup> August 1990, Iraq invaded Kuwait, and the Gulf war ensued on 28<sup>th</sup> February 1991. The invasion of Kuwait led to 13 years of a comprehensive economic embargo imposed by the United Nations Security Council, ended by the US occupation of Iraq in

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<sup>5</sup> Most of the oil revenues were spent on military industries.

2003. These 13 years of economic sanctions had catastrophic effects on the Iraqi nation and economy (Alnasrawi, 2001). The Iraqi government's surge to print money to finance its operations and rebuild the infrastructure that had been destroyed in this war led to high inflation and the debasing of the currency (Foote et al., 2004). The debasing of the Iraqi currency led the labour force to head to the private sector, within the informal economy<sup>6</sup>. All of these changes made the political system less rigid in applying the principles of socialism, including the abolition of government pricing and non-interference in price fixing. Thus, the mechanism of the market price based on supply and demand became predominant (Foote et al., 2004). In addition, the Arabic Investment Act no. 62 of 2002<sup>7</sup> was introduced, which for the first time, allowed Arab investors to invest in the Iraq business environment, albeit without buying land, even for investment purposes.

In March 2003, the US and its allies occupied Iraq and established a transitional government, the so-called Coalition Provisional Authority (CPA) (Hassan et al., 2014). This was the second time in Iraq's 85-year history that it was occupied by foreign intervention (Dodge, 2006).

The CPA has changed the political regime, the economic system, the Iraqi constitution, and several laws.

In June 2004, the CPA delivered authority to the Iraqi Interim Government as a caretaker government, which continued in power until May 2005, when it delivered authority to the Iraqi Transitional Government. The Iraqi Transitional Government assumed authority with a new constitution, a parliamentary democracy political regime and a free-market economy. These political and economic changes were intended to be

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<sup>6</sup> High-inflation led most public sector employees moving to work in the private sector, albeit informally because officially leaving employment in the public sector was not allowed.

<sup>7</sup> <http://www.iraqld.iq/LoadLawBook.aspx?SC=150220061858085>



supported by reforms of Iraq's investment environment and accounting system (Hassan et al., 2014).

In May 2015, the governor of the Central Bank of Iraq, Ali Al-Allaq<sup>8</sup>, stressed the need and importance of applying the IFRS to integrate with the global economy. In addition, he added that Iraq had taken the initial adoption decision after the coalition authority had changed and introduced many laws (i.e., the Iraqi Central Bank Law No. 56 of 2004, the Anti-Money Laundering Act No. 93 of 2004, and the Banking Law No. 94 of 2004). Moreover, he linked the growth and stability of the national economy with the application of the IFRS and warned of the harm caused by the non-application of IFRS in banks (AlmadaPress, 2015). Likewise, the director of Iraq's Securities Commission argued that it is better to start adopting late than not to start at all. He considered the decision to begin now as a bold decision, because non-adoption of the IFRS may lead to a weakening of foreign investment and slow economic growth, or result in economic isolation (AlmadaPress, 2015)<sup>9</sup>.

## 2.2 Legal Background

This section will highlight several laws that govern the accounting practices in the Iraqi business environment.

### 2.2.1 The Iraqi Unified Accounting System (IUAS)

The Iraqi Unified Accounting System (IUAS) was issued in 1985 by the Federal Board of Supreme Audit of Iraq (FBSAI). The emergence of this system assisted in developing the financial and management accounting system in the economic units of the public sector, mixed sector, and private sector alike, and cooperative organizations that operate on an economic basis, irrespective of their association management (FBSAI,

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<sup>8</sup> During the introductory seminar on the IFRS application, on Saturday 16/05/2015.

<sup>9</sup><http://www.oneiraqidinar.com/central-bank-confirms-quest-for-the-application-of-international-accounting-standards/>

1985). Thus, this system contributed to the unification of regulations and accounting rules, and the process of accounting data recording at both the corporate level and national level in the broadest sense. The IUAS covers the key items that govern the accounting practices in Iraq, such as financial accounting, management accounting, and cost accounting. Accordingly, the unification can be summed up by the following axes: accounting principles, accounting rules, accounting basis, accounting definitions, and accounting terminology. For instance, the IUAS unified the accounting treatments of inventory (evaluation-basis of raw materials, products, and any kind of inventory); fixed assets (the evaluation of fixed assets and the depreciation rate for all assets); the financial year and the date of presentation of financial statements; the reserves and allowances accounts; planning, monetary, financial, and technical budgets; and the accounting chart (FBSAI, 2011).

The IUAS was built on several principles and assumptions, some of which, to some degree, are consistent with the IFRS. There are eight accounting principles, four accounting assumptions and three exceptions: The accounting principles are: (1) historical cost; (2) matching between revenues and expenses principle; (3) accrual basis; (4) consistency<sup>10</sup>; (5) revenue recognition on receipt<sup>11</sup>; (6) financial data<sup>12</sup>; (7) objective evidence; (8) sufficient disclosure<sup>13</sup>. The accounting assumptions are the premises of incorporeal personality<sup>14</sup>; continuity<sup>15</sup>; the stability of currency value and the periodicity

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<sup>10</sup> Entities must follow the same accounting practices year by year.

<sup>11</sup> After the completion of the process of generating revenue.

<sup>12</sup> Financial evidence arises as a result of a project dealing with outside enterprises or people, and this dealing arises as a result of exchange that can be measured in monetary units, and this measurement is based on the price at which the exchange occurs.

<sup>13</sup> According to the Iraqi accounting standards.

<sup>14</sup> The entity has an incorporeal personality that is separate from its owners.

<sup>15</sup> Entities continue in their activities to an unspecified date and there is no intention to liquidate or reduce their activities.

of financial statements<sup>16</sup>. The accounting exceptions are relative importance<sup>17</sup>; conservatism<sup>18</sup> and giving priority to economic substance over legal form<sup>19</sup> (FBSAI, 2011). The IUAS is applicable to public sector entities; the mixed sector; cooperative organizations; and the private sector by instruction No. 1 of 1998 issued by the Ministry of Commerce.

There are four versions of the IUAS, all of which adhere to the values stated above. The main differences between them are in parts of their charts to deal with specific transactions according to an entity's economic sector. These sorts of IUAS are:

1. The Iraqi Unified Accounting System for the public sector (for the socialist sector).
2. The Iraqi Unified Accounting System for banks and insurance companies.
3. The Iraqi Unified Accounting System for companies in the private and mixed sectors.
4. The Iraqi Unified Accounting System for cooperative societies.

In 2011, the IUAS was amended by the FBSAI. The main features of this amendment were (FBSAI, 2011): (1) separation of the value of land from construction of buildings at the acquisition by purchase; (2) the recognition of losses of fixed assets exchange; (3) the treatment of assets that were damaged and lost as a result of the unusual circumstances; (4) borrowing costs capitalisation<sup>20</sup>; (5) capitalisation of research and development costs<sup>21</sup>; (6) investment property<sup>22</sup>; (7) impairment of investments<sup>23</sup>; (8) expanding on

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<sup>16</sup> The financial statements must be submitted every year. The financial year starts on 1<sup>st</sup> of January and ends on 31<sup>st</sup> of December of each year.

<sup>17</sup> Accounting information is considered unimportant if its inclusion or omission does not affect decision making.

<sup>18</sup> Entities may recognise expected losses, but not recognize expected revenues.

<sup>19</sup> Accounting on the basis of substance (content) economic events and financial transactions, not legal form.

<sup>20</sup> Guided by the IAS 23.

<sup>21</sup> Guided by the IAS 38.

<sup>22</sup> Guided by the IAS 40.

<sup>23</sup> Guided by the IAS 27.

agriculture accounting treatment<sup>24</sup>; and (9) adoption of national accounting concepts and statements updated by the Ministry of Planning (FBSAI, 2011).

### **2.2.2 Keeping Accounting Records Regulation No. 2, of 1985**

Based on the Income Tax Law No. 113, of 1982, Article 60:1, the Keeping Accounting Records Regulation No.2, of 1985<sup>25</sup> was issued. Under this Act: (1) all companies must keep a general journal, general ledger, inventory records, and correspondence and other records. (2) All records must be kept in Arabic. (3) Use of historical cost and specific depreciation tables are prescribed for evaluation of fixed assets. (4) Inventory must be evaluated by the lower of cost or net realizable value. (5) All companies must apply the Generally Accepted Accounting Principles (GAAP). (6) Financial statements shall be prepared with reference to the Iraqi Dinar.

Thus, it is clear that the Keeping Accounting Records Regulation conflicts with the application of the IFRS in many points, especially in the mandatory application of the Iraqi GAAP and use of historical cost in evaluating fixed assets and counting for depreciation values.

### **2.2.3 Companies' Laws**

The Ministry of Trade has issued two companies' laws, which depend on the kind of company: The Companies Law No. 21, of 1997, for private and mixed ownership companies; and the Companies Law No. 22 of 1997, for public ownership companies, which is out of the present research scope.

On 18<sup>th</sup> August 1997, the Companies Law No. 21 was issued in order to grant Iraqi's private and mixed ownership entities the best opportunity to play a more active role in the development of economic activities and national capital to invest in corporate entities,

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<sup>24</sup> Guided by the IAS 40.

<sup>25</sup> <http://www.tax.mof.gov.iq/PageViewer.aspx?id=80>

within the state's controls and the indicators of development plans and planning decisions. It also addressed issues arising from the application of the previous legislation, the Companies Act No. 36 of 1983. Moreover, this act aims to regulate private and mixed investment companies tightly, through special provisions. This law classifies Iraqi companies into four hierarchical levels; at the highest level comes 'mixed or private joint-stock company', then 'mixed or private limited liability company', next 'joint liability company', and finally 'sole owner enterprise'.

The most important aspect of this law is opening the ownership of private and mixed sector entities to foreign investors. Before 2003, Article 12 (First) has limited membership in the Iraqi companies to Iraqi citizens, as a founder, shareholder or partner unless any such person is prohibited from membership of companies under the law or a decision issued by a competent juridical authority in the country. As for citizens of Arab countries, Article 12 (Second) limited their investment to joint-stock companies and limited liability companies; they have the same rights as Iraqi citizens in these two kinds of firms. Finally, only Iraqi companies have the right to invest in other Iraqi companies, as stated in Article 12 (Third). However, after 2003, the Coalition Provisional Authority (CPA) deleted this limitation and permitted foreign investment, and the ownership of the Iraq's companies was opened to foreign investors whether a juridical or natural person through amending Article 12: First and suspending both Article 12: Second and 12: Third, as shown below:

“Section Three: Membership in the Company. Article 12: First: A juridical or natural person, foreign or domestic, has the right to acquire membership in the companies stipulated in this law as founder, shareholder, or partner, unless such person is banned from such membership under the law, or due to a decision issued by a competent court or authorized governmental body.

Second: Suspended. Third: Suspended”.

According to the Companies Law, Article 22, any company founded in Iraq had to be an Iraqi company, but in 2004, it was amended and became ambiguous. “*The company*

*acquires corporate status from the date of the issuance of its establishment certificate. This certificate is considered proof of this status*". In other words, the nationality restriction was abolished, and foreign companies could be established in Iraq.

According to Article 26, the company's capital must be specified in Iraqi Dinars only. And Article 30 determined the par value of one dinar per share and stipulated that shares may not be issued with a nominal value higher or lower than one dinar. Furthermore, Article 7: First indicated that the minimum subscription of the state sector in a mixed company is 25 percent of its nominal capital, while Article 7: Second explained that a mixed company could be joint-stock or limited liability. Article 8: Third highlighted that *"The private sector company can be a joint-stock company, a limited liability company, a joint liability company, a sole owner enterprise, or a simple company."*

Financial control is addressed in section two, Articles 133 to 139. Apart from an addition to Article 133: First, set out below, there are no significant changes.

**"Article 133: First: The accounts of the mixed company shall be subject to control and audit by the Financial Control Bureau. As for the accounts of the private company, they shall be subject to control and audit by auditors appointed by the company's general assembly. Accounts should be consolidated with those of related companies in accordance with international accounting standards unless specifically modified by standards in force in Iraq".**

It is clear that there is no strict obligation to apply the IFRS, or there may not be any obligation because of the wording, *"unless specifically modified by standards in force in Iraq"*, since the national accounting standards and the IUAS are in force to be applied by Iraqi companies and foreign companies working in the Iraqi business environment. Moreover, this statement focuses only on the *consolidated* financial statement.

Unfortunately, some information on the IAS website<sup>26</sup> ‘Deloitte’ is inaccurate; it states that “*The Iraqi Company Law (Number 21, 1997, amended in 2004) requires all companies to apply IFRS and states: ...*” (Deloitte, 2016).

#### **2.2.4 The Investment Law**

Before 2003, Iraq was a socialist state, macroeconomically-oriented with a centrally planned economy (Hassan et al., 2014), and the accounting system was working as a tool of centralised control, used for gathering financial information for tax authorities and statistical purposes. Investment in the Iraqi economy was confined to Iraqi companies and investors of Iraqi nationality; foreign investment and investor were not permitted.

However, on 23/11/2002, Arab investments were permitted in the Iraqi market according to the Arabic Investment Law No. 62 of 2002, in order to encourage Arab investors, whether individuals or corporate, to take part in developing the Iraqi economy through organization, support, guarantees, and granting privileges and immunities necessary for the continuation and development of these investments (Arabic Inv. Law, 2002). Arab investors had the right to establish any kind of company mentioned in the Companies Law No. 21 of 1997, according to Article 8: first. This act gave privileges and immunities to Arab investors that are not available to Iraqi investors. For instance, there was no control and restriction on every point, like these imposed on Iraqi investors. 5-year waivers of Income Tax of different percentages, from 25% for the industrial sector to 75% for the service sector, no Import Tax for fixed assets, raw materials and so on. There were no other taxes such as Property Tax, Career Tax, and Stamp Duty. In addition, Arab investors benefited from guarantees such as allowing the transfer of 100% of the annual net profit, export of all or part of their production, and freedom from official pricing. Furthermore, the IUAS was not imposed.

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<sup>26</sup> <https://www.iasplus.com/en/jurisdictions/asia/iraq>

However, this law has been amended by the Investment Law No. 13, of 2006, issued by the Ministry of Trade. Accordingly, a foreign investor is defined as any person or firm that is not Iraqi, according to Article 9, which means this act applies to any non-Iraqi investor, whether Arab or non-Arab. As well, the National Investment Commission is the referencing body, rather than the Ministry of Planning as in the previous act. The most important feature of this act is the equality between Iraqi investors and foreign investors in all aspects, in contrast to the previous act, which was biased towards Arab investors (Arabic Investment Law, 2002; Iraqi Investment Law, 2006). Moreover, the recent Investment law allows land ownership for foreign investors, contrary to the previous law, which authorized the lease of land but prohibited the purchase of land.

#### **2.2.5 The Iraqi Banking Law No. 94 of 2004**

On 19/09/2003, the CPA introduced the Interim Banking Law Order No. 40 of 2003 in order to make a major change in the Iraqi economy and improve the living conditions and opportunities for all Iraqis. It especially sought to combat unemployment and its harmful effects on public security by working on it through stable financial markets (IBL, 2003). The application of the IFRS was enforced by Article 42: 1.b and 1.c as shown below:

“Article 42 Principles for accounting and preparation of financial statements

1. Banks shall:

[...]

b. apply accountancy rules and systems in conformity with international accounting standards (IAS), including the use of full accrual accounting on a daily basis, and in compliance with any special requirements stipulated by the CBI in this regard; and

c. prepare its financial statements comprising the balance sheet, profit and loss account, cash flow statement and statement of changes in the bank’s capital account in an adequate manner that reflects the reality of the financial positions of the bank and its branches. The financial statements shall be prepared in accordance with



international accounting standards (IAS) and in compliance with any special requirements stipulated by the CBI in this regard.” (IBL, 2003).

On 9<sup>th</sup> June 2004, this interim act was replaced by the Iraqi Banking Law Order No.94 of 2004<sup>27</sup>. The application of the IFRS is still mandatory under the same article. In other words, the Interim Banking Act has become permanent.

### **2.2.6 The Islamic Banking Law No. 43 of 2015**

On 4<sup>th</sup> November 2015, the Islamic Banking Law<sup>28</sup> was introduced. Islamic banks should apply the Islamic International Accounting Standards, not the IFRS, according to Article 11 of the Islamic Banking Law No. 43 of 2015. However, Islamic banks have been included by the CBI.

### **2.3 Iraqi Banks’ Background**

Mainly, there are three kinds of Iraqi banks in terms of the regulations that organize their structure and govern their work: Governmental Banks, Private Banks, and Islamic Banks. It is also worth mentioning that in terms of capital ownership, Islamic Banks could have private or state capital ownership.

In terms of the Governmental Banks<sup>29</sup>, there are six banks, all of which have to apply the Iraqi Unified Accounting System for Banks and Insurance Companies (IUASBIC) and are monitored and audited by the Federal Board of Supreme Audit of Iraq (FBSAI). Thus, Governmental banks cannot apply the IFRS according to their establishing laws. Hence, the Governmental banks are outside the scope of this research.

In terms of the Private Banks<sup>30</sup>, there are 24 private banks. However, two banks are currently suspended. Thus, 22 private banks are currently in operation, all of which are

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<sup>27</sup> <http://www.iraq-lg-law.org/en/content/iraqi-banking-law-order-no94-2004>

<sup>28</sup> This law written by Arabic.

<sup>29</sup> <https://cbi.iq/page/23>

<sup>30</sup> <https://cbi.iq/page/24>

subject to the application of the IFRS according to the Banking Law No. 94 of 2004, and these banks are listed in the capital market, the Iraqi Stock Exchange (ISX).

In terms of the Islamic Banks<sup>31</sup>, one governmental Islamic bank and ten private Islamic banks are currently operating in the Iraqi business environment. All of these are subject to the application of the Islamic International Accounting Standards according to the Islamic Banks Law No.43<sup>32</sup> of 2015 (Islamic Banks Law, 2015). However, only seven of them are listed in the ISX. Moreover, recently, twelve private Islamic banks have been formed by conversion, and they are required to apply the IFRS. However, these banks are not listed yet, and there is no information about seven of them on the official website of the CBI.

## 2.4 Capital Market Background

In 1992, the Baghdad Stock Exchange was established based on the Baghdad Stock Exchange Law No. 24, of 1991<sup>33</sup>, as a government market. It was able to include 113 Iraqi corporations from both the private and mixed sectors. In its last year, it managed to attract annual trading rates of over \$17 million. On 19/03/2003, this market was closed by the Board of Directors' decision (Al Karmal, 2006).

In 2004, both the Iraqi Stock Exchange (ISX) and Iraqi Securities Commission (ISC) were established after the introduction of the Interim Law on Securities Markets, Order no. 74 of 2004<sup>34</sup>, which is still in force. The ISX is a non-profit entity managed by a board of nine members called the Board of Governors, representing the various economic sectors of the investment sector and working on economic bases and independent financially and administratively, non-linked with anybody (Al Karmal, 2006; ISX, 2004). The ISC *“is a governmental independent body with legal personality and is comprised of*

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<sup>31</sup> <https://cbi.iq/page/23>

<sup>32</sup> <https://cbi.iq/static/uploads/up/file-149808149252279.pdf>

<sup>33</sup> [http://www.iraq-lg-law.org/ar/webfm\\_send/901](http://www.iraq-lg-law.org/ar/webfm_send/901)

<sup>34</sup> [http://www.isx-iq.net/isxportal/files/lawmarket109\\_8\\_0\\_8\\_32\\_7.pdf](http://www.isx-iq.net/isxportal/files/lawmarket109_8_0_8_32_7.pdf)

*five commissioners including the Chair”* (ISC, 2004). The ISC is funded by Iraq’s government, and its accounts are audited by the FBSAI and by the Commission of Integrity (ISC, 2004).

The establishing of both ISC and ISX emerged as a response to the economic challenges encountered by the Iraqi private sector and to activate the Interim Law of ISX no.74 of 2004. Thus, the ISC aims to support the substantial changes in Iraqi economy and assist the integration of the Iraqi economy with the global economy, through gradual transformation of the Iraqi economy from a non-transparent centrally-planned economy to a free-market economy, in addition to supporting the improvement of living standards and employment opportunities (ISC, 2004). The ISX aims at *“developing a transparent, open, and competitive trading environment”* (Al Karmal, 2006).

Joint-stock and limited liability companies, whether mixed or private ownership, have the right to be listed in ISX. In this regard, it is worth mentioning that only Iraqi banks are listed in the ISX, with a total of 27 private and Islamic banks according to the Iraqi Securities Commission website<sup>35</sup>. There are two markets in the ISX, the Regular Market<sup>36</sup> and the Second Market<sup>37</sup>. Twenty-four banks are listed in the Regular Market, and three banks are listed in the Second Market, according to the website of the ISC.

The obligation to apply the IFRS is not clearly stated in this Act. Article 6, Paragraph C-i states that:

“i) The financial statements included in the annual report shall be audited in accordance with international auditing standards by an independent auditor duly licensed in Iraq and shall be presented in accordance with international accounting standards to the extent permissible under the standards in force in Iraq” (ISX, 2004).

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<sup>35</sup> <http://www.isc.gov.iq/en>

<sup>36</sup> [http://www.isc.gov.iq/en/banks\\_en](http://www.isc.gov.iq/en/banks_en)

<sup>37</sup> <http://www.isc.gov.iq/en/node/1230>

Since the Iraqi Accounting Standards are in force in Iraq, there is no real obligation to apply the IFRS in this law.

## Summary

This chapter highlighted the institutional settings of Iraq through discussing the political, economic, and legal aspects, in addition to giving background on Iraqi banks and the capital market. The Iraqi political regime changed many times during the last century. The last change was by the CPA in 2003, which shifted the political regime from socialism to capitalism and the economic system from a centrally-planned economy to a free-market economy. As well, it changed the Iraqi Constitution and introduced several laws and amended others. The vast majority of the CPA's attention was on the investment and financial sector, through introducing many laws and amending others. However, other economic sectors such as the industrial sector, tourism sector, services sector, and agricultural sector are neglected or ignored.

The application of the IFRS is mandatory for the financial sector, especially the banking sector, according to the Banking Law No. 94 of 2004. However, the banking sector has not responded to this obligation. The conflict in legislation may constitute a major obstacle to the application of the IFRS in the Iraqi banking sector.

Following this introduction to the Iraqi institutional settings, the next chapter will review the literature related to IFRS.

## Chapter 3 Literature Review

### Overview

Following Chapter Two on the Institutional Settings, this chapter will discuss previous literature that sheds light on factors influencing the applications of IFRS, to emphasise the obstacles to the implementation of IFRS and their impact on the quality of financial statements. This chapter consists of four sections, including an introduction to the previous IFRS literature, which reviews the principal trends of IFRS literature; how the Institutional-based Theory is employed in the IFRS literature; literature that sheds light on factors affecting adoption of the IFRS; and literature on financial statements' quality.

*Table 3.1 Chapter Three Structure*

3	Literature Review
3.1	Introduction to the IFRS Previous Literature
3.2	Theory in IFRS Literature
3.3	Factors Influencing the Application of IFRS
3.4	Financial Statements' Quality
	Summary

### 3.1 Introduction to the Previous IFRS Literature

The vast majority of IFRS literature focuses on the implications of the IFRS adoption (post-adoption) and shows a variety of results, for example: the impact of IFRS adoption on value relevance (see Agostino et al., 2011; Alali & Foote, 2012; Chebaane & Othman, 2014; Clarkson et al., 2011; Manganaris et al., 2015; Omokhudu & Ibadin, 2015), accounting quality (e.g. Barth et al., 2008; Christensen et al., 2015; Gebhardt & Novotny-Farkas, 2011; Hung & Subramanyam, 2007; Soderstrom & Sun, 2007), the capital market (see Ahmed et al., 2013; Barth & Israeli, 2013; Christensen et al., 2013; Grossman et al., 2013; Ramanna & Sletten, 2009), comparability (see Barth, 2013; Callao et al., 2007; Lang et al., 2010), the degree of convergence and harmonization (see Alali & Cao, 2010; Ghio & Verona, 2015; Hellmann et al., 2010; Larson & Street, 2004; Moussa, 2010; Peng et al., 2008; Qu & Zhang, 2010; Rezaee et al., 2010), earnings management (see Jeanjean & Stolowy, 2008; Leventis et al., 2011; Zéghal et al., 2011), earnings (see Atwood et al., 2011; Lim et al., 2013; Watrin & Ullmann, 2012), equity (Aisbitt, 2006; Jaruga et al., 2007; Schmidt, 2013), and education (see Carvalho & Salotti, 2012; Jackling et al., 2012; McGee & Bandyopadhyay, 2009; Munter & Reckers, 2010). In contrast, other literature has opposed the adoption of the IFRS (see Bhattacharjee, 2009; Walker, 2010).

Despite the presence of a good number of studies in the international accounting literature, less attention has been paid to exploring the obstacles to the application of IFRS in transitional developing countries. Furthermore, previous literature does not differentiate between different economic sectors (private, mixed, cooperative, and governmental) within the national economy, or between national and international companies. Also, the majority of previous literature did not differentiate between full adoption and partial adoption. It is also worth noting that there is limited literature regarding the Iraqi business environment; just one study conducted by Hassan et al.

(2014). This study highlighted the development of accounting regulation in Iraq and assumed that Iraq had adopted the IFRS, based on regulations that were introduced or amended by the CPA. However, according to the governor of the Central Bank of Iraq (AlmadaPress, 2015) and the Middle East Tax Handbook (Deloitte, 2015), the reality is opposite to that; the IFRS have not yet been applied.

The vast majority of previous literature that addresses factors influencing the adoption of the IFRS focused on factors that positively impact the adoption decision, to explain the reasons for adoption, and neglected or ignored other factors that negatively influence the application of IFRS. Additionally, the environmental factors that were presented in the previous literature as factors enhancing the adoption decision may contribute to the differences in accounting practices between different countries, for instance, the political regime, the legal system, the economic system, the educational system, international organizations, accounting culture, and business ownership. See Table 3.2 below.

*Table 3.2 IFRS Literature*

<b>Author</b>	<b>Country</b>	<b>Theory</b>	<b>Model</b>	<b>Method</b>	<b>Findings</b>
Ampofo & Sellani, (2005)	United States	X	x	x	"IAS and U.S. GAAP are more similar than dissimilar and the movement toward harmonization is bringing them closer and closer. However, recommendation and acceptance of the IAS without regard to the complexity of business environments, culture, political, legal, and economics of the U.S. is premature."
Atabey et al. (2014)	Konya	X	x	questionnaire	"Big majority of the accounting academicians in Konya are aware of the IFRS and their level of knowledge might be indicated as intermediate generally. Only about 10 percent of the participants seems to be specialized or trying to be specialist on IFRS."
Bhattacharjee (2009)	Bangladesh	X	x	x	"Ensuring high-quality corporate financial reporting environment depends on effective enforcement mechanisms."

Combs et al. (2013)	Russia	X	x	Semi-structured interview	"The findings supported the theoretical view of a "Soviet culture" which has an impact on harmonisation of Russian Accounting Standards with the IFRS. Further findings indicate that accountants in Russia display reluctance to disclose financial information to the external users."
Ghio & Verona (2015)	The BRIC countries	the structuration theory	x	Secondary data	"The political aspect, supported by the national culture and 'community', represents the main driver, even if the three dimensions are closely interconnected and overall, we show the current emergence of limits of the implementation of the dominant market model."
Guerreiro et al. (2008)	Portugal	X	x	Questionnaire	"The level of preparedness to adopt IAS was significantly associated with company size."
HassabElnaby et al. (2003)	Egypt	X	x	Secondary data	"There is a strong relationship between the environmental factors and accounting development in Egypt and this relation varies with time. The empirical findings indicate that the level of the economy and the political environment are positively correlated to the accounting development in Egypt."
Lantto (2014)	Finland	X	x	Interviews	"The specialisation of different accountants of the case firm made it possible to respond to not only the different needs of IFRS but also the case firm."
Nurunabi, 2014	Bangladesh	X	x	interviews	Lack of accounting regulatory framework and political influences are hindering the effective implementation of IFRS.
Parlakkaya et al., 2014	Kenya	X	x	Questionnaire	Two thirds of the respondents believe that they have limited or moderate knowledge about the IFRSs. The remaining one third represent the group with satisfactory or excellent levels.
Shima & Gordon, 2011	United States	X	x	Secondary data	"US investment is associated with IFRS only when it is combined with a strong regulatory environment, specifically a strong enforcement regime."
Strouhal et al., 2013	Czechoslovakia	X	x	Questionnaire	Increasing the competitiveness on the labour market and also the ability to keep pace with developments taking place in the international area.



Taiwo & Adejare, 2014	Nigeria	X	x	Questionnaire	It is recommended that the financial reporting practice in Nigeria should cut across the public and private sectors to bring uniformity in accounting practice regarding annual preparation of financial reports to the owner of companies and other interested parties.
Zeff, 2007	X	X	x	x	There are obstacles to convergence at a high level of quality. Some of the obstacles are deeply cultural, while others are more susceptible to modulation by the principal parties.
Zeghal & Mhedhbi, 2006	64 developing countries	X	x	Secondary data	"Developing countries with the highest literacy rates, that have capital markets, and that have an Anglo-American culture are the most likely to adopt international accounting standards."
Zehri & Chouaibi (2013)	74 developing countries	X	x	Secondary data	"The empirical results have indicated that the DCs most likely to adopt IAS/IFRS have a high level of economic growth, along with a legal system of common law and an advanced educational level."
Assenso-Okofu et al. (2011)	Ghana	X	x	Secondary data	"The political, legal, and economic systems in addition to accounting education and capital market significantly influence the accounting practices and disclosure"
Fatma and Faker (2017)	Tunisia	X	x	Secondary data	"In the early 1990s, was the first step to harmonize with IAS/IFRS. However, the harmonization of national accounting standards with IAS/IFRS has not been achieved yet. This non-achievement is attributed to the political and legal systems that hampered the harmonisation process."
Al-Akra et al. (2009)	Jordan	X	x	Secondary data	"Political and economic factors contributed more than other factors in developing of accounting practices"
Mala and Chand (2014)	Malaysia	X	x	Questionnaire	"Those accountants who are provided with decision aid in the form of additional guidance on IFRS make more accurate judgments than accountants who are not provided with such guidance."
Lim et al. (2017)	Malaysia	X	x	Questionnaire	Including the implementation guidance can limit and constrain accountants' revenue recognition judgments.

Lopes et al. (2016)	Brazil	X	x	Secondary data	The IFRS adoption leads to production of high-quality financial statements
Ezzamel et al. (2007)	China	X	x	Interviews	"Accounting was construed as a malleable object shaped by the force of the dominant political discourse"
Nobes (2006)	Germany and the UK	X	x	x	The opportunities for international different IFRS practices are expected due to differences in legislations (law and tax) and the financing systems.
Wehrfritz and Haller (2014)	German and Britain	X	x	x	"International comparability of financial statements under IFRS can only be achieved if standards are interpreted and applied consistently across countries."
Douppnik and Riccio (2006)	Brazil and the United States	Gray's theory	x	x	A country with high conservatism and security assigned a higher probability expression that increased income recognition than a low conservatism country
Bryce et al. (2015)	Australia	X	x	Secondary data	IFRS adoption has not enhanced the accounting quality
Cieslewicz (2014)	50 countries	X	x	Secondary data	The differences in accounting practices are attributed to international cultural and institutional differences
Drnevich and Stuebs (2013)	United States	X	x	group discussions	Although the IFRS is a uniform set of global accounting standards, the differences in the interpretations of such standards' terminology have a significant influence on the outcomes of financial statements.
Perera et al. (2012)	New Zealand and Samoa	X	x	Questionnaire	The differences in judgments of professional accountants are linked with the differences in their cultural values and ethical issues, which led to differences in measurement and disclosure.
Mısırlioğlu et al. (2013)	Turkey	X	x	Secondary data and Interviews	Although there is some improvement in disclosure, most of the disclosure items required by IFRS were not disclosed.
Phan and Mascitelli (2014)	Vietnam	X	x	Questionnaire	The authors recommended that IFRS adoption should be voluntary and not mandatory.
Arnold (2012)	The western nations	X	x	Secondary data	The IFRS emerged as a response to the transformations of the international political economy, financial capital and the power of the financial sector.

Heidhues and Patel (2011)	Germany	A critique of Gray's theory	x	x	Researchers' unquestioning acceptance and application of Gray's theory.
Masca, E. (2012)	European Union	X	x	Secondary data	Cultural factors have a significant influence in the adoption of the IFRS for SMEs in the European Union
Richardson (2009)	Canada	X	x	a link-tracing approach	The formation of auditing and accounting standards, in Canada, were linked to a network of both domestic and international standard-setting organizations.
Botzem and Quack (2009)	Anglo-American	X	x	x	"The downsides are insufficiencies regarding a simplistic understanding of experts and expertise, a neglect of the role of auditing firms, and only an imbalanced integration of different stakeholders."
Nobes and Stadler (2013)	12 countries	X	x	Secondary data	Different scholars might yield different classifications of assets and liabilities.
Canning and O'Dwyer (2013)	Ireland	X	x	Archival data	"A counterpoint to prior research suggesting that the accounting establishment has been highly successful in influencing the design and interpretation of new regulations aimed at overseeing the accounting profession"
Yee (2012)	China	X	x	Archival data	Change in the political ideology has had a significant impact over the advance of the Chinese accounting profession
Chand (2012)	Fiji	X	x	Questionnaire	The organizational culture influences the judgments of accountants more than the ethnic culture
Palea (2013)	European Union	X	x	Archival data	"Empirical evidence suggests some beneficial effects from the mandatory adoption of IAS/IFRS in Europe."
Pășcan (2015)	European Union	X	x	Archival data	"Accounting standards, legal and political systems, incentives of financial reporting all affect accounting quality."

### 3.2 Theory in IFRS Literature

Using theory to explain and support research findings has become common in recent management, economic, and marketing literature. However, in general, accounting literature makes less use of theory. The review of IFRS literature revealed that the Throughput Model (TM) has not yet been used in IFRS literature. Moreover, although the Institutional-based Theory (IBT) has been employed in six papers, it has been employed to explain the reasons behind IFRS adoption; through explaining the positive pressures (coercive, normative, and mimetic) that were exerted on listed or unlisted companies.

Irvine (2008) employed the global level of the Institutional-based theory (IBT) to theoretically explain the coercive pressures of the World Bank and capital markets, the normative pressure of the Big 4 accounting firms, the mimetic pressure of trade partners and multinational corporations towards developing and emerging countries (e.g. the United Arab Emirates (UAE)) to adopt the IFRS to gain legitimacy. She concluded that developing and emerging countries have rushed to meet the requirement of their financial statements' compliance with IFRS to gain legitimacy in global capital markets, in order to access capital markets and achieve economic advantages, as more than 100 countries have announced their intention to adopt IFRS fully or partially, or to align their accounting standards with IFRS.

Judge et al. (2010: 161) asserted that the IFRS adoption decision "*is driven more by social legitimisation pressures, than it is by economic logic*". They used archival data to prove that institutional environmental factors are more robust variables in predicting the adoption of IFRS; the coercive pressure of foreign aid, the mimetic pressure of import penetration, and the normative pressure of education level are predictive factors towards IFRS adoption at the national level. They used the three isomorphic pressures of the

Institutional theory, which stress legitimacy-seeking by social actors to support their view.

Albu et al. (2011b) investigated in depth the implementation of IFRS in Romania<sup>38</sup> through conducting 11 semi-structured interviews. They used institutional and structuration theory to explain the coercive pressure of the WB. The application of IFRS was imposed by the WB on large companies as a condition of financial assistance in 1997-1998. Also, the WB required the Ministry of Public Finances to issue transitional guidance and establish an institution for financial auditing.

Guerreiro et al. (2012) investigated the preparedness of large unlisted companies in Portugal to adopt the adapted IFRS with the Portuguese accounting standards through surveying 116 large unlisted companies. They utilised the isomorphic pressures of the new institutional theory as factors accompanying companies' preparedness to implement the adapted standards. They found positive coercive pressures by the parent company and national ownership; and mimetic pressures from other companies and export activities. However, they found that the accounting profession (professional accounting associations and Auditor type), exerted negative normative pressure, which led to a low level of preparedness and resistance to application of the Portuguese accounting standards.

Hassan et al. (2014) employed the Institutional theory to explain the initial decision to adopt IFRS in Iraq. They claimed that the coercive pressures of the Coalition Provisional Authority and international aid organizations were the most significant forces influencing the initial adoption decision. Also, they claimed that Iraq's accounting system is likely to be further advanced because of the mimetic pressures of multinational corporations and trade partners, and the normative pressure of the accounting profession. However, they did not support their claims with empirical or non-empirical data.

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<sup>38</sup> Romania is a transitional developing country, where Communism fell in 1989 after 40 years of authority. Currently, Romania is part of the European Union (EU).

Nurunnabi (2015) explored in depth the influence of cultural elements on the implementation of IFRS in Bangladesh through conducting thirty-nine interviews within two rounds (27 in the first round and 12 in the second round) and documentary analysis (1979 documents are evaluated). He used the isomorphic pressures of the Institutional Theory to explain the impact of cultural factors on the implementation of IFRS; the coercive pressures of enforcement authorities (the Bangladesh ministries, regulators, donor agencies), the mimetic pressure to perform the best accounting practices, and the normative pressure of professional bodies. He found that the high level of corruption, the lack of knowledge, and the lack of enforcement negatively impacted the implementation of IFRS in Bangladesh. On this basis, he doubted the suitability of IFRS in developing countries. Table 3.3 below illustrates the previous IFRS literature that employed theory.

Table 3.3 Theory in IFRS Literature

Author	Country	Theory	Model	Method	Coercive Pressure	Mimetic Pressure	Normative Pressure	Findings
Albu et al. (2011)	Romania	Institutional and Structuration Theory	X	Interviews & Documentary Analysis	The World Bank	X	X	The IFRS adoption was a result of coercive external forces, such as the World Bank.
Guerreiro et al. (2012)	Portugal	New Institutional Theory	A Multiple Regression Model	Questionnaire Survey	Parent company involvement in the conversion; National ownership	Mimic other companies; Export activities	Membership of professional accounting associations; Auditor type	"Though coercive and mimetic institutional factors influenced levels of preparedness positively, the preparedness process was undermined by resistance within the Portuguese accounting profession and by the embeddedness of code-law practices in the prevailing logic"

Hassan et al. (2014)	Iraq	Institutional Theory	X	X	The Coalition Provisional Authority and international agencies	Multinational corporations and trade partners	The accounting profession	"It is important that IFRS adoption is accompanied by reform to governance and investor protection regimes, together with investment in education and training to support ongoing implementation"
Irvine (2008)	The United Arab Emirates	Institutional Theory	X	X	World Bank and capital markets	trade partners and multinational corporations	Big 4 accounting firms	"Emerging and developing nations have rushed to converge their financial reporting requirements with international accounting standards, in order to gain legitimacy in global markets and thereby access capital markets, achieve economic development, and increase their wealth"



Judge et al. (2010)	132 countries	Institutional Theory	X	Secondary Data Collection	Foreign Aid	Import Penetration	Education Level	"Foreign aid, import penetration, and level of education achieved within a national economy are all predictive of the degree to which IFRS standards are adopted across 132 developing, transitional and developed economies"
Nurunnabi (2015)	Bangladesh	Institutional Theory	Hofstede et al.'s (2010) model.	Interviews	Ministries & Regulators; Donor Agencies; Enforcement authorities	Best practices among individual companies	Professional bodies	"A scarcity of training opportunities in the accounting profession, and corruption have a negative influence on implementing IFRS in Bangladesh"

### 3.3 Factors influencing the application of IFRS

Zeghal and Mhedhbi (2006) conducted the first study to identify factors that favour the voluntary adoption of IFRS “*with or without adjustment*” (Zeghal & Mhedhbi, 2006:379) in developing countries. They examined economic growth, economic openness, education level, cultural membership, and capital market. Their analysis was based on a sample of sixty-four developing countries and based on secondary data collected from the Deloitte (2003) website<sup>39</sup>. They found that developing countries that belong to the Anglo-American accounting culture, countries that have an active capital market and have the highest literacy rate are the most likely to adopt IFRS. Also, they found that the capital markets have a strong influence on the adoption decision with the aim of producing high-quality accounting information, which plays a critical and vital role in developing international trade and investment. However, their study ignored or neglected some factors, such as political and legal factors, which are crucial to the adoption decision, whether mandatory or voluntary.

Therefore, Zehri and Chouaibi (2013) extended Zeghal and Mhedhbi’s (2006) research by adding three factors: the political regime, the legal system, and the openness to the exterior world, with the same objective, using data from the same source, using same data analysis method, and also “*with or without modification*” (Zehri & Chouaibi, 2013). They reached the same findings as Zeghal and Mhedhbi (2006).

Zehri and Chouaibi (2013) included Iraq among countries that have adopted the IFRS. However, the Deloitte website<sup>40</sup> clearly states, “*If you have additions or corrections to*

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<sup>39</sup> [www.iasplus.com/country/country.htm](http://www.iasplus.com/country/country.htm).

<sup>40</sup> <http://www.iasplus.com/en/resources/ifrs-topics/use-of-ifrs>

*this table, please send us an email*”, which means the data is debatable or changeable, and

Deloitte does not guarantee the data reliability. Moreover, that website stated that:

“Often, not all IASs/IFRSs have been adopted locally. Often there is a time lag in adopting an IFRS as local GAAP. We are not in a position to compare national or regional GAAPs to IFRSs in detail” (Deloitte, 2014).

This statement differentiates between full adoption and partial adoption, and between the adoption decision and its implementation.

Furthermore, the phrase, ‘with or without adjustment or modification’ produces seriously misleading outcomes by mixing countries that adopt the IFRS, with other countries that adjust their national GAAP to be in line with the IFRS, whether within the convergence programme or not. When accounting standards-setters, in any country, adjust their national GAAP to accord with the IFRS, that means they are creating new accounting standards or upgrading their national GAAP, rather than adopting the IFRS. The adoption of IFRS means accepting a single global set of accounting standards (IFRS, 2015b), without any amendments.

Judge et al. (2010) used secondary data from a Deloitte (2008) report<sup>41</sup> that summarises the status of IFRS adoption worldwide. They highlighted that IFRS is required for some firms in Iraq, so they fell prey to the same misapprehension discussed previously in relation to Zehri and Chouaibi (2013). However, they acknowledged the shortcomings of merely depending on secondary data in this kind of research, and they recommended researchers to investigate in depth the actual application to distinguish “‘serious’ adopters from ‘nominal’ adopters of IFRS at the firm level” (Judge et al., 2010:172). Also, they acknowledged that national institutional environmental factors (IEFs) “cannot only facilitate, but also block adoption of international standards”.

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<sup>41</sup> <http://www.iasplus.com/country/useias.htm>

Accordingly, they argued that it is hard to understand the IFRS adoption and accounting harmonization processes without gaining a full understanding of how IEFs influence IFRS adoption at the national level, and hence, they recommended further research to consider providing a better understanding of how national IEFs function and change.

Hassan et al. (2014) reviewed the historical development of accounting regulation in Iraq and stated that listed companies had adopted IFRS from 2004, as a result of coercive pressure from the Iraq Stock Exchange, Western forces and international aid organizations. They used data from the same website mentioned before (Deloitte, 2014). Also, they stated that “*Currently, Iraq has a dual accounting system*” (Hassan et al., 2014:373), claiming that Iraq’s listed companies are applying the IFRS without any modification or amendment, and unlisted companies are applying the Iraqi Unified Accounting System (IUAS) as before 2003. However, this claim does not match the reality and is not supported by qualitative or quantitative data. Iraq’s listed companies have not adopted the IFRS yet, and the Interim Law on Securities Markets cannot oblige listed companies to apply the IFRS. Additionally, according to Middle East Tax Handbook 2015;

“Registered entities must prepare annual financial statements, with Iraqi Dinars as the accounting currency, in accordance with the Iraqi Unified Accounting System and in Arabic. Iraqi Unified Accounting Rules do not match International Accounting Standards” (Deloitte, 2015:24).

Furthermore, there is no distinction between listed and unlisted companies in the Company’s Act No.21 of 1997, as amended in 2004. All Iraq’s companies are subject to the IUAS except the banking sector according to its regulation no.94 of 2004. Moreover, international aid is provided to the Iraqi governmental bodies that apply the Government Accounting System, which was built on different concepts and bases, such as the monetary basis. Public sector and mixed sector companies must apply the IUAS, which

does not match the IFRS. Therefore, the coercive pressure from Western forces does not have an impact on listed companies and the private sector.

The characteristic features of these studies are that they used merely secondary data from the same Deloitte website; they failed to distinguish between different economic sectors (private, mixed, and governmental) and mixed between national and international companies. Also, they did not differentiate between full and partial adoption.

In this kind of research, using only secondary data will not facilitate the acquisition of accurate or reliable results. For this purpose, primary data collection is necessary. Moreover, it is necessary to differentiate between changing regulations, making an adoption decision<sup>42</sup>, and implementing the adoption decision. Changing or amending some laws does not mean that listed and/or unlisted companies have applied the IFRS.

Albu et al. (2011a) investigated the application of IFRS for SMEs in Romania. Their findings revealed that the Romanian regulation and the IFRS for SMEs are inconsistent, which led to diminishing comparability and distortions in the application of the IFRS for SMEs. Albu et al. (2011b) investigated the application of IFRS in Romania within two stages of institutional context and found that the coercive pressure from the WB led to a limited application due to the lack of some elements of the application and that the application scope was limited to consolidated financial statements of listed companies. It is worth noting that the Romanian case is similar to the Iraqi case regarding the political and economic characteristics, as both countries are transitional developing countries and transformed from communism or socialism to capitalism.

Based on the IASB framework, Callao et al. (2007) indicated four critical qualitative characteristics that may make the financial statements useful; comparability,

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<sup>42</sup> An activation of a valid regulation.

understandability, relevance, and reliability. They examined the comparability and relevance of financial statements at the national level when applying the IFRS and found that the potential comparability and relevance had worsened due to applying both national accounting standards and IFRS at the same time in the same country. The comparability between local companies was diminished when some companies applied IFRS, and other companies continued to use the national standards. Additionally, the gap between market values and book value was widened when applying the IFRS. As well, the application of these standards was exclusive to consolidated financial statements, which led to the creation of hybrid financial reports that served neither local nor international stakeholders. In other words, the conflict between the national accounting regulation and the IFRS led to the loss of the qualitative characteristics of financial statements and poor financial statements' quality. Thus, the authors called for urgent reforms of local regulation to be in line with the IFRS. These findings indicate that legislation conflict led to creating hybrid consolidated financial statements that have a harmful impact on the users of financial statements (stakeholders), due to the incomparability of the financial statements. Moreover, they highlight three main reasons for not harmonising the national accounting regulation with the IFRS in various countries: (1) the lack of political will, (2) local accounting culture, (3) "*a strong national outlook*" (Callao et al., 2007:149). Thus, the financial statements become poor in quality and less useful when applying the IFRS only for the consolidated financial statements, without amendment of the national accounting regulation.

Fatma and Faker (2017) explored the positive and negation influences of six environmental factors on the harmonization process in Tunisia at the macroeconomic level; international ties, political, economic, legal, educational, and professional systems. They found that governmental control over standardisation and the taxation act were the

principal obstacles to the accounting development and harmonization process. These obstacles diminish transparency and harmonization<sup>43</sup>. Despite the change in the accounts chart of the Tunisian Enterprise Accounting System in the early 1990s, the harmonization of Tunisian accounting standards with IFRS had not yet been achieved and transparency had diminished. The non-achievement of transparency and harmonization were attributed to the political and legal systems. However, Assenso-Okofu et al. (2011) found that the political, legal, and economic systems, accounting education, and the capital market had a significant positive effect on the application of the IFRS and disclosure in Ghana. As well, Al-Akra et al. (2009) found that political and economic factors contributed more than legal and cultural factors in the development of accounting practices in Jordan.

Larson and Street (2004) indicate that the taxation system and the complexity of particular standards such financial instruments were the most significant obstacles to the convergence process in the EU, followed by insufficient convergence guidance, immature capital markets, and limited experience. Moreover, Jermakowicz and Gornik-Tomaszewski (2006) found that the complexity of IFRS, misinterpretation, and the lack of a conversion plan or guidance are the primary challenges in the implementation of the IFRS adoption decision in the EU.

Joshi et al. (2008) explored accounting professionals' perceptions regarding the application of IFRS in Bahrain and found that the lack of sufficient guidance and nationalism could be significant barriers to the adoption process.

Zeff (2007) presented four sorts of cultures that could negatively influence the application of IFRS, namely, the accounting culture, the business and financial culture,

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<sup>43</sup> The Tunisian accounting system is restricted by legislation. Thus, it does not have the flexibility to keep pace with the IFRS, because any change in accounting practices requires change in legislation. Note that the case of Tunisia is like the Iraqi case, where both have coded laws and accounting practices are restricted by their national accounting standards.

the regulatory culture, and the auditing culture. However, the present study focuses solely on the accounting culture.

China has had a different experience, according to Baker et al. (2010); the Chinese standards-setters authorised the aggregation of both national GAAP and IFRS accounting for business combinations. The Chinese standards setters' decision was based on political and economic effects, due to industrial reorganization.

Grossman et al. (2013) examined the differences in financial statement information between IFRS and US GAAP, to understand the impact of IFRS on corporate financial statements, market performance, and incremental information value. However, the results revealed no significant differences in financial statements between IFRS and US GAAP. Thus, they concluded that there was no need to apply IFRS in the US.

Yee (2012) highlights the role of Chinese professional organization bodies in developing the accounting profession during the 1990s. As China is ruled by a socialist political regime and economic system, and has a unique culture, Yee (2012) examines the influence of Chinese socialism over the state-accounting profession; considering both the Mao Zedong's regime (Mao) and the Deng Xiaoping's political regime (Deng) that take power in the late 1970s. She found that change in the political ideology of the state leaders might have had a significant impact on the advance of the Chinese accounting profession. The wide differences between the two leaders' ideological principles<sup>44</sup> significantly developed the accounting profession; the shift from Mao's to Deng's political regime would have inescapably changed the "*ideological discourse, impacting on all aspects of Chinese society, including the rise and fall of the occupation of accounting*" (Yee, 2012: 427). Furthermore, the ideological framework of Chinese professional organization

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<sup>44</sup> Mao emphasises public-ownership, the primacy of class struggle, and central planning, while Deng emphasised mixed-ownership, marketization and economic development (Ezzamel, et al., 2007).



bodies shifted to serve the Deng's political ideology. This shift has had an essential influence on the development of the accounting profession and shaping Chinese accounting practices under Deng's political ideology.

Arnold (2012) investigated the role of the WB and IMF in the development and diffusion of IFRS. He examined the impact of the East Asian financial crisis (1997-1998) on the Western nations. As a response, the Western countries, such as Germany, France, Italy and United Kingdom established "*the international financial reporting and auditing standards, to govern an expanding and crisis-prone international financial system*" Arnold (2012: 361). The IFRS and International Auditing Standards have emerged as a response to the transformations of the international political economy and financial capital, as well as the power of the financial sector in the late 20<sup>th</sup> century.

Ezzamel et al. (2007) explored the impact of political ideology in changing regulation that controls the accounting practices in China as a transitional economy. They found that there are distinctive changes in accounting regulation due to differences in political ideology.

Cieslewicz (2014) showed that differences in accounting practices are attributed to international cultural and institutional differences. At a national level, there is an indirect impact between a national economic culture and accounting practices, mediated by institutions. They highlighted the importance of the institution in shaping the accounting practices under a domestic economic culture pressure.

Mısırlıoğlu et al. (2013) examined the achievement of the harmonization aim after the IFRS mandatory adoption of Turkish listed companies, through measuring the change in both measurement and disclosures. They found that measurements were not uniform across accounts, and that, although there had been some improvement in disclosure, most of the disclosure items required by IFRS, were not disclosed.

Phan and Mascitelli (2014) investigated the IFRS adoption in Vietnam. They suggested that at least five years transition period would be needed to shift from the Vietnamese accounting system to IFRS. As well, they recommended that IFRS should be voluntary and not mandatory. Additionally, they proposed moderated and gradual adoption, rather than a strict implementation deadline.

Richardson (2009) used Canadian social network analysis to demonstrate that the formation of auditing and accounting standards, in Canada, was linked to a network of both domestic and international standard-setting organizations. The network consists of sixty-one bodies, clustered into four groups; International Federation of Accountants, the Canadian Securities Administrators, the Canadian Institute of Chartered Accountants and the IOSCO/World Bank.

Canning and O'Dwyer (2013) used archival data to investigate the regulatory arrangements and regulation governing the accounting activities in Ireland. They assured that accounting regulation, in a national context, is shaped by the interaction between different institutional pressures, especially with *“focus on the influence of national political and social contexts [professional accounting bodies] on the development and interpretation of accounting regulations”* (Canning & O'Dwyer, 2013: 169).

Douppnik and Tsakumis (2004) reviewed literature focusing on the influence of culture on accounting<sup>45</sup>. They investigated the impact of cultural factors on a country's financial reporting and recommended that scholars focus on examining the impact of culture on *“individual accountants' behaviour with respect to application of financial reporting rules”* (Douppnik & Tsakumis, 2004: 2).

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<sup>45</sup> They summarise three predominant areas that have been studied: financial reporting, management control systems, and auditors' judgements and attitudes

Other literature has opposed the application of the IFRS. For instance, Walker (2010) argues that the institutional characteristics of political and economic systems affect the setting of accounting standards. He called for a cautious attitude to the imposition of the IFRS for all entities, arguing that the mandatory adoption of a single set of accounting standards may run the risk of tightly restricting the development of alternative forms of capitalism.

### 3.4 Accounting Quality

“In order to achieve the intended benefits of IFRS adoption, related to increased comparability and transparency of financial reporting, IFRS application should result in improved quality of accounting information” (Pășcan, 2015: 581).

As cited by Pășcan (2015), the IASB determined the qualitative characteristics of financial information (financial statements or accounting quality), which are: the relevance, represents faithfully, comparability, transparency, verifiability, timeliness and understandable. The Conceptual Framework for Financial Reporting 2010 approved by the IASB define the accounting quality (FSQ) is:

“The qualitative characteristics of useful financial reporting identify the types of information are likely to be most useful to users in making decisions about the reporting entity on the basis of information in its financial report. The qualitative characteristics apply equally to financial information in general purpose financial reports as well as to financial information provided in other ways. [F QC1, QC3] Financial information is useful when it is relevant and represents faithfully what it purports to represent. The usefulness of financial information is enhanced if it is comparable, verifiable, timely and understandable [F QC4]” (Pășcan, 2015: 581).

The quality of financial statements is highly associated with a country’s institutional setting, i.e. institutional environmental factors. According to Soderstrom and Sun (2007:675), “*accounting quality is a function of the firm’s overall institutional setting, including the legal and political system of the country in which the firm resides.*” The quality of financial statements is a reflection of their ability to enhance investors’ rational decision-making process and attract investment through their confidence level and

understandability, which was the main reason for the association between accounting quality and accounting standards (El-Sayed, 2016). Hence, enhancing accounting quality is attributed to the application of IFRS as premised by the IASB. However, the impact of the IFRS adoption on financial statements' quality (FSQ) was a controversial issue in previous literature in recent years; some literature found positive implications, while other literature reported negative implications. The negative implications are attributed to obstacles that hinder or limit the implementation of a mandatory adoption decision. Therefore, the impact of mandatory IFRS adoption on FSQ is ultimately an empirical question (El-Sayed, 2016).

As IFRS are extremely capital market-oriented, their application, in theory, will facilitate efficient access to capital globally; a single set of high-quality accounting standards is more likely to decrease the information cost, information asymmetry, estimation risk, and cost of equity capital (Li, 2010; Barth, 2013; El-Sayed, 2016). Hence, the advocates of IFRS argue that their application will globally improve the qualitative characteristics of financial statements; enhancing the financial statements' comparability, understandability (transparency), harmonization, verifiability, timeliness, and disclosures. However, in terms of measuring FSQ, the previous literature shows numerous definitions and different measures, as discussed below.

Pășcan (2015) analyses the consequences of the transition from the national accounting standards to the international accounting standards on the FSQ in Europe through conducting an archival research by reviewing 30 papers published on ProQuest. He classified five trends or approaches for measurement of accounting quality presented in previous literature: (1) the value relevance approach, (2) the credit relevance approach,

(3) the extent of earnings management practices (income smoothing<sup>46</sup>, earnings management to meet or beat a target<sup>47</sup>, managing toward small positive earnings<sup>48</sup>, accruals quality<sup>49</sup>, absolute discretionary accruals<sup>50</sup>, absolute value of abnormal accruals<sup>51</sup>), (4) timeliness of loss recognition<sup>52</sup>, and (5) accounting quality and accounting conservatism<sup>53</sup>. However, previous literature did not pay attention to the definition of accounting quality presented in the Conceptual Framework for Financial Reporting 2010 approved by the IASB.

Callao et al. (2007) examined the improvement of financial statements in Spain through measuring the impact of IFRS on comparability and financial statements' relevance via analysing the differences between financial ratios and accounting figures. They found that *“local comparability is adversely affected if both IFRS and local accounting standards are applied in the same country at the same time”* (Callao et al., 2007:148), and they argued that there is an urgent need to reform the local rules. In other words, legal conflict leads to poor FSQ and irrelevance of financial statements, due to the emergence of a gap between market and book values when applying the IFRS.

Barth et al. (2008) and Christensen et al. (2015) examined accounting quality associated with applying IFRS in twenty-one countries and Germany, respectively, via a combination of three measurements, including earning management, value relevance, and timely loss recognition. Barth et al. (2008) showed that the application of IFRS led to

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<sup>46</sup> See Zeghal et al. (2012); Ahmed et al. (2013); Paanamen & Lin (2009); Chen et al. (2010); Hellman (2011); Uyar (2013).

<sup>47</sup> See Ahmed et al. (2013); Chen et al. (2010).

<sup>48</sup> See Zeghal et al. (2012); Christensen et al. (2008); Uyar (2013).

<sup>49</sup> See Zeghal et al. (2012); Martinez-Ferrero (2014); Chen et al. (2010).

<sup>50</sup> See Zeghal et al. (2012); Bouchareb et al. (2014); Boumediene et al. (2014); Chen et al. (2010); Uyar (2013).

<sup>51</sup> Lopes et al. (2010).

<sup>52</sup> See Ahmed et al. (2013); Zeghal et al. (2012); Paanamen and Lin (2009); Christensen et al. (2008); Chen et al. (2010); Uyar, (2013).

<sup>53</sup> Zeghal et al. (2012); Martinez-Ferrero (2014).

higher FSQ due to less earnings management, greater value relevance, and more timely loss recognition of firms that adopt IFRS. However, Christensen et al. (2015) found that the improvement in accounting quality is determined by entities' incentives to adopt IFRS and voluntary adoption, not to the IFRS themselves.

Moreover, the case of Egypt as a code-law country differs. El-Sayed (2016) examined the improvement of accounting quality associated with applying IFRS in Egypt measured by earnings management and found that accounting quality has decreased since adoption. In other words, the application of IFRS in code law countries could decrease FSQ due to legislation conflict. By contrast, the application of IFRS in common law countries may increase FSQ. These findings explain the impact of the legal factor on the IFRS application and accounting quality.

Gebhardt and Novotny-Farkas (2011) examined the impact of mandatory adoption of IFRS on FSQ of the banking sector of twelve EU countries. They measured the FSQ through measuring the change in the measurement and recognition of banks' major operating accrual item, timely loss recognition, and how income smoothing behaviour is affected by the loan loss provision. They found that the application of IAS 39 significantly decreases income smoothing. Also, the supervision of professional organizations has a profound impact in shaping the quality of financial statements outcomes. Finally, they questioned whether the mandatory adoption of IFRS is desirable in times of financial crisis.

Liu et al. (2011) examined the impact of IFRS mandatory adoption on accounting quality of Chinese listed companies via measuring earnings management and value relevance. They found that the FSQ improved due to the reduction of earnings management and increase of value relevance. However, they questioned whether the

study provided direct evidence on the question of whether IFRS can be relevant to markets that are still disciplined mainly by regulators rather than by market mechanisms.

Paananen and Lin (2009) compared the FSQ under voluntary and mandatory adoption in German companies via measuring timely loss recognition and earnings smoothing. They found that the FSQ decreased after the mandatory EU adoption in 2005, which also negatively affected investors' rational decisions.

Lopes et al. (2016) investigated the implications of IFRS adoption on the informativeness of financial statements and corporate governance in Brazil. They found that financial statements are essential elements of corporate governance and indicate accounting quality. As well, the IFRS adoption leads to the production of high-quality financial statements through the increase in the informativeness of accounting reports.

Bryce et al. (2015) examined the quality of financial statements before and after the implementation of IFRS in Australia. They also investigated the role of audit committees in promoting accounting quality under IFRS application. Their findings revealed that the adoption of IFRS has not significantly enhanced the accounting quality, and that, in Australia, audit committees were more effective in maintaining the quality of financial statements.

It can be seen from the above review that previous literature shows several different measures and definitions of financial statements' quality. All these studies examined the consequences of applying IFRS, in terms of FSQ. There is no research that examines the impact of obstacles to the application of IFRS, on FSQ, which has been addressed in the present research.

### 3.5 Professional Accountants' judgement and decision-making literature

Libby and Luft (1993) asserted that professional accountants' knowledge, ability, environment, and motivation determine their judgement performance. These factors control professional accountants' decision-making functions, which in turn determine the quality of financial statements. Hence, the financial statements' quality is a function of professional accountants' judgement and its determining factors. They claimed that professional accountants differ in their knowledge, ability, and exertion of the effort required for successful decision-making. As well, they stressed that professional accountants' "*education, training, and experience provide opportunities to accumulate a wealth of task-related knowledge*" (Libby & Luft, 1993: 427).

Moreover, the availability of adequate guidance (decision aid) will enhance the judgement of professional accountants and their ability to make successful decisions. Mala and Chand (2014) investigated the impact of providing guidance on the application of IFRS on the accuracy of professional accountants' judgments. They found that providing guidance regarding the application of IFRS has a significant impact on the accuracy of professional accountants' judgements, especially on complex tasks, while "*low quality judgments can lead to serious economic consequences for the users of accounting information, as well as for firms*" (Mala & Chand, 2014: 264). Furthermore, Gibbins and Jamal (1993) employed the Knowledge-based theory to prove that professional accountants' judgements are attributable to their knowledge. The professional accountants' knowledge extends to include "*the various accounting, auditing, tax and related subjects about which accounting professionals exercise judgment*" (Gibbins & Jamal 1993: 451).

Bonner (1999) highlighted the importance of investigating professional accountants' judgement and decision-making behaviour in accounting research. He made a distinction



between high-quality and poor-quality judgements and decisions. As well, he asserted that professional accountants' judgement might affect their performance evaluation, job retention, compensation, and promotion. He also expressed concern about the negative impact of poor-quality judgement and decision, for instance, negative legal outcomes. Based on Bonner's (1999) work, Mala and Chand (2015) identified three variables, which are integral components influencing the judgement and decision-making in accounting research: environment, person, and task. The environmental variables are related to "*the situations in which individuals find themselves when they perform a JDM [judgement and decision-making] task; they are not related to any one task. Time pressure, internal control, corporate governance, and accountability are the types of environmental attributes that have the capacity to influence JDM, as these attributes can change the task requirements as well as the amount of knowledge, effort, and motivation that the decision maker must bring to the task*" (Mala & Chand, 2015: 3). Several personal characteristics that can influence accountants' judgements include IFRS knowledge (education, expertise, and training), ability to use decision-aids, and information-processing capabilities. The task variables are attributed to the task nature and dimensions, for example, the task complexity, risk, and presentation format. The quality of an accountant's judgement may not just affect his/her performance and professional reputation; it could also affect other stakeholders. Hence, poor judgement may cause a harmful impact on stakeholders including major financial loss and negative legal outcomes. Moreover, since the IFRS are principles-based, the accountant's judgement is required to be used as a norm.

Lim et al. (2017) examined the impact of including the IFRS implementation guidance on the revenue recognition (increasing, decreasing, and volatile) through measuring how managers' perception influences their judgements and decision-making.

Their findings confirm that including the implementation guidance can limit and constrain accountants' revenue recognition judgements.

Wüstemann and Wüstemann (2010) highlighted the importance of consistency in the application of IFRS. They noted that most accounting regimes seek to achieve consistency in accounting standards. However, since several transactions and events are not explicitly or clearly addressed in the IFRS, decision-makers (professional accountants) need to employ their judgement when applying particular transactions or events. They conclude that a consistent application of IFRS "*can only be ensured if the accounting standards themselves are internally consistent*" (Wüstemann & Wüstemann, 2010: 1). Hence, the absence of clear guidance will permit decision-makers to make arbitrary selections between different options of accounting methods available. Consequently, "*a consistent application presupposes the existence of specific guidance ('rules') in order to frame management's judgment*" (Wüstemann & Wüstemann, 2010: 1).

Weber and Hsee (2000) investigated the role of the cultural factor on an individual's judgement and decision-making by focusing on probability judgement, modes of decision-making, risk performance, and risk perception. They asserted that "*political, economic, and technical development*" contribute to the cultural diversion and "*differences in perceptions, values, attitudes, and behaviours*" (Weber & Hsee, 2000: 34). As well, they indicated that the rapid globalisation of trade and commerce increased the need for a knowledge-based understanding of the role of culture on individuals' judgements and decision-making behaviour.

Huerta et al. (2013) examined the differences in the IFRS translation from English into Spanish by Mexican professional accountants. They found that translation errors are one of the obstacles to IFRS adoption. Translation differences led to variation in

accounting outcomes (financial statements). They argued that, given the extensive use of generic phrases, due to the move toward principles-based standards, the importance of consistency in the translation of these terms has increased. They noted that translation of five IFRS by thirty-eight participants yielded a total of 47 phrases. These differences in IFRS translation resulted in diminishing the comparability and convergence, which are the core aims of IFRS adoption internationally. Other literature that has highlighted the implications of translation errors includes, for instance, Baskerville and Evans (2011), Douppnik and Riccio (2006), and Wehrfritz and Haller (2014).

Douppnik and Riccio (2006) used Gray's theory<sup>54</sup> to investigate the influence of culture on probability expressions used in the development of accounting standards through comparing between Brazil (a country high in conservatism and secrecy) and the United States (a country low in conservatism and secrecy). The interaction between the accounting values (conservatism and secrecy) and the use of probability expressions in accounting standards was found to have a significant influence on interpretations of those expressions based on accountants' judgements. The researchers found that accountants in a country with high conservatism and security used higher probability expressions that increased the income recognition than accountants in a less conservative and secretive country. However, Heidhues and Patel (2011) criticized Gray's theory and downplayed the importance of the culture factor and its impact on professional accountants' and auditors' judgements. They describe Gray's theory as a narrowly focused and quantified approach. In contrast to other literature<sup>55</sup> views that employed Gray's theory lenses to explain the impact of accounting culture on accounting practices across countries, they proposed that "*account contextual factors [IEF] such as political, legal, social and*

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<sup>54</sup> Gray (1988) argues that a country's shared cultural values might lead to shared accounting values and influence a country's accounting system. He developed a theory or framework to explain how the cultural factor influences the financial statements.

<sup>55</sup> For example, Douppnik and Riccio (2006), Douppnik and Richter (2004) and Patel (2003).

*historical environments of countries*” (Heidhues & Patel, 2011: 273) influence the IFRS adoption more strongly than the accounting cultural values.

Wehrfritz and Haller (2014) explored the impact of flexibility in the interpretation of IFRS on the comparability objective, which is at the core of the IFRS application, mediated by accountants’ judgements. The flexibility in the application of the IFRS is due to the need for estimates, discretion, and the explicit options mentioned in these standards. Thus, accountants’ judgements and their interpretations are inherent in financial statements based on IFRS. Hence, Wehrfritz and Haller (2014) argued that the *“application of IFRS might vary from one firm to another or from one country to another. This raises the question of whether IFRS are applied consistently, i.e., whether the de jure standardization of accounting rules of group accounts of publicly-traded companies in the EU has also led to de facto harmony”*. Furthermore, they stressed that *“the legal system, the national financing system, the national accounting regime, and the national culture may have an influence on accountants and may result in different judgments being made even though the same set of rules is applied”* (Wehrfritz & Haller, 2014: 237).

Drnevich and Stuebs (2013) explored the influence of culture on the outcomes of financial statements (FSQ) mediated by accountants’ judgements in interpreting and applying IFRS, in order to see how cultural differences influence the outcomes of financial statements. They argued that, since the financial statements have become increasingly international in scope, differences in culture between different countries have led to variety in the interpretation of IFRS terminology. The application of IFRS requires judgement and cultural differences may affect accountants’ judgments and their interpretations, especially in three aspects: revenue recognition, lease classification, and contingent liability. Although the IFRS is a uniform set of global accounting standards, the differences in the interpretations of these standards’ terminology have a significant

influence on the outcomes of financial statements and create different kinds of IFRS. Therefore, they argued that the existence of IFRS implementation guidance will enhance accountants' judgement and reduce interpretation errors. Moreover, Perera et al. (2012) found that the differences in judgments of professional accountants are linked with the differences in their cultural values and ethical issues, which led to differences in measurement and disclosure.

Chand (2012) examined the interaction between organizational culture and ethnic culture and their impacts and implications on professional accountants' judgements and IFRS interpretation in Fiji. He found that both organizational culture and ethnic culture have a substantial impact on the judgements of professional accountants and the "*manner in which accountants within a country interpret uncertainty expressions contained in the IFRSs*" (Chand, 2012: 298). Furthermore, he offered empirical evidence showing that the organizational culture influences the judgements of accountants more than the ethnic culture.

Nobes and Stadler (2013) examined the impact of an individual's judgement on the sensitivity of classification activities of accounting practice when applying IFRS. Classification is a fundamental issue, not only of accounting practices but also of many disciplines, for instance, political systems (Shils, 1966), economies (Neuberger & Duffy, 1976), legal systems (David & Brierley, 1985) and languages (Ruhlen, 1991). In all cases, the simplification purpose of the classification is fundamental (Rudner, 1966). Nobes and Stadler (2013) demonstrated how different scholars' judgements might yield different classifications, especially when there is insufficient guidance. Moreover, they conclude that "*objectivity is neither possible nor desirable in classification*" (Nobes & Stadler, 2013). They argued that the lack of guidance will force professional accountants to depend on their own judgements, which may yield different interpretations of the same

topics resulting in different kinds of IFRS application and undermining the comparability objective.

## Summary

This chapter critically highlighted previous IFRS literature trends and findings. Previous literature shows different implications as a result of applying the IFRS and shows a variety of findings. Although a good number of studies have been presented in the international accounting literature, less attention has been paid to exploring the obstacles to the application of IFRS in transitional developing countries, and there is limited literature regarding the Iraqi business environment. Moreover, the vast majority of previous literature did not differentiate between national and international companies, different economic sectors, and full adoption and partial adoption.

This research distinguishes between changing regulations, making an adoption decision (introducing legislation or directives), and implementing the adoption decision. Changing or amending some laws does not mean listed and/or unlisted companies have applied the IFRS. Furthermore, in this kind of research, using only secondary data will not facilitate the acquisition of accurate or reliable results, and primary data collection is necessary to ensure accurate and trustworthy results. Although the vital promise of adopting IFRS is that it will produce high-quality financial statements, the obstacles to the application of IFRS could lead to poor FSQ.

This chapter highlights the obstacles to the application of IFRS discussed in previous literature. The vast majority of previous literature focused on factors that positively influence the adoption decision, and some of them used the Institutional-based Theory to explain the positive institutional isomorphic pressures (coercive, normative, and memetic) as reasons for adoption. However, they failed to explain the negative institutional isomorphic pressures as factors that prevent the implementation of IFRS.

Also, some factors such as the political regime, the economic system, and the legal system may have positive institutional isomorphic pressures in specific circumstances but have negative institutional isomorphic pressures in other circumstances, thereby contributing to the differences in accounting practices,

To address the research gaps identified in this chapter, this study employs the Throughput Model in IFRS literature. Additionally, it does so in a different and more extended way employing the Institutional-based Theory (IBT). Previous literature employed the IBT to explain reasons for mandatory or voluntary adoption (the positive pressures). However, this research employs the IBT to explain both positive and negative pressures within a comprehensive overview of all environmental factors that could influence the application of the IFRS.

Following this review of the previous literature, the research theoretical framework will be explained in the next chapter.

## Chapter 4 Theoretical Framework

### Overview

Based on previous literature, a theoretical framework has been developed to increase our understanding of how institutional environmental factors influence professional accountants' decision-making behaviours in terms of the application of IFRS and how their decisions will affect the quality of financial statements. The research theoretical framework has been designed to explain the research phenomenon (factors influencing the application of IFRS and their impact on the quality of financial statements) in an exploratory sequential mixed methods research design (problem and solution research). Multiple theories, including the Throughput Model, Institutional-based Theory and Knowledge-based view are adopted as suitable tools to increase our understanding, explain the research problem and examine the suggested solutions. Moreover, a mixed methods research (starting with qualitative data collection and analysis, then examining these findings in quantitative data collection and analysis) offered a powerful approach to in answering the research questions and to support or reject the research hypotheses, to achieve the research objectives.

The Throughput Model (TM) is a theory of cognitive process-thinking behaviour (Rodgers & Housel, 1987) that explains how individuals make use of their cognitive processes in decision-making behaviour. The research theoretical framework has been built on the most appropriate combination of the TM and the Institutional-based theory (IBT), while the Knowledge-based View (KBV) is introduced because it guided sample selection and then formulation of certain interview questions, as will be seen in Chapter Five. Hypotheses are developed, which help to answer the third and fourth research questions and achieve the third and fourth research objectives. This chapter, therefore consists of three sections as shown in the table below:



*Table 4.1 Chapter Four Structure*

4	Theoretical Framework
4.1	The Combination of Multiple Theories and Multiple Methods
4.2	Throughput Model
4.3	Institutional-based theory
4.4	Knowledge-based View
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#### 4.1 The Combination of Multiple Theories and Multiple Methods

To answer the research questions and to accept or reject the research hypotheses, the research theoretical framework has been built on the integration of multiple theories (the TM, the IBT, and KBV) with multiple research methods (a sequential mixed method research design), which will be addressed in the next chapter (Methodology).

The investigation started with semi-structured interviews to answer the first and second research questions, through exploring the key factors influencing the application of IFRS in TDC and determining the obstacles to the implementation of these standards in TDC. The IBT was employed to explain how institutional environmental factors influence the adoption decision and the implementation of IFRS in TDC. The IBT represents the Perception element of TM. The KBV was utilised to determine the source of knowledge through using its tools; education, experience, and training. The currently available knowledge is part of the Perception element of TM, while the new knowledge that could be obtained from the external environment is the Information element of TM.

Thus, the IBT and KBV were employed to answer the first and second research questions, while the TM was employed to answer the third and fourth research questions; by explaining how the obstacles influence the financial statements' quality, and to examining the ethical and professional role of professional bodies in enhancing the quality of financial statements through enhancing professional accountants' judgement to overcome these obstacles. As well, it was used to examine the research hypotheses based on the expected outcome of each pathway; the quality of financial statements. To do so, quantitative data were collected by means of a structured questionnaire survey.

## 4.2 Throughput Model

Undoubtedly, there are several strategies or pathways that may be utilised in rendering a decision (Rodgers, 2006). Every pathway reflects the individual's cognitive thinking process (Rodgers & Gago, 2006). However, his/her decision could be biased if there is no guidance, concepts, or structures to guide and help him/her to conceptualise his/her decision-making process. Humans habitually reflect their preferences when making their own decisions, even though their decisions may pass through different strategies (Parker & Fischhoff, 2005). Hence, the introduction of guidance, concepts, or structures is essential to guide individuals' cognitive thinking process. This guidance should be independent and able to conceptualise the decision-making process, as well as enable a better understanding of the pros and cons of each pathway, which will assist researchers and practitioners to compare available alternatives and predict the best decision-choice (Rodgers, 1992). For this reason, Professor Waymond Rodgers introduced the Throughput Model as guidance on individuals' cognitive thinking process (Rodgers, 2006; Rodgers & Gago, 2006).

The Throughput Model is a theory that reflects the individual's cognitive process of decision-making behaviours, which has a unique and constructive strategy of thinking to build up and formulate an individual's thoughts to be successful (Rodgers, 2006; Rodgers & Gago, 2006). Rendering a decision is a multi-stage processing function. It starts with searching for data related to increasing the individual's 'perception' in a particular situation and adding these data into his/her 'information' to create new 'knowledge'. This is followed by processing this new knowledge through analysing and weighing up (Judgement) and identifying available pathways. Next, the individual renders a decision after evaluating and ranking different alternatives and selecting the most appropriate pathway (Rodgers, 2006).

The TM has been used in various research in different fields. Previously, the TM was employed to examine financial loan decisions made by officers (Rodgers, 1992; 1999; 2010; Rodgers & Housel, 1987) and measure the return on Information Technology (Pavlou et al., 2005), in addition to measuring the value of Information Technology (Tillquist & Rodgers, 2005). Furthermore, the TM has been utilised within business ethics (Rodgers, 2010; Rodgers & Gago, 2001; 2004; Rodgers et al., 2009). Likewise, auditing studies have built on process thinking using the TM as an optimal thinking method (Guiral et al., 2010; Rodgers & Housel, 2004).

In a different way, this study will utilise the TM as a philosophical theory that predicts the best decision choice regarding the application of the IFRS in TDC and examines the quality of financial statements. The TM is a thinking process model that depicts the interactions of four main concepts, which may influence the individual's decision-making and problem-solving behaviours. These concepts are Perception (P), Information (I), Judgement (J), and Decision choice (D), see Figure 4.1 below (Rodgers, 2006). For successful decision-making, these concepts are associated with each other in different ways to produce six distinct pathways of decision-making processes: the Expedient Pathway  $P \rightarrow D$ , the Ruling Guide Pathway  $P \rightarrow J \rightarrow D$ , the Analytical Pathway  $I \rightarrow J \rightarrow D$ , the Revisionist Pathway  $I \rightarrow P \rightarrow D$ , the Value-Driven Pathway  $P \rightarrow I \rightarrow J \rightarrow D$ , and the Global Perspective Pathway  $I \rightarrow P \rightarrow J \rightarrow D$ .

The Perception concept is the individual's perception regarding the external environment (Rodgers, 2006). Thus, this element represents the professional accountant's perception of entities' internal and external environmental factors (e.g., the World Bank (WB), International Monetary Fund (IMF), the Central Bank of Iraq (CBI), the political regime, the legal system, the economic system, the capital market, the security position, education level, and the accounting culture). These factors are investigated under the

institutional-based theory within its three hierarchal levels (Global and Social Institutions, Governance Structures, and Entities) and three kinds of isomorphic pressures (Coercive, Normative, and Mimetic pressures), see Figure 4.7 the IBT Hierarchical Levels. Thus, the IBT is suitable to represent the perceptual factor of TM and increase our understanding of how these factors are influencing the application of the IFRS in TDC.

The Information or Knowledge concept of TM is the ability of individuals to revise their information to develop their knowledge through getting information from the external environment, the institutional environmental factors (IEF). It is the available information that enables the decision maker to make his/her own decision and solve problems (Rodgers, 2006). The source of information should be external, not related to the individual's opinion or perception. Moreover, this information should be *relevant* and *reliable*. Relevant information denotes timely, sufficient, and understandable information. Reliable information means that the information is dependable, correct, and verifiable.

In this framework, the Information concept is gaining IFRS knowledge and getting information regarding the political regime, economic system, legal system, security situation, accounting education, capital market, and accounting culture. However, due to the information concept criterion and the research design and limitation, it has been frozen and deferred to future research. Therefore, it is not possible to examine all TM pathways in this study.

It is worth discussing both the judgement and decision choice terms to highlight the differences between them, before introducing them in the TM. Bonner (1999) defined the term judgement, in accounting research, as establishing an idea, formulating an opinion, assessment of an object, event, or phenomenon. It tends to be a form of evaluation of the current position and prediction of the future. In contrast, the decision is "*taking a course of*

*action*” (Bonner, 1999:385); it is making a choice among several alternatives based on judgements regarding these alternatives. Thus, the decision choice normally follows the judgement process. Judgement may refer to individuals’ beliefs, while the decision may refer to individuals’ beliefs and preferences.

The judgement concept in TM involves analysing, categorising, and weighing up various alternatives to select the optimal choice (Rodgers, 2006). According to Rodgers (2006:9);

“The judgement function contains the process that individuals implement to analyze incoming information as well as the influences from the perception function. From these sources, rules are implemented to weigh, sort, and classify knowledge and information for problem solving or decision-making purposes”.

Undoubtedly, the main purpose of applying the IFRS is to enhance the quality of financial statements. Thus, the professional accountant should make a two-fold judgement. The first judgement is epitomised by analysing and weighing up the differences between the IFRS and the IUAS (e.g., the impact of the application of the IFRS on the elements of the financial statements<sup>56</sup>). The second judgement is related to the financial statements’ quality. The main aim of the adoption decision is, through overcoming both technical and behavioural obstacles, to ensure high-quality financial statements by answering the following question: How will the kind of adoption that has been selected affect the quality of financial statements? These judgements may be based on the individual’s *knowledge* gained from previous experience, education, and training, and his/her *perception* about the requirements of the entity’s external environment.

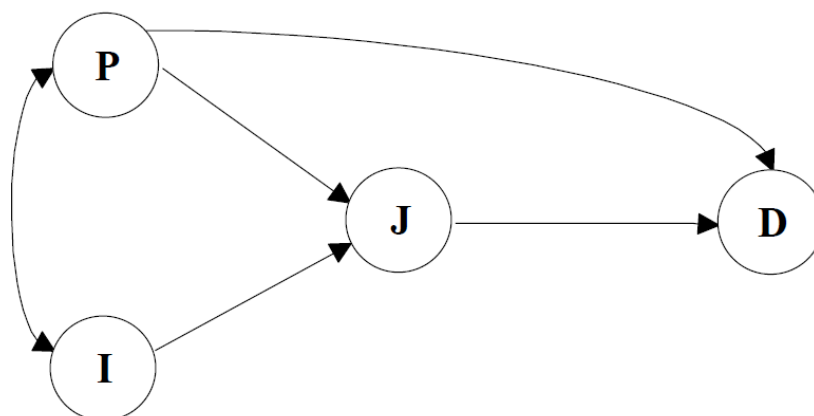
Decision-choice represents “*an action taken or not taken*” (Rodgers, 2006:10); it is “*a course of action*” (Rodgers, 2006:17). Like the Judgement concept, the Decision-choice concept should be two-fold to be the most beneficial. This decision should be taken

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<sup>56</sup> the statement of financial position, the statement of comprehensive income, cash flows statement; the presentation of financial statements, and disclosure

after the cognitive judgement process to select the optimal action. The first decision-choice is determining the kind of implementation of the IFRS adoption decision, through selecting one of three expected options (non-adoption, partial adoption, or full adoption). Building on this decision-choice, the quality of financial statements will be determined. Thus, the second decision-choice will be a reflection of the financial statements' quality. See Figure 4.1 below.

*Figure 4.1 Process Thinking Model*



*Where P= perception, I= information, J= judgement, and D= decision choice.*

Source: (Rodgers, 2006:14)

#### **4.2.1 Throughput Model pathways and hypothesis development**

Rodgers (2006:2) warns that;

“taking the wrong pathway may lead to disastrous outcomes including losing friends, careers, lifestyle and wealth. Quite the opposite can occur by using the correct pathway in that it can result in success as represented by happiness, wealth and friendship”.

He indicates several factors (e.g., incomplete information, time pressures, an unstable environment, search patterns, biases, and own expertise) that can immensely affect the pathway and outcomes of an individual's decision-making processes. Thus, considering these factors may influence the individual's cognitive thinking process, and undoubtedly it will improve the individual's decision-choice (Rodgers, 2006).

As mentioned previously, due to the information concept criterion the research design and limitations, the information concept of TM has been frozen, and only the perception, judgement, and decision-choice concepts are considered. Hence, two pathways of TM have been examined; the Expedient Pathway P1→D and the Ruling Guide Pathway P2→J→D. The perception1 (P1) concept represents the obstacles (O) to the application of IFRS; both behavioural and technical obstacles. The perception2 (P2) concept refers to three professional bodies (PB); the CBI, CPMAAI, and IACPA. The decision-choice (D) concept denotes the financial statements' quality.

Based on the interview findings, which will be discussed in Chapter Six, the application of IFRS is not permitted in the Iraqi business environment except in the banking sector, and the adoption decision was limited to the Iraqi banking sector. However, there are several obstacles to the implementation of the adoption decision. These obstacles could be classified into technical and behavioural obstacles: the lack of IFRS knowledge (education, training, and experience) is the main obstacles; the impact of the previous socialist accounting culture; legislation conflict; an unstable political, economic and security environment, and unplanned transition process were the main sources of the following technical and behavioural obstacles.

The foreseeable technical obstacles (TO) that may influence the application efficiency are: (1) The IFRS and latest updates are not published in Arabic on the official websites of any authorized body. (2) There is confusion in the understanding of some of the IFRS terminology and translation errors, in the case of relying on standards published on the official website of the International Accounting Standards Board. (3) There are problems in understanding some procedures that are mentioned in the IFRS. (4) There is no clear plan or mechanism for switching to the IFRS that would provide guidance for professional accountants. (5) There is no qualified professional body to oversee the



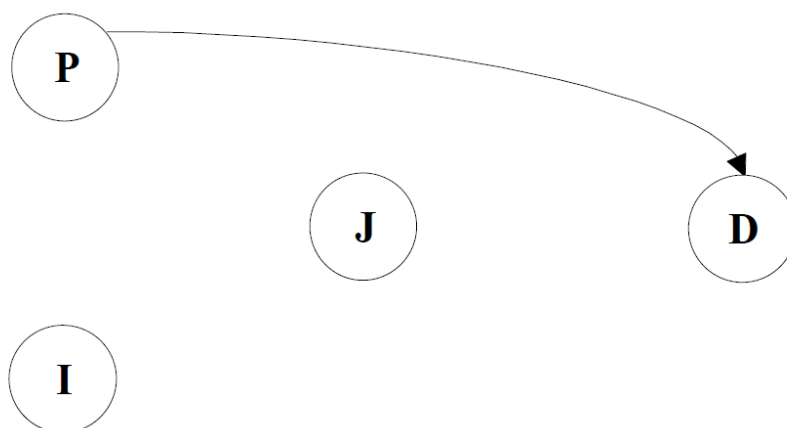
application of these standard. (6) There is a failure to determine the main differences between the Iraqi Unified Accounting System (IUAS) and IFRS and how to deal with those differences.

Moreover, behavioural obstacles (BO) may cause resistance to implement the adoption decision. The BO may arise as a result of: (1) fear of carrying an extra burden of work. (2) Loss of social benefits gained through the exercise of their functions. (3) Believing that the IFRS is complex and difficult to apply. (4) Lack of desire to learn something new, different of what professional accountants have become accustomed to. (5) Reluctance to change caused by satisfaction with the Iraqi Unified Accounting System. (6) Pride in what they have learned and practised during their working life. (7) Feeling that there is no real need for adopting IFRS. (8) The impact of the accounting culture, which is characterised by the influence of conservative socialism.

#### 4.2.1.1 The Expedient Pathway P1→D

The Expedient Pathway may be adopted when professional accountants with a certain level of expertise make a decision without gaining enough knowledge (information), see Figure 4-2 below.

Figure 4.2 The Expedient Pathway P→D



Source: (Rodgers, 2006:19)

In other words, according to Rodgers (2006:21) if the current level of information is too limited and the process of gaining information may be hindered due to;

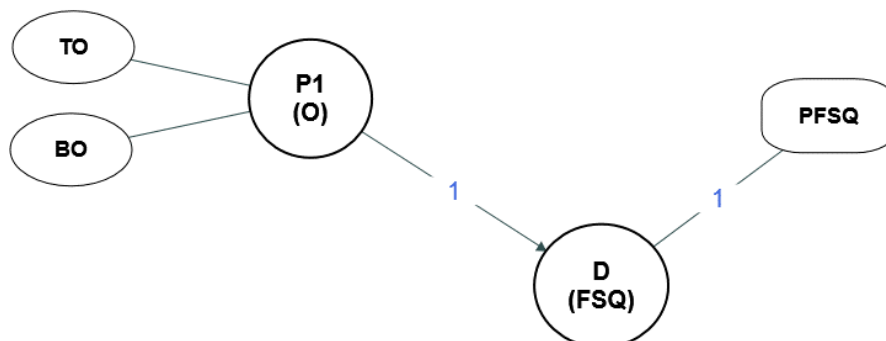
“time pressures, rapidly changing environment, and/or information being incomplete, noisy, difficult to interpret or unmanageable to order in a reasonable way. In other words, the information function and the judgement function are neither relied upon nor relevant to a decision task at hand. Therefore, the P→D pathway provides for the most efficient and direct path to a decision choice. Although this particular pathway may not result in the right decision, given the circumstances, it may be the best pathway to take en route to a decision”.

The expedient pathway denotes making a decision to apply IFRS based merely on the individual’s perception, in other words, when professional accountants respond to the coercive pressure from the CBI and normative pressures of the IACPA and CPMAAI without gaining adequate knowledge and making judgements to overcome both behavioural and technical obstacles. In this case, if the current level of information (the IFRS’ education, training, and expertise) is too limited, and the process of gaining knowledge “*may be hampered as a result of time pressures, rapidly changing environment, and/or information being incomplete*” (Rodgers, 2006:21), most likely, the implementation of the adoption decision will adversely affect accounting system application in the banking sector and its performance; the outcomes of the accounting system might be poor quality and hybrid, representing neither the national GAAP nor the IFRS. In this case, the financial statements will serve neither internal nor external stakeholders.

Hence, based on the Expedient pathway, the best decision-choice for the Iraqi banking sector is not to implement the adoption decision and not to respond to such pressures. However, if this sector responds to such pressures and makes partial and gradual adoption, most likely, the financial statements will be of poor quality. In other words, the qualitative characteristics of the financial statements will not be achieved, which are the core of the IFRS adoption decision: harmonization, comparability (hybrid

does not represent the IFRS nor the IUAS), transparency, understandability, verifiability (since credibility is in doubt), and timeliness. See Figure 4.3 below.

Figure 4.3 The Expedient Pathway  $O \rightarrow PFSQ$



The following hypothesis was formulated to examine this pathway<sup>57</sup>:

- H1. The obstacles to the implementation of IFRS, technical and behavioural obstacles, will lead to poor financial statements' quality (PFSQ).

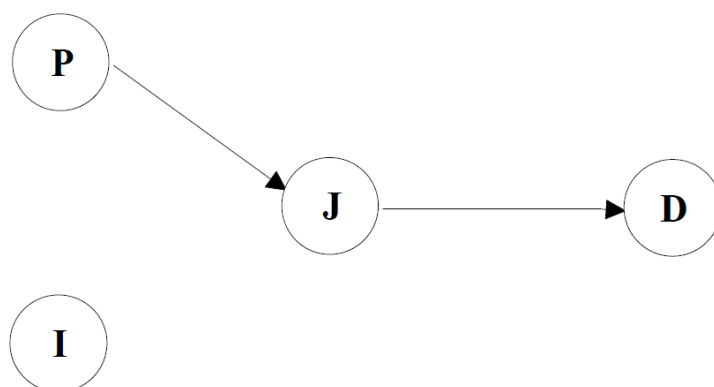
#### 4.2.1.2 The Ruling Guide Pathway $P2 \rightarrow J \rightarrow D$

The ruling guide pathway may be taken when the IFRS adoption decision is taken in an unstable environment (political instability, economic instability, security turmoil, and legal conflict), with incomplete or confusing information, and the other alternatives are not clear or not well understood and there is no other alternative<sup>58</sup> (Rodgers, 2006). However, there is no time pressure. Thus, they have some time to make a judgement within this pathway (Rodgers, 2006; Rodgers & Gago, 2001; 2004). See Figure 4.4 below.

<sup>57</sup> Questions 1, 2, and 8 in the questionnaire survey were formulated in order to examine this pathway and support or reject its hypothesis, see appendix (D).

<sup>58</sup> the pressure from the CBI and other bodies to apply the IFRS was unavoidable; therefore, the professional accountants may did not have any other alternative.

Figure 4.4 The Ruling Guide Pathway  $P \rightarrow J \rightarrow D$



Source: (Rodgers, 2006:22)

### The Ruling Guide Pathway (A) $P2 \rightarrow J \rightarrow D$ ( $PB \rightarrow J \rightarrow MFSQ$ ):

The Ruling Guide Pathway (A) is the belief that professional bodies (PB) have a professional and ethical<sup>59</sup> commitment towards the Iraqi banking sector, at least, to overcome technical obstacles (OTO). PB may maintain a minimum level of financial statements' quality through assisting professional accountants' judgement (J) on OTO. Such a pathway could be adopted when the IFRS' adoption decision is formulated in an unstable environment (political instability, economic instability, security turmoil, and legal conflict), with incomplete or confusing information (professional accountants do not have adequate knowledge to apply these standards effectively, or there is a confusion in their IFRS knowledge), and other alternatives are not clear or not well understood, or unavailable (the pressure from the CBI and other bodies to apply the IFRS is unavoidable, therefore they do not have any other alternative) (Rodgers, 2006). However, if there is no time pressure, they have time to make a judgement.

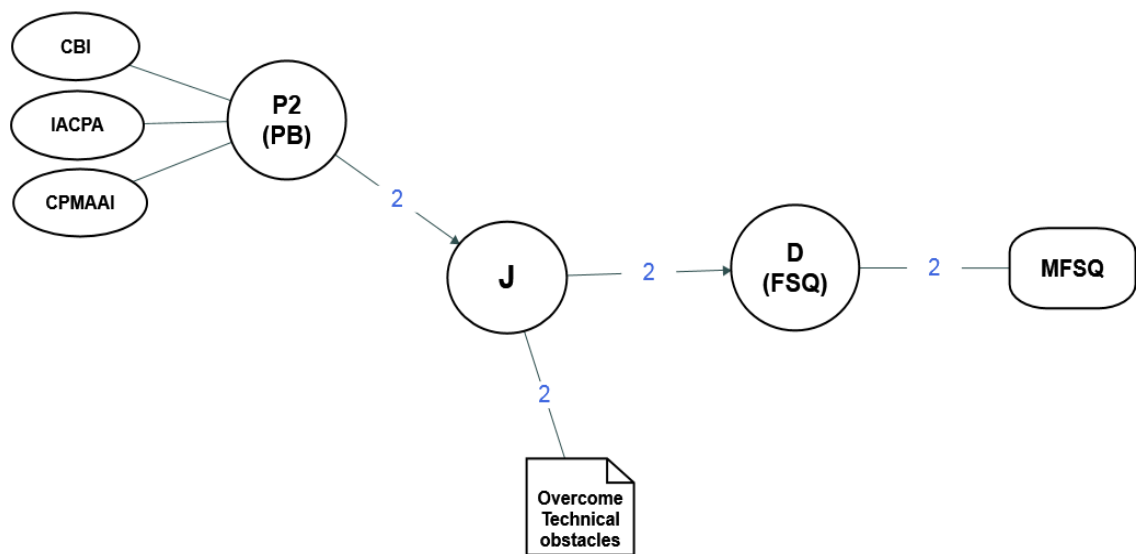
Although there is no time pressure and professional accountants may make judgements on OTO, the best decision is not to implement the adoption decision; even if

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<sup>59</sup> The ethical commitment of professional bodies stems from using their authority to compel the Iraqi banking sector to apply the IFRS.

PB assist the banking sector with regard to OTO, the BO will adversely impact the financial statements' quality (FSQ). However, if such pressures from the PB side are inevitable and other alternatives are not clearly defined, not well understood, or there are no other choices (Rodgers, 2006), most likely, the FSQ will be moderated, with less effectiveness, less clarity, and with low consistency, less productivity (do not give a competitive value), time-consuming (not quickly reported), inaccurately presented (do not represent the entity's financial position fairly), and costly. See Figure 4.5.

Figure 4.5 The Ruling Guide Pathway (A)  $PB \rightarrow J \rightarrow MFSQ$



To examine this pathway, the following hypotheses were advanced<sup>60</sup>:

H2. Professional bodies such as the CBI, CPMAAI, and IACPA have a professional and ethical commitment to assist professional accountants' judgement to overcome technical obstacles.

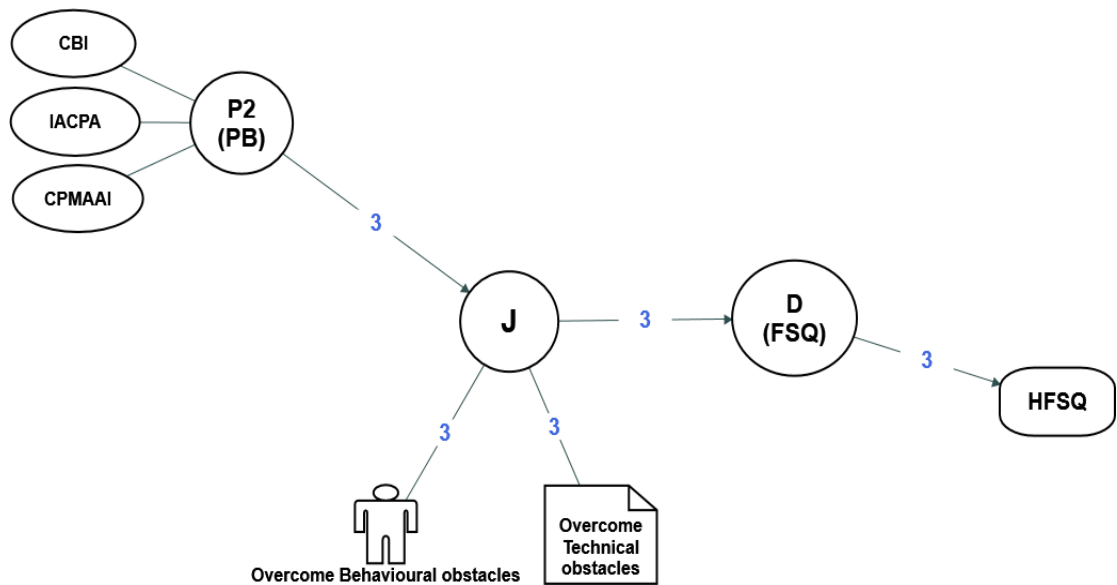
H3. The financial statements' quality will be moderate when overcoming just technical obstacles.

<sup>60</sup> Questions 3, 4, 5, 6, and 9 in the questionnaire survey were formulated to examine this pathway and support or reject its hypotheses, see appendix (D).

## The Ruling Guide Pathway (B) P2→J→D (PB→J→HFSQ):

The Ruling Guide Pathway (B) portrays the belief that PB have a professional and ethical commitment towards professional accountants in the Iraqi banking sector to develop their knowledge before proceeding with the application processes and assist them to overcome both technical and behavioural obstacles. In this pathway, PB controls the obstacles, leading professional accountants to make the optimal judgement to overcome both technical and behavioural obstacles. Such judgement is based on adequate knowledge and a well-planned transition process. Hence, most likely, it will lead to the financial statements being high-quality; understandable, accurate, reliable, credible, relevant, objective (unbiased), consistent, concise, and value-added. See Figure 4.6.

Figure 4.6 The Ruling Guide Pathway (B) PB→J→HFSQ



The following hypotheses were advanced to examine this pathway<sup>61</sup>:

H4. Professional bodies such as the CBI, IACPA, and CPMAAI have a professional and ethical commitment to assist professional accountants' judgement to overcome both technical and behavioural obstacles.

<sup>61</sup> Questions 3, 4, 5, 6, 7, and 10 in the questionnaire survey were formulated to examine this pathway and prof or reject its hypotheses, see appendix (D).

H5. The financial statements' quality will be high when both technical and behavioural obstacles are overcome.

### 4.3 Institutional-based Theory

Institutional-based theory (IBT) is built on "*theories of organizations and social change*" (DiMaggio & Powell, 2000:143). It links the values of society, organizational practices (the accounting practices in this framework), and organizational legitimacy (Deegan & Unerman, 2006). Legitimacy may be seen as a generally acceptable assumption or perception that the entity's actions are will be proper and desirable within the beliefs, norms, and values of the socially constructed system (Guerreiro et al., 2012).

Meyer and Rowan (1977) indicate that institutional theorists believe that organizational structures are shaped by institutional pressures. These pressures may stem from institutional elements that embrace:

"rational myths, knowledge legitimated through educational systems and professions, public opinion, and the law. A key purpose of institutional analysis is to establish how institutional mechanisms reinforce or weaken the prevailing social order" (Guerreiro et al., 2012:171)

Institutional-based theory investigates the intra-organizational constructions that are principally formed by extra-organizational Institutional Environmental Factors (IEF) and their role in shaping organizational structures, strategies and procedures (Nurunnabi, 2015). Intra-organizational constructions in this framework denote accounting practices. Extra-organizational IEF refers to the Perception concept of TM (the perception of professional accountants regarding the political regime, legal system, security position, international organizations, economic system, capital markets, universities and other professional educational institutions and organizations, and accounting culture). Entities may respond to external pressures with the purpose of gaining legitimacy (Irvine, 2008).

Scott (1987) understood the term “institution” in various ways. Firstly, it refers to relatively enduring systems such as religion, education, work, regulations, politics, and laws, all of which are interlinked with the beliefs of society but are also socially-organized practices. Scott (2001) developed a useful framework to analyse the effect of the higher-level institutional environment on lower-level institutions, by dividing it into three levels of institutional context. Global and social institutions, at the highest level of analysis, represent the institutional context that has the authority to decide what is acceptable and introduce legislation for the purpose of amendment. Governance structures are the middle level, represented by organizational fields such as service, industry, and banking sectors. Finally, comes the lowest level: the organization or entity itself. The main assumption in environmental, institutional theory is that every level or all participants are seeking legitimacy, which conduces to convergence and isomorphism (Hassan et al., 2014; Judge et al., 2010).

According to Kraft and Furlong (2012:527), Institutional Theory is "*policy-making that emphasizes the formal and legal aspects of government structures*". Thence, the key motivation of the Institutional-based theory is to expound the homogeneity or heterogeneity of social structures and processes of legitimation (DiMaggio & Powell, 1991). These philosophies lead to the notion of isomorphism. Three kinds of isomorphism or pressures were identified by DiMaggio and Powell (1991): coercive pressure, mimetic pressure, and normative pressure.

Coercive pressure reflects formal and informal isomorphism that is practised upon entities or organizations from governmental bodies and other organizations (Scott, 2008). The power of coercive pressure stems from regulations imposed by authority and is expected to be less superficial and less prone to resistance by entities or organizations (Scott, 1987). "*Coercive isomorphism results from external pressure, and certain*



*practices are adopted as a result of governments' pressures*" (Albu et al., 2011b:84). Undoubtedly, coercive pressures stem from both the political regime and the legal system (Guerreiro et al., 2012; Jahangir Ali & Ahmed, 2007). Bhattacharjee (2009:165) indicate that *"accounting quality is a function of the firm's overall institutional setting, including the legal and political system of the country in which the firm resides"*.

Normative pressure stems principally from the profession and professional organizations (DiMaggio & Powell, 1983). It refers to norms and social beliefs that influence organizational behaviour. These values may lead national professional organizations to follow their counterparts in international professional organizations (Irvine, 2008). Normally, professional organizations define their goals and objectives and determine appropriate ways to pursue these goals, as professional accountants. Also, members of a profession may share a mutual understanding and knowledge base (Guerreiro et al., 2012). Hence, two features of professionalisation are significant bases of isomorphism: *"the cognitive base produced by universities and professional training institution"* (Guerreiro et al., 2012:171) and the development of professional organizations networks (DiMaggio & Powell, 1983). Thus, normative pressures may confer professional accountants the ability to play a vital role in applying the IFRS (Zaman Mir & Shiraz Rahaman, 2005).

Mimetic pressure may occur when entities model their practices on similar entities, which they see as more successful and legitimate (DiMaggio & Powell, 1983). Entities may observe each other in order to develop their structures and practices. The conditions of uncertainty may empower mimetic behaviours, especially when entities are uncertain about what to do regarding specific practices (Guerreiro et al., 2012). Mimetic pressure strives to boost legitimacy by espousing a common frame of reference.

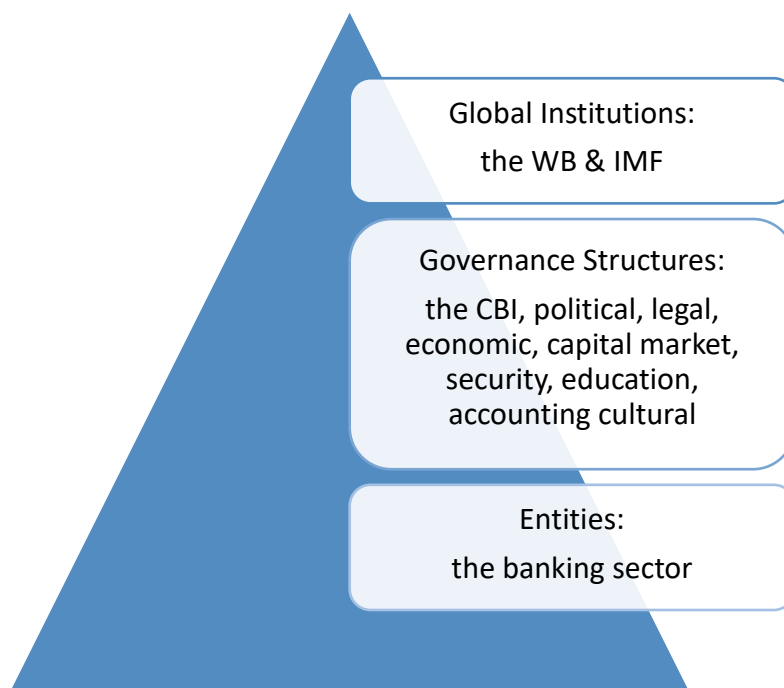
However, the entities' strategic responses chosen, under these sorts of pressures, are conditioned by the environmental context, the justifications of institutional pressures and their constituents, and the means of institutional pressures (Oliver, 1991). In other words, the organizational behaviours based on institutional pressures could be positive or negative. Oliver (1991) argues that the negative or resistant pressures "*may vary from passive conformity to active resistance in response to institutional pressures, depending on the nature and context of the pressures themselves*" (Oliver, 1991:146).

Accounting literature, both empirical and theoretical, has persistently shown the effect of institutional environmental factors on the development of accounting practices. Also, accounting standards and policies are social products, which cannot escape the effects of IEF (Belkaoui, 1983; Zehri & Chouaibi, 2013). Judge et al. (2010) found that these three forms of institutional isomorphic pressures drive towards the adoption of the IFRS.

In a different way, this research will use the Institutional-based Theory (IBT) to explain how entities' external factors (IEF) influence the application of the IFRS in a transitional developing country. This research will look at both positive and negative pressures within the three levels (Global Institutions, Governance Structures, and Entities) and three sorts of institutional pressures (Coercive, Normative, and Mimetic).

Global Institutions are the World Bank (WB) and the International Monetary Fund (IMF). Governance Structures are the other IEF (political, economic, legal systems, security position, accounting culture, IFRS knowledge, and capital markets), whereas the Entities level is the banking sector. See Figure 4-7 below.

Figure 4.7 The IBT Hierarchical Levels



All previous accounting literature that utilised the IBT to explain research findings in terms of the application of the IFRS has focused on the positive isomorphic pressures and ignored negative pressures (factors that cause resistance to change). However, in contrast, the present research takes into consideration both positive and negative isomorphic pressures (coercive, normative, and mimetic).

The coercive pressure, in the context of this research, has two different directions, positive (pressures towards applying IFRS) and negative (pressures resistant to applying IFRS and in favour of keeping the current accounting practices). The positive coercive pressure stems from the highest level, Global Institutions, which are the WB and IMF, into the lower level, the Central Bank of Iraq (CBI), which is part of the Governance Structures, and also part of the political system. Then, the CBI exerts a coercive pressure on the banking sector, the Entities level, whereas the negative coercive pressure in the governance level stems from conflict in the legislation that governs accounting practices, political instability, and security turmoil.

The normative pressure, in the context of this research, also has two different directions. The positive normative pressure, in the governance level, stems from professional organizations (e.g., IACPA & CPMAAI), while negative normative pressure stems from the accounting culture, economic instability, and lack of knowledge.

The mimetic pressure, in this respect, also has two different directions; positive and negative. The positive mimetic pressure stems from the international trade partners, while negative mimetic pressure stems from national trade partners.

#### **4.4 Knowledge-based View**

The Knowledge-based View (KBV) argues that entities' main reason for existence and continuous progress is to create and/or leverage knowledge in creative ways (Kogut & Zander, 1996; Nonaka et al., 1994; Nonaka et al., 2006; Pavlou et al., 2005). The KBV describes knowledge as a store of intellectual assets gathered by learning and experience (Sambamurthy, 2000) through converting absorbed information into knowledge and employing it in undertaking activities effectively. Pavlou et al. (2005) explain the difference between knowledge and information, by proposing that knowledge is information which is processed in individuals' minds (information → process → knowledge) when they know how to do something by learning and judgement. Also, Pavlou et al. (2005) suggest that knowledge is implicit in individuals' minds; however, information is explicit and can be shared and retrieved (Alavi & Leidner, 2001; Kogut & Zander, 1992). It is also worth mentioning that both information and knowledge are inseparable (Pavlou et al., 2005; Tsoukas, 1996). Nonaka et al. (2014) suggest that when an individual share his/her implicit knowledge with somebody, the implicit knowledge will become explicit knowledge. Also, it will create new explicit knowledge when it is merged with other explicit knowledge. In turn, it will be converted into the explicit knowledge of somebody else.

Venzin et al. (1998) explain the concept of Knowledge within the management literature, by exploring three different epistemological assumptions: the autopoietic assumption<sup>62</sup>; the cognitivist assumption<sup>63</sup>; the connectionistic assumption<sup>64</sup>.

As a theoretical issue, the KBV has been increasingly explored in the last decade, in management research within the management strategic field, to support strategic management theory, in its challenges with the Knowledge-based Economy (Venzin et al., 1998).

Hines (1989) stated that the intellectual core of the professionalisation process stems from imparting professional knowledge through education, training, and examination processes. Historically, accounting work relied on personality characteristics, disparate attributes, and skills, such as honesty, diligence, arithmetic, record and bookkeeping, accurate penmanship, orderliness, agency work, negotiation, arbitration, and teaching. This is a list of apparently different aptitudes, and it is hard to distinguish an assemblage of formal information which may have shaped the establishment of these skills (Hines, 1989). Moreover, in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, the heterogeneity of accountants' work extended to include other occupations like law, which made the accounting profession difficult to identify. This led to accountants being unaccountable for their actions (Edwards, 1989). This was certainly a problem for the concept and identity of accountants and the accounting profession (Hines, 1989) compared with the well-established and well-defined profession of law and prestigious lawyers. Therefore,

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<sup>62</sup> The autopoietic epistemology concept, mainly has a different understanding regarding a system's input. Input expresses data only and knowledge is seen as a private notion (personal) (Nonaka & Takeuchi, 1995).

<sup>63</sup> The cognitivist concept assumes that organizations are open systems that develop knowledge within a much more precise formulation than the real-world representation. The organization can gather more data and information, to be closer and represented well. Thus, there is a limited interpretation of knowledge within the cognitivist concept; data and information (Simon, 1993).

<sup>64</sup> The connectionist epistemology focuses on the representation of the organization in the outside world. However, in reality, there are a variety of organization representations around the world, as well as processes of representation (Kogut & Zander, 1992; Zander & Kogut, 1995).

accountants had a real need to establish a social definition and identity; also, to influence the legislature, through lobbying by creating an association to protect their interests and rights. Eventually, the Glasgow Accountants' Association was incorporated as a well-established, new professional body, laying claim to a diversity of essential social and personal traits, a liberal education, practical experience, and a knowledge of the law (Hines, 1989). The appearance and development of a formal body of accounting professional knowledge are reliant on the intellectual core.

In the 20<sup>th</sup> century onwards, this professionalisation required general qualities of the members, in addition to the previous attributes, such as responsibility, common sense, and independence. Also, it requires more skills, such as creation, control, and awareness of laws, like Company law, Commercial law, and Taxation law. In addition, it distinguished the members of the profession from non-members (Hines, 1989). However, a number of dilemmas relating to the knowledge foundations of the accounting profession exist, all of which can represent a threat to its continued legitimacy. They include accounting knowledge as a product of a political process; several institutional environmental factors that may intervene in the setting of accounting standards and practices; and extension and variation of accounting work (Hines, 1989).

The KBV is interested in explaining how professional accountants use their accounting knowledge in whole accounting procedures and practices, especially when they are applying for the first-time high-quality accounting standards such as the IFRS, starting from selecting the financial events, to measurement, recognition, presentation of financial statements, and disclosure. In this respect, the present study will evaluate accountants' professional knowledge through developing three measures: education, training, and experience.

## Summary

This chapter has discussed the research theoretical framework, which builds on the integration of multiple theories; the TM with the IBT and KBV. The TM is a cognitive process thinking model that elucidates different pathways of individuals' thinking behaviour processes to rendering the optimal decision. This model is based on four concepts; Perception, Information, Judgement, and Decision-choice. The perception concept is related to what extent professional accountants aware regarding the entities' external environmental factors termed the Institutional Environmental Factors (IEF) (e.g., political, legal, and economy) that influence accounting practices and entities' construction. The IBT investigates the intra-organizational constructions that are principally formed by extra-organizational IEF and their role in shaping organizational structures, strategies and procedures. Thus, the IBT explains the impact of the Perception concept on the entities' accounting practices and constructions. The Information concept of TM is the available information that enables decision-makers to make their own decisions and solve problems, has been frozen and deferred to future research. The KBV investigates individuals' knowledge gained from entities' external IEF, through experience, education, and training. This information should be relevant and reliable.

After introducing the research theoretical framework, the next chapter introduces the research philosophy and methodology.

## Chapter 5 Methodology

### Overview

Following the previous discussion of the research theoretical framework, this chapter will discuss the research philosophy and methods that were considered the most appropriate for this research. It explains the research strategies and techniques that have been adopted for answering the research questions and to prove or reject the research hypotheses, to achieve the research objectives.

This chapter discusses the pragmatist philosophy, which is deemed to be the ideal philosophical stance for an exploratory sequential mixed methods research design. It also discusses the methods employed to gather relevant and reliable data and to categorise, analyse and evaluate it, with the intention of getting accurate results and contributing to knowledge. This is done in accordance with the two phases of the study, starting with the qualitative phase (telephone interviews), followed by the quantitative phase (online questionnaire).

In choosing and applying these techniques, consideration has been given to potential ethical issues that may arise in accounting sequential mixed methods research when using qualitative and quantitative research methods as shown below:

*Table 5.1 Chapter Five Structure*

5	Methodology
5.1	Philosophical Underpinnings
5.2	Research Design and Approach
Phase One Qualitative	
5.3	Choice of Method: Telephone Interview
5.4	Developing Interview Questions
5.5	Verbal Protocol (Think-aloud)
5.6	Pilot Study
5.7	Interview Sampling and Participants' Profile
5.8	Conducting Telephone Interviews within Protocol Analysis Stages



5.9	Thematic Analysis
Phase Two Quantitative	
5.10	Choice of Method: Online Questionnaire
5.11	Questionnaire Development
5.12	Measurement Scales and Coding
5.13	Pilot Study
5.14	Administration of Questionnaire
5.15	The Questionnaire Sample and Demographic Features
5.16	Structural Equation Modelling (SEM)
5.17	Path Modelling
5.18	Partial Least Squares - Structured Equation Modelling (PLS-SEM)
5.19	Ethical Considerations
	Summary

## 5.1 Philosophical Underpinnings

### 5.1.1 Pragmatist philosophy

The pragmatist philosophy is deemed to be the ideal philosophical stance or paradigm for multi-methods, mixed models, and mixed methods research (Johnson & Onwuegbuzie, 2004; Morgan, 2007; Saunders et al., 2009; Tashakkori & Teddlie, 1998; 2010). Guba and Lincoln (1994) argued that, if researchers are looking at choosing a specific philosophical paradigm among other paradigms that means they will select the pragmatist stance. Greene (2008:8) said that *“pragmatism is the leading contender for the philosophical champion of the mixed methods arena”*. Additionally, Tashakkori and Teddlie (2010) indicate that, in social science research, pragmatist philosophy offers the ideal philosophical framework for mixed methods and add that *“pragmatism should not be understood as a philosophical position among others, but rather as a set of philosophical tools that can be used to address problems”* (Tashakkori & Teddlie, 2010:97). Plowright (2011) adds that when researchers adopt pragmatist philosophy, their thoughts and beliefs are subject to change, amendments, or revision; the research is a *“work in process”* (Plowright, 2011:184). This is because pragmatism does not accept the idea that researchers can arrive at an ultimate and unambiguous understanding of the word’s characteristics and find the truth. Moreover, Feilzer (2010:2) indicates that pragmatism is the paradigm *“most commonly associated with mixed methods research”*.

When considering pragmatism as a paradigm, it avoids the controversial issues of reality and truth and it is not bound to one system of philosophy. It philosophically accepts that there are multiple and singular realities and the *“Truth is what works at the time”* (Creswell, 2014:40). It is open to empirical investigation and drives itself toward problem-solving of practically applied inquiry. It agrees that research always occurs in

social, political, historical, and other contexts, and so it may comprise a theoretical lens, which is reflective of political aims and social justice as well as a postmodern turn (Creswell, 2014; Creswell & Plano Clark, 2007; Feilzer, 2010; Robson, 2002; Rorty, 1999).

Hence, I believe that the pragmatist research philosophy is the most appropriate approach to adopt in the present practical applied research. Its features lead the research to be free of paradigm restrictions. It can combine opposing perspectives, both positivist and interpretivist positions. Additionally, it supports data collection and interpretation (Saunders et al., 2009). Therefore, it has been embraced to answer the research questions and achieve the research objectives.

### **5.1.2 Philosophical assumptions**

Greene and Caracelli (1997) interpret social inquiry as a combination of interwoven philosophical assumptions and positions related to knowledge, the ability to know the world, the range of our perceptions of the social world, and our purposes for knowing it. Pragmatist philosophy contends that the research ontology, epistemology and axiology will be determined by the research question(s) (Saunders et al., 2009). Also, it can work with a variety of research assumptions.

#### **5.1.2.1 Ontology**

In this practical applied research, the subjective ontology is emphasised in relation to the nature of the reality around the research phenomenon, ‘the obstacles to implementation of the IFRS adoption decision in a transitional developing country (TDC), Iraq, which are matters of individual experience and perception. However, the objective research ontology is emphasised in relation to the nature of the reality around the research phenomenon, ‘the impact of the behavioural and technical obstacles to the

application of the IFRS on the financial statements' quality', as this investigation involves the investigation of specific decision pathways, which will be subject to rigorous testing.

#### **5.1.2.2 Epistemology**

This research pursues knowledge using both observable phenomena and subjective meanings (Saunders et al., 2009; Tashakkori & Teddlie, 2010). Subjective meanings are explored in relation to the research phenomenon of the obstacles to the implementation of the IFRS adoption decision elements in a TDC, Iraq, to understand the issues behind the non-implementation of these standards, from the perspective of actors representing governmental bodies, professional organizations, external auditors, who are involved in regulating, standards-setting, and the academic profession. Observable phenomena relate to '*causality*', the relation between *cause and effect*, which is applied to examine the relationship between the obstacles to the implementation of the IFRS and the quality of financial statements, in order to understand how these obstacles, influence the financial statements' quality.

#### **5.1.2.3 Axiology**

I adopted different positions in the two phases. In the first, my framing of the research problem and questions was inevitably shaped by my assumptions and experiences. In contrast, in the second phase, in which I sought to identify cause and effect relationships I sought to be objective and maintain some distance from respondents.

### **5.2 Research Design and Approach**

In line with the research philosophical stance, pragmatism, and exploratory sequential mixed method design, a combined research approach has been embraced, inductive and

deductive, which is called abductive. The abductive approach starts from inductive logic and then switches to deductive logic (Saunders et al., 2009).

Inductive logic, in business research, is more likely to be employed with an interpretivist paradigm that strives to generate a theory through getting a better understanding of the research phenomenon by looking at the details of a specific business problem or economic issue and developing concepts and categories (Gravetter & Forzano, 2009; Greener, 2008; Saunders et al., 2009). Therefore, researchers try to collect and analyse qualitative data to formulate a conceptual framework for employing these data in exploring the research phenomenon, identifying themes and patterns. In this sense, the inductive inference moves from the specific to the general to generalise the research phenomena and support, build or generate a new 'untested' theory (Flick, 2009; Robson, 2002; Saunders et al., 2009).

The inductive approach was utilised in the first phase within qualitative non-numerical data collection by in-depth interviews to provide a broad understanding of the obstacles to the application of the IFRS in TDC and how these obstacles are hindering the application of these standards. This provided an understanding of how institutional environmental factors influence the application of the IFRS in Iraq. It helped in suggesting possible solutions to overcome these obstacles and enhance the financial statement quality, which was the main objective behind the adoption decision. Then, building on the interview findings, the research hypotheses within the research theoretical framework were developed and employed in formulation of the questionnaire questions for the second, deductive, phase.

A deductive approach is more likely to be utilised with a positivist paradigm that seeks regular patterns of cause-effect to test theory or hypotheses, evaluate propositions,

or rigorously examine the relationships between cause and effect in order to find the reality or 'truth' behind the research phenomena and confirm, reject, or modify the theory, hypothesis, or cause and effect relationships under investigation (Robson, 2002; Saunders et al., 2009). Deductive inference proceeds from the general to the specific (Greener, 2008). Hence, scholars seek to collect and analyse quantitative data to generalise the results of this sample to the whole research population after subjecting a specific theory, hypothesis, or causal relationship to rigorous testing (Creswell, 2014).

The deductive approach with quantitative, numerical data collection and analysis was employed to examine the impact of the identified obstacles (behavioural and technical obstacles) on the financial statements' quality. As well, assessing the professional and ethical role of professional bodies in enhancing the quality of financial statements mediated by professional accountants' judgements to overcome technical and behavioural obstacles. This methodology facilitated exploring the qualitative findings and utilising them in development of quantitative instruments. Such a research design is most likely to be employed when the research variables are not clearly known when a study is initiated. Thus, the results of the first phase will be utilised in the second phase (Swanson & Holton, 2005). In this respect, Throughput Model (TM) pathways were explored in order to increase our insight into individuals' decision-making behaviours. The TM portrays several cognitive process-thinking pathways that may be followed by decision-makers in order to apply the IFRS in TDC. TM, also, predicts the outcomes of each pathway and provides a framework for decision-makers that assists them to make the best decision-choice, based on their perception, information, and judgement.

For clarity, in what follows, the two phases of the research will be explained successively, with reference to the strategies, techniques, sample, implementation procedures and methods of analysis for each phase.

## Phase One – Qualitative

### 5.3 Choice of Method: Telephone Interview

The qualitative phase of this study had an exploratory purpose, being intended to obtain insights into the issues surrounding Iraq's decision to adopt IFRS, and the factors inhibiting implementation. I recognised that a variety of stakeholders with different areas of expertise and involvement in these matters would have different perceptions and understandings, which could best be accessed by interviews with a purposively selected sample of experts. This would enable the elicitation of participants' knowledge and opinions through direct communication and interaction (Matthews & Ross, 2010). Drawing on "*the expressive power of language*" (Hammersley & Atkinson, 1995:126). interviews are useful when the aim is to understand why people experience or explain a phenomenon (in this case, implementation of IFRS) in a particular way.

Originally, although I envisaged conducting the interviews by telephone, I was advised to do them face-to-face. However, concerns regarding the security situation in Iraq and the potential risk of travelling within such a volatile area, meant that I was unable to obtain ethical approval for face-to-face interviews and, after prolonged negotiation, it was eventually agreed that the research could proceed using telephone interviews (for ethical approvals see Appendix A-1 interviews ethical approval and Appendix A-2 questionnaire ethical approval, as well as for phone interviews strengths and weaknesses see Appendix B).

Where telephone interviews were not possible, I used e-mail as an alternative. Email-based-interviews were conducted by Scott (2004), through using computer-mediated communication to conduct in-depth semi-structured interviews by sending and receiving emails in a discussion group that broke the ice with participants and overcame their shyness. He found that individuals offered tremendously perceptive viewpoints on social

life when using email to collect qualitative data through conducting semi-structured interviews. In this research, I conducted three mail interviews.

#### 5.4 Development of Interview Questions

After finishing my upgrade report on 24/05/2016, I started to formulate my interview questions, which derived from the first and second research questions and previous literature, to achieve the first and second research objectives. The interview questions were formulated to explore the impact of institutional environmental factors and the IFRS knowledge upon the application of the IFRS to identify both positive and negative impacts. Building on the interviewees' qualifications and occupations, three central question groups were determined; auditors, academicians, and transition committee.

The first group of questions was devoted to exploring institutional environmental factors; legal, political, economic, capital market, IFRS knowledge, the accounting culture, and security, which discovered in the pilot study. The second group was dedicated to exploring the IFRS education in Iraqi universities, and the third group was devoted to exploring the transition committee's procedures.

The questions were designed carefully to stimulate interviewees' responses, in order to motivate them to take part. Moreover, directive references were avoided to make the questions entirely neutral.

Each set of interview questions was accompanied by an introductory paragraph to explain the research problem and the importance of the application of the IFRS as mentioned by the governor of the Central Bank of Iraq in the introductory seminar on Saturday 16/05/2015 (AlmadaPress, 2015). This paragraph was to encourage potential participants to take part and try to identify the obstacles to implementation of these standards.



### 5.4.1 Main questions for auditors

#### The legal factor

The legal factor consists of four questions; the first question is derived from the previous literature such Hassan et al. (2014) Iraqi companies applied the IFRS from 2004 and the governor of the CBI who stated that the adoption decision had been taken by the Coalition Provisional Authority (CPA) in 2004, through amending the Company's Act No.21 of 1997. In addition, a number of laws have been enacted that explicitly or implicitly required the adoption of the IFRS. Thence, the first question was:

*Q1. In your opinion, if these laws were committed to the application of the IFRS from 2004, why did Iraqi companies (private and mixed sectors) not apply the IFRS and apply the IUAS?*

I found a conflict between several regulations that govern the accounting practices in the Iraqi business environment, which have been reviewed in Chapter Two. Hence, the second question was designed to discuss this conflict and explore its impact on the application of the IFRS, as shown below:

*Q2. Have the discrepancies in the laws relating to accounting policies prevented the application of the international Accounting standards? Explain this.*

The Federation Board of Supreme Audit of Iraq (FBSAI) amended the Iraqi Unified Accounting system (IUAS) in 2011, and the justification given for this updating were:

“25 years have gone into issuing the Unified Accounting System, and it was responsive to economic and accounting needs in the stage of the eighties and nineties of the twentieth century. The world and Iraq have seen significant changes in the first decade of the twenty-first century represented by economic openness and foreign investment, and issue of some legislation by a number of governmental bodies (such as the CBI, the banks and insurance companies, and the Iraq Stock Exchange), which were committed to the application of international accounting

standards. All this necessitated updating the Unified Accounting System to meet the needs of the current stage and future<sup>65</sup> (FBSAI, 2011:2).

However, this development was not in line with the main objective of the International Accounting Standards, which is unification of accounting concepts and practices, and issuing the appropriate financial statements at the international level.

According to the IUAS:

“The FBSAI strove to maintain the continuity of the unification of accounting in Iraq by unifying concepts, practices, and appropriate financial reports to enable accounting comparability between the state, mixed, and private sectors, taking into account convergence with international accounting standards, to improve the quality of accounting in Iraq, to serve the national economy, to make financial reports meet the needs of economic entities, stakeholders, the national accountant, and tax system, as well as to address concepts of financial accounting and cost accounting” (FBSAI, 2011:2).

However, according to Deloitte’s (2015:24) Middle East Tax Handbook 2015<sup>66</sup>

“Registered entities must prepare annual financial statements, with Iraqi Dinars as the accounting currency, in accordance with the Iraqi Unified Accounting System and in Arabic. **Iraqi Unified Accounting Rules do not match International Accounting Standards**”.

This gave rise to the third question of the legal factor:

Q3. *Recently, in 2011, the Federal Board of Supreme Audit of Iraq has amended the Iraqi Unified Accounting System (IUAS) as part of the process of harmonization with the IFRS. However, according to Deloitte (2015) Middle East Tax handbook 2015, the IUAS does not match the IFRS. Do you think that the IUAS has failed to meet the purpose of amendment?*

Paragraph number (6) of the IUAS’s introduction has identified “*the scope of the application of the Unified Accounting System*” (FBSAI, 2011:8-9), which is the State

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<sup>65</sup> These justifications are published on the official website of the FBSAI in Arabic.

<sup>66</sup> [https://www2.deloitte.com/content/dam/Deloitte/xs/Documents/tax/me\\_tax\\_handbook\\_2015.pdf](https://www2.deloitte.com/content/dam/Deloitte/xs/Documents/tax/me_tax_handbook_2015.pdf)

Sector in article (A), Cooperative Societies in article (B), and the Mixed Sector in article (C). However, Banking and Insurance Companies have been excluded by article (D) because they follow the Iraqi Unified Accounting System for Banking and Insurance Companies (IUASBIC). It is worth mentioning that the IUASBIC is not very different from the IUAS; both serve the same objectives, but the IUASBIC has specific accounts that serve the banking sector. Also, it focuses more on the private sector, which is not mentioned in the IUAS's scope, so there is confusion whether or not the IUAS is still mandatory for the private sector. Thence, the fourth question was advanced:

*Q4. Why is the private sector applying the Iraqi unified accounting system, if its application is binding only for the public and mixed sectors?*

### **The Political factor:**

To explore the impact of the political factor, three questions were raised based on previous literature, such as Al-Akra et al. (2009), Bhattacharjee (2009), Assenso-Okofu et al. (2011) and Zehri and Chouaibi (2013). These started with an introductory question to understand how the previous political regime influenced accounting procedures and practices, and to find out whether the IUAS is a product of the previous socialist political system or not:

*Q1. Do you think that the accounting system is a product of the political system?*

To understand the current political system's position towards the application of the IFRS, the second question about the political factor was raised:

*Q2. What is the impact of the current political system on adoption of international accounting standards? Does the current political*

*system push towards the transition to international standards, or maintaining the current accounting practices?*

It was also desired to explore the role of foreign pressure that comes from international organizations, such as the World Bank (WB) and the International Monetary Fund (IMF) on the application of the IFRS in Iraq, as well as to evaluate whether the recent adoption decision of the Central Bank of Iraq (CBI) came from external pressure under the Global level of the IBT or stemmed from the government, as the second level of the IBT. I wanted to determine the kind of pressure applied, whether coercive, mimetic, or normative, in addition to predicting whether this decision will be extended to cover other sectors or not. Hence, the third question of the political factor was:

Q3. *Do you think that the World Bank and International Monetary Fund influence the Central Bank of Iraq decisions, especially the adoption decision in the banking sector? And do you think this decision will extend to other sectors in future?*

### **The Economic factor:**

The development of the accounting system is linked with the country's economic conditions and its growth level (Zeghal & Mhedhbi, 2006). According to the governor of the Central Bank of Iraq, the importance of applying the IFRS is to integrate the Iraqi economy with the global economy (AlmadaPress, 2015). Economic globalisation and the integration of the capital market were the main reasons for the IFRS adoption decision, whether voluntary or mandatory (Ball, 2006). In particular, it is known that the accounting standards and practices are associated with the policies of the national economy. Therefore, the kind of economy (socialist or capitalist) will influence the type of accounting standards and practices. Hence, an introductory question was posed to attract the participants into more in-depth conversation. The first question was:

*Q1. How does the type of economy (socialist or capitalist) affect the adoption of international accounting standards?*

To explore the nature of the current Iraqi economy and to evaluate its impact on the adoption of the IFRS, the following question was formulated:

*Q2. What is the current Iraqi economy type? Is it a pressure factor for the adoption of international accounting standards?*

To further investigate the influence of the economic factor on the introduction of the IFRS in Iraq, the third question was:

*Q3. Do you think that the adoption of the IFRS by the majority of developed countries, Europe, and some developing countries, creates economic pressures to accept and adopt the IFRS as an alternative to the local standards?*

This question is derived from Parlakkaya et al. (2014) and the governor of the Central Bank of Iraq during the introductory seminar on applying the IFRS on Saturday 16/05/2015 (AlmadaPress, 2015). In order to explore whether the application of the IFRS will support the Iraqi economy, the following question was asked:

*Q4. Do you think that the adoption of IFRS will support the Iraqi economy?*

### **Capital Market:**

A country's economic development is linked with the existence and development of a capital market. Also, the accounting information quality plays a vital role in the development of capital markets (Zeghal & Mhedhbi, 2006). Brüggemann et al. (2013) have documented that the mandatory adoption of IFRS in the EU after the introduction of the Regulation No. 1606/2002 had benefits for the capital market. Generally, the integration of capital markets is the main reason for adoption decision, and it was the

major motivation for global professional organizations to set up a global set of accounting standards (Ball, 2006).

The application of the IFRS was conditionally mentioned in the Interim Law on Securities Market by Order No. 74/2004 (the Iraqi Stock Exchange (ISX) law), which has still not been changed, as discussed in the second chapter, section four. However, previous literature such Hassan et al. (2014) stated that

“It resulted in all companies listed on the Iraq Stock Exchange being required to apply international accounting standards (now IFRS), with related companies obliged to present consolidated accounts” (Hassan et al., 2014:378)

In addition, the IAS website ‘Deloitte’ is inaccurate, when it states that

“The Iraq Interim Law on Securities Markets (adopted 18 April 2004) requires IFRSs for all companies listed on the Iraq Stock Exchange as follows...” (Deloitte, 2016).

The first question was raised in order to clarify the position.

*Q1. Does the Iraqi capital market impose application of the IFRS?*

In order to explore to what extent, the application of IFRS will attract foreign investment in TDC, and evaluate its contribution to the integration of the national economy with the global economy, the following question was advanced:

*Q2. Do you think that the application of international accounting standards will attract foreign investments and the integration of the Iraqi economy with the global economy?*

To evaluate the potential adverse effects of the non-adoption of IFRS on Iraq’s economy, the next question was raised:

*Q3. How does non-application of the IFRS affect foreign investment and the Iraqi economy?*

## Accounting knowledge:

Undoubtedly, accounting knowledge plays a vital role when applying any accounting system, whether the IUAS or the IFRS. So, building on this importance, the Knowledge-based View (KBV) was utilized to evaluate professional accountants' knowledge and to increase our understanding of how Iraqi professional accountants develop their knowledge and create value to apply a high-quality accounting standard, IFRS.

The first question was derived from Parlakkaya et al. (2014). It was asked to explore Iraqi professional accountants' knowledge in terms of IFRS, and their readiness to apply these standards:

*Q1. Do you think professional accountants have enough knowledge to apply the IFRS?*

The shift from one accounting system to another may cause several problems or difficulties that should be determined in advance and effective solutions proposed before embarking on the transition process, in order to get a smooth transition and the best outcomes of the new system.

The IUAS was built on a number of principles, assumptions, determinist, rules, and standards that make it different from other accounting systems such the IFRS. Therefore, in order to explore those problems and difficulties, the following question was raised;

*Q2. Based on your knowledge, what problems or difficulties may face professional accountants when applying the IFRS?*

Universities and other professional institutions are considered the main source of knowledge. The main reason for the existence of universities and other professional institutions and their continuous progress is to create and leverage knowledge into creative consequences (Kogut & Zander, 1996; Nonaka et al., 1994; Nonaka et al., 2006; Pavlou et al., 2005). Thus, to explore the role of Iraq's universities and other professional

institutes in supporting the application of the IFRS in Iraq, the next question was advanced:

*Q3. What is the role of universities and professional institutions in supporting the application of the IFRS?*

## **The Accounting Culture factor**

The questions below were developed based on previous literature that highlighted the role and impact of accounting culture on accounting practices, for instance, Zeff (2007), Nurunnabi (2015), Combs et al. (2013), Cieslewicz (2014), Doupnik and Tsakumis (2004), Weber and Hsee, (2000), Doupnik and Riccio (2006), Chand (2012), Zeghal and Mhedhbi (2006), Heidhues and Patel (2011) and Wehrfritz and Haller (2014).

To explore the impact of accounting culture on the application of the IFRS in TDCs, Iraq, the first question was an introductory question, the answer to which should be compatible with previous answers of on the political and economic factors, because all of them are linked together:

*Q1. What is the current Iraqi accounting culture (socialism, capitalism, or otherwise), or how would you describe the Iraqi accounting culture?*

To evaluate the impact of the previous accounting culture on the application of the IFRS, the following question was posed:

*Q2. Did the previous accounting socialist culture prevent the adoption of IFRS?*

There have been more than 13 years of change the political regime and economic system. Is this enough time to change the accounting culture, or does it needs more time? To evaluate the change in accounting culture and if this change is in favour of the IFRS, the next question was:



Q3. *Recently, have you observed any changes in the accounting culture which could have an impact on the implementation of the IFRS?*

## Other questions

These questions were not derived from previous literature; the majority of them emerged from the pilot study (see section Pilot Study), which pointed to the security factor, and the role of the Federation Board of Supreme Audit of Iraq (FBSAI), the Iraqi Association of Chartered Accountants (IACA), and the Council of Profession Monitoring and Auditing of Accounting in Iraq (CPMAAI).

To explore the interviewees' opinions regarding the adoption of the IFRS, the first question was asked:

Q1. *Are you for or against the adoption of the IFRS? And why?*

There are presumed to be several differences between the IUAS and the IFRS, and some of them could have a significant impact. If there are no significant differences, this means the IUAS is matched or in line with the IFRS. So, to evaluate the essential differences between the IUAS and IFRS, especially any which hinder the application of the latter, the second question emerged:

Q2. *Are there any significant changes in the financial statements which prevent the adoption of international accounting standards?*

To evaluate the impact of the security position on IFRS application, the third question emerged:

Q3. *Do you think that the current security position affects the efficiency of applying the IFRS?*

To explore the direction of professional accounting bodies regarding the application of IFRS and their role, especially the FBSAI, which has dominant power in Iraq's

accounting and auditing practices, as a unique governmental body that audits the state and mixed sectors, as well as other accounting professional bodies that are linked directly or indirectly with the FBSAI, the following question was formulated:

*Q4. What are the roles of the Federal Board of Supreme Audit of Iraq (FBSAI) and other professional bodies, for example, the Iraqi Association of Chartered Accountants (IACA), and the Council of Profession Monitoring and Auditing of Accounting in Iraq (CPMAAI) toward adopting international accounting standards?*

Finally, as a review and summary of the essential obstacles, which would serve as a double check and a conclusion of our conversation, especially with external auditors, the following question emerged:

*Q5. How would you summarize the obstacles to the application of international accounting standards in Iraq?*

#### **5.4.2 Main questions for academicians**

In view of the importance of universities and other professional institutions, specific questions were formulated within this section. Following the KBV, universities and other professional bodies create development and leverage knowledge, which is the main reason for their existence and continuous. Also, it has been considered that universities and other professional institution are the sources of intellectual knowledge. Undoubtedly, nowadays the IFRS is a major topic, and approximately 130 countries around the world have shifted to their application (Nurunnabi, 2014). Therefore, universities and other professional institutions may pay more attention to introducing the IFRS in their curricula in an efficient way. This section's questions were derived from previous literature such as Atabey et al. (2014) and Parlakkaya et al. (2014).

The first question was to explore the introduction of IFRS in universities' and other professional institutions' curricula at both undergraduate and postgraduate level:

*Q1. Have the international accounting standards (IFRS) been introduced within Iraqi universities' curricula and other professional institutions?*

If the answer was yes, I moved to evaluate universities' curricula with respect to syllabus effectiveness, the IFRS learning materials, the language employed and graduates' ability to implement these standards:

*a. If yes:*

- i. Do you think that the current syllabus covers the IFRS effectively?*
- ii. What is the source of learning materials and language used in teaching?*
- iii. Do you think that graduates will be able to implement the IFRS?*

If the answer was no, the interviews explored whether the Iraqi universities should consider offering courses for IFRS and in their curricula:

*b. If no:*

- i. Should the Iraqi universities consider offering courses for IFRS?*

Moreover, to explore the obstacles to the introduction of these standards in their curricula, the following question was asked:

- ii. What are the obstacles to the introduction of the IFRS in Iraqi universities' curricula?*

To propose suitable solutions to overcome these obstacles, the questions below were asked;

- iii. *According to your experience, how could these obstacles be overcome?*
- iv. *From your experience, have the Iraqi universities developed a plan for the teaching of the IFRS within their curricula?*

To explore whether there is external pressure from governmental or non-governmental bodies on the Iraqi universities to introduce the IFRS in their learning materials and teaching syllabus, the second question emerged as below;

*Q2. Is there pressure from governmental or non-governmental bodies to introduce the IFRS within the curriculum of universities and other professional institutes?*

To evaluate Iraq's academicians' interest regarding the IFRS and the latest updates, and whether they were in favour of the application of the IFRS or not, the third and fourth questions, respectively, were formulated, as shown below:

*Q3. To what extent do you think Iraqi academicians are interested in the IFRS and follow its developments?*

*Q4. Are you in favour of the adoption of international accounting standards and teaching them in Iraqi universities?*

#### **5.4.3 Main questions for transition committee and standards-setters**

The transition committee plays a vital role in the transition process. It will formulate the shape of the Iraqi accounting system of the private sector in the near future. It is expected that this committee would prepare transition guidance after taking their decision regarding the shape of adoption of the IFRS (full adoption, partial adoption, or upgrading the Iraqi accounting standards and practices to be in line with the IFRS), as well as, determining the main differences between the IUAS and the IFRS. For this reason, everyone's eyes will be on this committee and waiting for its decision. The following

questions were developed based on the pilot study and the previous literature, for example, Lim et al. (2017), Albu et al. (2011b), Larson and Street (2004), Tomaszewski (2006), Joshi et al. (2008), Mala and Chand (2014), Wüstemann and Wüstemann (2010), Drnevich and Stuebs (2013), Nobes and Stadler (2013), Rodgers (2006), Rodgers and Gago (2006).

To explore whether the transition committee has followed the adoption procedure or plan by the IFRS Board, which imposes several requirements such as translation, adoption, and copyright, the following question was raised:

*Q1. The IFRS Foundation has imposed requirements of translation, adoption and copyright. Have these requirements been fulfilled by the Iraqi Board of Accounting and Auditing Standards (IBAAS)?*

To explore the transition committee's plan regarding the adoption, or the kind of adoption decision, the question below was asked:

*Q2. Are you planning to fully adopt without any amendments, partially adopt, or upgrade the national accounting standards to meet the IFRS?*

To evaluate the transition committee's transformation plan, the third question emerged, as shown below;

*Q3. Do you have a clear plan of transfer to the IFRS? Explain, please.*

To explore whether transition committee prepared transformation guidance after determination of the main differences between the IUAS and the IFRS and proposed the suitable solution, which will lead to formulating transition guidance, the fourth and fifth questions were to discover:

Q4. *Have you produced transfer guidance?*

Q5. *What are the key differences in the financial statements when switching to the IFRS?*

To explore why the official websites of the IAS and IFRS state that Iraq has adopted the IFRS, which is contrary to the reality, the following question was raised:

Q6. *Contrary to the reality, the official website of IAS and IFRS mentions that Iraq has adopted the International Accounting Standards. Can you explain this inconsistency?*

## 5.5 Verbal Protocol (Think-aloud)

The selected strategy for approaching the interviews was the use of a verbal protocol or think-aloud technique. Verbal protocols or verbal reports refer to verbalisation of human thoughts and successive behaviours when processing cognitive functions, that could occur concurrently or retrospectively with the function performance (Ericsson & Simon, 1993). The term refers to “*a set of methods for obtaining reliable information about what people are thinking while they work on a task*” (Austin & Delaney, 1998:42). A protocol is a verbal procedure, voiced aloud, that discloses the step by step evolution of an individual’s problem-solving and decision making (Jones, 1989).

### 5.5.1 Background to verbal protocols

According to Ericsson (2006), Aristotle is credited with the first systematic endeavour to record and analyse sequences of thoughts. He describes thinking as a sequence of thoughts, but this description does not sufficiently answer the questions regarding the nature of cognitive thought that were raised by philosophers during the period from the 17<sup>th</sup> till the end of 19<sup>th</sup> centuries (Ericsson, 2006; Ericsson & Crutcher, 1991). The majority of philosophers’ introspective analysis was based on their self-analysis, which reflected their personal thought. In the 20<sup>th</sup> century, a number of

psychologists tried to recognize the most important elements of participants' thoughts to provide as detailed reports as possible (Ericsson, 2006). Especially in the 1950s and 1960s when computers emerged, the complexity of computer programs, which have the ability to process challenging cognitive tasks, renewed psychologists' interest in higher-level human cognition processes and studying how individuals solve problems and make decisions through inferring and describing the thought processes that mediate performance by proposing cognitive theories; strategies, concepts, and rules (Ericsson, 2006). One way of understanding and describing these processes is the verbal protocol.

### **5.5.2 Assumptions underlying verbal protocol**

The think-aloud protocol or talk-aloud protocol is an approach to human behaviour analysis through verbal protocols or verbal reports founded by Lewis (1982) and advanced by Ericsson and Simon (1993) grounded on the techniques of protocol analysis, which is built on two main assumptions; cognitive processes and the existence of two memory systems.

Cognitive processes are seen as sequences and categorisations of internal situations that are somehow converted by information processes (Austin & Delaney, 1998).

The second assumption is that there are long-term and short-term memory systems. The long-term memory system is used for storing and retrieving information. The short-term memory system is immediately accessible for temporary use (Austin & Delaney, 1998; Ericsson & Crutcher, 1991; Ericsson & Simon, 1980; Ericsson & Simon, 1993).

According to Ericsson and Simon's (1993) approach, through the talk-aloud procedure, individuals can only access the contents of short-term memory. The main differences between long-term memory and short-term memory lie in their accessing features and capacity (Lundgrén-Laine & Salanterä, 2010). The long-term memory, for

‘permanent storage’, is of intermediate duration and large capacity, as opposed to the short-term memory for ‘temporary storage’ that is immediately available and has small capacity.

However, the newest scientific investigation split the memory functions into three divisions that are closely related and overlapping; long-term memory, working memory, and short-term memory (Lundgrén-Laine & Salanterä, 2010).

According to Linden (2007:257) “*Working memory and short-term memory are closely related to their cognitive architecture, capacity limitations, and functional neuroanatomy, which only partly overlap with those of long-term memory*”. Working memory works as a processor that transfers the data from short-term memory to store it in long-term memory, when a person does not need to use it. Then, the working memory transfers the data from long-term memory to short-term memory, when a person wishes to retrieve the data and re-use it, on add other information to create new knowledge. This cognitive process is the core of the protocol analysis technique. Hence, in order to make the best use of protocol analysis, “*information in long-term memory must be transferred to short-term memory before verbalization can take place*” (Ericsson & Simon, 1993; Lundgrén-Laine & Salanterä, 2010:566).

### **5.5.3 The think-aloud protocol**

In enacting the verbal protocol, interviewees are asked to think aloud, saying whatever comes into their minds, which might comprise what they are feeling, doing, and looking at. This technique provides interviewers with insight into the interviewee's cognitive operations, to make their thought operations as explicit as possible during interview performance, then all verbalizations are transcribed and analyzed (Ericsson & Simon, 1984; Ericsson & Simon, 1993). Researchers are asked to take notes of their



observations and introspection on what interviewees are saying and doing, avoiding any attempt to interpret their words and/or actions. Ericsson and Simon (1993) advised scholars to encourage the interviewees to keep on talking, without engaging in any conversation. However, this practice is criticized by some scholars, who recommend formulating a strict guideline. For example, Boren and Ramey (2000) and Yang (2003) recommended scholars to interconnect with their participants, justifying their opinion through noting the differences among various research designs (Lundgrén-Laine & Salanterä, 2010).

The interview is recorded by video or audio, so interviewers can revert and analyse what interviewees are doing and their reaction with interpretation and introspection of participants' cognitive process. However, the crucial problem of interpretation is that the subjective interpretation is not consistently linked to observable behaviours (Ericsson & Simon, 1993; Lundgrén-Laine & Salanterä, 2010). Therefore, to overcome this problem, researchers may apply the talk-aloud technique to gather and measure the participants' verbalizations through observing how the interviewee addresses information and his/her performance simultaneously. The participants are also making interpretations in the thinking-aloud technique, and the main object of the verbal protocol analysis is "*an objective observation of these interpretations*" (Lundgrén-Laine & Salanterä, 2010:568).

Kuusela and Paul (2000) distinguished think-aloud protocols into retrospective think-aloud protocol and concurrent think-aloud protocol, as different sorts of experimental techniques. The concurrent think-aloud protocol gathers information during the interview process through the interaction between the interviewer and the interviewee.

In contrast, the retrospective think-aloud protocol gathers information after the interview, when the interviewee compares his/her thoughts with the interview transcript

and remembers his/her speech and corrects the interview transcript as a reflection of his/her cognitive process. Researchers advise employing both concurrent and retrospective think-aloud techniques (Lundgrén-Laine & Salanterä, 2010), through the mixture of retrospective and concurrent verbal protocol analysis in the same study, which was done in this study.

Since, in the verbal protocol technique, the participants tend to explain their opinions or decisions, it is considered a useful feature when conducting exploratory research (Kuusela & Paul, 2000). Furthermore, Payne et al. (1978) after exploring pre-decision behaviour, concluded that verbal protocols are a useful and valuable source of data in the early phases of exploring decision processes.

The use of verbal protocols incorporating think-aloud techniques has a number of advantages to researchers. Simon and Kaplan (1989) assert that protocol analysis is commonly acknowledged as valid and reliable. Nielsen (1994) indicated that the cost of the thinking-aloud technique can be reduced by considering *“the trade-offs between the number of subjects (interviews) in an experiment and the proportion of usability problems found in the interface”* (Nielsen, 1994:386). He illustrated that the thinking-aloud technique does not require a big number of subjects (interviewees) to be successful: *“it does not seem to be worth the trouble to run more than six or seven subjects, since the value of additional subjects falls off exponentially”* (Nielsen, 1994:393). Also, interviewers do not require to be highly skilled specialists, just ordinary scholars with a small amount of training. Moreover, he went so far as to claim that *“Thinking aloud may be the single most valuable usability engineering method”* (Nielsen, 1993:195).

There are numerous precedents for employing protocol analysis within phone interviews, for instance, Ericsson and Simon (1993), Mitchell and Zmud (1999), Burke

and Miller (2001), Ellen et al. (2002), Adogwa et al. (2016), and Viau et al. (2016). Protocol analysis has been employed in psychology, computers, education, health, linguistics, and humanities but so far not employed in accounting literature and especially the ISA/IFRS literature, see Appendix (C), making its application a novel contribution of this study.

#### **5.5.4 Use of verbal protocol analysis in this study**

In this study, a unique form of verbal protocol analysis or think aloud technique has been employed to collect valid and reliable data within three phases: Retrospective → Concurrent → Retrospective. The interview questions were sent to prospective participants with an invitation letter. Thus, the participants who accepted this invitation utilised the retrospective think-aloud protocol, through retrieving information from their long-term memory and restoring it in short-term memory in order to prepare their answers, make the participation decision and search for evidence to support their opinions, which was the first phase of the protocol. The second phase was the concurrent think-aloud protocol, utilised during the interview process, when participants used their short-term memory in order to answer the questions. The interview transcripts were sent to the participants within 48 hours. The last phase was a retrospective think-aloud protocol, when the participants reviewed their protocol transcript and compared between their thoughts and the transcript wording, leading to their adding to, removing, amending, or confirming it. This cognitive process will enhance the research findings in addition to the validity and reliability. See Figure 5.1 below.

Figure 5.1 Protocol Analysis Phases

### First Phase Retrospective think-aloud protocol

- Make participation decision.
- Retrieving their information within cognitive process and restoring their information through using of working memory to transfer data from long-term memory to short-term memory.
- Prepare some note, key words, and headlines to outline their answers.

### Second Phase Concurrent think-aloud protocol

- Listening to the interview's questions that he/she already prepare his/her answers.
- Cognitive process using short-term memory and thinking aloud technique to give more details when processing their data to produce information because of process thinking technique.
- Discussing these thoughts and ideas in scientific manner.

### Third Phase Retrospective think-aloud protocol

- Checking the transcript accuracy.
- Cognitive process resulting from matching ideas and thoughts between short-term memory and long-term memory, and make any adding, removing, and amendment.
- Formulating the final answers and re-send protocol transcript.

#### 5.5.5 The validity and reliability of the verbal protocol

The researcher's systematic strategy during the research will determine the reliability of the protocol analysis technique. According to Lundgrén-Laine and Salanterä (2010), there are three fundamental elements that enhance reliability and validity; transparency, reflexivity, and objectivity. These elements are equally important and have to be considered through all the study stages and procedures, taking into consideration the ability to transfer the research findings. The researcher should describe all his/her research processes and steps, so the reader will be able to track the researcher's solutions in the research (Lundgrén-Laine & Salanterä, 2010; Malterud, 2001; Miles & Huberman, 1994). Several problems associated with the reliability and validity of the think-aloud technique have been recognized by previous researchers, such as the limitation of engagement and

unproductive research environments (Li, 2004). Sometimes researchers are unmindful of the participant and how to stimulate or influence him/her to gain a higher order of cognitive process (Nisbett & Wilson, 1977). Also, they are advised that accurate reports will occur when influential stimuli are noticeable and reasonable.

Crutcher (1994) indicates three major issues regarding verbal protocol analysis as a data collection technique: validity, i.e. whether the verbal protocols reflect the participants' thinking accurately; reactive effects, meaning whether the participants changed or altered their thoughts; and whether the data collected via verbal protocols can be processed as objectively as other human behavioural data.

Russo et al. (1989) suggest that the reactivity test constitutes a definitive and the best tool to test the validity of a think-aloud technique. Reactivity tests often make a comparison between the contemporary protocol situation and a silent control, which can typically be compared on the basis of standard data. However, it can be argued that there is no standard data. Thus, in the absence of standard data and with incomplete test reactivity, the systematic investigation of accuracy and response time will be meaningful, in addition to other methods for process-tracing, such as process markers, eye contact, and ordinary output measures (Russo et al., 1989).

However, Lundgrén-Laine and Salanterä (2010) proposed a meaningful approach to overcome reliability and validity problems, which has been followed in this research, through preparing a careful plan of data collection, reading the literature on the think-aloud and protocol analysis techniques, in addition to short practice sessions before conducting the interviews, and some advice given to the participants. Also, other elements have been taken into consideration, such as participants' suitability for the study, sampling and inclusion criteria.

The reliability of the protocol analysis technique was assessed through the various analysis phases and levels. Also, an objective analysis was followed, and any preconceived ideas/notions are recognized and shared. Also, the codes used in analysis were well-defined, quotable or repeatable, and consistent.

## 5.6 Pilot Study

When employing the think-aloud technique as a tool for data collection in qualitative research, the data collection process has to be carefully planned in advance. Ericsson and Simon (1993) recommend that scholars engage in practice and prelude tasks before conducting their interviews. However, the problem is that “*there are no detailed guidelines for this in the existing literature*” (Lundgrén-Laine & Salanterä, 2010:569). For this reason, it was especially important to conduct a pilot study, to try out the planned interview protocol.

On 7<sup>th</sup> August I sent seven invitation emails in both Arabic and English and asked recipients to have a look at the consent letter and interview questions and determine the most suitable date and time to conduct a pilot phone-interview. As well, I advised them to use their phone ear-set and to be sure that their handset was fully charged. However, three of the recipients apologized for being unable to participate at that time.

The pilot study lasted for approximately a month, from 5<sup>th</sup> August 2016 to 3<sup>rd</sup> September 2016. During this period, four interviews were conducted and transcribed. The pilot study led to revision of the interview questions, re-wording some questions to be clearer, adding a new question, deleting other questions, and discovering other salient factors, such the security turmoil, that should be addressed in the main study. Furthermore, I received feedback on my performance and the interview procedures, checked technical equipment, gained practice in the think-aloud protocol, trained on using

NVIVO 10 software in transcription and data analysis, and checked the kinds of audio programs that work with NVIVO 10. For example, mobile phone recording programs that record mobile telephone calls such as ACR are not recognised by NVIVO 10. At the end of the pilot study, I felt that I was ready to conduct my phone interviews with a high level of confidence and trust in my ability to manage the think-aloud protocol and analyse the interview findings accurately.

### 5.7 Interview Sample and Participants' Profile

Given the research characteristics and complexity, the target population for the first phase was 232 external auditors according to the Iraq's Auditors' Bulletin of 2017 and 70 scholars of Accounting in the Business School – Accounting Department of Baghdad University and Al-Mustansuryah University. External auditors were selected rather than accountants and internal auditors because they have more practical experience and a broader view regarding the international accounting standards than accountants or internal auditors. Moreover, external auditors deal with different cases of all types of entities, while managers (accountants and internal auditors) merely deal with specific cases according to their work in their organizations. Also, many external auditors, in addition to their work, also work accounting or auditing managers and/or lecturers at the same time. Furthermore, I have access to all statutory auditors in Iraq, because I am a member of the Arabic Institute of Certified Public Accountants (AICPA), and a member of the community of the Federal Board of Supreme Audit of Iraq (FBSAI). Baghdad and Al-Mustansuryah Universities were chosen because I have access to them. Thus, their academic staff were the target population, representing scholars.

A purposive sampling technique was adopted through conducting phone interviews with experts in the above categories to the point of the theoretical saturation, achieved when adding new data no longer added new insights into the research, in order to answer

the research questions. This meant that the number of interviewees could be increased or decreased based on the richness of the information, to explore the research phenomena. These semi-structured interviews were conducted with the key actors representing governmental bodies and professional organizations involved in the regulatory function, accounting and auditing standards-setting, auditing and the academic profession, in order to get a broader and deeper understanding of how institutional environmental factors influence the application of the IFRS in Iraq and identify the obstacles to the application of these standards.

Twenty-one participants took part in semi-structured interviews. Ten of them had both a Certified Public Accountant (CPA) qualification and PhD Accounting. Also, the same number of participants had the CPA qualification alone, while just one participant had a PhD degree in accounting, see Table 5.2 below.

*Table 5.2 Interviewees' Qualifications*

<b>Qualification</b>	<b>%</b>	<b>No.</b>
CPA & PhD	48%	10
PhD	5%	1
CPA	48%	10
<b>Total</b>		<b>21</b>

Table 5.3 below reveals that the participants were highly experienced. Eighty-six per cent of participants had more than 10 years' experience, whereas 14% of the participants had less than ten years' experience. Participants who had experience from 10 to 19 years were the highest percentage, 38%, followed by 29% and 19% of the participants who had experience from 20 to 29 years and more than 40 years, respectively. No participant was in the 30 to 39 years' experience category.



*Table 5.3 Participants' Experience*

<b>Experience</b>	<b>%</b>	<b>No.</b>
Less than 10 Years	14%	3
10 to 19 years	38%	8
20 to 29 years	29%	6
30 to 39 years	0%	0
More than 40 years	19%	4
<b>Total</b>		<b>21</b>

Five communication facilities were employed; Viber, Mobile-phone, WhatsApp, E-mail, and IMO, depending on the participant's preference and sound quality. Table 5.4 below illustrates that the most used facilities were Mobile-phone and Viber App, while WhatsApp came in second place, followed by e-mails and IMO respectively.

*Table 5.4 Phone-interview Facilities*

<b>Phone interviews facility means</b>	<b>%</b>	<b>No.</b>
Viber	29%	6
Mobile phone	29%	6
WhatsApp	24%	5
E-mail	14%	3
IMO	5%	1
<b>Total</b>		<b>21</b>

The interview questions were divided into three main groups, according to the participants' qualifications and occupations: a group for Auditors (Group1 = 20); one group for academicians (Group2 = 10); and one group for members of the transition committee (Group3 = 4), although they were allowed, if they wished, to answer more than one set of questions. Table 5.6 below shows participants' qualifications and the question groups answered (auditors, academicians, and transition committee).

Table 5.5 Question Group Answered

Ref.	Certificate	Question group		
		Auditors	Academicians	Transition committee
Ph-I. 01	CPA & PhD	1	1	
Ph-I. 02	CPA	1		
Ph-I. 03	CPA	1		
Ph-I. 04	CPA	1		1
Ph-I. 05	CPA	1		
Ph-I. 06	CPA & PhD	1	1	1
Ph-I. 07	CPA & PhD	1	1	
Ph-I. 08	CPA		1	
Ph-I. 09	CPA & PhD	1		
Ph-I. 10	CPA	1		1
Ph-I. 11	CPA & PhD	1	1	
Ph-I. 12	CPA & PhD	1	1	1
Ph-I. 13	CPA	1		
Ph-I. 14	CPA & PhD	1	1	
Ph-I. 15	CPA & PhD	1	1	
Ph-I. 16	CPA & PhD	1	1	
Ph-I. 17	CPA	1		
Ph-I. 18	CPA	1		
Ph-I. 19	CPA	1		
Ph-I. 20	CPA & PhD	1	1	
Ph-I. 21	CPA	1		1
<b>Total</b>	<b>35</b>	<b>20</b>	<b>10</b>	<b>5</b>
<b>Percent</b>	<b>100%</b>	<b>57%</b>	<b>29%</b>	<b>14%</b>

As for the participants' occupation, first, the auditors' occupations were distributed between the private sector and public sector, where seventeen external auditors were working in private sector and three auditors working in governmental sectors (one working in the FBSAI and two in the Integrity Commission). The external auditors were three heads of auditing companies, three partners in auditing companies, and eleven owners of auditing bureaux, as shown in Table 5.6 below.

Table 5.6 Participants' Information

Details			No.	%	No.	%	%
Auditors	Private Sector - External Auditors	Head of Auditing Company	3	15%	17	17.65%	85%
		Partner of Auditing Company	3	15%		17.65%	
		Owner of Auditing Bureau	11	55%		64.71%	
	Public State - External Auditor	The FBSAI	1	5%	3	33%	15%
		The Integrity Commission	2	10%		67%	
<b>Total</b>			<b>20</b>		<b>20</b>		

Second, regarding the academics' occupations, Table 5.7 illustrates the distribution of academic participants between state and private universities. Seven academics were working full time in governmental universities, whereas two of them were working part time in private universities, and three academics were working full time in private universities.

Table 5.7 The Academic Participants' Occupations

Ref.	State university	Private university
Ph-I. 01	University of Al-Mustansuryah	
Ph-I. 06	Al-Basra University	
Ph-I. 07	Al-Anbar University	
Ph-I. 08	University of Al-Mustansuryah	
Ph-I. 11	University of Al-Mustansuryah	Arabic Institute of Chartered Accounting
Ph-I. 12		Post Graduate Institute for Accounting & Financial Studies
Ph-I. 14		Al-TURATH University
Ph-I. 15	Baghdad University	Arabic Institute of Chartered Accounting
Ph-I. 16	University of Al-Mustansuryah	
Ph-I. 20		Baghdad Economic Sciences University

Third, four interviews were conducted with four of eight members of the transitional committee consist; Ph-I.04 is the secretary of IACPA, Ph-I.10 is a representative of the Association of Iraqi Banks, Ph-I.12 is a standards setter (member of IBAAS), and Ph-I.21 is the Chairman of the ISC and member of IBAAS.

## 5.8 Conducting Telephone Interviews within Protocol Analysis Stages

All interviews were carried out in Arabic, during the period from 4<sup>th</sup> September 2016, to 10<sup>th</sup> October 2016, except the last interview, conducted on 30/03/2017 (Ph-I.21)<sup>67</sup>. The average duration of these interviews was 48 minutes; the shortest interview, which was conducted with Ph-I.18, was 32 minutes, while the longest interview that conducted with Ph-I.12 lasted hour and 43 minutes. Indeed, some of the interviewees asked to be allowed some time to check some information, in order to give me accurate answers. This enabled them to give high quality responses and answer the research questions effectively.

In conducting the interviews, the following techniques were used to overcome potential weaknesses: (1) the wording of interview questions was formulated in a consistent way to explore all the expected aspects of the research phenomenon. (2) The relationships between questions were interrelated and complementary. (3) In the case of poor sound or non-understanding of a participant's answer, or feeling there was confusion on a particular point, I asked the participant to repeat his/her answer or give more clarification and explanation. (4) Directly after the completion of each interview, I transcribed our conversation. Moreover, I sent the transcript directly to the participant,

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<sup>67</sup> This interview was conducted with the Chairman of the Iraqi Securities Commission (ISC). When I started to distribute the questionnaire, one of the participants sent me an email to introduce the ISC as a factor and asked me to conduct an interview with the chairman of ISC. One sent me his contact number and email address.

and asked him/her to confirm its accuracy, and I invited participants to add, remove, and amend details to reflect their opinions accurately.

The strategy adopted in implementing the phone interview involved participants thinking about the interview questions in three stages, in line with the protocol analysis technique explained in section 5.5.

### **The first stage, sending invitations via email (Interview Invitation letter):**

In order to ensure participants informed and voluntary consent and reassure them as to rights and responsibilities in this research, an invitation letter was sent to the prospective interviewees, which included the aim of this project, the internal and external factors proposed to be investigated, and an expression of belief in the invitee's suitability to speak on the various issues related to the research questions. It clarified that participation was voluntary; explained the phone interview procedure and duration expected of the interview (approximately one hour) and invited the recipient to select the date and time suitable for him/her. It was clarified that the participant had the right to decline to answer any of the interview questions or even decide to withdraw from this study at any time without any negative consequences if he/she so wished. I explained that interviews would be audio recorded to enable collection of information and later transcription for analysis and that a copy of the transcript would be sent to the participant shortly to confirm the accuracy of our conversation and enable him/her to add or clarify any points that he/she wished. An assurance of confidentiality was provided, and it was stated that the participant's name and his/her organization's name would not be reported in the thesis, unless he/she gave permission; the same applied to use of quotations. Data collected during this study would be retained for 3 years in my locked locker at Hull University and only my supervisor and I would have access. Participants were assured

that there was no known or anticipated risk to them in this study and offered a summary of the results if contact details were sent to the Secretary, HUBS. Participants were invited to contact the Research Ethics Committee in case of any concerns about the conduct of this research project.

The retrospective think-aloud protocol was employed in the first stage, when the prospective participants received the invitation emails and looked at the questions to make their participation decisions. In this stage, participants would employ their retrospective memory to retrieve information from their long-term memory and restore it in their short-term memory in order to make the participation decision and support their answers. This process was as follows:

If they were interested and had enough knowledge, time, ability, and willingness to answer these questions, they accepted my invitation, replied to my email and waited for my response. This stage was crucial ethically and practically: ethically, there was no pressure or embarrassment. If the individual was happy to take part in this research, he/she would answer my email or contact me, and if not, he/she would ignore my email. Practically, if I had conducted face-to-face interviews, the participants may have been embarrassed and accepted my invitation reluctantly, which would lead to insufficient answers that would negatively affect the research findings.

Ultimately, participants who were willing to take part in this study, had enough knowledge of the research problem and could answer the interview questions accepted my invitation and prepared suitable answers by retrieving their information stored in the long-term memory and/or gathering more data to provide accurate answers when they talked-aloud. They replied to my email and proposed the most suitable date and time for the interview, to which I agreed.

## The second stage, conducting interviews:

The concurrent think-aloud protocol was employed in this particular stage when participants started answering my questions and used their short-term memory. They had prepared their answers beforehand in the previous stage by moving information from long-term memory to short-term memory and making some notes or headnotes to organize their cognitive thinking process. Therefore, I asked every question with exactly the same wording and in the prescribed order, as it was written in the invitation letter, for each interview in a conversational professional tone, I avoided awkward pauses between questions and expressing surprise or disapproval with their responses.

The concurrent think-aloud technique in this stage required a series of procedures, both in the preparations before the interviews and when conducting the interviews.

### **Before interview:**

Before starting every protocol, various arrangements were made, including printing a protocol sheet for every participant, in which I allocated a specific code for every protocol and printed the date, starting time, ending time, and the facility used in this particular protocol. I contacted each participant and told him/her about myself and my project; checking whether he/she was ready to start; asking him/her to be sure that his/her mobile phone was fully charged or had ample battery power, and to use earphones for safety and to ensure clearer and better-quality sound.

Technically, I asked which communication facility the participant would prefer, such as JSM network, WhatsApp, Viber, IMO, Tango, or Skype. I prepared three devices to audiotape each interview (Mobile Phone Recorder, Computer Recorder, and Interview Kit recorder). These actions assisted me during the data analysis stage, especially when

transcribing the interview audiotapes using the NVIVO 10 software program and matching the audio tape with the written record of each interview.

**The interview process:**

In conducting the interviews, a pleasant tone of voice, professional demeanour, and familiarity with the interview questions gave me confidence. I started by introducing myself and thanked the participants for their participation in this study. I explained that this study was supervised by Hull University Business School and funded by the Republic of Iraq / Ministry of Higher Education and Scientific Research.

For ethical reasons, I told the participant that participation in this study was totally voluntary and he/she had the right to withdraw at any time, up to the completion of the project. I asked participants to declare whether they were willing for me to quote responses to a particular question. I also explained that they could answer questions in any group that they were happy to answer. Participants were assured that they could refuse to answer any question they did not want to answer, and that they would have the right to add, remove, and amend later when I sent them the interview transcript. I asked for a signed consent letter, if it had not ready been sent. It was explained that the interview would be recorded and transcribed later. I explained that I would tell the participants when I turned on the recording device.

All the interview questions were read in the same wording, order, and style for all participants, as formulated in the invitation letter. Notes were taken in these interviews, which gave me new information and served as a reference tool for reviewing and evaluating my interviewing skills (Guenzel et al., 1983).

My role was as a reporter trying to keep the interview on focus, not a debater or curiosity seeker, and I let the interviewee talk as much as possible and provide enough



explanations and evidence in a discursive manner. I took care not to suggest a possible answer or provide any suggestion or influence any participant's response. Also, I avoided expressing agreement or disagreement with a position an interviewee took. Therefore, these interviews were unbiased from my point of view.

### **The third stage, confirming transcripts' accuracy:**

The retrospective think-aloud protocol was employed in this particular stage when the participants received their verbal protocol transcripts within a short time and made a comparison between their thoughts and their verbal report transcript. In this cognitive process, participants had the opportunity to refine their information and thoughts and compare what they had said with what they wanted to say. Moreover, they would look at all the interview questions and answers from an all over perspective and connect their answers to develop meaningful knowledge. This cognitive process verified the participants' opinions and enhanced the validity and reliability of the research findings.

## **5.9 Thematic Analysis**

Roulston (2001) identifies two approaches to analysing qualitative data; thematic analysis and conversation analysis. According to Braun and Clarke (2006:6) "*Thematic analysis is a method for identifying, analysing, and reporting patterns (themes)*". It is the process of searching for themes that emerge by careful re-reading of the data to identify and analyse patterns of meaning, as being significant to describe the research phenomenon (Fereday & Muir-Cochrane, 2006; Joffe, 2012). A theme is a specific pattern of meaning in the data (Joffe, 2012), which emerges as a consequence of coding, categorising, and reflective analysis (Saldaña, 2013).

The thematic analysis technique is widely utilised in analysing and interpreting statements qualitative research within the social sciences, where the data are generated

by asking participants to talk about research phenomena (Roulston, 2001). Braun and Clarke (2006:7) argued that “*discourse analysis, or even content analysis*” are essentially forms of thematic analysis, and also that the procedure for coding the data in grounded theory analysis is very much similar to thematic analysis. However, contrary to grounded theory, discourse, and narrative analysis, “*thematic analysis is not wed to any pre-existing theoretical framework, and so it can be used within different theoretical frameworks*” (Braun & Clarke, 2006:9).

The essential feature of thematic analysis is that it is a “*theoretically-flexible approach to analysing qualitative data*” (Braun & Clarke, 2006:2). It is not related to a specific theory and epistemology. Thus, it is “*framed as a realist/experiential method*” (Braun & Clarke, 2006:5). It could be applied with a variety of theoretical and epistemological approaches. However, the lack of concise guidelines of how to do thematic analysis was the main criticism of Antaki et al. (2003).

A question that arises in thematic analysis is “*what counts as a pattern/theme, or what “size” does a theme need to be?*” (Braun & Clarke, 2006:10). In reality, it crucially depends on the researcher’s judgement; greater frequency of a pattern (theme) or meaning does not necessarily imply that this theme is more crucial than others that occur less frequently, it is not dependent on quantifiable measures. Qualitative analysis is unlike quantitative analysis; it is not the case that a high proportion of responses is evidence of a theme, and a low proportion is not to be considered a theme. A theme is meaning that captures something essential regarding the research question(s). Therefore, the researcher’s judgement plays an essential role in determining what a theme is.

There are two contrary approaches of thematic analysis that could be followed to ensure a rich description and detailed account of the dataset. One is the inductive thematic

analysis approach, in which researchers identify the important themes from the dataset, then code and analyse them, maintaining a rich description of the dataset. This approach might be useful when *“investigating an under-researched area, or with participants whose views on the topic are not known”* (Braun & Clarke, 2006:11). Also, this approach might be useful in grounded theory. In this approach, there might be little relationship between the theme identified and the question that was asked and this approach of thematic analysis is driven by data, not driven by *“the researcher’s theoretical interest in the area or topic”* (Braun & Clarke, 2006:12). Hence, the data coding process in the inductive thematic analysis approach does not seek to fit the data into the scholar’s analytic preconceptions, or a pre-existing coding frame. Also, a researcher would not pay attention to the themes that had been coded in previous literature. The other approach is the deductive (theoretical) thematic analysis approach, which has been followed: in which the researcher provides a more accurate and detailed account of a particular theme(s) related to a specific question(s) within the dataset. The researcher offers *“less a rich description of the data overall, and more a detailed analysis of some aspect of the data”* (Braun & Clarke, 2006:12). This approach is mainly driven by the theoretical research framework and is *“explicitly analyst-driven”*. Moreover, the coding process might evolve research question(s) by focusing on particular features in coding the data.

Another issue to be decided is the level at which themes will be identified. Boyatzis (1998) identified two levels of themes identification; semantic or explicit and latent or interpretative. Scholars who apply semantic identification, typically, focus on the explicit meaning of what the participants said, as written in the confirmed transcripts and do not look for anything beyond that. The analytic process involves showing patterns, developing description, summarising, and interpretation of semantic content to theorise these patterns (themes) (Patton, 1990), and their broader meanings and implications

(Braun & Clarke, 2006). However, scholars who utilise latent identification go beyond the explicit meaning of what the participants said and explore the underlying thoughts, assumptions, ideologies, and conceptualisations, to recognise the features of meaning. Thus, the development of latent themes requires interpretative work and not just description, and scholars using it may follow a constructionist paradigm (Braun & Clarke, 2006).

### **5.9.1 Transcription and translation**

To conduct a thematic analysis, verbal data such as interviews need to be transcribed into written form (Braun & Clarke, 2006). It may be seen that the transcription process is time-consuming and boring or frustrating, but it is an excellent opportunity to become familiar with the data (Braun & Clarke, 2006; Riessman, 2008). It is a significant stage of qualitative data analysis within interpretative methodology (Bird, 2005). Lapadat and Lindsay (1999:64), discussing the theoretical issues behind the transcription process, conclude that *“transcription is theory laden”* and suggest that the transcription process is both constructive and interpretive.

All interviews were done in Arabic because it is the mother language of both me and the interviewees, and the participants were not familiar with English, so they could not express their ideas effectively in English. Translation was therefore necessary.

As a first step all interviews were transcribed immediately in Arabic verbatim and sent to the participant within 24 to 48 hours, to check their accuracy and compare the transcript with their thoughts or ideas.

The second step was translation of the Arabic transcripts to English. I translated seventeen Arabic transcripts into English after receiving emails from the participants to confirm the accuracy of the Arabic transcripts. In the translation process I took account

of the two countries' cultures and speaking styles (Halai, 2007). In order to ensure that the translation reflected equivalence of meaning between the two languages, first proofreading was done for all translated transcripts. After that, all of them were sent via email to an Iraqi checker who has a master's degree in the English language and a deep understanding of the Iraqi and English social contexts, to check the accuracy of the translation. The third step was re-translation of the English transcripts to Arabic to verify the equivalence of meanings, because when one translates from one language to another, it is necessary to pay attention to the meaning of whole sentences and translate it, not translate every single word literally.

### **5.9.2 Steps of thematic analysis**

In this research, I followed a deductive thematic analysis approach, and identified themes at the semantic level. To gain the most benefit from thematic analysis and avoid its drawbacks, I followed the 6-step guidance provided by Braun and Clarke (2006).

#### **Step1: Familiarising myself with the data**

I immersed myself in the data until I had a deep and broad familiarity with the content of each transcript; thus, when I started to search actively for meanings and patterns in the data, I had prior knowledge of what each participant said, his/her focus, ideology, background, position, qualification, and occupation. Moreover, the notes that were taken and the ideas that were marked for coding assisted the formal coding process. Then, I started to code based on my ideas and identify explicit patterns (themes) via a deductive thematic analysis approach (theoretically-driven).

## Step 2: Coding

Coding or categorising is the process of allocating a specific label or tag to assign units of meaning to descriptive information (Basit, 2003). A code is a word, phrase, or paragraph (extract of data) that is labelled to identify the salient features of the dataset that relate to research question(s) or objective(s). Codes refer to the features of the dataset that are interesting to the analyst (Braun & Clarke, 2006). Codes are information that may be evaluated in a meaningful way regarding the research phenomenon; they are the most basic elements of the raw dataset (Boyatzis, 1998). It is worth noting that researchers "*can code individual extracts of data in as many different 'themes' as they fit into - so an extract may be uncoded, coded once, or coded many times, as relevant*" (Braun & Clarke, 2006:18).

Miles and Huberman (1994) make a differentiation between two sorts of coding; pre-coding and not pre-coding, corresponding to the deductive/inductive distinction mentioned earlier. The pre-coding method is to create a provisional list of codes before the fieldwork, that builds on the key variables of the study, which emerge from the conceptual research framework, research questions, research hypotheses, and research problems (Basit, 2013; Miles & Huberman, 1994). The alternative, not pre-coding, involves waiting until data have been collected in order to see how it functions in its context, in order to determine research variables inductively; this method is normally used in grounded theory research (Basit, 2013).

In this study, I used a pre-coding process, by organizing my dataset into meaningful groups based on the interview questions (Tuckett, 2005). Then, several further codes emerged from the dataset after I familiarised myself with it and generated a list of ideas.

### Step 3: Searching for themes

Themes are the units of the interpretative analysis of the dataset (Braun & Clarke, 2006). This involved considering how different codes could be combined in a meaningful way and grouped into candidate themes. QSR-NVIVO was used to visualise the different themes and their related codes and helped me to draw the analysis map that determined the relationships among main themes, sub-themes, and codes. These candidate themes had then to be reviewed and refined in order to decide whether they would be kept, combined, separated, or discarded.

### Step 4: Reviewing themes

In this stage, I reviewed and refined the candidate themes; keeping themes that were supported by enough data and discarding others that were not, while integrating others into each other or dividing them. Patton (1990) identified dual criteria for judgement; external heterogeneity (meaning themes should be distinct) and internal homogeneity; the data related to each theme should be coherent, identifiable, and transparent.

In the reviewing and refining process, the coded data extracts for each theme were re-read to determine whether they offered a coherent pattern or not. If the coded data extracts offered a coherent pattern, I moved to the candidate themes to decide whether they would be kept and become final themes. If the coded data extracts did not offer a coherent pattern, this meant their candidate themes did not fit. In such cases, I considered whether the problem was with the theme itself or with the coded data extracts, and accordingly considered linking the coded data extracts with another theme, creating a new theme or removing them from the analysis.

Finally, based on my satisfaction that the candidate themes fairly reflected the contours of the coded data and assessing the validity of each theme in relation to the

dataset, they became final themes, represented in the thematic map. The thematic map assisted me in defining and naming the themes systematically.

### **Step 5: Naming themes**

Themes' names should be punchy, concise, not complicated and straightaway give a sense to the reader of what these themes are about, and what aspects of the data they capture (Braun & Clarke, 2006). The naming process requires organizing the themes into an internally consistent and coherent account, with accompanying narrative to identify and explain what is interesting in these themes and why. Thence, after I had a set of interesting themes, I was ready to write-up the report.

### **Step 6: Writing-up the report**

The purpose of writing-up the report is to tell the readers the thesis story and convince them of the validity and merit of my analysis through including easily identifiable data extracts and providing a coherent, concise, non-repetitive, logical, and interesting account of the thesis story.

#### **5.9.3 QSR-NVIVO**

QSR-NVIVO 10 was employed in the coding and analysis process. QSR-NVIVO 10 is a qualitative data analysis software that supports qualitative and mixed method research (QSR, 2016b). It is designed to handle non-numeric data, such as interviews, open-ended survey responses, web content, and literature. If the researcher does not employ software, his/her work is likely to be more time consuming and challenging. It may be hard to discover subtle connections, and to navigate the data. The software gives a place to organize and manage research materials to make sense of the research data. NVIVO software can analyse all sorts of qualitative data, for instance, images, video, audio, web



page, pdf, text, excel, and social media (QSR, 2016a). Moreover, the University of Hull has installed this program in all the university's computers and the library skills team provides training workshops continuously. Furthermore, there are some training videos on YouTube.

For these reasons, QSR-NVIVO 10 was utilised to organize and analyse the interview transcripts systematically. It facilitated better decisions by revealing more insights to advance my exploration of the data. According to the official website of this software, NVIVO is "*powerful software that helps you deliver rigorous research, robust findings, and comprehensive recommendations*" (QSR, 2016a). Notes were taken during the reading of the interview transcripts to extract and develop ideas. The well-planned interview questions related to the institutional environmental factors pertinent to the research objectives assisted me to incorporate all data collected into the analysis, which diminished the risk of selective use of data and none of the extracted themes was repressed. The coding process developed gradually, through coding participants' views in the light of a range of themes that represented participants' ideas, then more specific themes emerged during the analysis and the initial themes were aggregated and classified into groups to develop the major themes, such as behaviour problems and technical problems. Moreover, this technique assisted me in discovering the relationships between the factors explored, to increase understanding of how these factors influence each other, such as the impact of security turmoil on the political regime and economic system.

## Phase Two – Quantitative

### 5.10 Choice of Method: Online Questionnaire

After consideration of all possible data collection methods. I concluded that a questionnaire survey would be the most appropriate method to answer the third and fourth

research questions, support or reject the research hypotheses, and achieve the third and fourth research objectives. Saunders et al. (2009) indicate that questionnaire is a broad term, which comprises all data collection techniques that ensure the consistency of question order with the same wording for all participants.

Historically, researchers sent printed questionnaires by post with a request to return them after answering the questions (Kothari, 2004). However, in the technology era, it is much easier to send an electronic questionnaire via e-mail, which is “*most extensively employed in various economic and business surveys*” (Kothari, 2004:100). It also achieves many advantages, including low cost; ease of reaching the participants; and freedom from bias. It is easy to spread widely; participants have adequate time to understand the questions and give well thought out answers; “*the results can be made more dependable and reliable*” (Kothari, 2004:101). As well, it is a self-completion form that “*removes a major source of potential bias in the responses, and makes it easier for respondents to be honest about sensitive subjects*” (Brace, 2008:29).

Kothari (2004:101) however, indicates several drawbacks of online questionnaires: (1) “*Low rate of return of the duly filled in questionnaires; bias due to no response is often indeterminate*”; (2) “*There is inbuilt inflexibility because of the difficulty of amending the approach once questionnaires have been despatched*”; (3) “*It is difficult to know whether willing respondents are truly representative*”; (4) “*This method is likely to be the slowest of all*”. However, there is no clear evidence of these points. Also, the online questionnaire is the fastest tool to collect data and most popular, because sending an invitation to the website via e-mail to people who might qualify for the survey ensures that willing responses are obtained. This technique enables the participants to complete the questionnaire in their own time; they can interrupt it and return later (Brace, 2008). However, the primary disadvantage of online survey that it

does not have the opportunity to clarify or to repair misunderstanding (Brace, 2008). This problem, however, was overcome by piloting (section 9.13) and did not undermine the usefulness of this method.

### 5.11 Questionnaire Development

In order to develop a high-quality questionnaire survey, Sekaran and Bougie (2016) recommend scholars to pay careful attention to the questionnaire wording, scale, categories, coding, and layout. Developing a questionnaire survey to build or test a theory or theories is an arduous duty that requires both methodological knowledge and experience (Sarantakos, 2013). Also, it is the most critical stage (Swanson & Holton, 2005). I needed to review theories that seek to examine the relationships among variables (dependent, independent, moderator, and mediator variables) prior to designing the questionnaire (Saunders et al., 2009). I spent approximately three and a half months in developing the questionnaire, from 04/12/2016 to 16th February 2017.

Typically, the research phenomenon determines the questionnaire structure. Each research is intended to investigate a specific phenomenon. Therefore, questionnaire structures will be varied as a result of the variety of research phenomena. However, there are three primary questionnaire structures; structured questionnaire (closed-ended questions), semi-structured questionnaire, and unstructured questionnaire (open-ended questions).

The critical difference among these alternatives is founded on the participants' ability to add extra details to their responses (Saunders et al., 2009). Kothari (2004:101) identify the structured questionnaire as a "*definite, concrete and pre-determined questions*" that ensure "*all participants reply to the same set of questions*". The present research employed a structured questionnaire survey, with closed-ended questions. The

participants' answers were bounded between (1) strongly disagree and (7) strongly agree, through using a 7-point Likert scale.

The questionnaire was developed based on the research theoretical framework, the interview findings, TM elements (P1, P2, J, and D), research hypotheses, Hull University ethical code, and the requirements of the inferential analysis software 'SmartPLS 3'.

The questionnaire questions started with the most natural questions, moving forward and deeper to the relatively tricky questions. The question sequence was defined precisely and carefully prepared in a way that considerably reduced the chances of individual questions being misunderstood (Saunders et al., 2009). Also, the sequence of questions was consistent with the theoretical framework and the development of ideas (Kothari, 2004). The questions were clearly articulated and moved smoothly from one idea to another to conform to the participants' logic and way of thinking.

The Perception1 (P1) element of the TM represents the two key groups of obstacles (technical and behavioural) that may arise from the lack of IFRS knowledge (education, training, and experience), the impact of the previous socialist accounting culture, legislation conflict, unstable political, economic and security environment and unplanned transitional process. The first and second questions were designed to examine to what extent the technical and behavioural obstacles, respectively, could adversely affect the efficiency of the application of IFRS. The next three questions were formulated to investigate the extent of the professional and ethical commitment of the professional bodies (PB), which represent the Perception2 (P2) element of TM. The professional and ethical responsibility of PB (CBI, CPMAAI, and IACPA) emerged from their role in the obligation of the Iraqi banking sector to apply IFRS, where the CBI asserts coercive pressure and both the CPMAAI and IACPA assert normative pressure. Then, the sixth

and seventh questions represent the judgement element of TM. They were formulated to examine to what extent the PB could assist professional accountants' judgement to overcome technical and behavioural obstacles, respectively. The next three questions (8, 9, and 10) were formulated to assess the quality of financial statements for the Expedient Pathway, the Ruling Guide Pathway (A), and the Ruling Guide Pathway (B), respectively. Finally, the last four questions were formulated to discover the participants' demographic information; qualification(s), experience, occupation, and gender, respectively (see appendix C). Table 5.8 below shows the relationship between the questionnaire questions, the Throughput Model elements, the research variables, and their abbreviations in a logical sequence.

*Table 5.8 Matching Between Question No., the TM Elements, Factor Names, and Abbreviations*

<b>Question No.</b>	<b>TM element</b>	<b>Factor name</b>	<b>Abbreviation</b>
1	Perception (P1)	Technical obstacles	TO
2	Perception (P1)	Behavioural obstacles	BO
3	Perception (P2)	The Central Bank of Iraq	CBI
4	Perception (P2)	Council of Profession Monitoring and Auditing of Accounting in Iraq	CPMAAI
5	Perception (P2)	The Association of Certified Public Accountants	IACPA
6	Judgement (J)	Overcoming Technical Obstacles	OTO
7	Judgement (J)	Overcoming Behavioural Obstacles	OBO
8	Decision choice (D1)	Poor financial statements quality	PFSQ
9	Decision choice (D2)	Medium financial statements quality	MFSQ
10	Decision choice (D3)	High financial statements quality	HFSQ

The questionnaire was developed in English then translated into Arabic because this study was conducted in the UK, whereas the survey was administered in an Arab country, Iraqi, using both the Arabic and English languages. Thus, translation was crucial and required high attention to reducing the risk of bias, as mentioned by Oppenheim (2000).

Considerable care was taken with the wording and translating of every single question, to ensure they would not be misread, and so enhance the validity of the responses. As cited in Saunders et al. (2009), Usunier (1998) suggests four aspects that should be addressed and taken into consideration when translating the source questionnaire to the target questionnaire: lexical meaning; idiomatic meaning; experiential meaning; and grammar and syntax. As well, he indicates four techniques for carrying out the translation: direct translation; back-translation; parallel translation; and mixed techniques. Mixed techniques were adopted in the present research, to ensure the best match between the Arabic and English questionnaires (Saunders et al., 2009).

Before the pilot study, I translated the questionnaire and discussed both copies with three PhD students at Hull University, all of Arab origin (one from Iraq and two from Saudi Arabia) individually, then passed both copies to an Arabic linguist. After receiving feedback from the pilot study's participants, five questions were removed, and other questions amended, and the new versions were both checked in the same manner. In addition, the questionnaire was reviewed by an Iraqi linguist who specialised in Arabic and was familiar with UK English.

## 5.12 Measurement Scales and Coding

Two different measurement scales were employed: nominal and ordinal. A nominal scale was used to code gender (1=Male and 2=Female), whereas ordinal scales were utilised to measure qualification, experience, and occupation, and for the Likert scales.

The qualification measurement scale was ordered based on the interview findings on IFRS education in the Iraqi educational environment. The occupation measurement scale was ordered based on participants' ability to support the application of the IFRS in the Iraqi business environment. The experience scale was formulated based on five-year

intervals. Finally, a Likert scale from (1) strongly disagree to (7) strongly agree was used for responses to the items measuring the research constructs, see Table 5.9 below.

*Table 5.9 Ordinal Measurement Scales*

Ordinal Scales							
Experience	Code	Likert scale	Code	Qualification	Code	Occupation	Code
Less than 5 years	1	Strongly Disagree	1	BA	1	Professional	1
5 to 9 years	2	Disagree	2	Masters	2	Academic	2
10 to 14 years	3	Disagree Somewhat	3	Ph.D.	3	Auditor	3
15 to 19 years	4	Neutral	4	CPA	4	Auditor, Academic, & Professional	4
20 to 24 Years	5	Agree Somewhat	5	Ph.D. & CPA	5		
25 to 29 years	6	Agree	6				
30 years and more	7	Strongly Agree	7				

Coding is the process of allocating numbers, and/or characters, to categories in a way that facilitates measurement (Saunders et al., 2009). Hair Jr et al. (2017) recommended researchers to code in an equidistant manner, especially when using the Likert scale in survey research and applying multivariate analyses (Hair Jr et al., 2017; Pallant, 2013).

Hence, a unique numerical code was given to each participant (C-1, C-2, ..., C-115) before entering the data into SPSS and Smart-PLS. Also, the questionnaire questions were coded according to the research variables and the logical sequence, for instance, the first question examines the technical obstacles. Thus, it was coded TO, so sub-question 1 was coded TO\_1, and so on.

### 5.13 Pilot Study

It was unlikely that there would be more than one opportunity to collect quantitative data. In particular, I could not go back to the participants to collect additional data using another questionnaire. Therefore, a pilot survey was necessary; such a study is advised by the vast majority of writers on research methodology and design (e.g., Creswell, 2014; Kothari, 2004; Saunders et al., 2009; Swanson & Holton, 2005).

The pilot study is a rehearsal and replica of the primary survey (Kothari, 2004). It is the best tool to highlight the most critical aspects in the questionnaire, such as to what extent the questionnaire questions are understandable, clearly worded, accurate, and in a logical sequence, coherent, and consistent. Also, it is an occasion to determine the population and sampling, the kind of analysis software required to analyse the raw data and test it, and the most appropriate website to conduct an online questionnaire. Moreover, it is an opportunity to assess the average time required for completion, review the questionnaire structure, and the factors tested.

The pilot study lasted a month, from 17<sup>th</sup> February 2017 till 18<sup>th</sup> March 2017 and twelve participants took part. Initially, the target professional bodies for this study were the CBI, FBSAI, CPMAAI, and IACPA. However, the FBSAI was removed from the investigation range after the pilot study revealed that governmental banks would not apply IFRS. Also, the questionnaire questions were reviewed and compared with the research questions, objectives, hypotheses, and the TM pathways, by three PhD accounting researchers, two of whom were familiar with the TM and in the final year of their research.

Three phone-interviews and an e-mail interview were conducted to obtain feedback on the questionnaire. The secretary of the IACPA indicated that the Iraqi governmental banks would not apply these standards, because the law under which those banks were established states that the unified accounting system and local standards should be applied. Those banks objected to the adoption decision in the Federal Supreme Court, and they won the case (Ph-I.04). Thus, Iraqi governmental banks were excluded from the questionnaire population. Ph-I.10, the member of transition committee, indicated that Islamic banks are included in the adoption decision, even though such banks should apply Islamic Accounting Standards according to the Islamic Banking Law No. 43 of 2015.



This prompted me to request an interview with a Chief Financial Officer (CFO) or Chief Executive Officer (CEO) of an Islamic bank. Ph-I.22 as the CEO assistant of the Iraqi Islamic Bank of Investment & Development asserted that all private sector banks should apply the IFRS starting from the financial statement of 2016, but this application is limited to the presentation of financial statements and is *“not actual application”*; actual application means applying IFRS on a daily basis from A to Z, because the current application is not on a daily basis to record financial events. This means the adoption decision is not actual application (Ph-I.22). Moreover, he was a member of the drafting committee of the Islamic Banking Law, and he attended the second and last reading sessions in Parliament. He asserted that *“yes, there is a default by the Central Bank regarding the application of Islamic accounting standards. Currently, for the first time, the CBI oblige us to apply the IFRS and ignore the Islamic accounting standards. Also, we cannot apply both of them simultaneously”* (Ph-I.22).

#### 5.14 Administration of Questionnaire

Since the questionnaire was self-administered, it was posted via e-mail to predefined respondent categories: External auditors, Academics, and CEO/CFOs of the Iraqi private banking sector. It lasted around a hundred days; it was opened on 19<sup>th</sup> March 2017 and closed on 30<sup>th</sup> June 2017.

As I am a Certified Public Accountant and a member of the Iraqi Association of Certified Public Accountants (IACPA), I have access to all Iraqi external auditors (a total of 232 auditors; 210 males and 22 females)<sup>68</sup> through the ‘Auditors’ Bulletin for 2017’, which includes the auditors’ names, licence numbers, office addresses, e-mail, and telephone numbers. As well, the secretary of the IACPA circulated the questionnaire to

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<sup>68</sup> Note that approximately 91% of the external auditors of the research population were male.

all external auditors. Also, as I am a faculty member of the Accounting Department, Al-Mustansuryah University, I have access to the faculty members at that university, as well as personal relationships with staff in some other universities. Thus, I contacted them and sent the questionnaire via email, in addition to social media, such as WhatsApp, Messenger, and Viber. Moreover, I sent emails to all Iraqi private banks (24 Investment and 16 Islamic banks), whose contact details such as email address and phone number are presented on the official website of the Central Bank of Iraq (<https://cbi.iq/page/23>).

### **The questionnaire invitation letter:**

An invitation letter was sent via email to the prospective participants, which included the essential information about the research topic, objectives, theory being tested, variables, the confidentiality and anonymity of the participants. It clarified that participation was voluntary, the research was sponsored by the Ministry of Higher education of Iraq, and the average expected time to complete the questionnaire was 15 minutes. It also pointed out the expected social benefits of the research and gave an assurance that this research was guided by the Hull University ethical code. Also, it was clarified that there would be no risk from the participation of this study and by completing this questionnaire they consented to their participation (see Appendix C).

### **5.15 The Questionnaire Sample and Demographical Features**

The population is the set of all cases of attention. Determining the population's size, individuals, means, and the accessibility of sampling frames are significant issues in social science inquiry (Creswell, 2014). Predefining of the research population is the most crucial part in non-experimental research to investigate the relationships between dependent, independent, moderating and mediating variables under a variety of elaborate

precautions, to ensure the achieving of a representative sample (Tabachnick & Fidell, 2014).

The questionnaire population was identified based on the interview findings. These revealed that the application of the IFRS is mandatory only for the private banking sector. Thus, the population was limited to the external auditors, academics, and CEO/CFOs of the Iraqi private banking sector. The academics were involved in this project according to their ethical responsibility, especially since the adoption decision, and the CBI conducts several conferences with several academics from Baghdad University and Al-Mustansuryah University (Ph-I.08). Also, a shared letter signed by the Federal Board of Supreme Audit of Iraq, the Iraqi Board of Accounting and Auditing Standards, and the Iraqi Association of Certified Public Accountants was sent to the Ministry of Higher Education that asked the latter to exert pressure on the Iraqi universities to introduce the IFRS within their curricula (Ph-I.12).

In order to ensure representativeness, I took a census of the population and worked to collect data from every possible case. Since the questionnaire was self-administered using the website "<https://www.esurveycreator.co.uk>", it was posted via e-mail to predefined response categories. Moreover, in order to analyse the empirical data via SmartPLS 3 software, I had to ensure at least the minimum sample size. According to Hair Jr et al. (2017:24), as a 'rule of thumb', "*the minimum sample size should be 10 times the maximum number of arrowheads pointing at a latent variable anywhere in the PLS path model*". As shown in Table 5.10 below, based on this principle, the minimum sample size was 80 cases, taking into consideration that alternative form questions (1.6, 2.1, and 7.1) were removed from the table and statistical analysis.

Table 5.10 Number of Indicators for Each Construct

Construct	Number of Indicators	Sample size
TO	6	60
BO	8	80
CBI	7	70
CPMAAI	7	70
IACPA	7	70
OTO	6	60
OBO	8	80
PFSQ	6	60
MFSQ-TO	6	60
HFSQ	6	60
<b>Minimum sample size</b>		<b>80</b>

The online questionnaire survey was sent to all possible cases, 342, of whom 115 respondents responded, but one of these was counted invalid (see “suspicious response patterns” sub-section 7.1.2.2 in Chapter Seven). Thus, the total valid cases after screening the data were 114 cases, see Table 5.11 below.

Table 5.11 Population and Sampling

Description	Population	Sample	%
CPA	232	<b>114</b>	<b>33.33%</b>
Academics	70		
Banks	40		
<b>Total</b>	<b>342</b>		

Four demographic features (qualification, experience, occupation, and gender) were analysed via IBM-SPSS 24. As shown in Table 5.12 below, the majority of participants, approximately 87%, held high qualifications (PhD, CPA, and both PhD and CPA). Participants who had a CPA certificate were the highest percentage, 49%, followed by participants who had both PhD and CPA, 24% and PhD, 14%. Nine per cent of participants had a master’s degree and the lowest percentage, 4%, had a BA.

Table 5.12 Participants' Qualification

Qualification				
		Value	Count	Percent
Valid Values	1	BA	5	4%
	2	Masters	10	9%
	3	Ph.D.	16	14%
	4	CPA	56	49%
	5	PhD and CPA	27	24%

As shown in Table 5.13 below, the majority of participants had high experience. Approximately 78% of participants had experience of 10 years and more, while 18% of participants had experience of 5-10 years, and just 4% of participants had experience of less than 5 years.

Table 5.13 Participants' Experience

Experience				
		Value	Count	Percent
Valid Values	1	Less than 5 years	4	4%
	2	5 to 9 years	20	18%
	3	10 to 14 years	25	22%
	4	15 to 19 years	25	22%
	5	20 to 24 Years	9	8%
	6	25 to 29 years	7	6%
	7	30 years and more	24	21%

As shown in Table 5.14 below, the external auditors were the highest percentage of participants by occupation, 35%, followed by 31% of participants who had two or more occupations, such as auditor and academic, auditor and professional, or academic and professional. In other words, the percentage of response would be at least 43% rather than 33%; 35 participants had at least two occupations, which means they were equivalent to 70 participants. In this case, the total respondents are 149 (114 plus 35).

The academics came in the third position, with 20%, followed by 14% who were professionals (CEO, CFO, Banking Consultant, General Director - the Central Bank of Iraq, and the Chairman of the Iraqi Securities Commission).

*Table 5.14 Participants' Occupation*

Occupation				
		Value	Count	Percent
Valid	1	Professional	16	14%
Values	2	Academic	23	20%
	3	Auditor	40	35%
	4	Auditor, Academic, & Professional	35	31%

Finally, the vast majority of participants were male, 81%, whereas 19% were female, as shown in Table 5.15 below. Taking into consideration that approximately 91% of the target population is male and 9% female, this means the female participation ratio is 71% ( $22/(342*0.09)$ ), and that of males is 29% ( $92/(342*0.91)$ ).

*Table 5.15 Participants' Gender*

Gender				
		Value	Count	Percent
Valid	1	Male	92	81%
Values	2	Female	22	19%

## 5.16 Structural Equation Modelling (SEM)

Hair Jr et al. (2017) highlight two generations of analysis used in social science research. In the first statistical analysis generation, researchers utilised univariate and bivariate statistical analysis to understand the relationships between variables. For exploratory inquiry, researchers used cluster analysis, exploratory factor analysis, and multidimensional scaling, while, for confirmatory inquiry, researchers utilised variance analysis, logistic regression, and multiple regression.

However, given the complexity of current research, especially in the social science disciplines, the need arose for more sophisticated multivariate statistical analysis techniques, termed second generation statistical analysis. For instance, researchers employ variance-based, Partial Least Squares - Structural Equation Modelling (PLS-SEM) for exploratory inquiry and Covariance-based Structural Equation Modelling (CB-SEM) for confirmatory inquiry (Hair Jr et al., 2014; 2017). When researchers seek to test hypotheses related to existing concepts or theories, they will adopt a confirmatory inquiry (CO-SEM), while, when they are seeking to discover “*latent patterns in the data in case there is no or only little prior knowledge on how the variables are related*” (Hair Jr et al., 2017:3), they will adopt an exploratory inquiry (PLS-SEM).

Hence, as this research is an exploratory inquiry, I employed PLS-SEM as the best and most robust statistical technique to estimate path models (Rodgers & Guiral, 2011). Moreover, this technique has superior analytical power compared to regular correlation and regression (Hair Jr et al., 2017). Furthermore, according to Hair Jr et al. (2014):

“PLS-SEM is capable of estimating very complex models. For example, if theoretical or conceptual assumptions support large models and sufficient data are available (i.e., meeting minimum sample size requirements), PLS-SEM can handle models of almost any size, including those with dozens of constructs and hundreds of indicator variables” (Hair Jr et al., 2014:24).

SEM is a combination of multiple regression and exploratory factor analysis (Schreiber et al., 2006). It is a second-generation technique with greater flexibility and substantial advantages over the first-generation techniques, for instance, discriminant analysis, factor analysis, principal components analysis, and multiple regression. SEM’s flexibility allows researchers to assess the overall consistency between data and theories or hypotheses by simultaneously testing a series of hypothesized relationships between the independent variable(s) and the dependent variable(s) including mediating and/or

moderating variables, in a much more straightforward method than with other traditional methods (Blanthorne et al., 2006; Chin, 1998b; Hair Jr et al., 2014; 2017; Lee et al., 2011; Tabachnick & Fidell, 2014). Also, “*SEM allows researchers to control for measurement error when using latent constructs*” (Blanthorne et al., 2006:180). Moreover, SEM assists researchers to simultaneously examine modelled path coefficients between the hypothesised model and the dataset.

According to Lee et al. (2011), SEM is a union of two potent approaches; path analysis and factor analysis, which simultaneously evaluates a comprehensive measurement model. SEM improves the theoretical understanding of a study that results from the careful consideration of both indirect and direct effects, which leads to a better explanation of the dependent variables. By contrast to the normal regression model, that requires each hypothesis within a mediated model to be tested through utilising separate regressions (a multi-step process), in more complex models, use of SEM is more valuable, because both indirect and direct variables are evaluated together in a comprehensive model. Moreover, SEM can directly (in one step) measure latent variables (constructs) that cannot be measured directly in a normal regression analysis.

As mentioned previously, two approaches are employed in estimating the SEM relationships in social science research: PLS-SEM and CB-SEM (Hair Jr et al., 2014; 2017). Hence, it is worth understanding and distinguishing the characteristics and objectives of these two approaches, because each approach has different characteristics that make it suitable for a specific research context (Hair et al., 2012c).

PLS-SEM enables researchers to estimate path modelling and examine the relationships between latent variables (Lee et al., 2011), especially when theories are less developed, and scholars are seeking to explore and predict the critical constructs of their



research phenomena (Hair Jr et al., 2017). In contrast, CB-SEM enables researchers to test theories or hypotheses to confirm theory, and/or compare between alternative theories when the critical objective of researchers is to explain the target constructs (Hair Jr et al., 2017).

Conceptually, the way in which the latent variables are treated crucially differs between CB-SEM and PLS-SEM. According to Hair Jr et al. (2017:15), “*PLS-SEM constitutes a composite-based approach to SEM, which relaxes the strong assumptions of CB-SEM that all the covariance between sets of indicators is explained by a common factor*”. PLS-SEM utilises ‘proxies’ to represent the interest constructs. Meanwhile, accounting for measurement error is facilitated by utilising weighted composites of indicator variables, “*making PLS-SEM superior compared with multiple regression using sum scores*” (Hair Jr et al., 2017:15), which assumes an equal weighting of indicator variables.

The estimation technique of PLS-SEM is a regression-based technique, “ordinary least squares (OLS)”, while the estimation technique for CB-SEM is a maximum likelihood (ML) technique (Hair Jr et al., 2014:14). “*PLS-SEM estimates coefficients (i.e., path model relationships) that maximise the R<sup>2</sup> values of the (target) endogenous constructs. This feature achieves the prediction objective of PLS-SEM. PLS-SEM is, therefore, the preferred method when the research objective is theory development and explanation of variance (prediction of the constructs). For this reason, PLS-SEM is regarded as a variance-based approach to SEM*” (Hair Jr et al., 2017:17).

In the meanwhile, it is worth noting that PLS-SEM is not equivalent to PLS-regression. Admittedly, both are regression-based approaches and multivariate data analysis techniques that investigate the linear relationships between dependent and

independent variables. However, PLS-SEM, unlike PLS-regression; depends on a network of predetermined paths of relationships between constructs themselves and between constructs and their measures<sup>69</sup> (Hair Jr et al., 2017).

It seems that there is considerable misunderstanding, whether intended or unintended, by Rönkkö et al. (2016:9-10) when they state that;

“Partial least squares (PLS) has become one of the techniques of choice for theory testing in some academic disciplines, particularly marketing and information systems, and its uptake seems to be on the rise in operations management (OM) as well (Peng & Lai, 2012; Rönkkö, 2014).”

In contrast, Vinzi et al. (2010a) and Hair Jr et al. (2014; 2017) more than once, clearly indicated that PLS-SEM is a suitable estimator for path modelling when “theories are less developed”; in other words, it may be utilised to develop theory, not to test a theory. If some researchers misused this tool, that should not be counted as a drawback of the tool itself. Moreover, Rönkkö et al. (2016:9-10) second sentence, “*The PLS technique is typically presented as an alternative to structural equation modelling (SEM) estimators (e.g., maximum likelihood)*”, can be considered highly misleading, because PLS is not an alternative to SEM. Simply, PLS is an approach to SEM (Chin, 1998b; Hair et al., 2012a; Hair Jr et al., 2014; 2017; Henseler et al., 2014; Lee et al., 2011). According to Lee et al. (2011:307), “*the component-based approach of PLS has also considered a SEM technique*”. It is clear that Rönkkö et al. (2016) did not differentiate between PLS-SEM & CB-SEM or they do not like to admit that PLS is an approach to SEM (Henseler et al., 2014).

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<sup>69</sup> For more details regarding the differences between PLS-SEM, CB-SEM, and PLS-regression see Lee et al. (2011) table 1, page 308.

## 5.17 Path Modelling

A path model is a diagram that is utilised to show visually the relationships between constructs (hypotheses) and the relationships between the constructs and related indicators (Hair Jr et al., 2017). The path modelling of PLS-SEM includes two components: a structural model and a measurement model (Hair Jr et al., 2017).

The structural model (inner model) labels the relationships between constructs. Mainly, the sequence and the relationship between constructs should be considered when developing a structural model based on the research hypotheses, logic, and theory (Hair Jr et al., 2017). The independent variables are placed on the very left of the structural model; these are the perceptual elements (in this case the CBI, CPMAAI, and IACPA, whereas the dependent variables are placed on the very right side; decision-choice elements (PFSQ, MFSQ, and HFSQ). However, there are other endogenous latent variables that act as mediators between the perceptual elements and decision-choice elements of the Throughput Model. In the Ruling Guide Pathway, the judgement elements (which overcome technical and behavioural obstacles) are mediators that work as both dependent and independent variables (Hair Jr et al., 2017).

The measurement model labels the relationships between the constructs and their pointed indicators (outer-model). There are two main kinds of measurement model: reflective and formative (Hair Jr et al., 2014; 2017; Lee et al., 2011; Vinzi et al., 2010a). In a reflective measurement model, the direction of arrows is from constructs to their indicators. Indicators associated with a specific construct should be interchangeable and strongly interrelated with each other and removing any indicator should not affect the mean value of the construct. In contrast to the reflective measurement model, in a formative model the direction of arrows is from indicators to constructs, which is labelled Mode B measurement in SmartPLS 3 (Hair Jr et al., 2017). Formative indicators are non-

interchangeable, and each indicator captures a particular aspect of the construct domain. As a consequence, those indicators jointly determine the meaning of the latent variable, and its nature will be altered in the case of omitting an indicator (Hair Jr et al., 2017; Vinzi et al., 2010a).

### 5.18 Partial Least Squares - Structured Equation Modelling (PLS-SEM)

PLS-SEM has been employed extensively in psychology and social science research, especially in business disciplines such as management and marketing (Hair et al., 2012c; Hair Jr et al., 2017; Henseler et al., 2014; Lee et al., 2011; Nitzl, 2016; Rönkkö & Evermann, 2013; Sarstedt et al., 2014; Yovel et al., 2008). However, recently, it has been the subject of extensive debate regarding its advantages and disadvantages, and under which circumstances it should be implemented. Hence, researchers have been split into two groups between supporters and non-supporters of PLS-SEM (Peng & Lai, 2012).

Researchers who support using PLS-SEM claim that it can estimate path models by using a small sample size, cope with non-normal distribution assumptions, and focuses on prediction. It is useful in cases of model complexity, exploratory research, formative measures, theory development, and use of categorical variables, ensures convergence, can be applied for theory testing, copes with interaction terms, and has the ability to simultaneously model both formative and reflective constructs (Hair et al., 2013; Hair et al., 2012b; Hair et al., 2012c; Hair Jr et al., 2014; 2017; Henseler et al., 2014; Peng & Lai, 2012; Ringle et al., 2012; Rodgers & Guiral, 2011). By contrast, researchers who oppose employing PLS-SEM cite reasons such as bias in parameter estimates, the gradual nature of the overall research model estimation, and incapability to model measurement errors (Rönkkö & Evermann, 2013).

Henseler et al. (2014) contend that the purported weaknesses of PLS-SEM mentioned by Rönkkö and Evermann (2013) are not due to problems with the PLS-SEM technique itself. Rather, there are three problems with Rönkkö and Evermann's (2013) study: the strict adherence to the common factor model, overstretched generalisations, and the limitation of simulation designs.

Henseler et al. (2014) refute Rönkkö and Evermann's (2013) allegations and demonstrate that PLS-SEM is a practical estimator for composite factor models and offers advantages for exploratory inquiry. They also conclude that *"PLS should continue to be used as an important statistical tool for management and organizational research, as well as other social science disciplines"* (Henseler et al., 2014:182).

Lee et al. (2011) explain the benefits of employing PLS-SEM in accounting research and make a comparison between PLS-SEM and CB-SEM results. Then they show how the PLS-SEM algorithm *"allows researchers to analyze the measurement model simultaneously with the structural model and allows researchers to adopt more complex research models with both moderating and mediating relationships"* (Lee et al., 2011:305). It works to estimate the structural and measurement model. In turn, they offer guidelines for accounting research in the development of models, data analysis, and interpretations when using PLS-SEM. Hence, researchers may consider three aspects when deciding to apply PAS-SEM: data characteristics, model characteristics, and model algorithm and evaluation (Hair et al., 2011; Hair et al., 2012c; Hair Jr et al., 2014; 2017).

### **5.18.1 Data characteristics**

PLS-SEM has the ability to work efficiently with small sample sizes and complex models. Several scholars have apparently assumed that *"there is some "magic" in the PLS-SEM approach that allows them to use a tiny sample (e.g., less than 100) to obtain*

*results representing the effects that exist in a population of several million elements or individuals”* (Hair Jr et al., 2017:22). However, they challenge this misrepresentation of sample size.

SmartPLS software, like any statistical method, requires considering the sample size based on the data characteristics and model background. The recommended sample size when using PLS-SEM is based on the characteristics of ordinary least squares (OLS) multiple regression, which may rely on one of two options: the rule of thumb or use of a program such as G\*Power.

PLS-SEM is a non-parametric method; there are no assumptions regarding the underlying data such ‘no distributional assumptions,’ unlike CB-SEM, which requires the data to be normally distributed (Hair Jr et al., 2014; 2017). In cases where missing values are below a reasonable level, the PLS-SEM is a highly robust statistical technique. Moreover, PLS-SEM can work efficiently with a variety of measurement scales, such as metric data, ordinal or quasi-metric scale data, and binary coded variables under certain restrictions. However, there are several limitations in the case of measuring endogenous latent variables using categorical data (Hair Jr et al., 2014; 2017).

### **5.18.2 Model characteristics**

PLS-SEM can easily handle several indicators or ‘multi-items’ in each construct of both formative and reflective measurement models, and there are no identification problems with single-item constructs. Moreover, PLS-SEM can handle a highly complex model that has many structural relations. However, the basic form of PLS-SEM has some limitations. It is not realistic when there are circular relationships, ‘causal loops’, between the latent variables, which means circular relationships are not allowed when using PLS-SEM (Hair Jr et al., 2014; 2017). Furthermore, if PLS-SEM is employed for theory

testing, its confirmatory power is limited, because “*PLS-SEM does not have an adequate global goodness-of-model fit measure*” (Hair Jr et al., 2017:18). By contrast, the statistical methods of CB-SEM are based on “*the goodness-of-fit between a covariance matrix determined by the predicted model versus the covariance matrix empirically determined by the population, as represented by the sample data*” (Lee et al., 2011:307) and the main objective of the estimation model of CB-SEM “*is maximizing the reproduction of the covariance among variables and explaining the covariation of all the indicators*” (Lee et al., 2011:307). However, the primary objective of PLS-SEM is “*to obtain the parameter estimates for the prediction of the variances of the latent and manifest variables in the model*” (Lee et al., 2011:307).

Previously, the PLS-SEM algorithm efforts were to obtain the best loading/weighting estimates for each indicator pointed to each construct, which emphasise maximisation of the explanation of the variance of dependent variables by independent variables (Lee et al., 2011), through producing a composite variable that represents the latent variable (Chin, 1998b). However, after the updating of the PLS-SEM algorithm framework employed in SmartPLS 3 software, goodness-of-fit measures are developed that are equivalent to the goodness-of-fit measures of the CB-SEM (e.g., Hair Jr et al., 2017; Henseler et al., 2014; Rigdon, 2014). For instance, Henseler et al. (2014) measured the squared discrepancy between the model-implied correlations and the observed correlations, through establishing the Standardised Root Mean Squares Residual (SRMR) as a means to confirm a model, which is implemented in the SmartPLS 3 software (Hair Jr et al., 2017).

In general, PLS-SEM parameter estimates are not ideal regarding consistency. This characteristic may erroneously be referred to as PLS-SEM bias. Regarding this characteristic, the differences between CB-SEM & PLS-SEM are very small, especially

when indicator loadings are 0.7 or more and the number of indicators is four or more. Practically, there is no difference between PLS-SEM and CB-SEM regarding the accuracy of the parameters and the difference of parameter estimates resulting from the divergence of treatment (composites vs common factors) of construct measures. Thus, PLS-SEM should not be considered as biased (Hair Jr et al., 2017). Moreover, the last update of the PLS-SEM algorithm, in SmartPLS 3, has corrected the differences between PLS-SEM and CB-SEM (Hair Jr et al., 2017).

### **5.18.3 Model algorithm and evaluation**

Understanding the PLS-SEM algorithm is the key to understanding the measurement model and structural model estimates that will lead to acceptance or rejection of the research hypotheses. These estimates result from the integration of three techniques: Ordinary Least Squares (OLS) regression, path analysis, and principal composite analysis (Hair Jr et al., 2017; Lee et al., 2011; Vinzi et al., 2010a)<sup>70</sup>. The principal aim of the PLS-SEM algorithm is to maximise the values of  $R^2$  of endogenous constructs and their prediction (Hair Jr et al., 2017). In this regard, the model assessment or evaluation of the current study is discussed in Chapter Seven, section eight.

## **5.19 Ethical Considerations**

Research ethics are associated with the appropriateness of a researcher's procedures and behaviours regarding the participants' rights, particularly in relation to formulating questions, designing research, obtaining access, data collection, data analysis, and storing of the data, as well as presenting the findings in a moral and proper way (Saunders et al.,

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<sup>70</sup> For more details regarding the SmartPLS algorithm, see Chapter 3 for Hair Jr et al. (2017:81-102).



2009). Business research ethics could be described as codes of values, written or unwritten that regulate the researcher's actions (Garima, 2014).

### **5.19.1 Research value ethics**

A mixed ethical paradigm was followed in this practical applied research to ensure the consistency between the philosophical and ethical paradigms; Utilitarianism, Deontology, and Virtue Ethics. The Utilitarian ethical paradigm is the moral motivation to conduct this research, through employing normative and consequentialist ethics that aim to maximise the utility of the financial statements in TDC, Iraq, when applying IFRS, exploring the obstacles to implementation of the IFRS, and finding suitable solutions to overcome these obstacles to enhance the quality of financial statements, this aim will be achieved, which is consistent with Utilitarian theory (Bentham, 1977).

However, a mixed ethical paradigm was needed to address the multiplicity of ethical issues that arose when conducting this research. Every philosophical position has its ethical challenges. In the first phase, the ontological stance of participants' opinions and perceptions may have affected their judgement, which in turn could affect the research outcomes. Also, the subjectivity in the interpretivist approach may lead to subjective, utilitarian results, which could be unethical. Thus, mixed methods solve this ethical challenge, by applying virtue ethics, as it focuses on the notion of the researcher's moral actions and integrity (Hammersley & Traianou, 2012; Wiles, 2013). Also, in the second phase, the objectivity of the positivist approach facilitated dealing with key ethical issues, such as integrity, honesty, transparency, justice and so on, raised during data collection. Business and management research ethics are linked with the suitability of an investigator's proceeding and behaviours concerning participants' rights (Saunders et al., 2009). In this study, attention was paid to ethical issues, starting from formulating the

research questions, moving into designing the research, obtaining access, data collection, data analysis, data storing, and writing up the findings morally and suitably.

Espousing a mixed-methods ethical paradigm minimises the researcher's bias and maximises stakeholders' well-being. A mixed ethical paradigm was deemed to be the most appropriate, as the associated ontology and epistemology assisted in achieving the research purposes. The ontology of incomplete reality might create new knowledge, which meets the needs of stakeholders when they are formulating their investment decisions based on financial statements. The related epistemology facilitates a better understanding of the research phenomena to answer the research questions. Furthermore, the mixed ethical approach promotes honesty and integrity and increases the reliability and relevance of data collection, to overcome any ethical issues that may arise during the research stages.

### **5.19.2 Ethical approval**

Gaining ethical approval was required before starting data collection for both research methods, interviews and questionnaire survey. After formulating the interview questions, the first ethical application was submitted on 22/06/2016, for face-to-face interviews. On 4<sup>th</sup> of July 2016, my supervisor, Professor Waymond Rodgers, requested me to contact Rachel Stephenson, the Director of Health and Safety Services, to fill the Itinerary Application for the purpose of the Security Risk Assessment. Thus, on 7<sup>th</sup> of July 2016, I met her, and she showed me the Iraqi risk assessment map. My destination was Baghdad, which is within a high-risk area in Iraq, but it is not a banned area, like some parts in the north and west of Iraq. Because of the risk, she encouraged me to use alternative facilities like a phone interview, and I appreciated this idea because it would save time and money, in addition to being more comfortable than face-to-face interviews for both me and

interviewees. Moreover, I already had their contact numbers and email address. Another factor was that in July and August, Iraq is very hot, and the temperature can reach 56°. Therefore, many people travel out of Iraq in the summer holiday and it would be very difficult to conduct face-to-face interviews, which would mean waiting till October.

Having discussed all these issues, I decided to move towards phone-interview rather than conducting face-to-face interviews. However, the application that I had submitted and obtained ethical approval for, was for a face-to-face interview. Therefore, I had to prepare a new plan, for phone-interview as a means of qualitative data collection. Professor Waymond Rodgers provided me with references for protocol analysis approaches for telephone-interviews (Rodgers, 2016b), and on 11/07/2016, I sent my phone interview plan (protocol).

Professor Rodgers accepted the plan, but he asked me to enrol on protocol analysis courses, including psychometric courses, cognitive psychology courses, and courses on multidimensional scaling and/or cluster analysis, which would help to generalize the phone-interview results, and follow the phone interview data analysis of previous literature. However, as it was the summer holiday, no courses were available, except “An Introduction to Qualitative Research” (Module No. 05011), which I had already taken. At the Graduate School, Dr Robert Costello told me there were no such courses available in Hull University, but he would look for them in other universities.

I returned to Professor Rodgers on 16<sup>th</sup> of July 2016 and explained the situation. I proposed to return to face-to-face interviews and arrange to travel from 30/09/2016 to 31/10/2016. After obtaining Professor Rodgers’ permission, I submitted a Research Itinerary Application form, which contained specific information my travel, i.e.

Day/Date, City, Activity, Residence and other contact details, Risk Mitigation Plan, Airline, Flight No., Departure, and Arrival.

However, on 27<sup>th</sup> of July 2016, I was informed that the Dean of the Faculty of Business, Law and Politics of the University of Hull decided that the risk associated with this travel outweighed the research benefit and therefore she did not support travel to Iraq. She advised that the research could be carried out by telephone interview as I had suggested earlier, to enable the project to continue without such a degree of risk.

I therefore agreed to go ahead with phone-interviews, whilst being aware of their strengths and weaknesses. I submitted a new application for phone-interviews on 4<sup>th</sup> of August 2016, and it was approved on 5<sup>th</sup> of August 2016 (see appendix A). Also, Professor Rodgers advised me that the questionnaire for the second phase should be online. Hence, I submitted the application for an online questionnaire on 13<sup>th</sup> February 2017, and it was approved on 7<sup>th</sup> March 2017 (see appendix B).

### **5.19.3 Adherence to ethical procedures**

This research was guided by the social code of ethics of the University of Hull, entitled "*Ethical Procedures for Research*" issued in September 2011, which stipulates the kind of behaviour that researchers in the Business School must follow when conducting their research. Mainly, this could be categorised into six categories: the participants' voluntary agreement to take part and being well informed regarding the research objectives; ensuring participants' safety; ensuring participants' privacy and confidentiality; avoiding deception of participants; no conflict of interest between researcher and participants; and avoiding researcher bias in formulating the research questions and selecting a database.

## Summary

The methodology chapter has discussed the research philosophical, methodological, and implementation issues. A pragmatist research philosophy was adopted in this practical applied research to answer the research questions and achieve the research objectives. An exploratory sequential mixed methods research design was adopted.

In the first phase, interview questions were formulated based on the research questions and previous literature. Three main question groups were classified based on interviewees' qualifications and occupations: questions for auditors, for academicians, and for the transitional committee and standards-setters. Twenty-one participants took part in semi-structured interviews to answer the first and second research questions and achieve the first and second research objectives.

Protocol analysis or the think-aloud technique was employed to enhance validity and reliability. Previous literature that employed this technique utilised Retrospective Think-aloud or Concurrent Think-aloud. However, in this research, the sequence, Retrospective Think-aloud → Concurrent Think-aloud → Retrospective Think-aloud was followed. All interviews were carried out in Arabic, then transcribed and seventeen interviews were fully translated into English, whereas four interviews were partially translated into English (just the quotations).

Thematic analysis was adopted to identify, analyse, and report patterns of meaning. A deductive thematic analysis approach was applied in this phase, to provide a more accurate and detailed account of the research phenomena. This approach is analyst-driven and mainly driven by the research theoretical framework.

QSR-NVIVO 10 a qualitative data analysis software was employed in the coding and analysis process. It helped in organizing and managing research materials, and to reduce the time consumed in analysis. The outcomes will be discussed in Chapter Six.

In the second phase, hypotheses were developed based on the interview findings and the TM pathways, and a questionnaire survey was carried out to test these hypotheses. One hundred and fourteen participants took part in the survey to answer the third and fourth research questions and achieve the third and fourth research objectives. The questionnaire was formulated in both Arabic and English.

Variance-based, Partial Least Squares - Structural Equation Modelling (PLS-SEM) was employed to test the research hypotheses. In doing so, SmartPLS 3 software was utilised for estimating path models. The outcomes will be discussed in Chapter Seven.

## Chapter 6 Interview Findings

### Overview

Following the methodology chapter, this chapter will address the interview outcomes in two sections. The first section presents the themes identified in the interview data, reflecting perceptions of legal, economic, professional and other factors that were seen to have influenced the ability to implement the IFRS adoption decision, and compares between the interview outcomes and previous literature. In so doing, it identifies new factors in this study that were not presented in previous literature, for instance, the security position. The second section presents a theoretical explanation of how the institutional environmental factors influence the implementation of IFRS, using Institutional theory within its three levels (global institutions, governance structures, and entities) and three kinds of isomorphic pressures (coercive, normative, and mimetic). The chapter structure is summarised in the table below:

*Table 6.1 Chapter Six Structure*

6	Interviews
6.1	Interview Findings Compared with Previous Literature findings
6.2	Interview Findings within Institutional Perspective
	Summary

## 6.1 Interview Findings Compared with Previous Literature Findings

The interviewees' answers discussed several elements that in their view lead private and mixed sector companies to continue with the IUAS rather than IFRS. They supported their opinions with several reasons. In this section, the key themes that emerged from the interview findings are presented and where relevant compared with previous literature findings. The discussion is presented in line with the order of the interview questions.

### 6.1.1 The legal system

Entities try to maintain legitimacy through compliance with enforced rules and regulations in order to be legally acceptable (Irvine, 2008). Everywhere, the legal system plays a crucial role in determining the type of accounting standards and practices. An example is the case of the European Union (EU) decision: the introduction of Regulation No. 1606/2002 (the IFRS Regulation), requiring EU listed firms to apply IFRS in order for member countries to integrate their economies with the global economy through unifying their accounting standards with IFRS in order to achieve the harmonization, comparability, transparency of financial reports and efficient functioning of the EU capital market (Brüggemann et al., 2013; Garrido-Miralles & Sanabria-García, 2014). This regulation requires European countries to reform their accounting and taxation regulations to be compatible with the IFRS requirements, such as in the cases of Belgium (see Jorissen, 2017) and Romania (see Albu et al., 2011b).

However, in many cases, the undemocratic nature of the decision to adopt these standards may create legal conflict between many constituencies, which may lead to low compliance with these standards (Zaman Mir & Shiraz Rahaman, 2005) and cause behavioural and technical obstacles. Moreover, in other cases, the legal system may



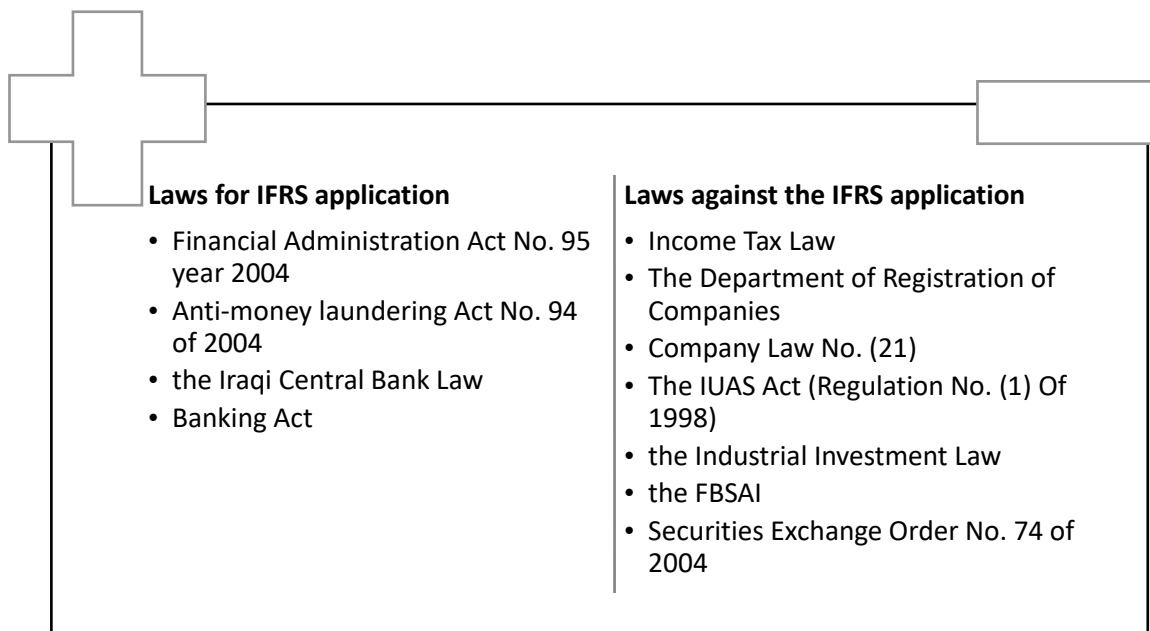
entirely prevent the application of the IFRS, out of a desire to preserve national sovereignty and privacy in national accounting standards and accounting practices (Ahmed et al., 2013). Thus, IFRS should be made an integral part of the national legal framework (Bhattacharjee, 2009). For instance, Brazil achieved full adoption of IFRS for the consolidated financial statements level and also for the subsidiary level through altering the Brazilians Company law and income tax legislation (Carvalho & Salotti, 2012).

The importance of the legal system as a predictor of differences in accounting standards between countries was noted by the International Accounting Standards Board (IASB). There are two primary types of legal systems: common law (developed through practice and relying on precedent) and code or written law. Common law countries have fewer restrictions on conversion to IFRS as compared to code law countries (Zehri & Chouaibi, 2013).

Iraq has a written legal system (Hassan et al., 2014) that profoundly governs and regulates the commercial and accounting activities in Iraq by enacting laws (see Chapter Two). Regarding the accounting practices, we should differentiate between the Iraqi banking sector and all other economic sectors; the application of the IUAS is mandatory in all Iraqi economic sectors, whether public sector, mixed sector, social sector, or private sector, except the banking sector. The latter sector suffers from two different directions of laws; the first direction in favour of the IUAS and the second direction in favour of the IFRS. A group of laws that were enacted before 2003 remain in force. Such laws were issued under the previous socialist political regime and economic system, which compelled the banking sector to apply the IUAS; the Regulation No. 1 of 1998, the Income Tax Law No. 113 of 1982, amended in 2003 and Keeping Accounting Records Regulation No.2, of 1985, amended in 2013. In contrast, another group of laws was issued

from 2004 onward, which require the banking sector to apply the IFRS, for instance, the Banking Act No. 94 of 2004 (Ph-I.05, 2016; Ph-I.12, 2016). See Figure 6.1 below.

*Figure 6.1 Legal Conflict*



Participants pointed to legal obstacles to the implementation of IFRS, including the continued authority of the IUAS, incompatibility of some laws with IFRS, and failure to take positive steps on harmonization of laws.

### **6.1.1.1 The application of the IUAS is mandatory**

The application of the IUAS is mandatory in the public, mixed and private sectors, according to Regulation No. 1 of 1998, which is still in force, as it has not been repealed or amended. Moreover, the amending of the IUAS in 2011 was understood as evidence of its continuing application (Ph-I.05, 2016; Ph-I.10, 2016; Ph-I.11, 2016; Ph-I.12, 2016; Ph-I.13, 2016; Ph-I.16, 2016; Ph-I.18, 2016; Ph-I.20, 2016). These points were clearly articulated by Ph-I.05:

“Because they are obliged to apply the Regulation No. (1) of 1998: the introduction of new laws in the year 2004 did not eliminate the relevant laws that were issued prior to that. I hope you note the absence of such a stipulation in the Financial Administration Act No. 95 of 2004. Yes, a new law abolishes an old law if it contains

text to that effect. However, the Regulation No. 1 of 1998 issued by the Ministry of Commerce is based on Article 207 of the Companies Act No. 21 of 1997, and this law is still in force, to this day. As well, perhaps the issuance of the IUAS amendment in 2011 is evidence of its continuation in force in public companies and private companies (Ph-I.05, 2016).

Furthermore, Ph-I.12 asserted that the IUAS is obligatory for all Iraq's economic sectors except the banking sector, the latter being exempted by the Iraqi Central Bank Law No. 56 of 2004, the Banking Law No. 94 of 2004, and the anti-money laundering and counter-terrorism Law No. 37 of 2016. The interviewee pointed out the role played by external pressure, explaining that these regulations recommended application of the IFRS in the financial sector, in general, and the banking sector in particular, to implement the requirements of the international organizations (i.e., the WB, the International Committee of Basel, and the Arab Monetary Fund) to support the stability of the global financial sector and global economy:

“There is no law or regulation in Iraq that obliges institutions and companies in public, mixed, and private sectors to apply the IFRS, except what is stated in the Iraqi Central Bank Law No. 56 of 2004, the Banking Law No. 94 of 2004, the anti-money laundering and counter-terrorism Law No. 37 of 2016 and before that was the Anti-money Laundering Act No. 93 of 2004. These laws confirmed the application of international accounting standards. The reasons for this are for the purpose of integration with the global economy and the application of international requirements imposed by the organizations and institutions that sponsor the banking business in the global economy. These organizations are the International Monetary Fund, World Bank, the International Committee of Basel, the Arab Monetary Fund (Abu Dhabi), the Monitoring Committee Arab Banks (Abu Dhabi), the Committee on Financial Stability, and other international organizations. As the economic crises experienced by the international economy and banking sector proved the importance of facing economic crises and redressing imbalances resulting from these crises” (Ph-I.12, 2016).

Ph-I. 20 indicated that the strength of any law comes from its deterrent force through sanctions imposed on violators, as such sanctions constitute the main force for application of these laws. However, the new legislation issued after 2003 did not have the same power as previous laws and there was no time limit set for applying the new system. As well, the application of the IUAS was never repealed:

“The laws and legislation that touched upon the application of international accounting standards, did not address the subject to the extent of creating a legal obligation, which would entail violating the legal sanctions that are usually determined by the laws and legislation in force. In addition, no time limit for the application was specified, with the exception of the last attempts of the Central Bank and the Association of Chartered Accountants. The Central Bank of Iraq is committed to applying the IFRS in the banking sector starting from the year 2016 as an initial trial. Moreover, there was a previous legal requirement to apply the Unified Accounting System, in public, mixed, and private sector companies, which started from 1982, and there is no explicit legal text to cancel the application of the IUAS in the laws issued after 2004 (Ph-I.20, 2016).

### **6.1.1.2 Conflict of laws**

All participants asserted that the conflict of laws was the major reason for non-application of the IFRS; they pointed out that the laws that impose the application of the IFRS conflict with a number of laws currently in force, specifically, the Income Tax Law, the Department of Registration of Companies, the Law on Industrial Investment for both mixed and private sectors, the FBSAI, and Company’s Act. Ph-I.17 illustrated the point with an example of the kind of conflict that existed:

“Yes, this is an important reason. Conflicts in some laws resulted from a lack of thought in the revision leading to this conflict in these laws. For instance, the Income Tax Act number (113) of 1982, the Law of Industrial Investment for both mixed and private sectors number (20) of 1998, and the companies Act number (21) of 1997 amended in 2004, and other laws issued by the Coalition Provisional Authority. There is a conflict between them, and they are not in line with IFRS, for example, the case of mandatory application of the historical cost principle and methods of assessment of investments and reservations” (Ph-I.17, 2016).

According to Ph-I.02, the impact of such conflict was to create ambiguity in the status of the new standards, causing companies to apply them or not, at their discretion:

“The laws issued in 2004 that mandated the application of the IFRS conflict with the last amendment of the IUAS in 2011, and companies are committed to applying this accounting system. This conflict in laws surely leads to non-application of these standards. As a result, companies have the right to apply or not apply these standards” (Ph-I.02, 2016).

Several interviewees suggested that the prevailing confusion needed to be remedied, and that the solution lay in enactment of new laws, as the following extracts illustrate:

“Many laws conflict with the application of the IFRS, including the Taxation Act, Company’s law, and Keeping Accounting Records Regulation. This conflict hinders the application of IFRS, and this requires necessary changes to be made to the legislation in force, to be aligned with the IFRS” (Ph-I.09, 2016).

“There are a number of enacted laws that prevent the application of international accounting standards, as the application of the IUAS is binding for all governmental agencies and enforced by the General Commission for Taxes (GCT) and the Department of Registration of companies (DRC), which require application of accounting regulations in accordance with the enforced laws. Therefore, it is necessary to modify the laws that conflict with the application of the IFRS, in order to allow its application” (Ph-I.12, 2016).

### **6.1.1.3 Lack of attention to harmony between the IUAS with IFRS**

Several participants were critical of the approach that had been taken in updating the IUAS, pointing out that insufficient thought had been given to the issue of harmonization with international standards. Indeed, in the view of participants, harmonization was not the aim of the amendment process, which was concerned only with overcoming problems due to omissions and ambiguities in the original version. It was to treat some mistakes of the previous version and add some accounts to the accounting chart that had not existed in the previous version, as explained in the extracts below:

“Sure. To begin with, the amendment that has happened is for the development of some of the accounts that did not exist in the previous version. The modernization project was not to bring the IUAS in alignment with international accounting standards. The stated goal of updating the Iraqi Unified Accounting System was not to harmonize with international standards, and there was no clear perspective of aligning with international accounting standards. Therefore, the IUAS with the new version failed and did not come in line with international standards. Also, there is no fundamental change in the Unified Accounting System, but it is a slight change to accommodate some of the accounts that did not previously exist in it. Thus, the new look of the IUAS, which was issued in 2011 is still far from alignment with the international accounting standards” (Ph-I.11, 2016).

“The last amendment of the IUAS came as a result of a need to update it to find tabs for accounts that were not found before, which sparked controversy in the tabulation, because of conscientiousness and to find accounting solutions to issues that arose, and then get closer to the IFRS without applying it in its entirety. If this update was to apply IFRS, that would mean yes, it failed, but if this update was to confront and to avoid mistakes in the old version, it has succeeded to some extent” (Ph-I.17, 2016).

The amendment committee did not take into account the harmonization process to ensure alignment with the IFRS, as acknowledged by Ph-I.12, who had been a member of it:

“Yes, the update came in 2011, and in fact, I was one of the participants in it. But, this update does not succeed in all its amendments, and for this reason, the IBAAS took it upon itself to undertake changes in this respect” (Ph-I.12, 2016).

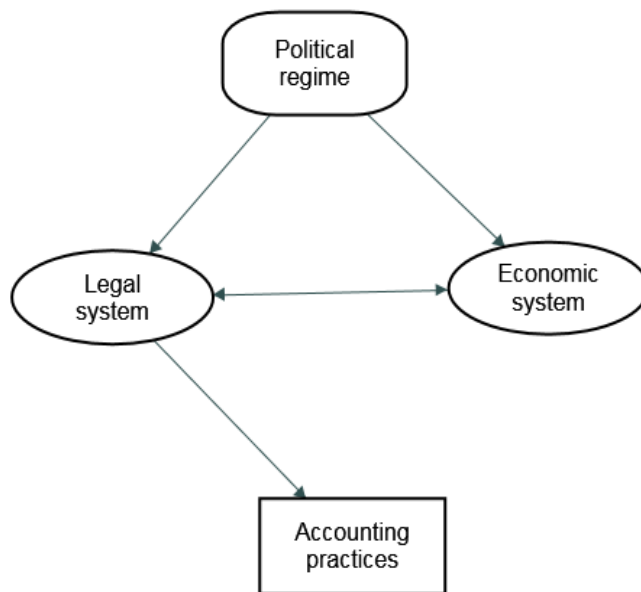
Furthermore, the vice president of the IACPA stated that the amendment was only partial and left many problems unaddressed:

“The amendments that took place at the IUAS were partial and did not address all the problems that the system suffered. Therefore, in my view, this amendment failed to achieve its goals. In addition, this was because it is basically not aimed to be harmonized with international standards” (Ph-I.09, 2016).

### **6.1.2 The political regime**

Al-Akra et al. (2009) asserted that the political and economic systems influence the legal system, culture, and the educational system, contributing to the differences in accounting patterns. Globalization simply is a political process (Bhattacharjee, 2009), and accounting standards are a product of a political system that reflects the government’s political ideology (Assenso-Okofu et al., 2011; Ph-I.02, 2016; Ph-I.16, 2016; Zehri & Chouaibi, 2013). Accounting standards-setting is a public-policy decision on a national level. Normally, a capitalist political regime aims to integrate the national economy with the global economy, for the purpose of reducing accounting information asymmetries, and to attract the investment decisions of foreign investors (Shima & Gordon, 2011). Hence, the political regime influences the legal and economic systems and shapes the accounting practices that serve its ideology through the enactment of legislation that serves its objectives and determines the accounting practices required. See Figure 6.2.

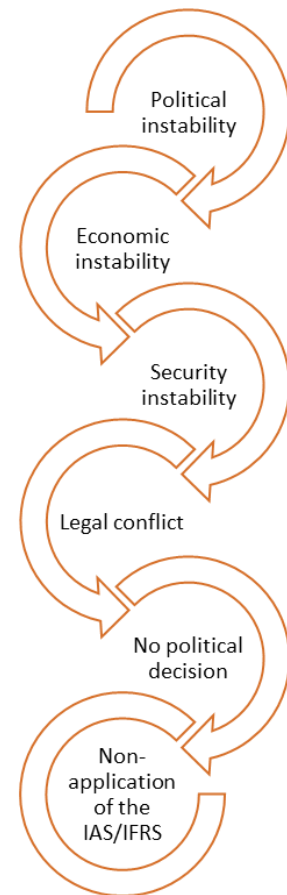
Figure 6.2 the political regime shapes the legal, economic systems, and accounting practices



Generally, the two main systems, capitalist and socialist, have shaped two different accounting cultures (Combs et al., 2013). In capitalist political regimes, accounting standards will be influenced by the microeconomic-oriented economy, the private sector. In this respect, the global accounting framework has been shaped by the International Accounting Standard Board (IASB), a private sector standard-setting body. In contrast, in socialist political regimes, accounting standards will be influenced by the macroeconomic-oriented economy the public sector. For this reason, in such systems, the national accounting standards of private sector entities are mainly governed by public bodies, as the FBSAI in the case of Iraq; the FBSAI controls the accounting practices in all economic sectors whether public, mixed, social, or private and controls professional organizations' work and duties (Ph-I.04, 2016; Ph-I.09, 2016; Ph-I.12, 2016). The FBSAI is still under socialist ideology, which leads professional accounting work to be more concerned with gathering financial information for taxation and statistical purposes, rather than meeting stakeholders' information needs, or linking the national economy with the global economy.

Political instability may occur after independence, which is the major factor that leads to economic, security, legal, and account instability (Assenso-Okofu et al., 2011), see Figure 6.3.

*Figure 6.3 The Impact of Political Instability*



Political stability will lead to economic and legal stability, and these three factors will be in one direction, to give a clear image of the state’s direction (Ph-I.16, 2016). However, the instability of the current Iraqi political regime has led to an absence of real steps toward switching to a capitalist economy and remove the legal conflict through changing laws that conflict with the application of the IFRS.

Also, the political instability leads to a lack of clarity or undeveloped political ideology regarding the shape of the economic system in the transitional period of transitional

developing countries (TDC). Ph-I.16 looked for answers to many questions and asserted that the political regime of TDC lacked experience and a clear ideology of how to shift from a socialist to a capitalist economic system, which was reflected in the implementation of the adoption decision, as shown in the extract below:

“Is the trend towards a capitalist system, or to stick to the former socialist system, or to create a new system by the alignment between these two systems? The truth is that the economic system in Iraq is not clearly defined, and this is caused by a lack of clarity in the direction of the political system. Iraq is still suffering and has not specified its way, to capitalism or socialism or a merger between them. Therefore, this is reflected in the application of international accounting standards” (Ph-I.16, 2016).

Hence, there was a perception that the current Iraqi political regime does not influence the application of the IFRS and is not concerned about it (Ph-I.16, 2016). The



Coalition Provisional Authority (CPA) changed the Iraqi banking sector law in 2004, but this law has not yet been activated, or is ignored. However, the World Bank (WB) and International Monetary Fund (IMF) exerted a coercive pressure on the Central Bank of Iraq (CBI) to activate these laws and oblige the Iraqi Banking sector to apply the IFRS, after the CBI borrowed from the WB and IMF, when Oil prices fell from more than \$100 to less than \$50 and military operations in were widespread in the west and north of Iraq. Therefore, in 2015, the governor of the CBI decided to activate these laws and exerted a coercive pressure on the banking sector to apply these standards.

The participants pointed out several political factors influencing the application of the IFRS, either positively or negatively. On the one hand, they felt that application of IFRS was impeded by the continued impact of the former socialist regime, political instability, and a lack of political will for change. On the other hand, they acknowledged the existence of international pressure towards IFRS and speculated on the possibility that the scope of the adoption decision would eventually be expanded.

#### **6.1.2.1 Alignment of the IUAS with the socialist political regime**

All participants agreed that accounting systems are products of the political regimes, designed to serve their goals and economic plans, summed up in the following words:

“Sure, the accounting system is a product of the political system” (Ph-I.09, 2016).

As the following participants pointed out, this was certainly true in Iraq, where the IUAS had been established in alignment with the socialist orientation of the government at that time.

“The IUAS was derived from the Egyptian UAS. Both of them were affected by the political system that was applied in these countries, which is socialist? (Ph-I.21, 2017)

“If we go back to the 1970s, we had a socialist political system, which set up the IUAS Committee that formulated the IUAS, which is applied until now. That means the political system has a very big impact on the accounting system” (Ph-I.15, 2016).

Other participants gave specific examples of the impact of this socialist orientation, in terms of the structure of the accounting system and the kinds of accounting needs it was designed to meet, for example:

“Sure, the accounting system is a social system, affected by the surrounding environment. One of the most influential factors is the political system, especially as the political system in Iraq was centralized par excellence” (Ph-I.11, 2016).

“Yes, [this applies to] accounting systems in general, and the IUAS in specific. When it was issued, the state trend was towards socialism, so we find it clearly deals with national accounting, especially in the calculation of the gross domestic product and the added value” (Ph-I.10, 2016).

#### **6.1.2.2 Political instability**

In the view of some interviewees, the current political system suffers from instability, swinging between centralised and decentralised, as indicated by Ph-I.11 in the following words:

“So, the Unified Accounting System is the dominant means of centralised control over all different accounting sectors. Despite the changes that occurred in 2003, the political system is still swinging between centralised and decentralised in all its aspects” (Ph-I.11, 2016).

It was suggested that this instability led to a lack of clarity about the desired economic direction and, hence, the appropriate structure and role of the accounting system.

“The shape of this economic system for this political system is not known yet. Therefore, it does not have an effect yet” (Ph-I.05, 2016).

#### **6.1.2.3 Lack of political will for change**

In the view of several participants, the current political regime does not pay attention to accounting practices and the application of the IFRS. They thought this lack of real willingness or intention to shift towards the IFRS was demonstrated by the fact that the government had not changed the laws that conflict with the application of these standards

and had not taken real steps towards the adoption process. The extracts below illustrate these views:

“Currently, the political regime does not care about the application of IFRS” (Ph-I.21, 2017)

“In fact, I think that the current political system is not aware of the importance of international accounting standards. Thus, it has no interest in switching to IFRS or to maintain the Iraqi Unified Accounting System” (Ph-I.06, 2016).

“Currently, the political system does not influence the adoption of the international accounting standards, or even maintaining the Unified Accounting System. I mean, frankly, the Iraqi state policy is unclear, and it is not interested in the subject of accounting” (Ph-I.10, 2016).

“Despite the existence of laws that require the adoption of international accounting standards that you mentioned at first, there was no clear political will towards the adoption of international standards. There was no real commitment and push for the adoption of these standards or entrusting this task to a responsible body and a competent committee to facilitate the process of transformation. Therefore, definitely, if the political system had a real intention for adoption, it would have played an active role and we would already have turned to the application of these standards. Hence, there is no real intention to shift towards IFRS” (Ph-I.11, 2016).

#### **6.1.2.4 The coercive pressure by the WB and IMF**

Given the lack of interest on the part of the Iraqi government, the decision to adopt IFRS was seen as a response to external pressure. All participants agreed that the WB and IMF have exerted a coercive pressure towards the CBI in order to oblige the Iraqi banking sector to apply the IFRS since the latter borrowed from the former, as shown in the extracts below:

“Yes, there is pressure from the World Bank and the International Monetary Fund on the Iraqi Central Bank to adopt International Financial Reporting Standards due to the economic crisis experienced by Iraq and its orientation towards borrowing from the World Bank” (Ph-I.01, 2016).

“Yes, that's clear. This question is very important, on the grounds that the Iraqi economy is linked to the global economy currently, especially after the drop in the oil price, which led to the need for loans, grants and facilities to keep its economy moving and push it forward. Thus, Iraq is obliged to stick to and abide by the

instructions of the International Monetary Fund and other institutions like the World Bank” (Ph-I.16, 2016).

“Yes, the World Bank and International Monetary Fund influenced the Iraqi Central Bank decision, as a result of the difficult economic situation that Iraq is going through, and it is forced to implement these decisions to get loans and financial facilities. But this decision has not been implemented till now” (Ph-I.17, 2016).

#### **6.1.2.5 Likelihood of extension of the adoption decision to other sectors**

Participants anticipated that the adoption decision would be extended in the future to listed companies, all private sector companies, and other sectors. For example, participant Ph-I.09, the Vice President of the Iraqi Association of Chartered Accountants, thought that this decision would be extended to the insurance and construction sectors:

“Personally, I think that the adoption decision will include other sectors in future, especially the insurance and construction sectors” (Ph-I.09, 2016).

However, participants did not see such extension as simple or automatic, but recognised that such a change would depend on a conducive environment. For example, Ph-I.02 linked extension of the decision with the political and economic stability of the state, to be achieved gradually over time:

“It is possible in the future, but there is a condition in my view, that there has to be political stability in the country at the first, and then go to economic stability in the state, private and mixed sectors, then we can go to adopt international accounting standards” (Ph-I.02, 2016).

From another perspective, Ph-I.15 linked it to loan repayment and the expectation of further international pressure:

“Also, I think it will extend to other sectors, due to these loans from the WB and the IMF, and they are following-up where these loans are spent, and how the loan will be recovered with its interest. Therefore, surely, they will monitor the beneficiary sectors by imposing their terms, including the application of international standards” (Ph-I.15, 2016).

### 6.1.3 The economic system

Accounting academics frequently show that the development of accounting practices and disclosure level depends on a country's economic development and vice versa (Fatma & Faker, 2017; Larson & Kenny, 1995). According to Guerreiro et al. (2012), the decision to adopt IFRS is commonly driven by "*economic rationality and the notion that IFRS are high quality accounting standards likely to result in more timely and transparent accounting information*" (Guerreiro et al., 2012:171)

Typically, the main reason for mandatory and voluntary IFRS adoption was the increase of economic globalisation and the integration of capital markets, which led to concern for the development of a single set of accounting standards (Ball, 2006), internationally comparable and harmonised. Economic patterns can be classed into macroeconomic and microeconomic. Accounting standards and practices are associated with the policies of the national economy. Accounting standards designed to produce national benefits, without concern for investors' benefit, are prepared at the macroeconomic level, leaving little role for accounting profession at the microeconomic level in the development and expansion of accounting standards (Jahangir Ali & Ahmed, 2007; Nobes & Parker, 2008). Taxation and reporting will be the main purposes of accounting practices in such a pattern. Conversely, accounting at the microeconomic level of financial statements is focused on the objectives of stewardship and decision choice, the latter meeting stakeholders' needs for information to inform their financial decisions. Such a pattern is characteristic of capitalist-oriented economies (Jahangir Ali & Ahmed, 2007) where accounting practices are developed by the private business sector, with a focus on authenticity, true and fair value, in the measurement of assets and liability. This implies the need for flexible and transparent accounting practices, and for accountants' professionalism.

Globally, the complexity and connectedness of economic and business activities have given rise to inevitable interconnection among countries, necessitating sophisticated and high-quality accounting standards (Zeghal & Mhedhbi, 2006). In this context, the main driver for the diffusion of IFRS worldwide was economic growth. Belkaoui (1983) suggests that the level of economic progress represents a key factor in the development of accounting practices. The economic environment is affected significantly by both political and financial stability, which in turn affects the development of accounting (HassabElnaby et al., 2003; Zehri & Chouaibi, 2013). Aisen and Veiga (2013) proved that political instability significantly reduces economic growth; it has a significant negative impact on the national economy and adversely affects growth rates of GDP. Moreover, Aisen and Veiga (2006) demonstrated that political instability leads to financial instability by causing higher inflation rates.

Participants in this study recognised that at the macroeconomic level, the instability of the political regime led to economic instability, which negatively affected foreign investment so that it does not constitute a pressure factor to adopt the IFRS. However, at the microeconomic level, there is a mimetic pressure from foreign trade partners to apply these standards, especially in the banking sector. Moreover, participants asserted that the IFRS are designed to serve capitalist economic systems that search for international finance and international trend within a free market (Ph-I.04, 2016). Originally, these standards were born and developed under open markets and global trade (Ph-I.09, 2016) to achieve the international investors' aims of transparency and disclosure, to make financial information accessible and less costly (Ph-I.10, 2016). Therefore, participants perceived that the capitalist economic system has a positive impact on the IFRS adoption decision. On the contrary, the socialist economic system is characterised by the public ownership of all vital companies that influence the state economy of all sectors, on the

rationale of national identity protection (Ph-I.09, 2016). This explains why foreign investment is prohibited in the socialist economic ideology, such as prevailed in Iraq before 2003. Therefore, socialist countries did not look for foreign financing, nor were they interested in IFRS. Furthermore, the aim of accounting practices under the socialist ideology is to produce useful information on gross domestic product (GDP) or gross national product (GNP) to serve the national accountant (Ph-I.17, 2016). As a result, a socialist economy will be uncondusive to the adoption decision, since the legislation that governs accounting practices, such as the Income Tax Act forces entities to follow specific accounting principles that conflict with IFRS principles. For instance, the historical cost imposed by the Iraqi Income Tax law conflicts with the fair value of IFRS, which is another significant element that prevents the full application of IFRS in the Iraqi banking sector (Ph-I.07, 2016; Ph-I.19, 2016).

In fact, the case of the Iraqi economy is distinctive in participants' eyes, being "*not socialist nor capitalist, it is not clear*" (Ph-I.15, 2016). Currently, therefore, the shape of the Iraqi economy does "*not constitute a pressure factor to adopt the IFRS*" (Ph-I.16, 2016), because all the Iraqi business sectors are still socialist, 'under the socialist regulations', except the banking sector, which has been changed by the Coalition Provisional Authority, according to its importance nationally and internationally. Nationally, the importance of the banking sector stems from its being the engine that drives the national economy, and internationally, from its tangled relationships with the outside world (Ph-I.09, 2016; Ph-I.10, 2016).

The importance of the banking sector was explained by the Chief Financial Officer of the United Bank for Investment in Iraq and member of transition committee Ph-I.10. He noted that, because Iraq is not an industrial country and is entirely dependent on

imports, the banking sector plays a vital role to support external trade through facilitating payments and foreign remittance operations. He stated that:

“only the Iraqi banking sector can be extended outward, as it operates international transactions while other sectors remain to some extent local sectors and rely heavily on the Iraqi banks in their operations” (Ph-I.10, 2016).

Participants expressed the view that the accounting system in Iraq is influenced by the overall nature of the economy, which in turn was a reflection of political ideology. A tension was seen between the socialist, centrally-planned economy that had given rise to the IUAS, and the capitalist economies in which IFRS emerged. Interviewees differed in the extent to which they saw the Iraqi economy as still governed by socialist tendencies, given its current uncertain or transitional state.

#### **6.1.3.1 The economic system is a product of the political regime**

Generally, participants agreed that the economic system in any country is shaped by its political regime as a reflection of its philosophy. The following is a representative quotation.

“Yes, surely. The economic system always represents the philosophy of the state. The philosophy of the state first and foremost, is a result of the political philosophy” (Ph-I.16, 2016).

#### **6.1.3.2 The impact of economic type on accounting**

Participants pointed out the difference between the socialist economic system and the capitalist economic system, which they saw as influencing accounting. On the one hand, the IFRS were born and developed under the capitalist economic system, in open economies that pursue international funds and trade on a free-market basis. Therefore, it was suggested, the capitalist economic system has a positive impact on IFRS adoption. On the other hand, the socialist economic system is characterised by the public ownership of all key companies that influence the state economy for all sectors, and foreign



investment is prohibited. Since there was no interest in pursuing foreign funds, there was no interest in IFRS. A sample of the participants' comments on this theme is presented below:

“Whenever an economy moves towards capitalism, it moves towards the adoption of international accounting standards, because one of the simplest principles of capitalism is the search for funding and international finance from various countries around the world. As the International Accounting Standards is the language of business or the language of trade and investment in the world, by using this language perfectly, you will attract more investments. These could be regarded as directly proportional; the more the economic system has increased capitalism, the more the commitment or attempt to stick to international accounting standards” (Ph-I.04, 2016).

“Socialist systems always follow local standards, which always tend to central administration, while on the contrary, the capitalist system adopts international standards, which rely on decentralised management” (Ph-I.12, 2016).

“Surely the economy type affects the type of accounting standards. If it is a socialist system, it will be closed and will not apply international standards, it will adopt national standards and a centralised system, while if a capitalist economic system, it will be opened to the world and moving towards international standards” (Ph-I.18, 2016).

It was suggested that accounting systems everywhere should be designed to serve economic events. It was pointed out that accounting development is a response to economic development, as exemplified by the most recent updating of the IUAS, which accommodated new events by creating new accounts, as explained in the extract below:

“Yes, the accounting system results from the economic system, which is heavily influenced by political changes, for example, the emergence of new accounts such as War damage, support for displaced people, and the popular Crowd Fund in the IUAS (Ph-I.17, 2016).

Essentially, the IUAS was seen to be a product of the previous socialist economic system, designed to serve the government's philosophy and impose its control over all economic sectors (governmental, mixed, private, and cooperative organizations).

“The socialist system, which represented the former orientation was a major influence. The IUAS was formulated based on its ideology and its application is

mandatory in all sectors; governmental, mixed, and private according to certain principles” (Ph-I.14, 2016).

“It is well known that international accounting standards are the product of the capitalist economic systems, while the Unified Accounting System is a product of the central systems of socialism” (Ph-I.20, 2016).

In the view of a number of interviewees, the Iraqi economy is still ruled by socialist economic regulation, issued by the previous political regime to serve the socialist economy. This adversely affects the implementation of the adoption decision, as shown in the extract below:

“Is the economic system a pressure factor for the adoption of international standards? Unless there is a legal obligation, I do not think so; it does not constitute a pressure factor. Because the Iraqi economy is still a closed economy, the same laws still serve from the days of the socialist era. If banks did not follow the IFRS and were left to take their own decisions, they would not be open to the global economy” (Ph-I.04, 2016).

In a more elaborate exposition of this theme, it was explained that the accounting and auditing legislators are still controlled by the previous socialist economic ideology and so they seek to exert more control on accounting practices through introducing strict legislation to serve the so-called “national identity”, as explained in the extract below:

“The trend towards the adoption of a socialist economic system has to be the opposite of the capitalist economic system with a free-market and its requirements. Socialist economic principles require maintenance of the national identity, which is one of the central planning objectives, and this spirit was implanted into the legislators and reflected in accounting and auditing practices, which necessitated a move away from IFRS and adherence to the specificities of national identity and sanctifying it” (Ph-I.09, 2016).

### **6.1.3.3 Economic instability**

The change from a socialist to a capitalist economy involves a transitional period, during which the economic system may suffer from instability, especially if the political regime does not have a clear vision and experience of how to run the transition. Hence, in the transitional period, the economy may be messy, unclear, and mixed, neither

socialist nor capitalist. This was how participants viewed the Iraqi situation. They could not agree on how to describe the Iraqi economy: socialist, capitalist, both or neither, and felt this uncertainty adversely affected the implementation of the adoption decision.

Ph-I.04 described the Iraqi economy as a messy economy; a free-market economy ruled by socialist regulations:

“Iraq’s current economy is messy; it’s neither in a capitalist nor a socialist form. The majority of governmental speech insists that our economic system is capitalist, but the Iraqi laws were issued before 2003 and follow the socialist economic regime. Therefore, it is a messy economic regime” (Ph-I.04, 2016).

Others, including Ph-I.11, Ph-I.20, and Ph-I.21, saw the Iraqi economy as swinging between socialist and capitalist, resulting in confusion and a lack of direction.

“Iraq’s current economy is not a pressure factor [on accounting] because it is swinging between socialist and capitalist. Also, it is unstable and unclear. Therefore, it does not constitute a pressure, but rather it constitutes an obstacle to the application because the features of the Iraqi economy are unclear and unstable” (Ph-I.11, 2016).

“It is noted that the Iraqi economy is unclear and still reflects socialism in many aspects. In my opinion, this represents one of the major obstacles to the application of international accounting standards” (Ph-I.20, 2016).

“Iraq’s current economy is not well defined clearly in the current period. Some of the current legislation encourages adoption of International Financial Reporting Standards without departing from the conceptual framework of local standards and the IUAS. They are taking into consideration the IFRS in formulating local standards. Thus, this reflects the lack of clarity in the local economy and the necessity to unify the adoption of international standards” (Ph-I.12, 2016).

Others, such as Ph-I.02, Ph-I.15, and Ph-I.06 acknowledged that the declared transition towards a capitalist economy had begun but felt that the transition was occurring only very slowly, with the Iraqi economy closer to socialism than capitalism.

“We all know that Iraq since 2003 has tended to shift from socialism to capitalism. But in my opinion that this requires a long time to carry out the transformation, because this stems from the social elements, environment and culture of the country. And accounting is the result of all these environmental factors. So yes, it is possible to say it’s socialist; somewhat inclined to capitalism, but mainly socialist” (Ph-I.02, 2016).

“It is not socialist nor capitalist; it is not clear. Therefore, it does not constitute a pressure factor for adoption of the IFRS. As I have said previously, the foundations that could be relied on to adopt IFRS do not exist. Therefore, the answer is no. the Iraqi economy is not socialist or capitalist, but it is closer to socialist and does not constitute a pressure factor for the adoption of the IFRS. On the contrary, it is a pressure to move away from international standards” (Ph-I.15, 2016).

“As I said previously, the direction of the Iraqi economy is unclear yet. It is in some sectors a socialist trend, but in other sectors it is capitalist. In general, it can be said that it is socialist, but it is heading into the capitalist economy slowly and timidly” (Ph-I.16, 2016).

Ph-16 went further, however, to claim that the Iraqi economy is still completely socialist in orientation:

“The current economic system is a socialist system; the previous socialist system is still ongoing” (Ph-I.06, 2016).

The rest of the participants described the Iraqi economy as hybrid, or a mixture of socialist and capitalist:

“The current economy is a hybrid between socialism and capitalism, and the Unified Accounting System is still being applied, but the future outlook is towards the adoption of international standards, which are the modern movement. Therefore, the Iraqi economic system is a mixture between the socialist and capitalist” (Ph-I.14, 2016).

“A mixture, it does not constitute a pressure factor, because it does not have a strong presence” (Ph-I.05, 2016).

#### **6.1.3.4 Economic pressure**

The adoption of the IFRS by the majority of developed countries, Europe, and some developing countries, was said to create economic pressures (mimetic pressures exerted by external trade partners) for Iraq to accept and adopt the IFRS as an alternative to the local standards. A sample of answers expressing this view is presented below:

“In general, yes, it creates pressure through trade and the opening of foreign investment and other things. The majority of listed companies are corporates, including banking, insurance, and financing companies, which have strong relationships with other companies around the world that apply IFRS, which imposes economic pressure regarding accepting these standards” (Ph-I.09, 2016).

“Yes, the adoption of IFRS by the majority of developed countries, Europe, and some developing countries creates economic pressure to accept and adopt it as an alternative to the local standards, especially in those countries that have local accounting standards. In addition, there’s the desire of most countries to be compatible with developed countries, to gain the advantage of using these standards, considering that these countries have long experience in the accounting profession, and there is no economic advantage from crossing with them. This compatibility will be achieved by the IFRS, especially in economic sectors that have ties with the foreign world” (Ph-I.09, 2016).

“Yes, I think that the adoption of these standards by these countries in Europe and other countries is already creating pressure. Also, it can be connected, I mean, if you allow me, we can link this subject with the decisions of the International Committee of (BASEL 1, BASEL 2, and BASEL 3) to monitor the work of banks; the foundations of solid and revised rules were laid with respect to the global economy in Basel 3 to exercise caution. These standards are generally non-binding for all countries, but these countries sooner or later will find themselves in urgent need for the implementation of the international Basel standards. It’s the same case with the international accounting standards; sooner or later, we will see that we need to apply them, in order to keep up with what is happening in the world” (Ph-I.10, 2016).

#### **6.1.4 Capital market**

As observed previously, the main reason for the mandatory IFRS adoption was to integrate capital markets, resulting in more attention being paid to the introduction of a single set of internationally comparable and harmonised accounting standards (Ball, 2006). Thus, the capital market factor may play a vital role in the application of the IFRS in two ways. First, it may be the main motivation for political decision-makers to go ahead with the IFRS Regulation (EC, 2002, Art.1). Secondly, the results of this decision will be evaluated according to their advantages and disadvantages for the national and global economy. As Hakim and Anas (2015:70) assert, “*Financial reporting is increasingly viewed as a vital infrastructure for the growth of emerging stock markets*”. Grossman et al. (2013) illustrated this when they explored the potential for US entities to replace US GAAP with IFRS, shortly after the US Securities and Exchange Commission’s complete acceptance of IFRS in 2008.

In Iraq, the introduction of the Interim Securities Markets Law in April 2004 by the Coalition Provisional Authority was a starting step towards the establishment of the Iraq Stock Exchange Market (Hassan et al., 2014) as a self-regulatory organization. This reflects the importance of capital markets from political and economic perspectives and the concern to integrate the Iraqi economy with the global economy and encourage foreign investment. However, that regulation does not oblige listed companies to apply the IFRS. As the Chairman of the ISC said, “*We cannot oblige listed companies to apply the IFRS*” (Ph-I.21, 2017). Thus, the Iraqi capital market does not constitute a pressure factor. Also, the ISX cannot oblige listed companies to apply the IFRS. “*There’s no real obligation. Also, I read the Iraqi Stock Exchange Act number (74) of 2004, and I did not find any text in favour of the application of the IFRS*” (Ph-I.17, 2016).

This sub-theme reflects participants’ views on whether, or to what extent, the capital market constituted a pressure factor towards implementation of IFRS. They expressed differing views. On the one hand, there were those who thought that it did not, due to lack of legal power. On the other hand, there were those who envisaged a political indirect effect through the engagement of Iraq with the global economy, although they saw such effects as undermined by the turmoil still experienced in Iraq.

#### **6.1.4.1 No legal obligation by the IXS to apply the IFRS**

The Iraq Stock Exchange (IXS) cannot impose the application of the IFRS due to its regulation. The Chairman of the Iraqi Securities Commission (ISC) asserted that the IXS is ruled by the Interim Law on Securities Markets, which imposes the application of the IUAS, not the IFRS, as shown below;

“The ISC and IXS are obliged to apply the Interim Law on Securities Markets, which stated that, the financial statements included in the annual report shall be presented in accordance with international accounting standards to the extent permissible under the standards in force in Iraq. Thus, we cannot oblige listed companies to apply the

IFRS. I submitted a letter to the FBSAI and said that the international accounting standards were referred to in a number of laws and in different formats, so which should be applied? The FBSAI answered me that the Iraqi Accounting Standards should be applied” (Ph-I.21, 2017).

#### **6.1.4.2 Do IFRS influence foreign investments and the Iraqi economy?**

Generally, participants thought that the application of IFRS would attract foreign investments and integrate the country’s economy with the global economy. However, they observed that this is not necessarily the case in transitional developing countries, characterised by an unstable business environment, such as the case of Iraq. Several interviewees argued that unstable political, economic, and security conditions, and the conflict of legislation, have a negative impact on investment and diminish the foreseeable advantages of IFRS application or make it less important. These views are illustrated in the extracts below:

“That may be one of the reasons to integrate with the foreign world. But, it should be taken into consideration that there are other objective reasons that affect the merger of the Iraqi capital market with the global capital markets, including the extent of political stability and robustness of the security situation in the country, and so as not to oppose laws and related legislation that have suitability and potential to attract foreign capital to Iraq” (Ph-I.09, 2016).

“No doubt the application of a unified set of financial reporting standards by most countries around the world will constitute a magnet for investment, but in the case of Iraq, as I have said, there are other factors that have negative impact that outweigh the benefits of disclosure, transparency, and comparability provided by the International Accounting Standards” (Ph-I.20, 2016).

“Certainly, it has a role in foreign investments, but in fact, this role is not clear in the Iraqi environment, for several reasons, including the security situation, the type of the Iraqi economy is not clear, the lack of an attractive environment for foreign investment. The lack of foreign investment in Iraq is not caused by the lack of application of international accounting standards, but it was caused by the Iraqi economy being unclear. Also, the Iraqi environment is unstable and so is the security situation. Hence, the Iraqi economy is not attractive to foreign investment. If the security situation were normal and the Iraqi environment safe and stable, and Iraq did not apply international accounting standards, the non-application of these standards would have a significant impact on the attraction of foreign investment, and these investments would constitute a pressure tool to shift towards international accounting standards. However, we have not seen this influence clearly in the Iraqi environment” (Ph-I.11, 2016).

“I do not think its impact is significant. What is encouraging for foreign investment are economic, political and security factors” (Ph-I.21, 2017).

### 6.1.5 Security position

The instability of the political regime may lead to loss of ability or desire to make a political decision to switch to the capitalist economy and introduce appropriate legislation to break the restrictions of the central administrative and centrally planned economy imposed on the rationale of preserving the national identity (Ph-I.09, 2016). In other words, political instability may lead to economic instability, legal conflict, and security turmoil.

The security turmoil is overwhelming *“because the main object of the current political system is to provide security stability. Therefore, it does not have a vision or ability to commit companies to apply IFRS.”* (Ph-I.02, 2016). Moreover, *“there is no strong willingness of lobbyists in Parliament, stakeholders and financial influence that is pushing towards the shift to make the adoption decision”* (Ph-I.01, 2016).

Also,

“We cannot know the impact of the non-application of international accounting standards on foreign investments in the economy of Iraq, because as I said that the instability of security situation in Iraq” (Ph-I.03, 2016).

Several participants raised the theme of security instability as a factor impeding implementation of the IFRS adoption decision. They suggested several ways in which the prevailing turmoil affected accounting by discouraging foreign investment, by countering the normative pressures towards implementation, by impeding development of the accounting profession, by encouraging corruption, by creating an uncondusive business environment, and reducing the benefits to be gained from implementation.



### **6.1.5.1 Lack of foreign investment**

A problem said to be created by the security turmoil was its deterrent effect on foreign investment and, hence, the application of IFRS; the vice president of the IACPA strongly asserted the harmful impact of security instability on foreign investment, which in his view not only affected the efficiency of the application, but even discouraged implementation altogether.

“I believe firmly that the lack of security and political stability in Iraq has had a major impact on the entry of foreign investment, which affects the Iraqi economy in general. The application of the IFRS alone is not enough to make foreign investments enter the Iraqi market, but it may affect them partially, in line with the conventional saying ‘capital is coward’. Therefore, I think that the [interview] question formula is not true and not successful, because the security position not only affects the efficiency of the application, it affects the application itself” (Ph-I.09, 2016).

Ph-I.20 thought the security situation is the main obstacle to the application of IFRS, because it leads to the creation of a poor business environment and deters foreign investment:

“In my opinion, the poor security situation in Iraq is the main obstacle that is at the forefront of the factors that impede the application of international accounting standards, because the security environment deters foreign investment and multinational companies, which represent a fertile environment for international accounting standards” (Ph-I.20, 2016).

### **6.1.5.2 Countering the impact of coercive pressure**

Participants thought the security turmoil had counteracted coercive pressure. As reflected in the extracts presented below, the rationale given for this claim was the adverse impact on foreign investment, resulting in less need for or interest in IFRS.

“Sure, it [international influence] creates pressure, but the deteriorating security situation and the lack of foreign investment due to the deterioration of the security situation led to the weakening of foreign investment by developed states and European countries. Therefore, it did not constitute a powerful pressing tool for the adoption of international standards” (Ph-I.18, 2016).

“Sure, it creates pressure, but because of the deteriorating security situation in Iraq, particularly after the year 2003 and the lack of foreign investment by developed

countries that apply international accounting standards, it did not constitute a powerful lobbyist tool for the adoption of international standards. Conversely, if the Iraqi situation and environment were safe and secure, foreign investment and international companies that apply the IFRS would have entered the Iraqi market, which would certainly be a powerful tool pressing for the adoption of international accounting standards. But, the current situation does not constitute a pressing tool, because of the deterioration of the security situation and the lack of foreign investment in Iraq” (Ph-I.11, 2016).

“The adoption of international accounting standards by most of the developed countries and some developing countries leads to the flowing of investments cross-border, because the quality of accounting information under these standards and its characteristics, such as the comparability and less access cost enhance foreign investors’ decisions. However, in Iraq, there are other factors pushing toward the expulsion of foreign investors. The most prominent factors are political instability and the security turmoil that are pushing strongly to outweigh the advantages offered by the international accounting standards to attract foreign investment” (Ph-I.20, 2016).

#### **6.1.5.3 Lack of IFRS knowledge**

Ph-I.14 indicated that the security turmoil deterred the presence of international professional organizations that could facilitate IFRS through providing IFRS education and training courses in the Iraqi business environment. This in turn affected the ability of the local profession to cope with the change.

“The security situation impacts on the application itself and not only the efficiency of the application. Because if the security situation was good, there would be the presence of global professional organizations, at least through the provision of training courses, instead of travelling out of Iraq for the purpose of training and development” (Ph-I.14, 2016).

#### **6.1.5.4 Financial and administrative corruption**

Ph-I.15 noted that the elasticity of IFRS could be exploited in a situation of security turmoil and lead to financial and administrative corruption:

“Yes, of course. Not only the efficiency of the application of IFRS but its application [are affected]. Because the flexibility that exists in the IFRS will be exploited wrongly in favour of financial and administrative corruption. Therefore, it will be to move away from IFRS” (Ph-I.15, 2016).

#### **6.1.5.5 Reduction of the economic advantages**

Several participants suggested that, in the normal case, the adoption of IFRS could assist a country's economy. However, the instability of the economic system in the transitional period might diminish its advantages. They thought the IFRS adoption was not necessarily feasible in the Iraqi case, because the instability in the political, economic, and security position had a strong impact on foreign investment and investors, which led them to avoid the Iraqi market.

“I think it's not necessarily the case [that IFRS would benefit the economy], as the evolution of the economic system originates from the ability of the state of self-attribution and the lack of need for the outside world. As for whether the adoption of international accounting standards will support economic development, such support is possible, but not necessarily. Iraq is an oil country and has a strategic location in the world and has many natural resources, but to my mind, it is due to the political and security stability of the country. Because, the main aim of adopting international standards, issued by the International Accounting Standards Board, is the comparability and the readability of financial statements, also easy to read and understand, as one language. But if an investor wishes to invest in a particular country, it will pay him to investigate that place and examine the financial statements, even if in another language or issued under the local standards of that country” (Ph-I.02, 2016).

Another suggested reason why the benefit of applying IFRS might not be realised in the Iraqi case was failure of the government to address economic inefficiency. Ph-I.05 implied that the government was supporting ailing industries with grants and aid of various kinds but failing to ensure the economic return from such expenditure.

“Currently, it does not constitute a support for the Iraqi economy. Because, the Iraqi economy needs support in reconsideration of its components and the diversity of these components and support for the sectors that struggle from stagnation and expansion of support for the private sector to be a powerful counterpart to the public sector, not to receive the support, loans, aid, and initiatives from government, without following up the implementation and the result” (Ph-I.05, 2016).

Also, the Iraqi economy is vulnerable because it depends on one source of revenue, oil. Therefore, there is a weakness in the Iraqi economic structure, and this weakness will reduce the expected benefits from the adoption of international accounting standards.

“I do not think that the adoption of international accounting standards will support the Iraqi economy in its current form. Because, up to now the Iraqi economy depends on one source of revenue to finance its economy, oil revenues, without paying attention to other sources. So far there are no serious steps towards economic development based on the diversification of the sources of wealth and encouraging investment and exchanges with the outside world on a parallel basis based on the integration and sharing of exports and imports, not exchange based on import of most goods, which are mostly consumer goods and not investment commodities that contribute to economic development” (Ph-I.20, 2016).

### **6.1.6 Accounting culture**

In explaining IFRS adoption of a country, it is important to include cultural issues and address the broader social and political influences on accounting practices (Nurunnabi, 2015). Combs et al. (2013) highlighted the difference between the socialist accounting culture and the capitalist accounting culture. Accountants’ practice under the socialist accounting culture may be described as characterised by uniformity, conservatism, statutory control and secrecy.

Iraq was a socialist country from the 1970s until 2003, with a centrally planned economic system (Foote et al., 2004). During this time, the government established the Unified Accounting System Committee (UASC), which issued the IUAS in 1985, to be used mandatorily by government organizations: public companies and mixed companies<sup>71</sup>. The Iraqi accounting culture is influenced by strict accounting practices based on that political system and central planning. Thus, the Iraqi accounting environment of the private sector is unaccustomed to accounting rules and practices built on the IFRS structure and philosophy.

Culture is not formed or changed overnight but consists of entrenched customs and traditions that govern behaviour; it is heritage (Ph-I.09, 2016). Thus, a culture shift takes time until a new generation produces new ideas because of the interaction between the

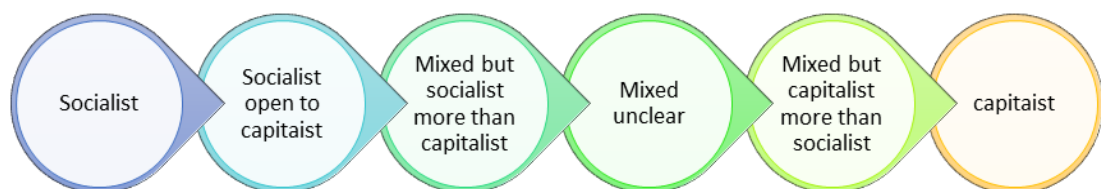
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<sup>71</sup> The mixed companies’ capital must be divided between government and private sector, the government share should be limited between 25% and 51% of the company’s capital.

internal and external environment of the community. Accordingly, in the view of some participants, the shifting of accounting culture may take 25 to 30 years, since the old socialist accounting culture is so deeply rooted in professional accountants' and legislators' minds, especially among the older generation.

In 2003, the CPA shifted the political and economic orientation to capitalism, by changing the constitution. However, the culture did not change when the constitution was changed. Therefore, the former socialist accounting culture still influences the current accounting practices and adversely affects the adoption of IFRS, especially in the Iraqi banking sector, despite the change in its law in 2004. However, the accounting culture is also affected by the adoption decision taken in 2015, so as a result, the current Iraqi accounting culture is no longer a pure socialist accounting culture, as it was before 2003, so building on the interview findings, I believe that the change of culture may pass through several stages: starting from socialist open to capitalism; then a mixed culture within three levels (mixed but socialist more than capitalist → mixed unclear → mixed but capitalist more than socialist); leading eventually to is the final step, capitalist accounting culture. I believe that each stage may last about five years. The best evidence to support such a view is the opinion of a high percentage of participants that the current Iraqi accounting culture is “mixed but socialist more than capitalist”. See Figure 6.5.

*Figure 6.4 Stages in Accounting Culture Shift*



Several points were raised regarding the accounting culture in Iraq, including the continued influence of socialism, conservatism, the impact on professional bodies and the impact on IFRS implementation.

#### **6.1.6.1 Continued influence of socialism**

The current Iraqi accounting culture could be mixed and unclear, but it was thought to be more socialist than capitalist, as explained in the extracts below:

“Iraq’s accounting culture [is a factor]. We have agreed that the state controls and supervises the Iraqi economy, and therefore, the laws governing it are socialist, even though the direction of the state is capitalist. We are a mixture between this and that. But, if we speak about which is stronger than the other, until now, we still have a socialist accounting culture” (Ph-I.04, 2016).

“In fact, at the moment there is no specific accounting culture. But the current accounting culture may be to some extent a mixed culture between socialism and capitalism” (Ph-I.10, 2016).

“Generally, we were a socialist accounting culture previously and began to shift partially to capitalism after changing the political system from a socialist to a capitalist political system, but not with great willingness. Approximately 30% of accounting thought has changed to capitalist thought. However, the Iraqi accounting culture so far is a socialist accounting culture” (Ph-I.13, 2016).

Participant Ph-I.15, agreeing that Iraq’s accounting culture still tends towards socialism, put forward as an explanation the general human tendency of resistance to change. He suggested that people cling to the familiar and find change difficult.

“It is not socialism nor capitalism; it is something different. I consider it is closer to socialism than capitalism. Also, there is no elasticity; even human nature does not have the flexibility to accept change. I mean, people are mostly enclosed in themselves and what they have learned in the past. When they are faced with change, they see it as heavy and difficult” (Ph-I.15, 2016).

Participant Ph-I.18 offered another explanation, Iraq’s lack of integration into the international economy:

“Iraq's accounting culture is surely a socialist culture, and until now its openness to capitalism is not as required. Because the Iraqi economy is not open to international

companies and the Iraqi laws do not allow the application of international accounting standards and force companies to apply the IUAS” (Ph-I.18, 2016).

The current accounting culture could be described as conservative and traditional, as a result of clinging to socialist ideology, and the principles established under that ideology, as explained below.

“Iraq's accounting culture, of course, is socialist and has a kind of openness towards capitalism, but very limited. However, it can be described as a conservative culture and sticking to the historical cost principle. As well, it is heading towards unification through applying the IUAS. Also, we can describe it as a local culture with a lack of openness to international culture. Moreover, it can be described as a traditional culture that refuses change to some extent. In addition, it can be described as a centralised culture (Ph-I.11, 2016).

#### **6.1.6.2 Impact of accounting culture on IFRS adoption**

It was suggested that the current accounting culture, being socialist, is opposed to anything of foreign origin and so is not favourable towards the application of the IFRS. Professional accountants depend merely on governmental bodies and wait for their instructions, and they do not engage with international organizations. The socialist accounting culture is ingrained in their minds, especially in the case of the standards-setters. This has resulted in the creation of hybrid accounting standards that serve neither the socialist economic system nor a capitalist economic system, as explained by the extracts below:

“Yes, yes. Because we've been for a long period under the socialist accounting culture, therefore our culture is such. Anything not mentioned by the governmental bodies, we do not follow it. Because the IFRS comes from global international institutions, cross-border, there is a shock about how governmental bodies can follow it and apply its accounting standards, and how the private sector will follow something not coming from governmental bodies. It is an obstacle, yes an obstacle” (Ph-I.04, 2016).

“Certainly, it has an impact because the socialist culture makes the state the sponsor, so it encourages centralisation and not engaging with international organizations. It imposes constraints. Therefore, the trend has been towards unification (Unified Accounting System, the Unified Accounting System for Banks and Insurance

Companies) to unite the accounting system for various companies so that it can be controlled centrally. Thus, it is moving away from applying international standards.

The government may not achieve its goals and objectives in the control of the Iraqi economy, because in the case of heading towards the application of international accounting standards, the state may lose the reins of control over the course of events in the companies. Therefore, the former socialist culture has a significant impact on the lack of orientation towards the application of international accounting standards” (Ph-I.11, 2016).

“Sure, sure, because the old staff who have socialist thought still exist and prevent the application of international accounting standards, especially the Iraqi Board of Accounting and Auditing Standards, which favour a gradual transition to IFRS, which means relying on the IUAS the same as before, with small changes. And this means creating a hybrid system; it is not the socialist Iraqi Unified Accounting System nor the capitalist system (IFRS)” (Ph-I.13, 2016).

However, the impact of the local accounting culture might be reduced if other factors were conducive to the application of IFRS, as was the case in China, as explained by the vice president of the IACPA:

“I think the effect was limited, and the problem is not with the socialist system or capitalist system, but rather the real problem is in the application, and the best example of that, is what is happening in China’s great progress in various aspects of economic, financial, military, and social life, even though it follows a socialist system” (Ph-I.09, 2016).

### **6.1.7 Fair value measurement prevents full IFRS adoption**

All participants agreed that the implementation of IFRS would lead to fundamental changes in the financial statements, which may hinder their full application. The application of fair value was seen as the most substantial of these differences, because it will affect the balance sheet, income statement, and statement of changes in equity. Currently, professional accountants cannot apply fair value rather than historical cost, because the latter is mandatory under Income Tax Act No.113 of 1982 amended in 2013 and the IUAS. Moreover, several other changes in the financial statements would occur as a result of implementing the adoption decision, such as the presentation of financial statements, recognition, measurement, inventory, disclosure, classification, Cash Flow



statement, allowances, reservation, and risk assessment, although participants disagreed on the seriousness of these issues. A sample of extracts is presented below:

“Sure, there are fundamental changes, such as the shift from historical cost to fair value, which is the salient feature of the international standards. This will be reflected in the evaluation of fixed assets in the balance sheet and its impact on the detection and calculation of the income statement and its depreciation. Sure, there are fundamental changes in the financial statements that might be an obstacle to the adoption of international standards” (Ph-I.11, 2016).

“There are several changes, but they did not hinder the application. Some banks have started to apply them partially, to a limited extent. However, the major problem is with the application of the fair value measurements, as it needs to detail the identification of the bodies and the foundations for the evaluation” (Ph-I.21, 2017).

### **6.1.8 Professional bodies**

In many capitalist states, accounting practices are controlled by national professional organizations (Guerreiro et al., 2012). Greenwood et al. (2002) assert that professional organizations play a vital role in theorizing change, endorsing innovations and diffusion of high-level accounting practices. Guerreiro et al. (2012) add that, at the national level, professional organizations diffuse the application of IFRS through providing professional training and through the professional press, which are foundations of professionalisation, since *“they help spread values and norms that become internalized by accountants”* (Guerreiro et al., 2012:174). Professional accountants who are engaged with accounting professional organizations are more likely to homogenise their accounting practices with IFRS.

Hence, the Iraqi professional organizations such the IACPA and CPMAAI should have a prominent role in diffusing the application of the IFRS through exerting normative pressure on professional accountants who belong to these organizations. They should provide training courses supported by their press. Also, they may take part in introducing new legislation that obliges the application of these standards or harmonises the national

accounting standards through updating local standards to be in alignment with international standards and assisting the CBI in preparing transition guidance or a transitional plan.

Participants commented on the weakness and lack of authority of these bodies in relation to changes such as IFRS implementation and the absence of competent professional oversight. However, they perceived the potential and desirability of a more active role on the part of professional bodies (PB).

#### **6.1.8.1 Legal restriction**

Since the IUAS is mandatory and other laws mandating application of specific accounting practices, such as the Taxation Act, are committed to applying historical cost, the PB, such as the FBSAI, IACA, CPMAAI, and the IBAAS, cannot oblige entities to adopt the IFRS, as this would mean their breaking the laws. Furthermore, PB are ruled by the regulations of their establishment, which organize their role in supporting the accounting profession, but do not give them the authority to oblige the private sector or other sectors to apply IFRS, especially if they conflict with other laws in force. Therefore, several participants believed the current role of PB is very weak, as explained in the extracts below:

“The FBSAI does not oblige the mixed sector to adopt the IFRS. Also, the IACPA does not oblige corporates to adopt these standards. But there are voices of appeal to adopt the IFRS, like the IACPA” (Ph-I.17, 2016).

“Sure, it is assumed that those actors have a fundamental role. However, as I mentioned previously, the professional organizations in Iraq do not have an active role. Rather, the biggest role is for the FBSAI as a state body. The FBSA issued the IUAS and did its amendment, which is not in line with the IFRS because there is no clear political decision towards the adoption of IFRS. If there is no central and state order towards transformation, these professional bodies will not have a big role in the Iraqi environment. These professional bodies are committed to the IUAS and political decision. If there is a political decision about the transition to IFRS, at that time these professional bodies will move to activate this resolution” (Ph-I.11, 2016).

### **6.1.8.2 Lack of a qualified professional body to oversee the application of IFRS**

It was pointed out that change to new standards would give rise to a plethora of questions and problems, which might require the facilitation or intervention of existing or specially created PBs, but it was doubted whether PBs had the authority or competence to address these issues.

“There are a lot of problems and difficulties faced by accountants, for example, the source legislator of international standards, the interpretation of the International Accounting Standards. Is there an explanation for these new standards or not? In the case of any problem with the application of international accounting standards, where is the reference? What is the source you turn to in the event of problems or hindrance when applying international standards or when preparing financial statements? Another issue, for example, is the language in which International Accounting Standards will be issued, in Arabic or English or another language. Who is the official body responsible for these international standards? Is it the FBSAI? Is it the law for public and mixed sectors? What about the private sector? What is the responsible body? All of these questions should be considered when the Iraqi legislator introduces a new legislation. Because it is not an easy process, issuance of new laws and a new system and changing process, it needs a lot of work” (Ph-I.02, 2016).

It was suggested that PB did not have qualified staff capable to accommodate IFRS in the Iraqi business environment and they did not have a real intention to accommodate the IFRS in the Iraqi business environment through appointing a reference body to solve application problems. Therefore, their role is purely advisory or rhetorical, appealing for application of these standards.

“Still the role of the FBSAI is very simple. It is nothing more than a set of appeals for application, and the same for the IACPA. Originally, according to my information, the Iraqi Board of Accounting and Auditing Standards (IBAAS) has so far issued local standards, and it is not interested in international accounting standards or does not want the application of international accounting standards. Thus, the professional bodies that requested the application of international accounting standards had no intention really of applying of international accounting standards; even though there were pleas, they were weak pleas to apply international accounting standards” (Ph-I.10, 2017).

### **6.1.8.3 Impact of accounting culture on professional bodies**

In the view of several interviewees, the socialist accounting culture constrained the role of PB in taking the initiative towards change, such as making an adoption decision, because in Iraq's centralised culture, initial decisions had to be taken by the government.

“The role of professional organizations in the private sector is almost non-existent. Therefore, it is a central culture, centrally directed by the state, and not a culture influenced by professional organizations. The role of professional organizations is limited in the Iraqi accounting culture” (Ph-I.11, 2016).

Participant Ph-I.16 explained in more detail the weakness of the PB in terms of their history and scope of activity. He noted that the role of FBSAI is limited to the governmental and mixed sectors and other organizations or associations whose regulation stipulates that they audited by the FBSAI. In contrast, the role of other PBs such as IACPA and CPMAAI is limited to the private sector, as explained in the extract below:

“The truth is that the role of the FBSAI under its law and its staff is weak, as its law focuses on auditing state-linked sectors (public sector, mixed and some other sectors whose laws stipulate being audited by the FBSAI). Hence, the FBSAI always focuses on the governmental accounting system and does not pay attention to international accounting standards, which are mainly adopted by the private sector. Furthermore, the FBSAI staff is not commensurate with the size of the governmental sector in Iraq, but some training and development sections in the FBSAI sometimes prepare several seminars on certain accounting matters, including international accounting standards. As for the Association of Chartered Accountants and the CPMAAI, the role of the CPMAAI was absent during the period of the Association of Accountants, as everything was adopted by the Association of Accountants, of which auditors were a part. Therefore, their role was classically based on providing formal requirements in the financial statements. As for the Association of Chartered Accountants, it was newly founded in 2012, and paid more attention to administrative matters, more than other things related to accounting problems and development. So, its role is weak, through the establishment of some seminars and courses in the adoption of international accounting standards and international auditing standards, and one or two sessions a year, which I consider is not enough to adopt these standards” (Ph-I.16, 2016).

### **6.1.8.4 The perceived ideal role of professional bodies'**

Participants argued that professional organizations should be more active and suggested a number of ways in which they ought to work to support the change to IFRS:

(1) setting a clear transmission plan or guidance; (2) determining the main differences between the Iraqi Unified Accounting System and IFRS; (3) determining the effect of those differences on the financial statements; (4) seeking approval to publish these standards on the official website in Arabic; (5) explaining the IFRS terminology and ensuring translation accuracy; (6) providing practical training courses and workshops; (7) solving obstacles that may arise when these standards are applied. For example, participant Ph-I.01 suggested:

“There is a big expected role for the FBSAI and other professional bodies in providing guidance towards the adoption of the IFRS to keep abreast of global economic developments and meet the financial requirements of capital markets. Also, in preparing a training course to sensitize accountants and auditors” (Ph-I.01, 2016).

However, the current role of PB is just exerting a normative pressure on the private banking sector to implement the adoption decision, without taking action to overcome technical and behavioural obstacles through practising the role envisaged by participants. The secretary of the IACPA and the members of the IBAAS, respectively, asserted that their role is limited to exerting normative pressure and they could not explain, in their interviews, what they are doing to facilitate the implementation of the adoption decision or what procedures had been taken to overcome technical and behavioural obstacles:

“The IACPA and CPMAAI are working together toward the adoption of the IFRS. They are at the top of the pyramid, which is pushing for change” (Ph-I.04, 2016).

“In fact, the FBSAI, IACPA and CPMAAI, all of them are embracing the application of international standards. Therefore, they have a positive role. As I mentioned earlier, they took it upon themselves to apply international standards starting from 2016 by 2019 all international standards must be applied” (Ph-I.12, 2016).

### **6.1.9 Lack of IFRS knowledge**

IFRS knowledge is a cornerstone and critical factor in determining the implementation of the IFRS adoption decision. The lack of IFRS knowledge is an

overwhelming factor, especially given the conflict in legislation; almost all the participants stated, implicitly or explicitly, that Iraqi accountants did not have enough knowledge to apply the IFRS because of the lack of appropriate education, training, and experience: *“If they do not know it, how will they apply it?”* (Ph-I.15, 2016).

In the view of several participants, the lack of IFRS knowledge caused by a lack of IFRS education, training courses, and experience. The IFRS is not yet taught in Iraqi universities (no education) and it is something new to the Iraqi business environment (no experience).

“There is a need for experience, practice and professionalism in the field of application of international accounting standards, especially as most Iraq’s accountants are graduates of Iraq and did not have training courses outside Iraq. So, they need adequate knowledge and a lot of training courses, skills, and workshops to have enough knowledge and familiarity with how to apply international accounting standards” (Ph-I.11, 2016).

“I think that they do not have enough professional and professionalism in the field of application of accounting standards, especially as most accountants, most of them are graduates of Iraq and have done no courses outside Iraq. So, they need an adequate knowledge and a lot of courses, workshops, and skills that will enable them to apply the international standards in Iraq. So, I think that they do not have the experience and practice and professionalism” (Ph-I.18, 2016).

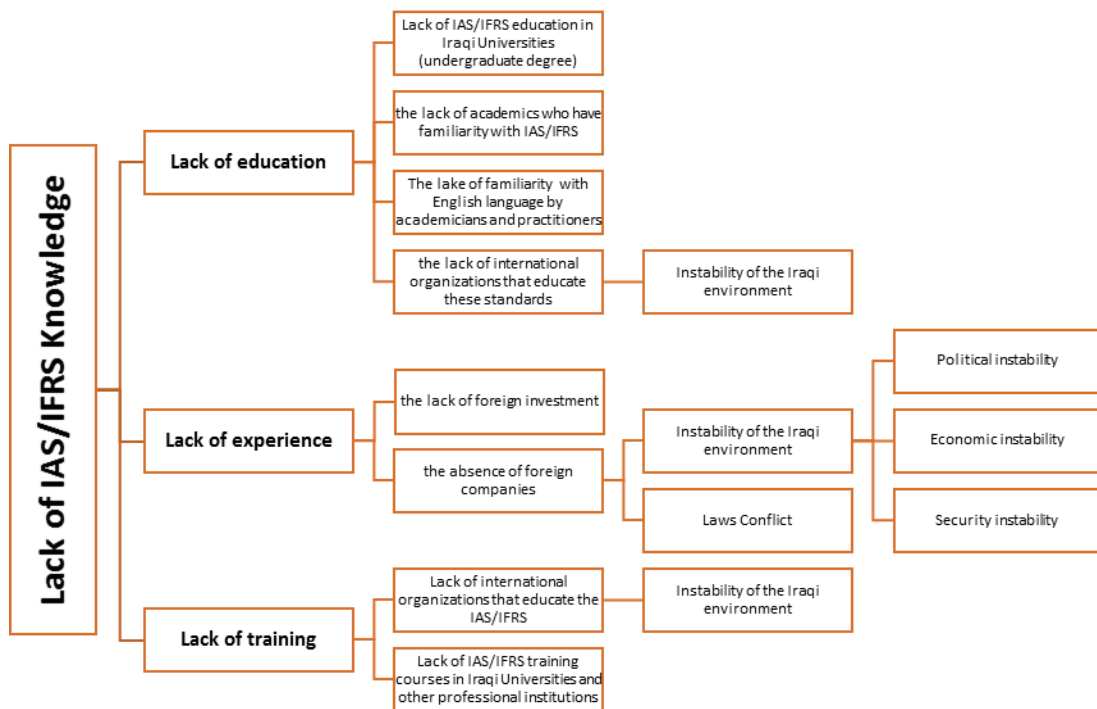
“Currently in Iraq, professional accountants have very limited experience of the application of international accounting standards, because it is new for Iraq” (Ph-I.13, 2016).

As for lack of IFRS experience, the instability of the political, economic and security situation led to lack of foreign investment and foreign companies that apply these standards, so Iraqi accountants had no opportunity to gain experience with them.

On the matter of lack of training, it was suggested that no international organization that could accommodate these standards existed in the Iraqi business environment. Also, there is no Iraqi organization with enough knowledge of these standards. Moreover, the Iraqi universities did not provide training courses on IFRS.

In general, these standards are something new for the Iraqi business environment, and the instability of the Iraqi environment is a factor contributing to international organizations' inability to accommodate these standards and to promote practitioners' and academics' IFRS knowledge. Moreover, the IUAS is inherited and rooted in professional accountants' minds, and it is difficult to convince them to switch to something they do not know about. Furthermore, given the lack of IFRS education and training courses in Iraqi universities and other professional institutions, professional accountants need to travel abroad to get education and training, and this will be costly and not easy. Figure 6.5 below shows how these factors were seen to combine to contribute to lack of knowledge as an obstacle to IFRS implementation.

Figure 6.5 The Lack of IFRS Knowledge



The application of high-quality accounting standards such as IFRS requires a degree of innovation and enough knowledge to select from among different options. The lack of IFRS knowledge has adversely affected the innovation ability of the Iraqi professional accountants. The ability to innovate comes from the cognitive process as based on

theoretical and practical knowledge. However, in the case of Iraq, both theoretical education and practical experience are lacking.

#### **6.1.10 IFRS Education**

The adoption of IFRS requires a high level of education and expertise (Zeghal & Mhedhbi, 2006). IFRS education is the most important factor in building IFRS knowledge and facilitating implementation of the IFRS adoption decision. Moreover, in some countries, the IFRS adoption decision led to development of the accounting education system and affected the accounting and auditing certification system (Carvalho & Salotti, 2012). Nevertheless, the IFRS education literature shows that most accounting educators, in a variety of national contexts, have done little to update and revise their education programmes, courses, and curricula (Bates et al., 2011; James, 2011; Parlakkaya et al., 2014; Singer, 2012; Yallapragadarry et al., 2011). Their findings show a scarcity of accounting coursework concerning IFRS. Also, many US business schools are not yet ready to introduce the IFRS in their financial accounting curriculum because their administrators do not have enough understanding regarding the incorporation of the IFRS in their accounting curriculum; the same is true in Kenya, according to Atabey et al. (2014).

Yoon et al. (2013) examined US undergraduates' IFRS knowledge, their readiness to apply the IFRS, and the real need to integrate IFRS learning material into the undergraduate accounting curriculum, from US employers' perspective. They found that graduates were unable to apply IFRS due to the lack of IFRS knowledge. As well, contrary to employers' expectations, undergraduates had only a general idea of IFRS; they did not have an effective understanding and were unable to describe the IFRS, or to compare and reconcile the US GAAP with IFRS.



Cherubini et al. (2011) found that the lack of IFRS education in US universities in the general business curriculum (principles-level) led to undergraduates' lack of IFRS knowledge. The lack of IFRS education was caused by the lack of IFRS knowledge by educators in US universities and the lack of teaching materials available, which is very similar to the case of Iraq. Cherubini et al. (2011) proposed that the IFRS learning materials should be integrated into an accounting principles course and introductory accounting courses, rather than being treated as an additional, separate course, to decrease the class time required to cover both US GAAP and IFRS materials.

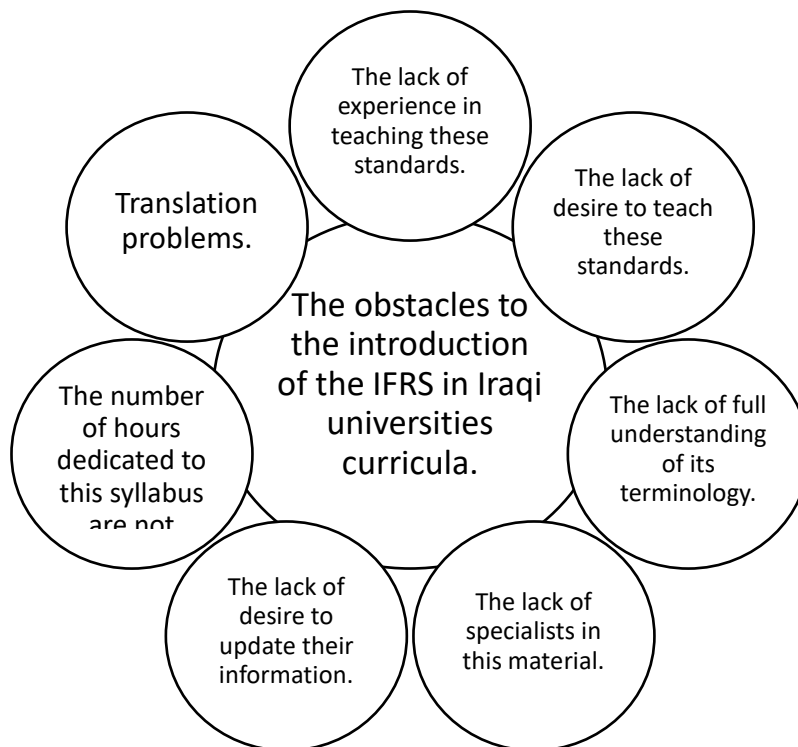
Uyar and Güngörmüş (2013) investigated accountants' basic IFRS knowledge and perception in Turkey's SMEs. They found that the *"inadequacy of accounting personnel's training and lack of training programs arranged by professional bodies are considered to be the most serious obstacles in implementation of the standards"* (Uyar & Güngörmüş, 2013:77). Also, accounts were not aware of the main differences between IFRS for SMEs and full IFRS. Thus, Turkey's professional accountants were not able to apply IFRS, due to the lack of IFRS knowledge.

At the undergraduate level, the case of Iraq is like those of the USA, Kenya, and other countries. The IFRS have not yet been incorporated effectively at the undergraduate level. *"It is addressed in a very superficial way, not to the extent required"* (Ph-I.14, 2016), *"rather materials related to standards, in general, are taught, but the content of the standard is not taught in all its details and its application"* (Ph-I.15, 2016). Hence, there is a weakness in the teaching of the IFRS at the post-graduate level. However, *"Certified Public Accountants take all international standards, as essential material"* (Ph-I.12, 2016), as the Arabic Institute of Certified Public Accountants (AICPA) has introduced IFRS learning material, which is the same as the case of the American Institute of Certified Public Accountants (Yoon et al., 2013).

The Arabic language is employed in both undergraduate and postgraduate studies, but the sources of learning materials are mixed, Arabic and English. Thus, it was claimed that graduates are inadequately equipped to apply the IFRS under the current curriculum and the Iraqi universities' *"role is very weak"* (Ph-I.11, 2016). Also, postgraduates' 'theoretical studies' do not equip them to apply these standards efficiently, because the application of IFRS requires both theoretical and practical understanding (Ph-I.11, 2016).

Several obstacles were found that may prevent the introduction of IFRS in Iraqi universities' curricula, which may be summarised by the lack of experience of some professors in these standards; the lack of desire by faculty members to teach these standards; the lack of full understanding of the relevant terminology; the lack of specialists in this material; academics' lack of desire to update their information; insufficient time dedicated to this syllabus, and problems with translation and the English language. *"Therefore, the general rule is that there is no proficient staff for the purpose of providing sufficient explanation of these standards to be included in the curriculum for Iraqi universities"* (Ph-I.14, 2016). Figure 6.6, below, illustrates this contribution of obstacles.

Figure 6.6 The Obstacles to Introducing the IFRS in Universities' Curricula



Attention was drawn to the lack of IFRS education in Iraqi universities at the undergraduate level, exacerbated by the lack of international organizations that could teach these standards and the lack of academics who are familiar with IFRS. The problem is that most of the Iraqi academics and practitioners do not have enough knowledge of the English language. Therefore, they may face several problems in understanding IFRS terminology. Although “*the President of the Federal Board of Supreme Audit of Iraq (FBSAI) as Chairman of the Iraqi Board of Accounting and Auditing Standards (IBAAS) has written to universities to ask them to introduce the teaching of international accounting standards*”, the Iraqi universities have not introduced IFRS learning material in their curricula (Ph-I.12, 2016). Also, “*a letter has been directed to the Ministry of Higher Education and Scientific Research signed by the FBSAI, Iraqi Association of Certified Public Accountants (IACPA), and Council of Profession Monitoring and Auditing of Accounting in Iraq (CPMAAI), calling for insertion of all the international*

*accounting standards in the universities' curricula. However, up to now, it has not been taught within university undergraduate curricula” (Ph-I.12, 2016).*

An important theme raised in relation to IFRS application was the need for, and absence of appropriate accounting education. The theme encompasses a range of sub-themes, including the need to provide IFRS related learning materials, the absence of any real pressure on universities to adapt their curricula, academic interest in IFRS, the political significance of such education for developing the accounting culture, and the status of IFRS teaching, if any, in Iraqi universities.

#### **6.1.10.1 Need for Iraqi universities to introduce IFRS learning materials**

All the participants agreed that the current role of Iraq's universities is very weak or invisible, but they hoped universities would play a prominent role in the future. Ph-I.11, as head of the accounting department of Al-Mustansuryah University, acknowledged that the current role of the Iraqi universities is very weak and does not support the implementation of the adoption decision. He indicated that universities should introduce IFRS learning materials within their curricula and develop academic staff able to teach IFRS, as shown below:

“Sure, universities have a major role in supporting the implementation of international accounting standards. This role may be summarised as: (1) Teaching these international standards and indicating the importance of their application and the desired interest. (2) Introducing these standards into Iraqi universities' curricula. (3) Creation of staff capable of dealing with these standards. (4) Keeping abreast of the latest developments in these standards, because they are always changing. However, at present, their role is very weak, and there is no prominent role in supporting the implementation of international accounting standards” (Ph-I.11, 2016).

All participants agreed that the Iraqi universities should offer specific courses on IFRS, to be taught over four years, including practical application, as shown below:

“Universities should play their role in the development and training to increase understanding and awareness of the importance of international accounting standards and their application. My proposal is to establish a new curriculum called the Accounting Standards, taught over four stages in university (undergraduate) and accompanied with practical applications to consolidate the level of awareness of the practical application of accounting standards” (Ph-I.01, 2016).

“Universities must consider the developments in IFRS, and allocate a separate curriculum taught over two or three courses, not within the international accounting curriculum, because the IFRS is a lot, wide and big. It cannot be fully covered within the international accounting curriculum (Ph-I.15, 2016).

Professional bodies have been urging the Iraqi universities to offer IFRS. One of the few concrete steps taken by professional bodies had been to send a joint letter to Iraq’s universities to encourage them introduce IFRS learning materials within their curricula, as a special module for undergraduate level study, as explained by Ph-I.12 below, although this action, again, had only rhetorical force:

“In fact, the President of the FBSAI as Chairman of the IBAAS has written to universities to ask them to introduce the teaching of international accounting standards. As well, there is a letter that has been directed to the Ministry of Higher Education and Scientific Research signed by the FBSAI, IACA, and CPMAAI, calling for insertion of all the international accounting standards in Universities’ curricula. But, up to now, it has not been taught within university undergraduate curricula” (Ph-I.12, 2016).

#### **6.1.10.2 Inability to influence Iraq’s universities’ curricula**

Ph-I.12, as a member of the IACPA and CPMAAI, asserted these bodies had signed more than one letter to the Ministry of Higher Educations and Iraq’s universities calling for the introduction of IFRS within their curricula, as shown below:

“There is a correspondence in this regard emphasising the introduction of international standards, particularly in undergraduate university study, and especially by the FBSAI, IACPA, and CPMAAI” (Ph-I.12, 2016).

However, this correspondence was understood as having only an encouragement purpose, since all the academic participants agreed that nobody, whether governmental or non-governmental, could exert pressure on universities’ curricula. The Sectoral

Committees of the accounting department in each faculty determine its curriculum, as explained by Ph-I.08, the Head of the Banking and Finance Department – University of Mustansuryah:

“The FBSAI encourages us to apply and teach it within our learning materials. Also, the Accounting Association encourages this thing. In other words, professional bodies are encouraging universities to teach it and companies to apply it, but not forcing it” (Ph-I.08, 2016).

The reason for this understanding is that there is no political decision to shift from national to international accounting standards, as explained in the following comment by Ph-I.11, the Head of the Accounting Department – Al-Mustansuryah University:

“In fact, there is no pressure. There is no pressure from governmental bodies or non-governmental organizations. The reason is there is no clear political decision to adopt international standards, which would constitute a pressure on universities to graduate qualified staff capable to deal with international standards” (Ph-I.11, 2016).

### **6.1.10.3 Academic interest in the IFRS**

Academic participants were asked to what extent Iraqi academics were interested in IFRS and their update. In response, all academic participants expressed that the main trend of Iraq’s academics, in accounting, banking, finance, and economic departments, is to learn IFRS, as shown in the quotations below:

“Iraqi academics that specialise in financial accounting are following up the development of IFRS” (Ph-I.15, 2016).

“And the interest is not confined to professors of the Accounting Department and the Department of Banking and Finance, but also the Department of Economics, and especially those who have relationships with the Central Bank of Iraq have the desire to learn more about international standards. As well, the Department of Finance and Banking conduct a seminar in collaboration with the Central Bank of Iraq about the mechanism of the transformation from local standards to international standards, where one of the general directors of the Central Bank of Iraq suggested that companies shift gradually” (Ph-I.08, 2016).

In line with the expressed interest, all academic participants were in favour of teaching IFRS to produce highly-qualified graduates equipped for the financial and

economic needs of the modern era, for example, able to work abroad in the competitive labour market, as shown in the quotations below:

“Of course, of course, 100%. Because at least graduates can work in the internal labour market when they know what the international standards are. As well, when they travel to work outside Iraq” (Ph-I.08, 2016).

“Yes, I support the adoption and its teaching, in an accurate manner in universities and other professional institutions, and the development of a new scientific material called international accounting standards divided over the years of study of the four stages, that include all the IFRS, in order to produce graduates conversant with accounting standards in theory and practice and competent to take advantage of them in the labour market” (Ph-I.01, 2016).

“I support its adoption and teaching it more effectively in the accounting department in the Iraqi universities, and increasing the number of teaching hours, to be more than two hours and in more than one stage. As well, it should be taught for more than one course, because the International Accounting Standards have become an absolute necessity imposed by the nature of economic and technical progress (Ph-I.11, 2016).

Ph-I.20 indicated that by teaching IFRS, universities could have a significant impact on accounting culture. They could change the current socialist accounting culture towards a capitalist one and enhance the adoption decision, as shown in the comment below:

“Universities can exert a significant role in the application of international accounting standards through the dissemination of an accounting culture based on International Accounting Standards, through introducing the IFRS in their curricula and keeping up with developments of these standards, which are in constant change depending on the surrounding circumstances. In my opinion, so far, the Iraqi universities now do not exercise their required role, because there is no serious decision based on the need to shift and its benefits” (Ph-I.20, 2016).

#### **6.1.10.4 Status of IFRS within undergraduate curricula**

Several academic participants expressed the view that Iraqi universities did not have a plan to introduce the IFRS in the undergraduate study curricula:

“I think that so far the Iraqi universities have not yet a teaching plan for the International Accounting Standards in their curricula” (Ph-I.12, 2016).

“So far not. There is no plan” (Ph-I.14, 2016).

“No, there is no plan, so far as I know” (Ph-I.15, 2016).

The general view was that Iraqi universities did not provide in-depth coverage of IFRS at undergraduate level.

“Universities still do not take into consideration teaching of the international standards in detail in their curricula of undergraduate study, except for a few paragraphs” (Ph-I.12, 2016)

However, it was indicated that, three years previously, a new module called ‘International Accounting’, taught in year four of the undergraduate level, had been introduced, in some universities, such as the Universities of Baghdad and Al-Mustansuryah (Ph-I.11, 2016), although it was addressed in a very superficial way, not to the extent required (Ph-I.14, 2016). This module merely dealt with some parts of some standards; the IFRS were addressed in brief, not in detail and without practical studies, due to the time limitation, just two hours per week, as explained by the Head of the Accounting Department of Al-Mustansuryah University, Ph-I.11:

“Yes, just parts of these standards have been included in a new module called International Accounting, which is taught in year 4 of undergraduate study, but not efficiently. Because it is taught within a single learning material for two hours per week, to students at the fourth stage in the accounting department. Therefore, it does not cover the subject of standards completely. But it is better than before, as this subject was not taught three years ago” (Ph-I.11, 2016).

Also, Ph-I.15 added that:

“Yes, international accounting material was incorporated about 3 years ago for students of the fourth stage, but not all standards, just some of them. Also, studying is not at the same level itself as the standards (target, range... e.g.), rather, materials related to standards, in general, are taught, but the content of the standards is not taught in all its details and its application. Moreover, it's a lot and cannot be fully covered by the international accounting curriculum, and the number of hours dedicated to this syllabus is not enough” (Ph-I.15, 2016).

Hence, the IFRS are not touched upon except very briefly, so there is a weakness in the teaching of this subject. It was argued that separate material should be allocated to



cover the IFRS. Also, each standard needs a lot of explanation and clarification of the practical application with a discussion of the pros and cons of its application in the Iraqi environment (Ph-I.14, 2016). Therefore, the current syllabus is “*inefficiently covered*” (Ph-I.06, 2016).

As a result, all participants were convinced that undergraduates would not be able to apply the IFRS due to the lack of theoretical and practical understanding caused by insufficient learning materials, and failure to keep up-to-date:

“According to this curriculum, I do not think that graduates will be able to apply the IFRS. Because, its application requires full understanding theoretically and practically, and keeping abreast of all the changes that occur in the standards, with the latest updates. And because the prescribed curriculum for teaching the international accounting materials is not sufficient to make graduates proficient in the application of IFRS” (Ph-I.01, 2016).

“Graduates will not be able to apply IFRS, because the curriculum is inadequate, and does not cover all the standards, and is inefficient” (Ph-I.06, 2016).

#### **6.1.10.5 Status of IFRS within postgraduate studies**

There are two sorts of postgraduate studies: academic such as Masters’ degrees and Doctorates, and professional qualification study, such as Certified Public Accountants.

“Post-graduate studies like Master’s and doctorate and the postgraduate studies in other professional institutions like the Certified Public Accountants degree consider the teaching of the International Accounting Standards in depth, which is an important support for the application of international accounting standards. In fact, there are two parts: the university undergraduate studies do not take into consideration international accounting standards, just take excerpts. The postgraduate, especially Chartered Accountants, take all international standards, as essential material” (Ph-I.12, 2016).

At Master’s and Doctorate levels, it was suggested, not all graduates are able to efficiently apply the IFRS, because of the lack of practical aspects in the postgraduate studies’ curricula, as explained in the extracts below:

“It is taught for doctoral students more broadly, but there is no teaching of the practical side of international accounting standards; only the theoretical part is taught, without practical study” (Ph-I.11, 2016).

“No, I think they will not be at the required level. Because, yes, the application of IFRS needs a theoretical understanding, but it also needs a practical understanding” (Ph-I.11, 2016).

“I do not think it will be 100%; it is possible to be 60% to 65%. Because there is a weakness in the practical aspect, it depends on their ability with real cases. Thus, we have to engage students in workshops, which is a drawback and shortcoming” (Ph-I.08, 2016).

Regarding professional qualification, the Arabic Institute of Certified Public Accountants, as a professional institution, has introduced IFRS within its learning materials for both theoretical and practical aspects, as explained below:

“Professional institutions, like the Arabic Institute of Certified Public Accountants, yes, they are teaching international accounting standards for their students” (Ph-I.04, 2016).

“For Higher Studies (Certified Public Accountants), yes” (Ph-I.12, 2016).

#### **6.1.10.6 The obstacles to introducing IFRS learning materials**

Participants suggested that, at least in part, current inadequacies in IFRS education could be explained by lack of suitable materials, and lack of sufficiently experienced teaching staff.

All participants agreed that, as regards teaching materials, the language of instruction is an issue because “*the teaching is in Arabic, and there are Arabic and English resources*” (Ph-I.15, 2016). However, the main resources are the IFRS itself and also international accounting books, which are in English, and unfortunately, they are marred by several problems related to translation accuracy (Ph-I.11, 2016). It was claimed that translation errors caused major difficulties in understanding and teaching these standards,

especially as the latest update of the standards is in English, while academics' English is limited:

“Surely, the standard is issued in English, and there are several articles that cannot be translated to Arabic accurately, which leads to errors in translation that constitute a hindrance for both students and faculty members in understanding some of the IAS/PFRS paragraphs, because it loses some meaning when translated. There is good attention by academics to observing the latest updates in the international accounting standards and IFRS in the Arabic language, but this is not enough, because the latest update is issued in the English language, and it takes a long time to translate it, and then write about it in academic articles. Therefore, academics need to develop their abilities in the translation of the English language to follow the latest update on the website of the International Accounting Standards Board” (Ph-I.11, 2016).

The lack of experience was identified as another major obstacle to the introduction of the IFRS in Iraqi universities' curricula, due to lack of desire by faculty members, lack of development of faculty members, and inadequacy of the IFRS syllabus. Some illustrative quotations are presented below:

“We can say there are many reasons: lack of experience of some esteemed professors. It is also, in fact, a question of whether there is a desire by faculty members, and this is what is required really. As well, the subject teachers must be specialists in this material” (Ph-I.12, 2016).

“First: the weakness of sufficient awareness of teaching staff in the field of IFRS. Second, lack of desire to update their information” (Ph-I.14, 2016).

#### **6.1.11 The absence of a transition plan or guidance**

It was clear that the transition committee had not set a firm plan for how they will apply these standards. While some participants envisaged an outline plan or overall timescale, others thought they would determine specific dates to apply issued standards individually, as shown by their answers below:

“There is no clear plan, but there may be plans in the form of drafts that show the transition to international standards should be primitive, step by step. First, we should begin to create training centers for teaching and education on the IFRS and grant certificates of passing training courses. However, it is still a draft that has not yet been approved” (Ph-I.10, 2016).

“Yes, the Iraqi IBAAS has a plan to adopt these standards over three years. It is also, in fact, we are applying parts of it now, but the full application is supposed to be completed in three years, from 2017 until the end of the year 2019. This year was the preparatory year, and the application will start from the year 2017 and continue to be completed in 2019” (Ph-I.12, 2016).

“There is no specific plan. When issuing a new standard, we will determine the date of application” (Ph-I.21, 2017)

It was claimed that no transition guidance had been prepared by the transition committee:

“No, so far there is no established guide to shifting towards international accounting standards” (Ph-I.10, 2016).

“No, until now we have not developed guidance for the change, but it is under study” (Ph-I.12, 2016).

#### **6.1.12 Violation of the IFRS Foundation adoption requirements**

Unfortunately, it was claimed, the requirements for adoption of the IFRS, stipulated by the IFRS Board, had not been fulfilled, and the transitional committee members originally did not know these requirements:

“Unfortunately, no, the committee has not fulfilled these requirements, and these efforts are wasted efforts. Because, it did not adopt the copyrights. The transition committee is composed of more than one person from different sectors in Iraq (banking sector, insurance sector, investments sector, etc.), but these efforts have not been preserved through the so-called adoption requirements” (Ph-I.10, 2016).

However, the copyright of IFRS was not violated by the Iraqi Board of Accounting and Auditing Standards (IBAAS), because *“the IBAAS did not translate international accounting standards, but rather obtained them from international and regional organizations, that translated them”* (Ph-I.12, 2016).

### **6.1.13 Partial and gradual adoption decision**

Respondents asserted that the adoption of the IFRS would occur partially and gradually through issuing new Iraqi standards in line with the IFRS. Although they asserted that implementation would take place, they qualified their responses with several waivers and reservations, regarding relevance to the current Iraqi environment, or conflict with existing law. Thus, the general view was that some elements of the standards might be delayed, modified or even omitted.

“Yes, I favour the adoption of the IFRS without any amendments, except what is contrary to Iraqi law in force” (Ph-I.04, 2016).

“My intention, what I hope for, is a partial modification of certain international accounting standards in order to be suited to the Iraqi economic situation, while raising the level of local accounting standards to meet certain international accounting standards requirements, through customisation between local accounting standards and the IFRS. That is my aspiration, in brief, and this thing cannot be accomplished by individual efforts, but rather it needs a collective effort by a group of specialists in the field of accounting, auditing and international accounting” (Ph-I.10, 2016).

“Iraq will adopt the application of international accounting standards after an examination, we hope; there are molecules, small aspects that are known but in fact, we do not apply them. We will adopt all international standards, but not with their drawbacks, after examining them and their conformity with the reality of Iraq” (Ph-I.12, 2016).

### **6.1.14 Failure to determine differences between the IUAS and IFRS and how to treat them**

The transition committee has identified the differences between the local standards and the international standards in general, but not in specific, for each item of financial statements' components. In the absence of more detailed analysis, they had not been able to identify how they will tackle these differences:

“The differences are many, generally, the accounting is measurement and display. The measurement process will change dramatically, and the presentation of financial statements also claimed a dramatic change. There are certainly enormous differences. There are a number of differences, including the presentation of

financial statements, the statement of financial position (Balance Sheet), statement of comprehensive income, changes in equity statement, cash flow statement, other disclosures, the notes and explanations accompanying the financial statements, notes and explanations to the Consolidated Financial Statements, the estimates required, changes in accounting policies, risk identification, inventory estimate, tax allowances, the fair value, the change in the value of the assets, with respect to standards (7,9,10,38,19). In fact, a lot of things. For example, we consider the income tax as part of the dividend, but in fact, it is part of the expenses” (Ph-I.12, 2016).

#### **6.1.15 Wrong information presented in the official website of IAS and IFRS**

Contrary to what is stated on the official website of the IAS and IFRS, transition committee members indicated that Iraq had not adopted the IFRS, although they expressed the hope that Iraq will adopt these standards in future.

“The Iraqi Association of Accountants and auditors is a member of some international organizations, but now it is semi-closed, and therefore anything that comes from this association is contrary to the reality and does not fit. This institution previously, before 2003, was an official source for information. But after 2003 it collapsed almost, at least intellectually, and even the people who run it became completely isolated from the actual reality in Iraq” (Ph-I.04, 2016).

“As I said at the beginning, the Central Bank Act, the Banking Act, and Anti-money laundering Act have stated the application of international standards, which apply only to the banking sector. In the other sectors, there is no binding legislation.

With all due respect to what is mentioned in the official website of the International Accounting Standards, it is not accurate. It has not been applied up to now. It will be adopted, God willing, in the coming years” (Ph-I.12, 2016).

#### **6.1.16 Fair value measurements are inapplicable**

It is found that the fair value measurements are inapplicable currently in the Iraqi banking sector for many reasons, such as conflict with the Income Tax, which imposes applying the historical cost of fixed assets, the lack of an active market that considers this value, and difficulty in determining who will make this evaluation in order to measure the fair value; banks themselves, auditors, or the CBI.

Fair value measurements will generate a fundamental change in the financial statements: the statement of Financial Position, the statement of Comprehensive Income,

and Equity Changes statement. Moreover, the presentation of financial statements, inventory, disclosure, classification, Cash Flow statement, allowances, reservation, and risk assessment will be affected by the application of the IFRS, but professional accountants can apply them if they have enough knowledge in the IFRS. Hence, the application of IFRS will be partial and gradual, as mentioned by the secretary of the IACPA “*Yes, the adoption of the IAS/IFRS without any amendments, except what is contrary to Iraqi law in force*” (Ph-I.04, 2016).

This section has highlighted the key themes that emerged from the institutional environmental factors (IEF) investigated within a sample of twenty-one in-depth interviews. After comparing the interview findings with previous literature and highlighting how the institutional environmental factors influence the implementation of IFRS in transitional developing countries, the next section will present a theoretical explanation of these findings. The IBT has been employed to increase our understanding of the interplay and interaction between the institutional environmental factors within its three levels (global institutions, governance structures, and entities) and three isomorphic pressures (coercive, normative, and mimetic).

## 6.2 Interview Findings within Institutional Perspective

The accommodation of the IFRS in the Iraqi banking sector (IBS) is located under two contrary pressure forces. The first force pushes towards continuing to apply the IUAS, while the second force pushes towards the application of IFRS. The first force is driven by the conflict in laws, the lack of IFRS knowledge (L-KN), technical obstacles (TO); behavioural obstacles (BO), internal stakeholders’ requirements, and political, security, and economic instabilities, whereas the second force derives its power from the WB, IMF, CBI, IACPA, CPMAAI, and corresponding banks (external stakeholders).

The CBI, CPMAAI, and IACPA decision is partial and gradual adoption (Ph-I.04, 2016; Ph-I.12, 2016; Ph-I.21, 2017). *“The IFRS will be taken entirely, but there are some paragraphs that may not be applicable to the Iraqi reality, or we may take a part of it or postpone part of it. In other words, the standard itself contains several paragraphs, and some of those paragraphs are not applicable to the Iraqi reality, so we will postpone their application. We will adopt the application of international accounting standards entirely after full study; we may disable part of it now because of the economic situation, and then apply it later”* (Ph-I.12, 2016).

However, Hakim and Anas (2015) found that *“partial adoption of IFRS might be not only inappropriate and irrelevant, but also significantly harmful to emerging stock markets development”* (Hakim & Anas, 2015:70), whereas the full adoption of IFRS for listed companies significantly and positively influences the development of the capital market.

### **6.2.1 Coercive pressures**

Undoubtedly, the WB pushes countries to adopt IFES or develop their local standards based on IFRS and in some cases requires the adoption of IFRS to guarantee the settlement of their loans (Alfredson et al., 2005). According to Irvine (2008:132) *“A major player in world capital markets, the World Bank and its sister organization, the IMF, ..., are providing loans and assisting in economic development, arguably from beneficial motives. These two organizations represent a major global institutional force.”*

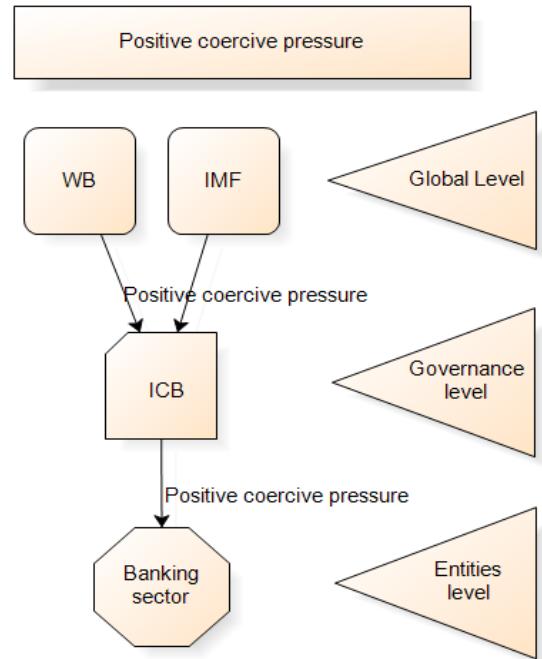
Arnold (2012:362) confirmed that the WB and the IMF contributed to the diffusion development and of IFRS *“in several ways, both practical and ideological.”*



Based on Scott's (2001) theoretical hierarchy of institutional contexts, positive coercive pressures are exerted by the international financial institutions such the WB and IMF (global level) on the CBI (governance level): the adoption decision that was taken in 2015 by the governor of the CBI stems from

Figure 6.7 Positive Coercive Pressure

coercive pressure by the WB and IMF, after the CBI borrowed from the latter. The financial crisis experienced by Iraq after the decline in oil price and the cost of military activity led to the CBI heading towards indebtedness and forced it to borrow from the WB and the IMF in 2015 (Ph-I.11, 2016). In turn, the CBI exerted coercive pressure on the banking sector (lowest level) to adopt the IFRS. See Figure 6.7.



In support of the above point, it is reported that the quest of the governor of the CBI for the application of IFRS was for “*the application of international requirements*” (AlmadaPress, 2015). That is, the requirements were imposed by the WB and the IMF after the CBI borrowed from them (Ph-I.12, 2016). Moreover, the issue of money laundering by some Iraqi banks led the WB and IMF to impose sanctions on offending banks (Ph-I.10, 2016).

Furthermore, Ph-I.12, as a member of the Iraqi Board of Accounting and Auditing Standards (IBAAS), a member of the team responsible for the updated IUAS issued by the FBSAI, and a member of the transition committee, asserted that the adoption decision resulted from WB pressure to comply with international requirements, and that this

decision will be extended to other companies within the private sector, to develop this sector through involving foreign investors:

“The World Bank, as explained previously, pushes towards the application of international accounting standards, and now it has become necessary to apply international accounting standards in compliance with international requirements and to achieve the principle of disclosure and transparency, the requirements of international institutions and organizations. This generates a large benefit to the Iraqi economy, especially the banks, which are the main engine of any economy to enhance its progress. Indeed, we are working to attract foreign investors and foreign investment, and especially as the state budget suffers from problems and slack, but for the purpose of economic advancement, we must develop the private sector and involve investors, so all of that requires us to apply the international accounting standards” (Ph-I.12, 2016).

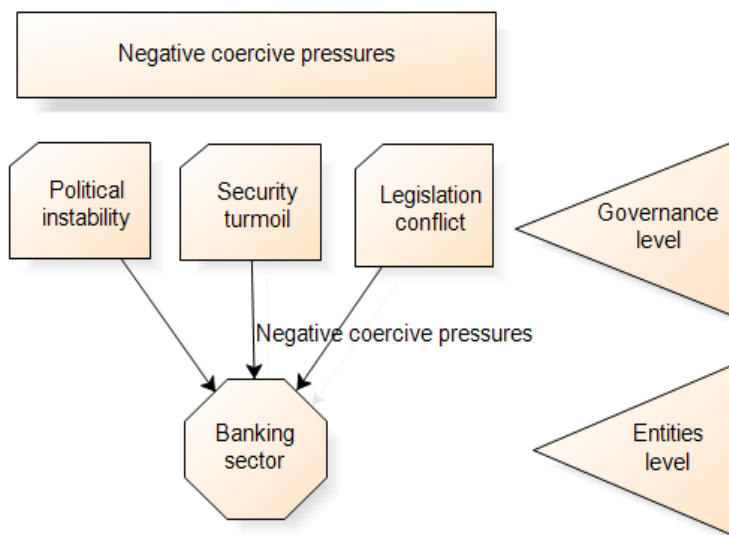
Previous literature has discussed the intervention of the WB and IMF in emerging and developing countries in the dissemination of the IFRS through imposing their application when they give loans (Annisette, 2004; King et al., 2001; Zaman Mir & Shiraz Rahaman, 2005). The WB and IMF are practising a coercive pressure ‘based on financial dependence’ (Albu et al., 2011b; DiMaggio & Powell, 1983), to create a favourable investment environment (Ionascu et al., 2007), and present these countries that borrowed from the WB and IMF as a fertile ground for investment and well-regulated places for foreign investment (Jermakowicz & Gornik-Tomaszewski, 2006). In this regard, Fatma and Faker (2017:763) assert that “*the World Bank has recognized IFRS as one of the essential international standards that endorse good governance, financial transparency and public accountability within its market-oriented reform programme based on privatization, deregulation and liberalization*”. Moreover, Yalkın et al. (2008) indicate that the WB, IMF, IOSCO, and other similar organizations founded policies to prop up the application of IFRS.

However, several academics argued that there are several differences between a national direction and IFRS and questioned the outcomes of this obligation to apply these standards (see, e.g., Baker et al., 2010; Bhattacharjee, 2009; Walker, 2010). For instance,

Annisette (2004) asked who the winners and the losers of this action are, and then what is the role of the WB regarding local resistance and confrontation to IFRS implementation. Also, Ionascu et al. (2007) conclude that the insertion of the IFRS conceptual framework into national regulation is odd. Moreover, most participants in this study favoured partial adoption, not full adoption.

The negative coercive pressures stem from political instability, security turmoil, and legislation that conflicts with the application of IFRS, see Figure 6.8.

Figure 6.8 Negative Coercive Pressure



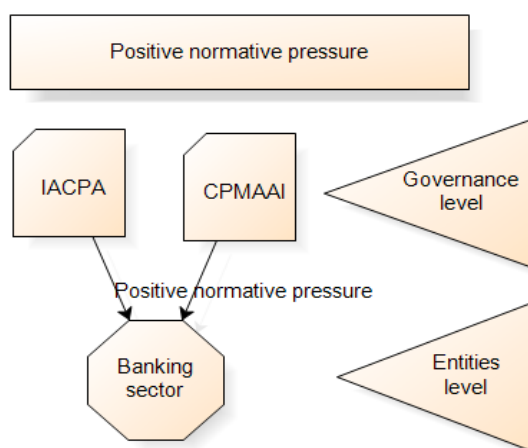
According to the Vice President of the Iraqi Association of Certified Public Accountants, political instability, security turmoil, and conflict of laws were the critical reasons for non-integration of Iraqi economy with the global economy and non-application of the IFRS (Ph-I.09, 2016). From his side, Ph-I.20 pointed out that, “*the most prominent factors are political instability and the security turmoil that are pushing strongly to outweigh the advantages offered by the international accounting standards to attract foreign investment.*” Also, Ph-I.11 adds that “*the lack of security and stability made companies hesitate to invest in Iraq*”.

### 6.2.2 Normative pressures

Normative pressures stem primarily from professionalization (Scott, 2001), which may significantly affect the harmonization and convergence of accounting practices (Guerreiro et al., 2012). It refers to norms and social beliefs that influence organizational behaviour. These values may lead to resemblance to their counterparts in other entities (Irvine, 2008). Judge et al. (2010) argued that the accounting profession, represented by professional organizations, has normative pressures on the accounting standards more than other institutional norms *“because professional norms and practices are supposed to transcend national beliefs and common practices”* (Judge et al., 2010:169). Normative pressures may grant professional accountants the ability to play a vital role in applying the international accounting standards (Zaman Mir & Shiraz Rahaman, 2005). In the view of Albu et al. (2011b:84), *“Normative isomorphism is given by the professionalization, in that the members of a profession define methods of work.”*

Positive normative pressures stem from the Iraqi professional institutions that organize the accounting practices in Iraq, which are the Iraqi Association of Certified Public Accountants (IACPA) and the Council of Profession Monitoring and Auditing of Accounting in Iraq (CPMAAI) to apply the IFRS in the banking sector. See Figure 6.9.

Figure 6.9 Positive Normative Pressure

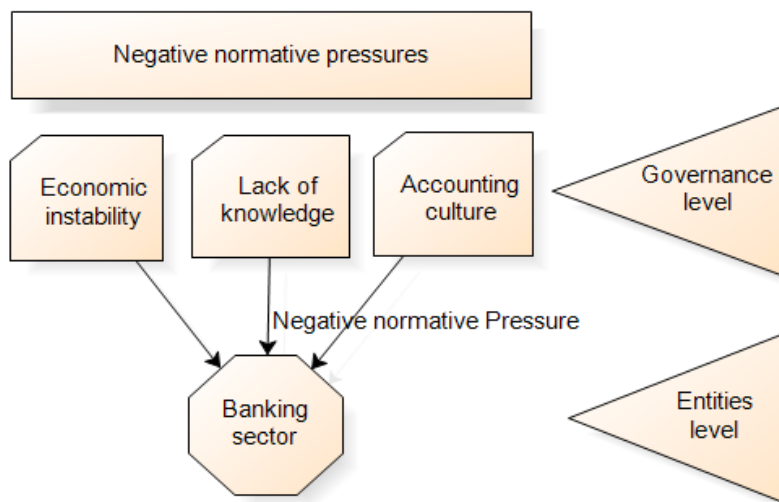


The Iraqi professional organizations wanted to play their part in supporting the adoption decision through exerting normative pressures to activate and facilitate the IFRS adoption decision. This is shown by the secretary of the IACPA, who asserts that the IACPA practise a pressure on the Iraqi banking sector to apply these standards. And if they succeed, this decision will be extended to all listed companies (private and mixed sector) or at least all big companies that affect the Iraqi economy (Ph-I.04).

“Yes. I am speaking as secretary of the Iraqi Association of Chartered Accountants, we are trying to accomplish the transition to the IFRS for banks (private banks) operating in Iraq through this year and the upcoming year, then we will be heading to corporations listed on the Iraqi Stock Exchange” (Ph-I.04, 2016).

However, negative normative pressures stem from the lack of IFRS knowledge, the previous socialist accounting culture, and the instability of the current Iraqi economy, see Figure 6.10.

Figure 6.10 Negative Normative Pressure



As clearly stated by Ph-I.11:

“The Iraqi economy before 2003 was socialist, and post-2003 ostensibly it has switched to the capitalist system, but this is only rhetoric, while the practice is socialist, or perhaps a mixture between this and that, and this is posing an obstacle to the adoption of international accounting standards, as they apply to capitalist economies. Also, as the Iraqi economy is still a closed economy, the same laws still serve from the days of the socialist era”.

The lack of IFRS knowledge (education, training, and experience) was a key reason for non-implementation of the IFRS adoption decision. As mentioned previously, normative pressures stem from individuals' 'norms and social beliefs' that influence the individual's behaviour (Irvine, 2008; Scott, 2001). This finding was in line with Nurunnabi's (2015) findings and entirely conflicts with Abayo and Roberts (1993), who argued that training in the accounting profession is not an influential factor in the application of IFRS. However, IFRS knowledge is the most critical factor in the accounting profession to implement the IFRS adoption decision in a transitional developing country (Nurunnabi, 2015).

The IUAS meets the needs of internal stakeholders and also it has a number of professional advantages for accounting practitioners, such as being easy to apply, understandable, having guidance that enables anybody to apply the system by following the guidance, and sufficient flexibility to be expanded to absorb and accommodate new accounts (Ph-I.10, 2016). These reasons will constitute a normative pressure that controls professional accountants' beliefs and norms, since the current accounting system meets the needs of internal stakeholders and they do not have enough knowledge regarding the IFRS. These reasons will convince them that there is no need to change and they should keep the IUAS.

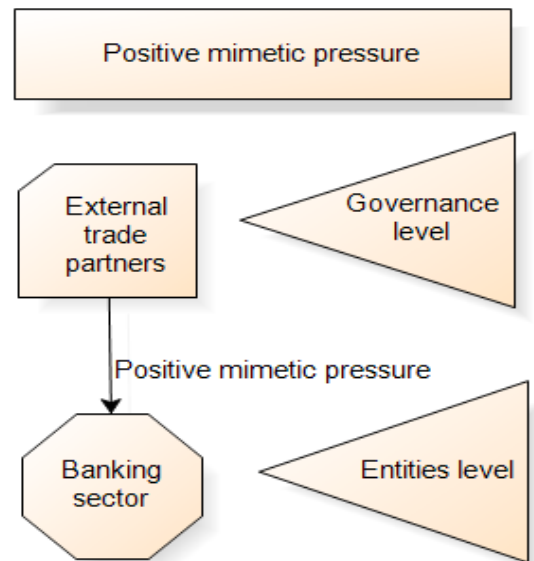
### 6.2.3 Mimetic pressures

Entities may imitate peers that seem to be influential or successful (Boxenbaum & Jonsson, 2017; Guerreiro et al., 2012). This sort of pressure is illustrative of positions where the absence of a distinct and organized setting of accounting standards could lead to the adoption of the IFRS solely through imitation pressure (Ghio & Verona, 2015).

*“Mimetic isomorphism is seen as adopting the best practices in order to be more legitimate or successful”* (Albu et al., 2011b:84). Accordingly, entities may imitate the accounting practices of peers that are perceived to provide a commendable benchmark. Hence, positive mimetic pressure stems from external trade partners, such as

‘correspondent banks’ (Ph-I.10, 2016), see Figure 6.11.

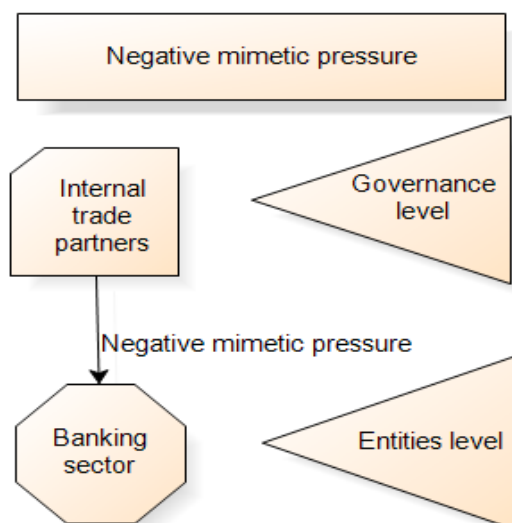
Figure 6.11 Positive Mimetic Pressure



However, negative mimetic pressure stems from internal trade partners (Ph-I.10, 2016), see Figure 6.12.

Figure 6.12 Negative Mimetic Pressure

When all Iraqi economic sectors are applying the IUAS, except the banking sector, this will constitute a mimetic pressure to continue to apply the IUAS, because it is understandable and meets their needs (Ph-I.10, 2016).



## Summary

The interviews indicated that the political situation in Iraq is not conducive to application of IFRS, due to the continued impact of socialism during the transition period, and a perceived lack of real will to lead change. This has contributed to a lack of clarity as to the shape of the accounting system, and particularly, a lack of engagement with the international economic system. Among the problems are confusing and inconsistent legislation, such that the status of IFRS is not clear, especially as existing laws conflicting with IFRS have not been repealed. Iraq's security position, moreover, exacerbates the situation by dominating government attention, deterring foreign investors, and hindering Iraqi accountants' acquisition of education, training and experience. In the face of these impediments, and despite pressure from the WB and IMF, the accounting culture remains largely unchanged. The capital market, education institutions and professional bodies have little or no role in driving change. Thus, implementation of the IFRS adoption decision is hindered by a range of technical and behavioural obstacles.

The analysis of the situation provided by the expert interviewees is broadly consistent with the theoretical expectations and evidence in other national settings, discussed in Chapters Two and Three. The circumstances described can be explained in terms of Institutional-based Theory, and specifically Scott's (2001) theoretical dimensions. The discussion in Section 6.2 has shown how positive coercive, normative and mimetic pressures, stemming from the WB and IMF, professionalization and external trade partners, respectively, are countered by negative pressures from political, security, legal, economic and cultural issues, as well as internal trade partners, all of which have effects at both governance and entities levels.



Themes identified in this chapter were further analysed in phase two of the research, where the influence of these obstacles on the quality of financial statements was examined via the Throughput Model pathways. The outcomes will be addressed in Chapter Seven.

## Chapter 7 Questionnaire Findings

### Overview

Based on the Throughout Model, the theoretical framework and the interview findings, a questionnaire was developed to examine the Expedient Pathway and the Ruling Guide pathway. First, this chapter will report the scanning and cleaning of the data, non-response bias assessment and common method bias. Then, descriptive analysis, multivariate analysis of variance analysis (MANOVA), hierarchical component model (HCM) analysis, and mediation analysis will be performed. The Expedient Pathway will examine the impact of technical and behavioural obstacles on financial statements' quality, while the Ruling Guide Pathway will examine the ethical and professional role of professional bodies (CBI, CPMAAI, and IACPA) in enhancing the financial statements' quality by assisting professional accountants' judgements to overcome technical obstacles (the Ruling Guide Pathway A), and both technical and behavioural obstacles (the Ruling Guide Pathway B). The structure of this chapter is presented in Table 7.1 below:

*Table 7.1 Chapter Seven Structure*

7	Questionnaire Findings
7.1	Scanning and Cleaning the Data
7.2	Non-response Bias Assessment
7.3	Common Method Bias Assessment
7.4	Descriptive Analysis
7.5	Multivariate Analysis of Variance Analysis (MANOVA)
7.6	Hierarchical Component Model (HCM)
7.7	Mediation Analysis
7.8	Model Evaluation
7.9	Discussion of Findings
	Summary

## 7.1 Scanning and Cleaning the Data

Examining the data is an essential stage prior to statistical analysis (Tabachnick & Fidell, 2014), especially when applying Structural Equation Modelling (SEM) analysis (Hair Jr et al., 2017). The general assumption of first-generation statistical analyses is that “*the data are error free*”. However, second-generation analysis techniques recommend recognition of error components and their removal before the data analysis stage (Hair Jr et al., 2017:56). Tabachnick and Fidell (2014) highly recommended cleaning and screening the data prior to starting the principal analysis. This includes checking data entry accuracy and missing data, suspicious response patterns and screening questions, and testing for outliers and normality (Hair Jr et al., 2017; Pallant, 2013). These procedures are discussed in the following subsections.

### 7.1.1 The accuracy of data entry and missing data

Tabachnick and Fidell (2014) recommended researchers to pay attention to data entry to ensure the accuracy of the data file. However, in the present research, there was no manual data entry. The data were downloaded from the survey website<sup>72</sup> as an Excel file. Thus, there was no worry about this point. However, because the questionnaire was self-administered, attention was paid to ensuring that only the target participants were included in the statistical analysis. Hence, question number 13 was included in order to identify the participants’ occupations: External Auditor, Professional Accountant, Academic, and Others. After reviewing the “other” occupations, it was found that one case was an economics expert, but because he/she worked in the internal auditing department of X bank, this case was retained.

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<sup>72</sup> <https://www.esurveycreeator.co.uk/>

Missing data may cause a significant problem in social science research when using a questionnaire survey to collect empirical data. This mainly occurs when a participant fails to answer one or more questions, whether purposely or inadvertently (Hair Jr et al., 2014; 2017). Pallant (2013) stressed that it is rare to obtain complete data from each participant when conducting research with human beings. However, online data collection reduces missing data because the researcher can prevent participants from skipping mandatory questions, by the “*forced-answer approach*” (Hair Jr et al., 2017:57). However, this approach may lead some participants to stop answering the questionnaire survey.

Hence, to overcome the missing data problem, prevent non-serious participants from taking part in this survey, and ensure accuracy, all questions were made mandatory. The submission of the questionnaire was not allowed until all questions had been answered, so there was no missing data.

### **7.1.2 Questionnaire reliability**

As cited in Saunders et al. (2009:374), Mitchell (1996) “*outlines three common approaches to assessing reliability, ..., test re-test; internal consistency; and alternative form*”. It is difficult to send a questionnaire twice to the same participants to adopt the first approach, “*test re-test*”, and many participants would not agree to answer the same questionnaire twice. Therefore, the test re-test approach was rejected in favour of the internal consistency and alternative form approaches.

#### **7.1.2.1 Internal consistency**

The internal consistency stems from the correlation between questionnaire questions, which means to what extent the scale items are measuring the same underlying attribute. It can be measured in several ways, but the Cronbach’s coefficient alpha is the most

common statistical method. Its values range between 0 to 1, and the minimum acceptable value is 0.7, with higher values are demonstrating greater reliability (Pallant, 2013).

IBM-SPSS 24 software was employed to examine the internal consistency. The empirical results demonstrated that all constructs are highly reliable, since the Cronbach's alpha values of all constructs are far greater than 0.7, as shown in Table 7.2.

Table 7.2 Cronbach's Alpha

Variable	TO	BO	CBI	CPMAAI	IACPA
Cronbach's Alpha	0.929	0.917	0.949	0.953	0.958
Variable	OTO	OBO	PFSQ	MFSQ	HFSQ
Cronbach's Alpha	0.916	0.953	0.963	0.946	0.970

#### 7.1.2.2 Alternative forms and suspicious response patterns

As mentioned previously in the discussion of the questionnaire design and structure, in a self-administered questionnaire, researchers may employ some procedures to ensure internal consistency through testing the respondents' accuracy, which will enhance the research validity and reliability. Hair Jr et al. (2017:58) recommended researchers to examine response patterns before initiating their statistical analysis, through looking for "*straight-lining*"; a high-percentage of questionnaire questions that have the same answer. Moreover, Hair Jr et al. (2017) recommend researchers to utilise "*one or more screening questions*" (Hair Jr et al., 2017:59). This is termed "*alternative forms*" by Saunders et al. (2009:374).

To do so, three pairs of screening questions as 'alternative forms' were inserted in different places to ensure that only participants who carefully read and understood the questionnaire questions were entered in the primary statistical analysis, see Table 7.3, below.

Table 7.3 Alternative Forms of the Same Questions (check questions)

Alternative form of the same question ‘check questions’						
Question No.	Question 1		Question 2		Question 7	
		1.4	1.6	2.1	2.3	7.1
Code	TO_4	TO_6	BO_1	BO_3	OBO_1	OBO_3

These paired questions were asked in a slightly different way. Answers that varied by more than 2 points on the 7-point scale for two peer questions were taken indicate that the respondent had not read the questions carefully or did not understand them accurately, and in this situation, the observed case was removed (Hair Jr et al., 2017:59). Two cases (C-51 and C-110) showed 3-point variation in just one peer question but were consistent on the others; thus, they were considered as valid cases. Moreover, the PLS algorithm and bootstrapping were run with and without these two cases, and there were no significant differences between the results. Therefore, they were retained. However, after screening the dataset, it was found that case number C-112 had straight-lined answers; thus, this case was removed.

### 7.1.3 Outliers

Outliers are values/cases that vary remarkably, by high or low scores, from the majority of other values/cases, which may cause Type I and Type II errors (Pallant, 2013; Saunders et al., 2009; Tabachnick & Fidell, 2014). Tabachnick and Fidell (2007) differentiate between univariate and multivariate outliers. A univariate outlier is a case with an extreme value, while a multivariate outlier is a strange combination of scores on two or more variables that may destroy statistics (Tabachnick & Fidell, 2007; 2014). The authors give four explanations for the occurrence of an outlier: (1) incorrect data entry; (2) failure in specifying missing values; (3) the case is out of the research population. (4) *“The variable in the population has more extreme values than a normal distribution”*

(Tabachnick & Fidell, 2007:73). To reduce the influence of outliers, they suggest several solutions.

In order to deal with univariate outliers, Tabachnick and Fidell (2014) recommended using IBM-SPSS software to discover outliers. They can be inspected by one of the following means; the histogram, Boxplot, *Z* scores (excess of 3.29), and *P*-value for the  $X^2$  value ( $P < .001$ , two-tailed test). In such cases, the choice will be between eliminating and transforming the data in question, to reduce the outliers' impact. If the outliers result from cases outside the population intended to be sampled, researchers must delete those. Otherwise, if those cases were part of the target population, they should be retained in the statistical analysis after reducing their impact by transforming their scores, changing or replacing their original values with the closest non-seriously suspect values (Dixon & Tukey, 1968; Ferguson, 1961; Tabachnick & Fidell, 2014). This method is named 'Winsorizing' or 'Winsorizing a mean'; it was developed in 1941 by Charles P. Winsor, as cited by Tukey (1962).

In terms of using a Likert scale, Liu et al. (2010) found that outliers cause positive bias of Cronbach's coefficient alpha, but their effects decrease with increasing theoretical reliability. However, Treiblmaier and Filzmoser (2011) claimed that there are no outliers when applying continuous scales in an online questionnaire survey. Moreover, Gunver et al. (2018) believe that trimming or Winsorizing the outliers will damage or deform the nature of the dataset distribution and may lead to loss of confidence in the findings.

In general, Pallant (2013) recommended comparing the original mean with the 5% trimmed mean to know whether the extreme scores have a substantial impact on the mean, before considering the Winsorizing or transformation of cases that cause outliers. If the

difference between these two means is wide, the researcher may consider the Winsorizing solution.

As Hair et al. (2010), cited in Hair Jr et al. (2014:22), stressed, researchers should assess the influence of outliers on the ordinary least squares in PLS-SEM. In this regard, Pallant (2013) suggests using a histogram or boxplot to show the outliers, taking into consideration that outliers appear as tiny circles with the case numbers attached for those that lie further than 1.5 box-lengths from the box's edge, and an asterisk if they extend more than 3 box-lengths from the box's edge (Pallant, 2013).

In this study, boxplots were preferred as the most sensitive technique to identify outliers (Pallant, 2013), via IPM-SPSS software version 24. Outliers were detected in thirty-two indicators, as shown in appendix (E).

However, after comparing the original means with the 5% trimmed means of all indicator variables cases that have outliers with other cases, it was found that there were no considerable differences between them, as shown in appendix (E)<sup>73</sup>. Thus, these outliers did not require any further treatment and did not affect the main statistical analysis. A Likert scale, by nature, is an ordinal 'continuous' scale that has a floor and ceiling and the distribution of participants' answers is limited to a specific range (e.g., 1-7)<sup>74</sup>. Thus, the boxplots represent the distribution of participants' answers, and it seems imprudent to discard or Winsorize participants' answers, because they have answered at either the high or low edge of this scale (Gunver et al., 2018). Moreover, answers that show outliers represented 1% only of total participants' answers (103/7980). Furthermore, testing both the original dataset and the Winsorized dataset yielded the same

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<sup>73</sup> Note that cases that have outliers are indicated by bold values.

<sup>74</sup> Dr Keshab Bhattarai reviewed the data set and said there is no outliers with Likert scale. Dr Keshab Bhattarai is the module leader of Econometric Analysis. Moreover, Professor Waymond Rodgers and Dr Mohamed Khalil were of the same opinion.



results, with slight or almost non-existent differences. Therefore, it was decided to retain all cases as they are.

#### 7.1.4 Normality

Several parametric statistical methods require dependent variables to be normally distributed, for instance, analysis of variance (ANOVA), f-test, t-test, and discriminant analysis (Pallant, 2013). Normality means that data show “*the greatest frequency of scores in the middle with smaller frequencies towards the extremes*” (Pallant, 2013:59). Normality can be monitored by several numerical and visual outputs, such as the Kolmogorov-Smirnov & Shapiro-Wilks, Skewness & Kurtosis, histograms, boxplot, and normal Q-Q plots (Hair Jr et al., 2014; Pallant, 2013).

Based on the results of the normality tests conducted via IBM-SPSS version 24, it was evident that the current dataset was abnormal and violated the normality assumption. To establish the normality of dependent variables, the significance p-value of Shapiro-Wilk and Kolmogorov-Smirnov tests should be above 0.05, at the 5% significance level (Pallant, 2013). However, the current p-values of Shapiro-Wilk and Kolmogorov-Smirnov tests of all dependent variables were (0.000), which mean all dependent variables were abnormally distributed.

In such cases, it would be appropriate to use non-parametric analysis techniques such as Partial Least Squares - Structural Equation Modelling (PLS-SEM) to test hypotheses, as mentioned by Hair Jr et al. (2014:22) “*PLS-SEM's statistical properties provide very robust model estimations with data that have normal as well as extremely non-normal (i.e., skewness and/or kurtosis) distributional properties*”. Also, Lee et al. (2011:307) indicate that “*Multivariate normality is required, but this is not true for component-based SEM*”.

## 7.2 Non-response Bias Assessment

The expected participants that did not participate in a questionnaire survey may have different opinions from the others that participated. Non-response bias occurs when a researcher, for various reasons, cannot obtain a representative sample, such as when the expected participants cannot be contacted, or refuse to participate, or due to ethical issues or time constraint. It may lead to an unrepresentative sample, and the empirical findings cannot be generalized (Bryman & Bell, 2015; Collis & Hussey, 2013).

However, researchers cannot get data from non-responses to assess the non-response bias. Consequently, Armstrong and Overton (1977) suggest that participants who respond late are similar to non-responses, and researchers may apply a *t*-test after splitting two samples from the dataset.

To assess non-response bias, the *t*-test was used at the 0.05 significance level to compare the means of two samples, the first and the last 25 participants. The results revealed no significant differences between these two groups, which suggested an absence of non-response bias.

## 7.3 Common Method Bias and Full Collinearity Assessment

Common method bias (CMB), common method variance (CMV), or mono-method bias is a systematic error in a measurement method or in the instrument of data collection, which may generate a spurious systematic variation in the dataset (Podsakoff et al., 2003). Several reasons could cause CMB, for instance, using the same method to measure relationships between variables, the general context, scale type, the content of specific constructs, and response format<sup>75</sup>, which may inflate or deflate the correlations between indicator variables that could distort the empirical results (MacKenzie & Podsakoff, 2012;

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<sup>75</sup> For more reasons see Podsakoff et al. (2003).

Podsakoff et al., 2012). However, Spector (2006) believes that CMB “*is an urban legend, and the time has come to retire the idea and the term, replacing it with a more complex conception of the connection between constructs and their assessment*” (Spector, 2006:228).

Richardson et al. (2009) debate three perspectives regarding CMB: congeneric, non-congeneric, and non-CMB, proposed by Spector (1987). Podsakoff et al. (2003) provide several suggestions on how researchers can avoid contaminating the dataset with CMB during the data collection process. Kock (2015) argues that a ‘full collinearity’ test is a meaningful tool to identify CMB within the PLS-SEM context, checking both ‘vertical and lateral collinearity’. This test examines variance inflation factors, which is part of assessment of the ‘convergent and discriminant validity criteria’ when running SmartPLS 2 algorithm calculation<sup>76</sup>. Kock and Lynn (2012) proposed steps to deal with collinearity<sup>77</sup>, for instance, indicator removal, construct removal, indicator re-assignment, merging two or more constructs, and higher-order path modelling.

CMB and collinearity issues are linked to each other. Chin et al. (2012) outline several statistical techniques to detect them, for instance, Harman’s single factor test, partial correlation technique, multitrait-multimethod (MMTM), confirmatory factor analysis (CFA), the correlation marker technique, and unmeasured latent method construct (ULMC). Arguably, “*there is disagreement among methodological researchers about the nature of common method bias, how it should be addressed, and even whether it should be addressed at all*” (Kock, 2015:8).

However, following a conservative approach, CMB was tested via two statistical means: IBM-SPSS 24 and SmartPLS 3. Moreover, several protective procedures were

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<sup>76</sup> See sub-sections 7.8.1.1 and Discriminant validity (constructs and indicators’ validity).

<sup>77</sup> This approach works with SmartPLS 2.

taken in the initial step of the instrument development, such as respondents' anonymity, concise questions that can be answered within an appropriate time, clear questions with a positive trend, to avoid ambiguous and negative questions, and the use of a 7-point Likert scale to elicit the most accurate answers, because there is no specific right or wrong answer within this scale (Kock, 2015; MacKenzie & Podsakoff, 2012). Thus, the potential occurrence of CMB was minimised to a great degree. Additionally, as widely utilized in previous literature, the CMB was examined using Harman's single factor test via IBM-SPSS 24 software to identify statistically any potential CMB in the dataset. This test uses an exploratory factor analysis technique through loading all variables onto a single variable, then calculating the variance explained by this single-variable. The cut-off point is 50%; any value more than 50% indicates the existence of CMB (MacKenzie & Podsakoff, 2012; Podsakoff et al., 2003; Podsakoff et al., 2012). The result shows 36.42% of variance is explained by the single variable, which implies there is no CMB in this study.

Furthermore, although higher-order path modelling does not require a collinearity test, a full collinearity test was performed. Initially, the higher-order structural model is a solution for collinearity problems; *"if a critical level of collinearity is indicated by the tolerance or VIF guidelines, one should consider eliminating constructs, merging predictors into a single construct, or creating higher-order constructs to treat collinearity problems."* (Hair Jr et al., 2017:194). Following Kock (2015), a full collinearity test was performed via SmartPLS 3 software. This involves assessing the variance inflation factor (VIF) at the factor level. The proposed assessment values  $VIF \leq 3.3 =$  no CMB,  $3.3 \leq VIF \leq 5$  minor CMB,  $5 \leq VIF \leq 10$  moderate CMB, and  $VIF \leq 10$  major CMB. However, in the PLS-SEM context, *"a VIF value of 5 and higher respectively indicate a potential collinearity problem"* (Hair Jr et al., 2017:143).

To do so, two steps should be followed; 1) all constructs should be pointed to a single construct, then the same action repeated for all constructs. 2) In the field of PLS-Basic Setting-Weighting Scheme, select factor and leave the other settings as default.

The results provide evidence that there is no collinearity problem; all VIF values for all constructs are less than 5. The lowest VIF value is 1.765 for the BO construct, whereas the highest VIF value is 4.514 for the HFSQ construct, see Appendix (F).

#### **7.4 Descriptive Analysis**

Descriptive analysis (DA) offers basic statistical information regarding the dataset characteristics of every indicator variable, such as mean, median, mode, standard deviation, variance, range, minimum and maximum values. The descriptive analysis was done via IBM-SPSS 24 software, and its presentation is based on the theoretical framework, questionnaire structure and question order.

##### **7.4.1 Obstacles (O)**

The technical and behavioural obstacles discovered by analysing the interviews findings were confirmed by the descriptive analysis (DA). The DA findings confirm the anticipated harmful impact of the TO on the efficiency of the FSQ and the outcomes of IFRS application in the Iraqi banking sector; the median is 6 for all variables, the mean values are between 5.27 and 5.7, and all the modes are between 6 and 7. Note that TO\_4 and TO\_6 are alternative forms, see Appendix (G). as well, the DA results support the expected sources of BO; the mean values are bounded between 5.30 and 5.6, the median value is 6 for all variables except BO\_7 (5.50) and the mode values are all either 6 or 7. Note that BO\_1 and BO\_3 are alternative forms, see Appendix (G).

#### **7.4.2 Professional bodies (PB)**

The analysis of the interview findings revealed that professional bodies (PB) such as the CBI, CPMAAI, and IACPA were considered to have a professional and ethical responsibility to support the implementation of the IFRS adoption decision. Expected roles included setting a clear transmission plan or guidance, determining the main differences between the IUAS and IFRS, determining the effect of those differences on the financial statements, seeking approval to publish these standards on the official website in Arabic, explaining the IFRS terminology and ensuring translation accuracy, providing practical training courses and workshops, and solving obstacles that may arise when applying these standards. These ideas were tested in the questionnaire.

The DA results affirm the expected professional and ethical commitments of the CBI; the median is 6 for all variables and the mean ranges between 5.44 and 5.72, see Appendix (G). Also, the DA findings assert the expected professional and ethical commitments of the CPMAAI; the median is 6 for all variables and the mean ranges between 5.29 and 5.58, see Appendix (G). Moreover, the DA findings underline the expected professional and ethical commitments of the IACPA; the median is 6 for all variables and the mean ranges between 5.31 and 5.68, see Appendix (G).

#### **7.4.3 Professional accountants' judgements**

The DA findings reveal participants' opinion that an effective role could be played by PB to assist professional accountants' judgements to overcome TO and BO through publishing such standards on their official websites in Arabic, explaining the IFRS terminology, correcting translation errors, setting up a clear plan or mechanisms to switch to the IFRS, having a professional body to oversee the application of these standards, and determining the expected implications of mixing between the IUAS and IFRS. Also, the

participants thought that IFRS knowledge can assist professional accountants to OBO; IFRS knowledge will increase their enthusiasm to apply the IFRS without carrying an extra burden of work and fear of losing their position. IFRS knowledge will remove the feeling that the IFRS is complex and difficult to apply. Such knowledge will increase the desire for learning and development. It will remove accountants' reluctance to change and satisfaction that there is no real need to change. Participants agreed that IFRS knowledge would diminish the impact of the previous socialist accounting culture.

The DA results underline the predicted procedures that might assist professional accountants' judgement to overcome technical obstacles; the median was 6 for all variables and the mean ranged between 5.28 and 5.52, see Appendix (G). Also, the DA findings reflect participants' view that IFRS knowledge plays an essential role in overcoming the sources of behavioural obstacles. The median values of all variables are 6 except OBO\_7, for which the median 5. The mean values of all variables range between 5.25 and 5.54. Note that OBO\_1 and OBO-3 are alternative forms, see Appendix (G).

#### **7.4.4 Financial statements' quality (FSQ)**

The DA results show that the FSQ is believed to be profoundly influenced by TO, BO, CBI, CPMAAI, IACPA, OTO, and OBO. Participants thought that the application of IFRS without overcoming behavioural and technical obstacles will lead to failure to achieve the qualitative characteristics of the financial statements intended by the International Accounting Standards Committee (Poor financial statements' quality). The qualitative characteristics of the financial statements are the core of the IFRS adoption decision. They include Harmonization, Comparability<sup>78</sup>, Transparency,

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<sup>78</sup> By contrast, the technical and behavioural obstacles will lead to production of hybrid financial statements that do not represent the IFRS nor the IUAS, and the credibility will be in doubt.

Understandability, Verifiability, and Timeliness. The descriptive analysis (DA) shows the median of 6 for all variables, and the mean values range between 5.44 and 5.57, see Appendix (G). The application of IFRS without overcoming behavioural obstacles was expected to affect the financial statements' quality (MFSQ). Such statements may become less effective, less clear, have low consistency, be less productive (not give a competitive value), time-consuming (not quickly reported), incorrectly presented (not represent the entity's financial position fairly), and costly. The DA shows a median of 6 for all variables, and the mean values range between 5.29 and 5.47, see Appendix (G). Overcoming technical and behavioural obstacles after gaining enough knowledge will enhance the quality of financial statements (HFSQ) and they will become accurate, reliable, credible, relevant, objective (unbiased), and consistent. The DA shows a median of 6 for all variables, and the mean values range between 5.37 and 5.51, see Appendix (G).

## 7.5 Multivariate Analysis of Variance (MANOVA)

Following Rodgers (1992), a one-way recurrent MANOVA<sup>79</sup> was employed to understand whether the participants' demographic characteristics, such as experience, occupation, education, and gender, have a significant impact on their perceptions of the financial statements' quality or not. To do so, IBM-SPSS 24 software was utilised. The independent variables are the participants' demographic characteristics. The dependent variables are the three expected levels of financial statements quality (poor, medium, and high-quality), which represent the decision-choice concept of TM.

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<sup>79</sup> Neither MANOVA nor PSL requires normal distribution of variables in the model. These two models are comparable (Bhattarai, 2016). Also, the MANOVA test is not highly sensitive to outliers, it can tolerate a few outliers, especially for unextreme scores (Pallant, 2013; Tabachnick & Fidell, 2014).



The MANOVA examines the dependent variables' linear combination and statistically indicates if there are significant differences between groups. IBM-SPSS 24 provides four statistics to choose from, but Wilks' Lambda and Pillai's Trace are the most commonly reported (Pallant, 2013). However, Pillai's Trace is a more robust test if the dataset violates the MANOVA analysis' assumptions, such as unequal cases between groups, small sample size, and homogeneity issues (Pallant, 2013; Tabachnick & Fidell, 2007; 2014).

Running the MANOVA test via IBM-SPSS 24 showed that the F-statistics values for Wilks' Lambda and Pillai's Trace were non-significant for all groups of dependent variables (PFSQ, MFSQ, and HFSQ), which means the participants' demographic characteristics did not influence their views on the quality of financial statements. Also, these findings were confirmed by the fact that the p-value (Sig.) of all dependent variable groups are largely more than 0.05, which indicates there is no significant impact of the professional accountants' qualification, experience, occupation, and gender on the FSQ, see Appendix (H).

These results confirm the interview findings, where it was stated that the IFRS are something new to the Iraqi business environment in general and the Iraqi banking sector in specific. Thus, professional accountants' experience, qualifications, and occupations cannot play a significant role in accommodating such standards in the business environment.

Hence, the application of such standards under the current circumstances (technical and behavioural obstacles) may lead to adverse results (PFSQ). However, professional bodies such as the CBI, CPMAAI, and IACPA could play a pivotal role in enhancing the

quality of financial statements and achieving the qualitative characteristics of the adoption decision, i.e., comparability, harmonization, understandability, and reliability.

The PSL-SEM analysis gives an additional behavioural aspect in the relationships among these variables giving direct and indirect effects running to various elements of the financial statements' quality. Thus, the next step is to look more deeply at the impact of TO and BO on the FSQ, and examine the impact of the CBI, CPMAAI, and IACPA on the FSQ mediated by professional accountants' judgements to overcome TO and BO.

## 7.6 Hierarchical Component Model (HCM)

Mainly, there are two approaches to the HCM or higher-order model (HOM); the repeated indicator approach and the two-stage approach. The repeated indicator approach HCM involves testing two or more layers of constructs. Hair Jr et al. (2017) summarise two reasons to include a HOM in PLS path modelling. The first is to reduce the number of relationships in the Path modelling, which simplifies the PLS path modelling, making it parsimonious and easier to grasp. Second, if the first-order constructs were highly correlated<sup>80</sup>, the HOM will resolve the collinearity issues and establish the discriminant validity.

Four main types of HOM are presented in SEM literature: Reflective–Formative, Reflective–Reflective, Formative–Formative, and Formative–Reflective, see Appendix (I) (Hair Jr et al., 2017; Ringle et al., 2012). These types reflect the relationships between the constructs and their indicators on the one hand, and the relationships between lower-order constructs (LOC) and higher-order constructs (HOC) on the other hand. The reflective–reflective type denotes reflective relationships between the constructs and their

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<sup>80</sup> The high correlation between first-order constructs will cause collinearity issues and inability to establish the discriminant validity. Such problems will cause the structural model's estimations to be biased.

indicators, and also reflective relationships between the LOC and HOC. Conversely, the formative–formative type indicates formative relationships between the constructs and their indicators and formative relationships between the LOC and HOC. The reflective–formative type indicates a reflective relationship between the constructs and their indicators, and a formative relationship between HOC and LOC, and vice versa for the formative–reflective type. Theoretical and conceptual considerations are the basis for selecting the most appropriate type of HCM (Hair Jr et al., 2017).

The second approach to the HCM is the two-stage approach. Two aspects should be considered in such an approach when applying formative HOC in PLS-SEM, especially in the reflective-formative and formative-formative types (Becker et al., 2012; Ringle et al., 2012). First, the number of indicators should be similar across the lower-order constructs; otherwise, the relationships between a higher-order construct and its lower-order constructs will be biased because the relationship between an HOC and a LOC that has a higher number of indicators will be stronger than that with other LOCs that have fewer indicators. Second, when estimating HCM, not all algorithmic weighting schemes will be applied for the inner PLS path model, such as centroid, path, and factor, whereas, the path and factor weighting schemes offer reasonable results, see Appendix (I).

Although the HOM of the current research is the reflective-reflective type, using the repeated indicator approach, care was taken to make the number of indicators of the lower-order constructs equal (seven indicators of CBI, CPMAAI, and IACPA, and six indicators of HFSQ, MFSQ, and PFSQ) or close to each other (eight indicators of OBO, and six indicators of OTO). This was one of the issues considered in questionnaire development.

## 7.7 Mediating Analysis

The exogenous construct does not always have a direct relationship (cause-effect) with the endogenous construct, but the relationship is sometimes mediated by another construct that is influenced by the exogenous construct and affects the endogenous construct. Such a construct may change the nature of the model relationships and increase our understanding of how the exogenous construct influences the endogenous construct (Hair et al., 2013; Hair Jr et al., 2017).

The test of mediation effect has received substantial attention over the past three decades in methodological research. Baron and Kenny (1986) recommended the Sobel z-test<sup>81</sup> and proposed an approach involving three criteria to establish mediation:

“To test for mediation, one should estimate the three following regression equations: first, regressing the mediator on the independent variable; second, regressing the dependent variable on the independent variable; and third, regressing the dependent variable on both the independent variable and on the mediator. Separate coefficients for each equation should be estimated and tested.” (Baron & Kenny, 1986:1177).

However, Zhao et al. (2010) note that there is a technical problem in Baron and Kenny’s (1986) logic that has caused numerous research projects to terminate early, although such projects deserve to be published, because their research data did not match Baron and Kenny’s criteria.

Thus, Zhao et al. (2010) reject Baron and Kenny’s (1986) mediation criteria and point out a procedure to assess the mediating effect. They argue that (a) “*the strength of*

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<sup>81</sup> Previously, the significance of mediating effect was examined via the Sobel (1982) test, which compares between the direct and indirect relationships (Helm et al., 2010; Vinzi et al., 2010a). this test assumes normality, “since the multiplication of two normally distributed coefficients results in a non-normal distribution of their product” (Hair Jr et al., 2017:235), hence the parametric test of Sobel (1982) does not run for the indirect effect. Therefore, the Sobel (1982) test has become out of date. For more reasons and details see Preacher et al. (2007), Hayes (2009), Hayes and Preacher (2014), Nitzl et al. (2016), Nitzl et al. (2017), Hair Jr et al. (2017), and Cepeda et al. (2018).

*mediation should be measured by the size of the indirect effect, not by the lack of the direct effect [...] the presence of the direct effect can inform theorizing about other mediators”* (Zhao et al., 2010:198). (b) Only the path coefficient of the indirect effect should be significant as a requirement to prove the mediation existence. (c) Markedly, *“the Sobel test is low in power compared to a bootstrap test popularized by Preacher and Hayes (2004)”* (Zhao et al., 2010:198).

Baron and Kenny (1986) identified two types of mediation: full mediation (significant indirect effect and non-significant direct effect) and partial mediation (both direct and indirect effect are significant). However, Iacobucci (2008) notes that the vast majority of published projects ended up with partial mediation. Hence, Zhao et al. (2010:198) ask, *“Is that a problem for the researcher?”* and assert that a direct effect may be evident statistically but unclear theoretically, because sometimes a priori theory posits a significant relationship of both direct and indirect effect. Also, usually, scholars report the direct effects in their findings section and do not hypothesise it a priori<sup>82</sup>.

Hence, Zhao et al. (2010) assert that two cases should be considered non-mediation; first, if the direct effect is significant, but the indirect effect is nonsignificant; second, if neither indirect nor direct effect are significant. In contrast, they indicate three sorts of mediation: complementary<sup>83</sup>, competitive<sup>84</sup>, and full mediation<sup>85</sup> (Hair Jr et al., 2017). Complementary and competitive mediation are labelled partial mediation by Hair Jr et al. (2017) and Carrión et al. (2017).

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<sup>82</sup> For more details and examples see Zhao et al. (2010)

<sup>83</sup> Both direct and indirect effects are significant in the same direction.

<sup>84</sup> Both direct and indirect effect are significant but in opposite directions.

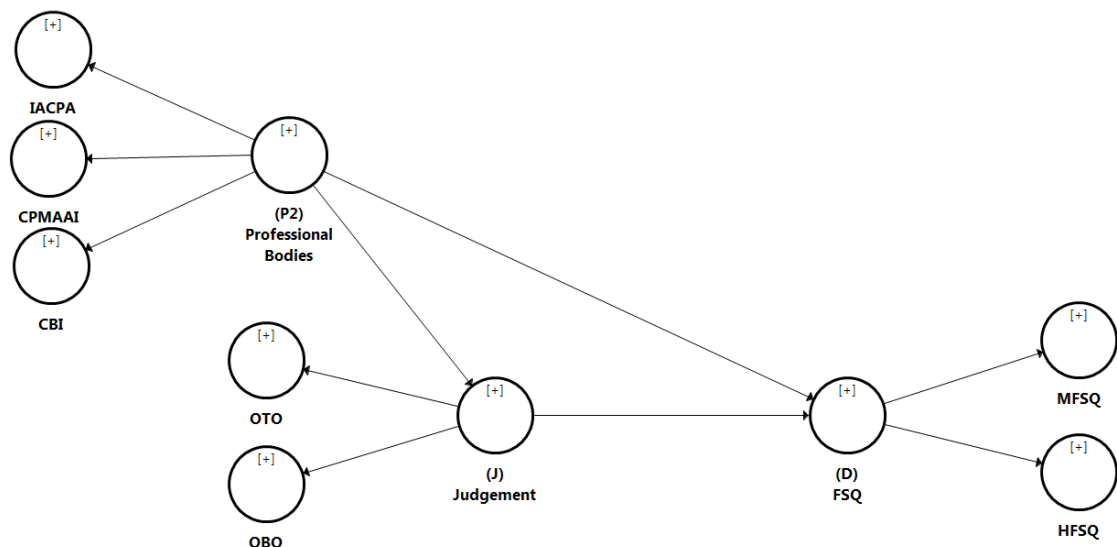
<sup>85</sup> The direct effect is non-significant, but the indirect effect is significant. The indirect effect is the core characteristic of a mediating effect.

According to Hair Jr et al. (2017), if the direct relationship between the exogenous and endogenous variables is nil, scholars should report the indirect effect to prove the existence of mediation. Reporting the indirect effect provides a complete image of the mediating construct's role and gives a sufficient reason to explain the cause-effect relationships (Albers, 2010; Hair et al., 2013).

Moreover, two criteria must be achieved to prove the mediation effect: first, the significance of direct and indirect effects should be tested via a bootstrapping routine or consistent bootstrapping routine in cases where all the measurement model constructs were reflective. Second, both the lower and upper values of 'confidence intervals' must be in the same direction (positive or negative) (Hayes & Preacher, 2014; Nitzl et al., 2016; Preacher et al., 2007).

In the present research, the direct effect is the P2→D pathway, and the indirect effect (mediating effect) is the P2→J→D pathway, see Figure 7.1.

Figure 7.1 Mediator analysis P→J→D Pathway



For this reflective measurement model, consistent bootstrapping was run with 2000 samples,  $p < 0.001$  two-tailed test, via SmartPLS 3 software. The empirical results reveal

that the judgement concept is a full mediator at a confidence level 99.95%; the p-value of the direct effect is non-significant (0.012), whereas, the p-value of the indirect effect is significant (0.000). Furthermore, both the lower and upper values of confidence intervals are positive (i.e., in the same direction), as shown in Table 7.4.

*Table 7.4 Mediator Analysis of P→J→D pathway - Empirical Results*

		Path Coefficient	T Statistics	P Values	Significance (p<0.001)?	0.05%	99.95%
(P2)_Professional Bodies -> (D)_Financial Statements' Quality	Direct effect	0.192	2.502	0.012	No	-0.074	0.480
(P2)_Professional Bodies -> (D)_Financial Statements' Quality	Indirect effect	0.710	11.461	0.000	Yes	0.458	0.861

In this section, the mediation concept has been discussed, showing that professional accountants' judgement (J) is a reflective mediator construct that intervenes between professional bodies and the quality of financial statements. The next section will discuss model evaluation, which involves assessing the measurement model and path model (structural model). The quality criteria of the mediating model are similar to the quality criteria of the measurement model of other constructs (Hair Jr et al., 2017). Thus, the quality criteria of the mediator (J) will be assessed automatically with the model's evaluation.

## 7.8 Model Evaluation

The evaluation of PLS-SEM requires sequentially assessing the measurement model (outer-model) comprising indicators and constructs and the structural model or path (inner-model). There are two measurement models: a reflective measurement model and a formative measurement model. The evaluation of the reflective measurement model involves the assessment of internal consistency (construct reliability), outer-loadings (indicator reliability), convergent validity (construct validity), and discriminant validity (indicator validity). Evaluation of the formative measurement model involves the assessment of convergent validity (redundancy analysis), collinearity, significance and

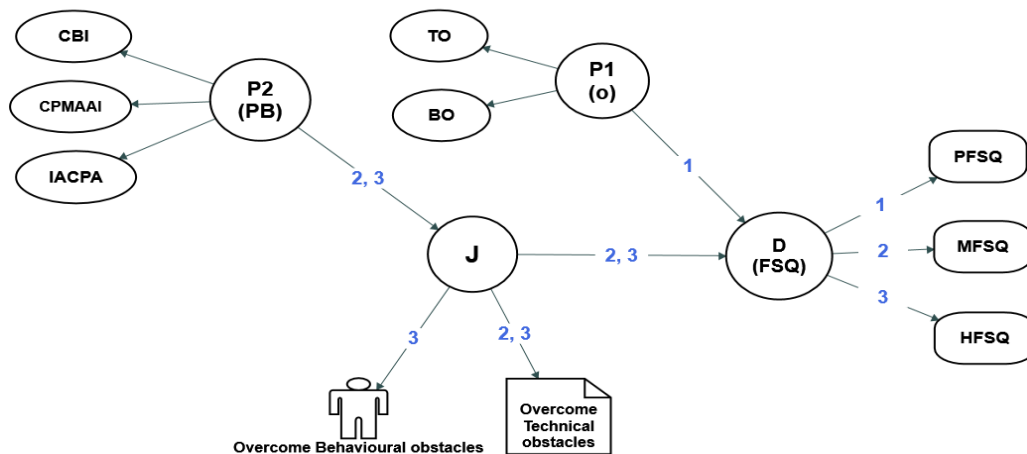
relevance of indicators (outer weights). The systematic evaluation of the structural model involves the evaluation of several metrics: the path coefficient, the coefficient of determination ( $R^2$ ), effective sizes ( $F^2$ ), and predictive relevance ( $Q^2$ ) (Hair Jr et al., 2017).

Following Culbertson and Rodgers (1997), the TM pathways were detached and the information concept frozen. Not all the TM pathways are examined in the current research, which focuses on the Expedient Pathway ( $P1 \rightarrow D$ ) and the Ruling Guide Pathway ( $P2 \rightarrow J \rightarrow D$ ) (A) and (B), which means the research examines three paths:

- (1) The first path is  $P1 \rightarrow D$ ; where P1 is the technical and behavioural obstacles (TO and BO) and the decision-choice (D) is poor financial statements' quality (PFSQ).
- (2) The second path is the Ruling Guide Pathway (A)  $P2 (PB) \rightarrow J (OTO) \rightarrow D$  (MFSQ); where P2 is the professional bodies (CMI, CPMAAI, and IACPA), the judgement concept is limited to overcoming technical obstacles (OTO), and the D is medium financial statements' quality (MFSQ).
- (3) The third path is the Ruling Guide Pathway (B)  $P2 (PB) \rightarrow J (OTO \& OBO) \rightarrow D$  (HFSQ); in this path, the PB will assess professional accountants' judgements to overcome both technical and behavioural obstacles to produce high financial statements' quality (HFSQ). See Figure 7.2.



Figure 7.2 Structural Equation Modelling of P1→D pathway and P2→J→D



The measurement model of the present research is a hierarchical component model<sup>86</sup> (two-order). The LOC or first-order constructs are TO, BO, CBI, CPMAAI, IACPA, OTO, OBO, PFSQ, MFSQ, and HFSQ, whereas, the HOC or second-order constructs are the TM concepts; P1 (O), P2 (PB), J, and D (FSQ). Also, it is worth mentioning that the same indicators served both the HOC and the related LOC, see Table 7.5<sup>87</sup>.

Table 7.5 First-order and Second-order Constructs

Construct			Construct			Construct			Construct		
Second-order	First-order	Indicator	Second-order	First-order	Indicator	Second-order	First-order	Indicator	Second-order	First-order	Indicator
O	TO	TO_1	PB	CBI	CBI_1	J	OTO	OTO_1	FSQ	PFSQ	PFSQ_1
		TO_2			CBI_2			OTO_2			PFSQ_2
		TO_3			CBI_3			OTO_3			PFSQ_3
		TO_4			CBI_4			OTO_4			PFSQ_4
		TO_5			CBI_5			OTO_5			PFSQ_5
		TO_6			CBI_6			OTO_6			PFSQ_6
		TO_7			CBI_7		OBO	OBO_1		MFSQ	MFSQ_1
	BO	CPMAAI		CPMAAI_1	OBO_2			MFSQ_2			
				CPMAAI_2	OBO_3			MFSQ_3			
				CPMAAI_3	OBO_4			MFSQ_4			
				CPMAAI_4	OBO_5			MFSQ_5			
				CPMAAI_5	OBO_6			MFSQ_6			
				CPMAAI_6	OBO_7			HFSQ		HFSQ_1	
				CPMAAI_7	OBO_8					HFSQ_2	
				IACPA	IACPA					IACPA_1	OBO_9
							IACPA_2				HFSQ_4
IACPA_3		HFSQ_5									
IACPA_4		HFSQ_6									
IACPA_5											
IACPA_6											
IACPA_7											

<sup>86</sup> This model (hierarchy) was designed by Christian M. Ringle after reviewing the dataset and theoretical framework (TM pathways); he decided to put both pathways together and make one run.

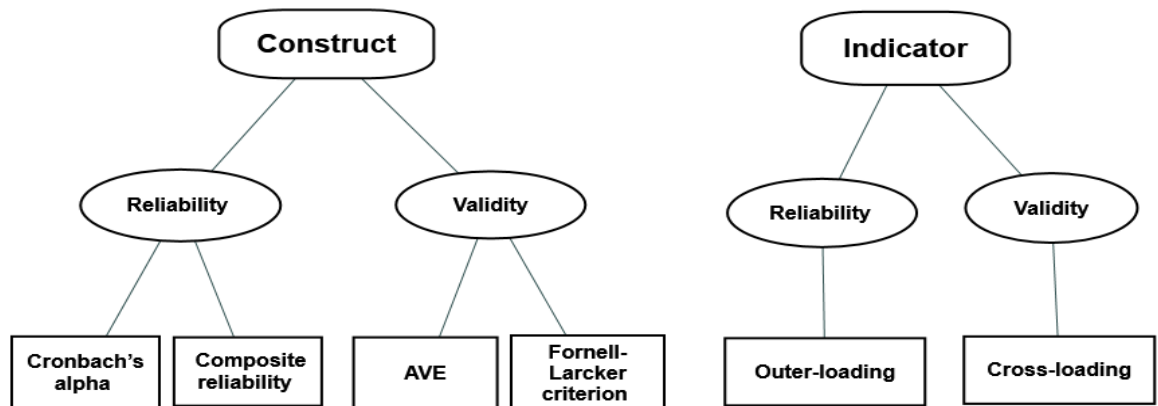
<sup>87</sup> Note that alternative form indicators, which are BO\_1, TO\_6, and OBO\_1 were removed from the statistical analysis.

As the measurement model is a reflective-reflective (reflective, henceforth) model, it is necessary to ensure its reliability and validity before assessing the structural model. Hence, the next subsection assesses the measurement model.

### 7.8.1 Assessment of the measurement model

The assessment of a reflective measurement model includes examining the reliability and validity of both first-order and second-order constructs and indicators. Constructs reliability is assessed via Cronbach's alpha and composite reliability, while, constructs validity is assessed via average variance extracted (AVE) and the Fornell-Larcker criterion. Indicators' reliability is measured by outer loadings, while indicators' validity is assessed by cross-loading, see Figure 7.3.

Figure 7.3 Reliability and Validity Assessment Diagram



SmartPLS 3 algorithm software was run to examine the reliability and validity of the reflective measurement model constructs and indicators, using the default setting, and the results revealed that all constructs and indicators are reliable and valid, as will be discussed in the upcoming sub-sections.

### 7.8.1.1 Construct reliability and validity

#### Construct reliability:

Cronbach’s alpha is a traditional indicator for measuring internal consistency. It is a conservative criterion (underestimate) (Chin, 2010); it estimates construct reliability based on the inter-correlations of the indicators linked to a specific construct (Hair Jr et al., 2017; Vinzi et al., 2010a). However, it assumes that all indicators have the same outer loading on their construct and equally reliable. To overcome this limitation, the composite reliability criterion can evaluate the reliability of each indicator variable and calculate the reliability of a construct, but this criterion is overestimated; the reality is that the internal consistency lies between the Cronbach’s alpha and composite reliability values (Hair Jr et al., 2017). The composite reliability values are scored between 0 and 1, “*higher values indicating higher levels of reliability*” (Hair Jr et al., 2017:112). Similarly, to Cronbach’s alpha, the minimum acceptable value of composite reliability is 0.7. Table 7.6 below shows that the Cronbach’s alpha and composite reliability values of all constructs are well over the acceptable value (0.70). Additionally, the average Cronbach’s alpha and composite reliability values of all constructs are also above 0.70.

Table 7.6 Construct Reliability and Validity

Construct Reliability and Validity					
Constructs' Order	Construct	Cronbach's Alpha	Composite Reliability	Average	AVE
First-order	BO	0.918	0.934	0.926	0.638
	TO	0.882	0.911	0.896	0.630
	CBI	0.953	0.962	0.957	0.782
	CPMAAI	0.958	0.965	0.961	0.798
	IACPA	0.962	0.968	0.965	0.814
	OBO	0.952	0.960	0.956	0.749
	OTO	0.922	0.939	0.930	0.719
	HFSQ	0.966	0.972	0.969	0.855
	PFSQ	0.950	0.972	0.961	0.800
	MFSQ	0.966	0.960	0.963	0.853
Second-Order	O	0.941	0.948	0.945	0.568
	PB	0.977	0.979	0.978	0.663
	J	0.961	0.965	0.963	0.688
	FSQ	0.974	0.976	0.975	0.692

## Construct validity (Convergent validity):

Convergent validity means to what extent each indicator is positively correlated with other indicators of the same construct. It will be established when all indicators associated with a specific construct are well-represented in the underlying construct (Hair Jr et al., 2017; Vinzi et al., 2010a). Therefore, the associated indicators should share a high level of variance with their target construct. The convergent validity of the reflective measurement model is assessed via the average variance extracted (AVE) of the measurement model constructs and outer loadings of the measurement model indicators. The AVE is “*defined as the grand mean value of the squared loadings of the indicators associated with the construct*” (Hair Jr et al., 2017:114). The AVE values of all constructs should be statistically significant, and the acceptable value of AVE is 0.50 or higher, which means that “*the construct explains more than half of the variance of its indicators*” (Hair Jr et al., 2017:115). Table 7.6 above demonstrates the establishment of the constructs’ convergent validity, as the AVEs of all constructs are more than 0.5.

### 7.8.1.2 Indicators’ reliability (indicators’ outer-loadings)

An indicator’s reliability will be established when the indicator’s outer loading on the related construct is higher than its outer loadings on the other constructs (Chin, 1998a; Hair Jr et al., 2017; Vinzi et al., 2010b). The indicator’s outer loading is the variance captured by that indicator on a specific construct. The outer loadings of all indicators should be statistically significant and should be 0.708 or higher (Hair Jr et al., 2017). Researchers should remove an indicator only if this deletion will increase the composite reliability (Hair Jr et al., 2017).

The indicators’ outer loadings in the Appendix (J) demonstrate the establishment of the indicators’ reliability; all indicators have outer loadings above 0.7, except BO\_7,

which has outer loadings of 0.688 on the first-order construct and 0.638 on the second-order construct. However, it was decided to retain it because the composite reliability did not change when it was removed from the analysis<sup>88</sup>, see Table 7.7 below.

Table 7.7 Comparison of the BO Construct Reliability and Validity with and without BO\_7

Construct		Cronbach's Alpha	Composite Reliability	AVE
BO	With BO_7	0.918	0.934	0.638
BO	Without BO_7	0.917	0.934	0.669
Change		Decrease	No	Increase

Moreover, “in exploratory research, 0.60 to 0.70 is considered acceptable” (Hair Jr et al., 2017:122). Also, the indicator TO\_2 outer loading was 0.696 on the second-order construct (O), but its outer loading was 0.737 on the first-order construct (TO), so it has been retained.

### 7.8.1.3 Discriminant validity (constructs and indicators' validity)

The Fornell-Larcker criterion and cross-loadings are the common approaches to assess discriminant validity in PLS-SEM. The Fornell-Larcker criterion was introduced by Fornell and Larcker (1981) to assess a construct's validity. This criterion proposes that the discriminant validity of each construct will be established when the squares root value of the AVE is more than its correlation with all other constructs in the ESM (Fornell & Larcker, 1981).

However, Henseler et al. (2015) suggest a novel criterion for evaluating discriminant validity (measurement model validity) in PLS-SEM. They propose using the Heterotrait-Monotrait Ratio of correlations (HTMT) to assess the discriminant validity of a reflective measurement model rather than the Fornell-Larcker criterion, to assess construct validity and cross-loadings to assess indicator validity.

<sup>88</sup> The model was run with and without BO\_7 and showed the same results in both cases.

It is worth mentioning that cross-loading matches factor analysis in the first generation of statistical analysis (Henseler et al., 2015). It measures the correlation between each indicator and all constructs. The correlation between each indicator and the associated construct must be higher than its correlation with other constructs.

### Fornell-Larcker criterion (constructs' validity):

Table 7.8 below demonstrates the constructs' discriminant validity via the Fornell-Larcker criterion. The squares root of the AVE of every construct is higher than its correlation with all other constructs. Note that the correlation between first-order constructs and related second-order constructs must be 1 or close to 1, because the same indicators serve in first-order and related second-order constructs.

Table 7.8 Fornell-Larcker Criterion

Fornell-Larcker Criterion										
	BO	CBI	CPMAAI	HFSQ	IACPA	MFSQ	OBO	OTO	PFSQ	TO
BO	<b>0.799</b>									
CBI	0.656	<b>0.884</b>								
CPMAAI	0.634	0.803	<b>0.893</b>							
HFSQ	0.615	0.706	0.652	<b>0.925</b>						
IACPA	0.665	0.761	0.821	0.594	<b>0.902</b>					
MFSQ	0.598	0.526	0.527	0.726	0.547	<b>0.894</b>				
OBO	0.692	0.615	0.528	0.705	0.547	0.811	<b>0.865</b>			
OTO	0.641	0.679	0.632	0.781	0.562	0.688	0.796	<b>0.848</b>		
PFSQ	0.644	0.602	0.613	0.725	0.535	0.775	0.723	0.701	<b>0.924</b>	
TO	0.786	0.691	0.687	0.612	0.688	0.537	0.561	0.545	0.604	<b>0.794</b>

### Cross-loading criterion (indicators' validity):

The cross-loading test examines the outer loadings of each indicator on all structural model constructs. The outer loading of indicators on the related construct must be larger than their outer loadings on the other constructs (Hair Jr et al., 2017; Vinzi et al., 2010a). Cross-loading analysis is equivalent to factor analysis (Henseler et al., 2015).

Tables showing the indicator cross-loadings of first-order and second-order constructs demonstrate the establishment of the indicators' validity (see Appendix K). The indicators' outer loadings on their associated constructs of both first-order and second-order constructs are greater than their outer loadings on the other constructs in the structural model.

### **Heterotrait-Monotrait Ratio (constructs and indicators' validity):**

Henseler et al. (2015) noted that the Fornell-Larcker criterion and cross-loadings are not enough to establish discriminant validity, and they proposed to use the heterotrait-monotrait ratio of the correlation (HTMT)<sup>89</sup> as a new criterion to assess discriminant validity. This criterion is applied in SmartPLS 3 software (Hair Jr et al., 2017). A threshold value of 0.90 was proposed by Henseler et al. (2015). Any value over 0.90 indicates lack of discriminant validity. However, "*the exact threshold level of the HTMT is debatable*" (Hair Jr et al., 2017:118) and researchers should not rely solely on HTMT. They should run bootstrapping to derive the HTMT statistic. The HTMT statistic values should significantly differ from 1, except the HTMT ratio between first-order constructs and related second-order constructs should be close to 1, because the same indicators serve in first-order and related second-order constructs.

Bootstrapping was run with 2000 samples,  $P \leq 0.001$ , two-tailed. The empirical results demonstrate the validity of constructs and indicators. The HTMT ratio values of all constructs are significant at a confidence level of 99.95%, see Appendix (L).

After examining the quality criteria of the measurement model and proving the reliability and validity of the measurement model, the next step is examining the structural

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<sup>89</sup> For more information on the HTMT criterion, see Henseler et al. (2015) or visit <https://link.springer.com/article/10.1007/s11747-014-0403-8>

model's significance and the model's predictive capability to prove or reject the research hypotheses.

### **7.8.2 Assessment of the structural model**

The assessment of the research structural model results involves examining the constructs' relationships and the model's predictive capability. Such assessment consists of four tests: the significance and relevant relationships ( $\beta$ ), the coefficient of determination ( $R^2$ ), the effect sizes ( $f^2$ ), and the predictive relevance ( $Q^2$ ) (Hair Jr et al., 2017).

#### **7.8.2.1 Path coefficient**

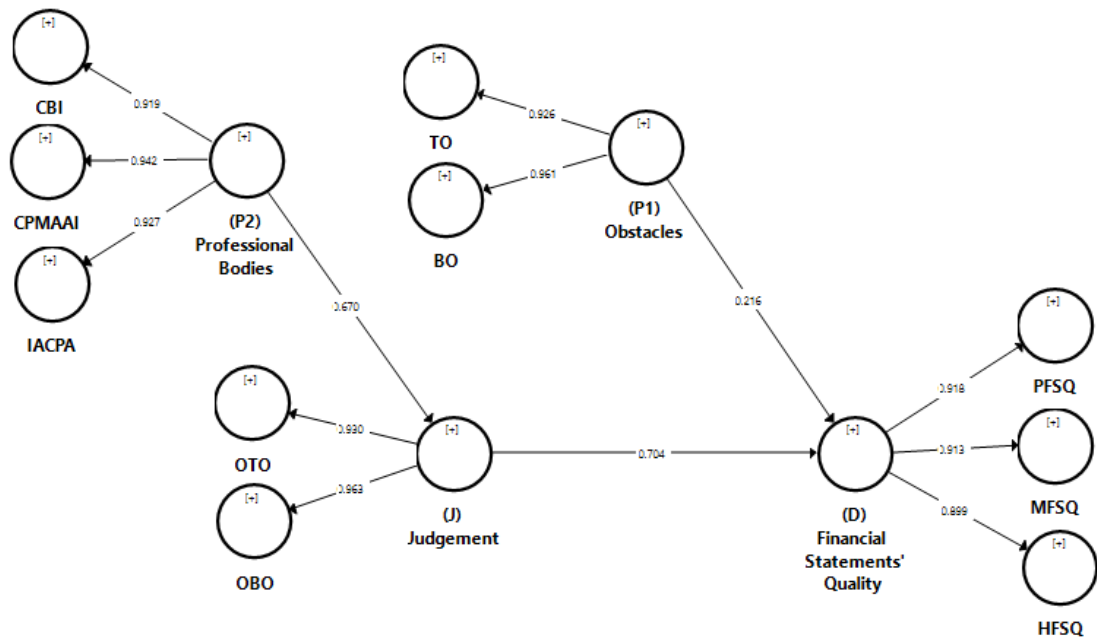
Path coefficient ( $\beta$ ) values are used to test hypotheses through measuring the significance and direction of the structural model relationships (Hair Jr et al., 2017). The  $\beta$  values are bounded between -1 and 1, where -1 represents a robust negative relationship, while +1 represents a healthy positive relationship, zero represents no relationship, and values close to zero represent non-significant relationships (Chin, 1998a; Vinzi et al., 2010a).

The SmartPLS 3 algorithm run with the default setting, yielded  $\beta$  values showing that all relationships (direct and indirect) are solid and positive. The  $\beta$  value of the P1→D pathway (O→FSQ) was 0.216, and the  $\beta$  value of the P2→J→D pathway (PB→J→FSQ) was 0.670 for P2→J and 0.704 for J→D, which also confirm that the effect of the judgement construct is full mediation, see Figure 7.4 below. However, merely running the SmartPLS 3 algorithm is not enough to examine the structural model significance because the path coefficients may have small values but be significant. The structural model significance is determined by its standard error, which is measured via running a



bootstrapping routine that allows empirical calculation of the  $P$ -values and  $t$ -values for all structural path coefficients (Hair Jr et al., 2017).

Figure 7.4 Path Coefficient



### Bootstrapping:

The  $P$ -values of the  $\beta$  is the most popular index of structural model relationships significance, for testing hypotheses. Also, bootstrapping confidence interval and  $T$ -values are employed to confirm the interpretation of the structural model relationships' significance (Hair Jr et al., 2017). The empirical  $P$ -value must be less than the intended significance level; for instance, the  $P$ -value of 0.05 significance level must be less than 0.05 to conclude that the path coefficient is statistically significant. By contrast, the empirical  $t$ -value must be more than the critical  $t$ -value of the intended significance level to conclude that the path coefficient is statistically significant; for instance, the critical  $t$ -values, two-tailed, for significance levels 0.05 and 0.001 are 1.96 and 3.291 respectively. Furthermore, reporting the bootstrapping confidence interval gives more confidence in the empirical results.

Hence, bootstrapping was run for 2000 samples,  $P \leq 0.001$ , two-tailed via SmartPLS

3. The empirical results prove the research hypotheses and actively support the second and third pathways ( $P2 \rightarrow J \rightarrow D$  (A) and (B) at a confidence level of 99.95% and support the first pathway ( $P1 \rightarrow D$ ) at a confidence level of 97.50%. Table 7.9 below demonstrates that the  $\beta$  of all direct relationships of the structural model are significant. The professional bodies significantly influence professional accountants' judgements to overcome technical and behavioural obstacles ( $PB \rightarrow J$ ) at a significance level of  $P \leq 0.001$ , two-tailed, at a confidence level of 99.95%;  $\beta = 0.670$ ,  $P = 0.000$ , and  $T = 9.312$ . Also, professional accountants' judgements significantly influence the financial statements' quality ( $J \rightarrow FSQ$ ) at a significance level of  $P \leq 0.001$ , two-tailed, at a confidence level of 99.95%;  $\beta = 0.704$ ,  $P = 0.000$ , and  $T = 8.053$ . The  $P1 \rightarrow D$  pathway demonstrates that obstacles (O) significantly influence the FSQ ( $O \rightarrow FSQ$ ) at a significance level of  $P \leq 0.05$ , two-tailed, at a confidence level of 97.5%;  $\beta = 0.216$ ,  $P = 0.016$ , and  $T = 2.405$ .

Table 7.9 Path Coefficient - Direct Effects

Pathway Number	Hypotheses	Path	Path Coefficients	Sample Mean (M)	Standard Deviation (STDEV)	$P \leq 0.001$ , Two-tailed		Confidence Intervals	
						T Statistics ( O /STDEV)	P Values	0.05%	99.95%
						1	H1	O -> BO	0.961
1	H1	O -> TO	0.926	0.927	0.019	48.521	0.000	0.817	0.970
<b>1</b>	<b>H1</b>	<b>O -&gt; FSQ*</b>	<b>0.216</b>	<b>0.222</b>	<b>0.090</b>	<b>2.405</b>	<b>0.016</b>	<b>0.062</b>	<b>0.408</b>
1	H1	FSQ -> PFSQ	0.918	0.918	0.025	36.108	0.000	0.783	0.976
2, 3	H2, H4	PB -> CBI	0.919	0.919	0.023	39.341	0.000	0.817	0.973
2, 3	H2, H4	PB -> CPMAAI	0.942	0.942	0.014	66.531	0.000	0.857	0.975
2, 3	H2, H4	PB -> IACPA	0.927	0.926	0.023	39.462	0.000	0.816	0.978
<b>2, 3</b>	<b>H2, H4</b>	<b>PB -&gt; J</b>	<b>0.670</b>	<b>0.669</b>	<b>0.072</b>	<b>9.312</b>	<b>0.000</b>	<b>0.360</b>	<b>0.842</b>
<b>2, 3</b>	<b>H3, H5</b>	<b>J -&gt; FSQ</b>	<b>0.704</b>	<b>0.696</b>	<b>0.087</b>	<b>8.053</b>	<b>0.000</b>	<b>0.355</b>	<b>0.905</b>
2, 3	H2	J -> OTO	0.930	0.929	0.022	43.076	0.000	0.843	0.971
2	H3	FSQ -> MFSQ	0.913	0.912	0.031	29.118	0.000	0.768	0.974
3	H4	J -> OBO	0.963	0.963	0.009	103.406	0.000	0.919	0.982
3	H5	FSQ -> HFSQ	0.899	0.899	0.026	34.158	0.000	0.760	0.962

\* O -> FSQ =  $P \leq 0.05$ , Two-tailed, Confidence Interval (2.5%, 97.5%)

Table 7.10 below demonstrates that technical and behavioural obstacles will lead to poor financial statements' quality ( $O \rightarrow PFSQ$ ) at a significance level of 0.05, which supports the first hypothesis and is consistent with the Expedient pathway logic;  $\beta = 0.199$ ,

P=0.017, and T=2.397. Professional bodies could play a vital role in supporting professional accountants' judgement to overcome technical and behavioural obstacles: which proves the second and fourth research hypotheses (PB→OTO). PB have a professional and ethical commitment to assist professional accountants' judgements to OTO, where  $\beta=0.622$ , P=0.000, and T=8.445. Also, the results support the fourth hypothesis (PB→OBO), PB have a professional and ethical commitment to assist professional accountants' judgements to OBO, where  $\beta=0.645$ , P=0.000, and T=8.958.

Professional accountants' judgement significantly determines the quality of accounting department products, whether medium or high; this proves the third hypothesis J→MFSQ at a confidence level of 99.95%, where  $\beta=0.642$ , P=0.000, and T=7.306. Also, it supports hypothesis number five, J→HFSQ at a significance level of 0.001, where  $\beta=0.633$ , P=0.000, and T=7.560.

Table 7.10 Path Coefficient - Indirect Effects

Path Coefficients - Total Indirect Effects									
Pathway Number	Hypotheses	Path	Path Coefficients	Sample Mean (M)	Standard Deviation (STDEV)	P≤0.001, Two-tailed		Confidence Intervals	
						T Statistics ((O/STDEV))	P Values	0.05%	99.95%
1	H1	O -> PFSQ*	0.199	0.204	0.083	2.397	0.017	0.056	0.376
2, 3	H2	PB -> OTO	0.622	0.622	0.074	8.445	0.000	0.324	0.803
2, 3	H3, H5	PB -> FSQ	0.471	0.466	0.083	5.701	0.000	0.207	0.698
2	H3	PB -> MFSQ	0.430	0.426	0.083	5.210	0.000	0.181	0.660
2	H3	J -> MFSQ	0.642	0.635	0.088	7.306	0.000	0.311	0.854
3	H4	PB -> OBO	0.645	0.644	0.072	8.958	0.000	0.347	0.818
3	H5	J -> HFSQ	0.633	0.626	0.084	7.560	0.000	0.319	0.829
3	H5	PB -> HFSQ	0.424	0.420	0.079	5.378	0.000	0.182	0.646

\* O -> PFSQ = P≤0.05, Two-tailed, Confidence Interval (2.5%, 97.5%)

Finally, Table 7.11 below illustrates each pathway in more detail and supports the research hypotheses. Based on the Expedient Pathway, the existence of technical and behavioural obstacles will lead to PFSQ; the application of IFRS based on coercive pressure by the CBI and normative pressure by the CPMAAI and IACPA will adversely affect the accounting system applied and the banking sector's performance (O→FSQ→PFSQ). Therefore, professional bodies have a professional and ethical

commitment to assist professional accountants to overcome these obstacles; thereby the Ruling Guide Pathway becomes applicable. If PB assessed professional accountants' judgements to OTO, the financial statements would be of medium quality (PB→J (OTO) →FDQ→MFSQ), where under the significance level 0.001,  $\beta=0.430$ ,  $P=0.000$ , and  $T=5.210$ . Moreover, if PB assist professional accountants' judgements to overcome technical and behavioural obstacles, the financial statements would be of high quality (PB→J (OTO & OBO) →FDQ→HFSQ), where under the significance level 0.001,  $\beta=0.424$ ,  $P=0.000$ , and  $T=5.378$ .

Table 7.11 Path Coefficient - Specific Indirect Effects

Path Coefficients - Specific Indirect Effects									
Pathway Number	Hypotheses	Path	Path Coefficients	Sample Mean (M)	Standard Deviation (STDEV)	P≤0.001, Two-tailed		Confidence Intervals	
						T Statistics ( O /STDEV)	P Values	0.05%	99.95%
1	H1	O -> FSQ -> PFSQ*	0.199	0.207	0.082	2.417	0.016	-0.055	0.491
2, 3	H2	PB -> J -> OTO	0.622	0.622	0.074	8.445	0.000	0.324	0.803
2	H3	PB -> J -> FSQ -> MFSQ	0.430	0.426	0.083	5.210	0.000	0.181	0.660
3	H4	PB -> J -> OBO	0.645	0.644	0.072	8.958	0.000	0.347	0.818
3	H5	PB -> J -> FSQ -> HFSQ	0.424	0.420	0.079	5.378	0.000	0.182	0.646

\* O -> FSQ -> PFSQ = P≤0.05, Two-tailed, Confidence Interval (2.5%, 97.5%)

### 7.8.2.2 The coefficient of determination ( $R^2$ )

$R^2$  value reflects the predictive power of the model (the ability of exogenous constructs to explain the endogenous constructs). It is “*the squared correlation between a specific endogenous construct's actual and predicted values. [...] it represents a measure of in-sample predictive power*” (Hair Jr et al., 2017:198). In other words, it measures the amount of variance of the endogenous construct(s) that is explained by the associated exogenous construct(s) in the structural model (Vinzi et al., 2010a). The  $R^2$  values are bounded between 0.000 and 1.000; higher values demonstrate higher levels of predictive power (Chin, 1998a). Falk and Miller (1992) suggest that the value of 0.10 is the minimum acceptable value of  $R^2$  in SEM, whereas Chin (1998b) proposes that values of 0.19, 0.33, and 0.67 could be considered as weak, moderate, and substantial respectively in PLS-SEM and reject any value less than 0.19. However, Hair et al. (2011)

comment that there is no consensus on acceptable  $R^2$  value in PLS-SEM, it depends on the research discipline and model's complexity. For instance, in consumer behaviour research, an  $R^2$  value of 0.20 may be considered high, while in customer loyalty research, values of 0.75 and above are considered acceptable. Sarstedt et al. (2013) suggest testing the significant differences between  $R^2$  and  $R^2_{adj}$  through using a bootstrapping routine.

Following Sarstedt et al. (2013), bootstrapping was run with 2000 samples,  $P \leq 0.001$ , two-tailed via SmartPLS 3 and the results indicated that the exogenous constructs of the current model have a substantial predictive power in explaining the endogenous constructs. The empirical results show that the predictive power of the current PLS-SEM is more than 80%, with  $R^2$  values of 0.808, 0.833, and 0.842 for the dependent constructs HFSQ, MFSQ, and PFSQ respectively. These results mean that the technical and behavioural obstacles that have been tested represent 0.842 of the obstacles to the application of the IFRS in TDC, Iraq. The remaining 0.158 (1-0.842) reflects obstacles that have not been tested in this model and were not discovered in the phone interviews. The technical obstacles tested represent 0.833 of technical obstacles, and there are other technical obstacles that have not been tested and were not discovered in the phone interviews. The unexplored TO and BO represent 0.167 (1-0.833) and 0.025 (0.833-0.808), respectively. Consequently, the percentages of technical, behavioural, and other obstacles that have not been explored and tested, from the total percentages are 0.026 (0.167\*0.158), 0.004 (0.025\*0.158), and 0.128 (0.808\*0.158), respectively. See Table 7.12.

Table 7.12  $R^2$  for the Endogenous Latent Variables

R-Square of the Endogenous Latent Variables								
Construct	R Square	Sample Mean	Standard Deviation	P $\leq$ 0.001, Two-tailed		Confidence Intervals		Result
				T Statistics	P Values	0.05%	99.95%	
HFSQ	0.808	0.809	0.047	17.226	0.000	0.577	0.926	substantial
MFSQ	0.833	0.833	0.056	14.767	0.000	0.590	0.949	substantial
PFSQ	0.842	0.844	0.046	18.222	0.000	0.614	0.952	substantial

However, using  $R^2$  value alone, as a base for measuring the model's predictive power, may lead to bias, especially when a model uses two or more exogenous constructs in predicting an endogenous construct. This is because the  $R^2$  value will increase as a result of decreasing the degrees of freedom. Increasing the number of exogenous variables will always increase  $R^2$  value, especially if the sample size is close to the number of exogenous variables (Hair Jr et al., 2017; Vinzi et al., 2010a). Thus, to avoid this bias in a complex model, scholars often use the criterion of adjusted coefficient of determination ( $R^2_{adj}$ ). "The  $R^2_{adj}$  value reduces the  $R^2$  value by the number of explaining constructs and the sample size and thus systematically compensates for adding nonsignificant exogenous constructs merely to increase the explained variance  $R^2$ " (Hair Jr et al., 2017:200).

Table 7.13 proves that the current model has substantial predictive power. The predictive power is more than 80%, with  $R^2_{adj}$  values of 0.807, 0.832, and 0.840 for the endogenous constructs HFSQ, MFSQ, and PFSQ respectively. The empirical results show that there are no differences between  $R^2$  and  $R^2_{adj}$  values in the current model.

Table 7.13 R2 Adjusted for the Endogenous Latent Variables

R Square Adjusted of the Endogenous Latent Variables								Result
Construct	R Square Adjusted	Sample Mean (M)	Standard Deviation	P≤0.001, Two-tailed		Confidence Intervals		
				T Statistics	P Values	0.05%	99.95%	
HFSQ	0.807	0.808	0.047	17.037	0.000	0.573	0.925	substantial
MFSQ	0.832	0.832	0.057	14.610	0.000	0.586	0.949	substantial
PFSQ	0.840	0.843	0.047	18.030	0.000	0.610	0.952	substantial

### 7.8.2.3 Effect sizes ( $f^2$ )

The effect size ( $f^2$ ) measurement is used to understand the predictive power ( $R^2$ ) of each exogenous construct related to a specific endogenous construct (Vinzi et al., 2010a). In other words,  $f^2$  means the alteration in the  $R^2$  value of the endogenous construct when omitting a specified exogenous construct from the path model,  $f^2 = (R^2_{included} - R^2_{excluded}) / (1 - R^2_{included})$  (Hair Jr et al., 2017).

A guideline has been suggested by Cohen (1988) to assess  $f^2$  values: less than 0.02 no effect, 0.02 small effect, 0.15 medium effect, and 0.35 large effect of the exogenous latent variable (Hair Jr et al., 2014; 2017).

The empirical results of  $f^2$  values demonstrate that all exogenous constructs have a large effect on related endogenous constructs, except the Obstacles construct, which has a small effect size on the FSQ construct, see Table 7.14 below. These empirical results support the P→J→D pathway, which means professional bodies (CBI, CPMAAI, and IACPA) significantly affect the financial statements' quality through enhancing professional accountants' judgements to overcome technical and behavioural obstacles.

Overcoming such obstacles has a considerable impact on improving the quality of financial statements. However, the predictive power of P→D pathway is small, which means not only behavioural and technical obstacles reduce the FSQ. Other obstacles not introduced in this model have a significant effect. PFSQ may be caused by the combination of all obstacles, not just TO and BO.

Table 7.14 F Squares

f Square			f Square		
Exogenous -> Endogenous	f Square	Assessment f Square value	Exogenous -> Endogenous	f Square	Assessment f Square value
O -> FSQ	0.098	small effect	FSQ -> HFSQ	4.221	large effect
PB -> J	0.813	large effect	FSQ -> MFSQ	5.005	large effect
J -> FSQ	1.039	large effect	FSQ -> PFSQ	5.322	large effect

#### 7.8.2.4 Predictive relevance ( $Q^2$ )

The  $Q^2$  value is an index of the model's ability to predict of the endogenous construct through using a blindfolding procedure (Chin, 1998b; Sarstedt et al., 2014). In other words, the predictive relevance means the model's ability to measure or predict the endogenous constructs.  $Q^2$  values are obtained by getting cross-validated redundancy scores for each endogenous construct in an iterative process "that repeats until each data

point has been omitted and the model re-estimated. The blindfolding procedure is usually applied to endogenous constructs that have a reflective measurement model specification” (Hair Jr et al., 2017:202-207). Predictive relevance is established when the  $Q^2$  value is larger than zero (Hair et al., 2012c; Rollins et al., 2012). Moreover, the blindfolding procedure compares between the original and predicted cross-validated redundancy values, SSO refers to the original values, and SSE refers to the predicted or omitted values. If these values are close to each other, that means the prediction error of the path model is small, and there is high predictive accuracy (Hair Jr et al., 2017). Hair Jr et al. (2017) recommended applying omission distances (D) of 7.

Hence, in order to assess the exogenous constructs’ predictive validity, I am following Hair Jr et al. (2017), a blindfolding test was run via SmartPLS 3 using the default setup, 7 omission distance. The cross-validated redundancy ( $Q^2$ ) values of all endogenous variables are well above zero; 0.641, 0.614, and 0.659 of HFSQ, MFSQ, and PFSQ respectively, which demonstrates that the model has high predictive relevance see Table 7.15.

Table 7.15 Predictive Relevance ( $Q^2$ )

<b>Construct Crossvalidated Redundancy</b>			
<b>Endogenous Construct</b>	<b>SSO = Original Value</b>	<b>SSE = Omitted Value</b>	<b><math>Q^2 (=1-SSE/SSO)</math></b>
<b>HFSQ</b>	684.000	245.575	0.641
<b>MFSQ</b>	684.000	264.004	0.614
<b>PFSQ</b>	684.000	233.009	0.659

### 7.8.3 Importance-performance map analysis (IPMA)

The IPMA<sup>90</sup> of PLS-SEM is an extension of path coefficient estimates by adding a new dimension. It considers the average values of the construct scores and offers essential

<sup>90</sup> Also called Importance-Performance-Matrix analysis. Also, it is part of advanced PLS-SEM analysis.



insight into the role and significance of antecedent constructs. It enables researchers to generate further findings and conclusions (Hock et al., 2010; Ringle & Sarstedt, 2016). This analysis aims to identify antecedent constructs of the target construct that relatively have high importance. Ringle and Sarstedt (2016) suggest a five-step procedure of IPMA: requirements check, compute performance values, compute importance values, importance-performance map creation, and an extension of the IPMA on the indicator level.

Three requirements must be met to apply IPMA; a) rescaling of the indicators scores using a range from 0 to 100; b) using the same scale direction of all indicators; c) positive outer weights estimates of all indicators irrespective whether the measurement model is reflectively or formative. A construct's performance value is the average performance values of its pointed indicators, which is the average of indicators' mean values. The importance value of a construct is the unstandardized form<sup>91</sup> of total effect in terms of a construct's predictive power towards the target construct. The total effect is the summation of the direct and indirect path coefficient effects of all constructs in the path modelling (Hair Jr et al., 2017; Ringle & Sarstedt, 2016). Then, using the importance and performance values calculated to draw IPMA; the x-axis is the importance (unstandardized total effect), and the y-axis is the performance (the average rescaled values (unstandardized) of predecessors' constructs). The IPMA focuses on one strategic target construct of attention in the SEM. Therefore, selecting the target construct of interest is the first step to create an IPMA.

This research aims to maximise the quality of financial statements through highlighting the most important factors that influence professional accountants'

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<sup>91</sup> Note that in the unstandardized form, the total effect values may be much greater than 1.

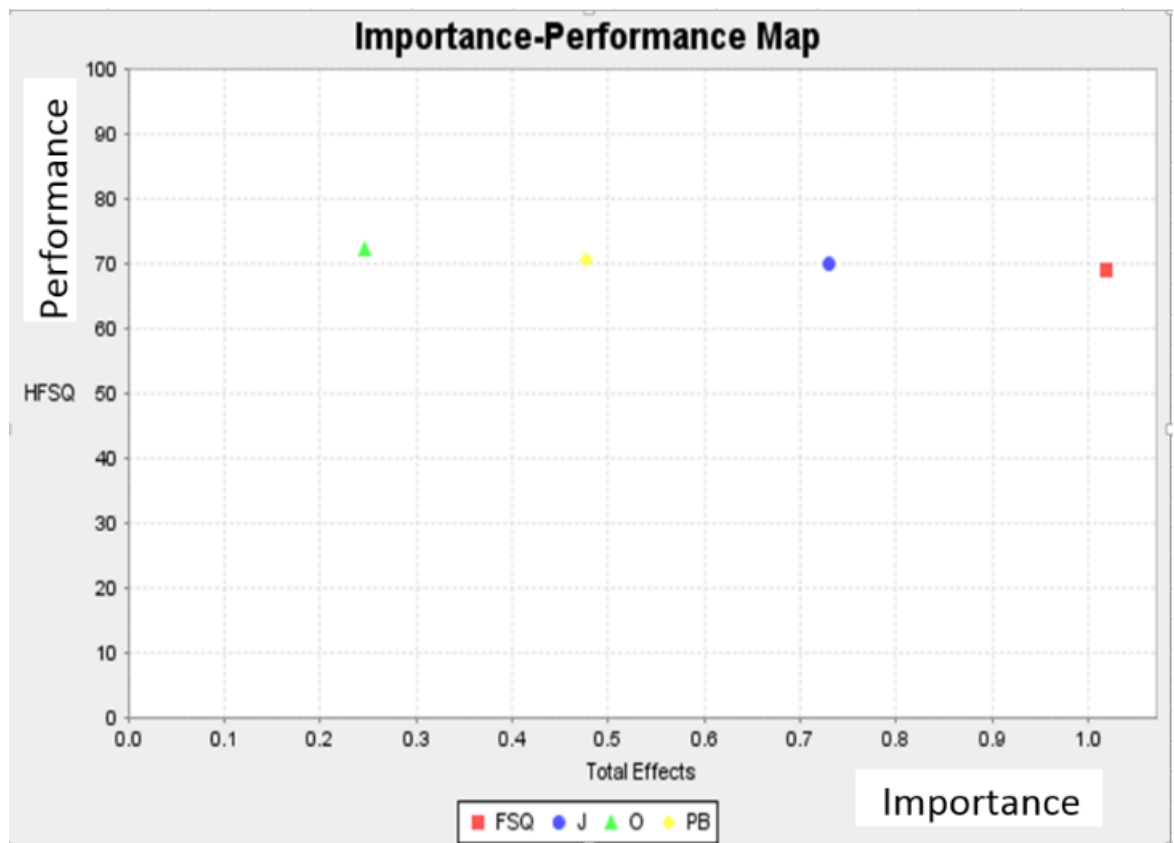
performance. High financial statements' quality (HFSQ) is the target construct of this research, which is a second-order construct related to the financial statements' quality (FSQ) construct, so the importance value of the FSQ construct must be close to one, which means that they are similar or interchangeable constructs. The antecedent constructs are the obstacles (O), professional bodies (PB), and professional accountants' judgements (J).

The empirical results show that the performance scores of all antecedent constructs are very close to each other. Although the obstacles have the highest performance score (72.283), they have the lowest importance value (0.246). These values indicate that the obstacles significantly affect the performance of professional accountants and in turn the quality of financial statements (PFSQ). However, professional accountants should not pay too much attention to the obstacles. Instead, they should pay attention to overcoming these obstacles, since their judgement on how to overcome the obstacles is the most important factor in determining the quality of financial statements, as shown by the fact that the judgement concept has the highest importance value (0.730). This score confirms that the financial statements' quality is highly linked with overcoming both behavioural and technical obstacles. Thus, professional bodies can play a vital role in enhancing the quality of financial statements through assisting professional accountants' judgement to overcome technical and behavioural obstacles, see Table 7.16 and Figure 7.5 below.

*Table 7.16 Importance-Performance Data*

<b>Importance-Performance Map [HFSQ] (unstandardized effects)</b>		
<b>Predecessors' Constructs</b>	<b>Construct Total Effects</b>	<b>Construct Performances</b>
	<b>Importance</b>	<b>Performances</b>
<b>FSQ</b>	1.020	69.100
<b>J</b>	0.730	69.863
<b>O</b>	0.246	72.283
<b>PB</b>	0.477	70.482

Figure 7.5 Importance-Performance Map



### 7.9 Discussion of Findings

The empirical findings significantly demonstrate the Expedient Pathway (O→PFSQ) expectation, the first hypothesis, at a confidence level of 97.50%; the technical and behavioural obstacles will lead to PFSQ. If the Iraqi banking sector responds to the coercive pressure from the CBI and normative pressures of the IACPA and CPMAAI and makes partial and gradual adoption in the current circumstances, most likely, the financial statements will be of poor quality; the qualitative characteristics of the financial statements will not be achieved, which are the core of the IFRS adoption decision. The financial statements will be hybrid, representing neither the IFRS nor the IUAS and their credibility will be in doubt. In this case, the financial statements will serve neither internal nor external stakeholders.

It is worth noting that the path coefficient value of the Expedient Pathway is 0.199, which is interpreted as a moderate and positive relationship. This low path coefficient value confirms the fact that the obstacles to the application of the IFRS are not only the technical and behavioural obstacles that have been tested. As shown in the interview findings, there are several institutional environmental factors that negatively influence the implementation of the adoption decision, such as political instability, security turmoil, economic instability, and legal conflict. These factors are also part of the obstacles. However, due to the research limitations, time limitation, and the fact that such variables require gathering secondary data, these variables have been deferred for future research.

Moreover, the empirical findings strongly support the Ruling Guide Pathway (A) (PB→J→MFSQ), the second and third hypotheses, at a confidence level of 99.95%. The FSQ is highly related to professional accountants' judgements to overcome technical and behavioural obstacles. In order to maintain the minimum level of FSQ under an unstable environment (political and economic instability, security turmoil, and legal conflict) with incomplete information (lack of IFRS knowledge), professional bodies have a professional and ethical commitment to enhance the FSQ by OTO. They can do so by setting a clear transmission plan and preparing guidance, determining the critical differences between the Iraqi Unified Accounting System and IFRS and how those differences influence the FSQ, seeking approval to publish the IFRS standards on the official website of such PB in Arabic and explaining the IFRS terminology, ensuring translation accuracy, and working as reference bodies to solve problems that may arise when applying IFRS. However, the existing behavioural obstacles will adversely affect the financial statements, and most likely, they would be less effective, have less clarity and low consistency, be less productive (not give a competitive value), time-consuming

(not quickly reported), incorrectly presented (not represent the entity's financial position fairly), and costly.

Finally, the empirical findings strongly support the Ruling Guide Pathway (B) (PB→J→HFSQ), the fourth and fifth hypotheses, at a confidence level of 99.95%. Professional bodies also have a professional and ethical commitment to provide practical training courses and workshops to develop professional accountants' knowledge regarding the IFRS before proceeding with the application process. The empirical findings strongly demonstrate that IFRS knowledge can assist professional accountants to overcome the fear of losing the social benefits they had gained through the exercise of their functions, the feeling that the application of IFRS will create an increased burden of workload, and the fear that the IFRS is complex and difficult to apply. This, in turn, will decrease their desire to learn and develop. It will remove the reluctance to change and increase their satisfaction with the Iraqi Unified Accounting System. They will be prouder as a result of learning and practising the IFRS. IFRS knowledge will remove the feeling that there is no real need to adopt the IFRS and will diminish the impact of the socialist accounting culture. In this case, most likely, the qualitative characteristics of the financial statements will be achieved, and they will be accurate, reliable, credible, relevant, objective (unbiased), and consistent.

## Summary

The application of IFRS without overcoming technical and behavioural obstacles will lead to disastrous results. The obstacles to the application of IFRS will adversely affect the quality characteristics of the financial statements, which are the core of the adoption decision and the aim of the IAS Committee. Moreover, the financial statements will be hybrid, representing neither the IFRS nor the Iraqi Unified Accounting System and their

credibility will be in doubt. The empirical results indicate that, if the Iraqi banking sector makes partial and gradual adoption based on the coercive pressure from the CBI and normative pressures of the IACPA and CPMAAI without overcoming the technical and behavioural obstacles, the financial statements will be of poor quality, meaning that they will not achieve the required characteristics of harmonization, comparability, transparency, understandability, verifiability, and timeliness.

Professional bodies have a critical influence on the financial statements' quality, mediated by professional accountants' judgements to overcome technical and behavioural obstacles. Professional bodies have a professional and ethical commitment to assist professional accountants' judgements and enhance the FSQ. To maintain the minimum level of FSQ under an unstable environment and the lack of IFRS knowledge, the professional bodies should overcome technical obstacles (i.e., setting a clear transmission plan and guidance and determining the critical differences between the IUAS and IFRS and how those differences influence the FSQ). However, the existence of behavioural obstacles will lead the financial statements to be of only medium quality (i.e., less effective, less clear, of low consistency, less productive, time-consuming, and costly).

To get high financial statements' quality, professional bodies should also assist professional accountants to overcome behavioural obstacles by developing professional accountants' knowledge regarding the IFRS before proceeding with the application process. The empirical results reveal the conviction among this sample of experts that IFRS knowledge will diminish the behavioural obstacles (e.g., the feeling that the application of IFRS will create an increased burden of workload and the fear that the IFRS is complex and difficult to apply). Moreover, the qualitative characteristics of the financial statements (i. e., accuracy, reliability, credibility, relevance, and objectivity) will be achieved.

## Chapter 8 Conclusions

### Overview

Following the foregoing presentation of the interview findings and the questionnaire findings, this chapter provides the research conclusions. It includes three sections. The first section will summarise both the qualitative and quantitative data findings. The second section will offer the most important recommendations to enhance the accounting profession and rational investment decisions in transitional developing countries, such as Iraq. The last section will acknowledge the research limitations and highlight future research avenues.

*Table 8.1 Chapter Eight Structure*

8	Conclusions
8.1	Summary of Findings
8.2	Recommendations
8.3	Limitations and Future Avenues

## 8.1 Summary of Findings

This thesis aims to achieve four objectives: **first**, to explore factors influencing the application of IFRS in a transitional developing country (i.e., Iraq). **Second**, to determine the obstacles to implementation of the IFRS in a transitional developing country (i.e., Iraq). **Third**, to examine the impact of these obstacles on the financial statements' quality. **Fourth**, to examine the impact of professional bodies on the financial statements' quality mediated by professional accountants' judgements to overcome technical and behavioural obstacles.

The non-implementation of the adoption decision was the main motivation of this thesis. Despite the importance of applying the IFRS in TDC to integrate their economies with the global economy, many countries have not yet adopted the standards, or have made an adoption decision but have not implemented them yet, or implemented them to a limited degree.

To fulfil these objectives, this study utilised an exploratory sequential mixed methods research design, using both qualitative and quantitative data collection and data analysis.

To achieve the first and second objectives, twenty-one semi-structured in-depth telephone interviews were conducted with principal actors representing governmental bodies and professional organizations involved in regulating, standards-setting, and auditing and academia professionals (see Chapter Six). These interviews investigated the institutional environmental factors (IEF) that influence the application of IFRS, whether positively or negatively, to get a full understanding of the impact of the IEF in TDC, and to determine the obstacles to the application of the IFRS. On the entities level, the internal factor is the IFRS knowledge, while the external factors are the political regime, the



economic system, the legal system, the security position, capital markets, universities (education), accounting culture, the World Bank (WB), the International Monetary Fund (IMF), and professional bodies (PB).

The accounting practices are a complementary combination of the overall institutional settings of a country. Even though the IFRS are high-quality accounting standards, the institutional environmental factors (IEF) of TDC could remove the expected development in accounting quality gained via applying IFRS. Moreover, the IEF could weaken the quality of financial statements.

*Politically*, each country that converts from a socialist to a capitalist political regime passes through a transitional period. In such a period, the political regime may suffer from instability, and not have a clear vision. Such instability could adversely affect the economic system and create legal conflict, especially if the occupier imposed the conversion decision. Hence, political instability may not merely create economic instability and legal conflict, but also create security unrest. Consequently, the instability of the current Iraqi political regime led to an absence of real steps toward switching to the capitalist economy and changing laws that conflict with the application of the IFRS. The Coalition Provisional Authority (CPA) changed the Iraqi banking sector law in 2004, but this law has not yet been activated or is ignored. However, the World Bank (WB) and International Monetary Fund (IMF) impose a coercive pressure on the Central Bank of Iraq (CBI) to activate these laws and oblige the Iraqi Banking sector to apply the IFRS after the latter borrowed from the former in 2015.

*Economically*, in a TDC, such as Iraq, the economic system is unstable, not well defined, and has different features. In the transitional period, the economy type is not clear (neither socialist nor capitalist). This may hinder the implementation of the adoption

decision. For instance, all Iraq's business sectors are still socialist, 'under socialist regulations, except the private banking sector has been converted by the CPA according to its importance nationally and internationally. Hence, at the macroeconomic level, the instability of the political regime led to economic instability, which negatively affected foreign investment, and may negatively influence implementation of the adoption decision.

*Legally*, in TDC, conflict of legislation is a crucial factor that prevents the application of IFRS. The application of the Iraqi Unified Accounting System (IUAS) is mandatory in all Iraqi economic sectors, whether public, mixed, social, or private, except for the private banking sector. Hence, the private banking sector suffers from two different sets of regulations: a group of regulations in favour of the IUAS, which were issued before 2003 and another group of regulations in favour of the IFRS, issued after 2003. This conflict proves that the conversion was unplanned and not well-thought out.

*In security terms*, the instability of the political regime leads to security instability and adversely affects implementation of the adoption decision. Moreover, the security turmoil diminishes the importance of integrating the Iraqi economy with the global economy and leads foreign investors to avoid Iraqi business. Also, the primary objective of the current political regime is to provide security stability and it does not have an economic vision or ability to compel companies to apply IFRS. Moreover, the unstable security situation weakens the ability to ascertain how the non-application of international accounting standards affects foreign investment and the economy of Iraq. Furthermore, security unrest made it difficult for professional accountants to travel out of Iraq to attend training due to the high costs. Also, it contributes to the lack of international organizations able to hold Iraq business to these standards in the modern environment.

***The capital market.*** The CPA established the Iraq Stock Exchange Market as a self-regulatory organization. This action reflects the importance of capital markets from political and economic perspectives, to integrate the Iraqi economy with the global economy and encourage foreign investment. However, the Interim Securities Markets Law no. 74 of 2004 does not oblige listed companies to apply the IFRS. Hence, despite the importance of capital markets in the application of IFRS, the Iraqi capital market does not constitute a pressure factor to integrate the Iraqi economy with the global economy and apply the IFRS.

***Knowledge:*** the IFRS was born and developed in the capitalist business environment and conflicts with the accounting practices in the socialist business environment. Consequently, professional accountants and academics did not have adequate knowledge to apply such standards efficiently. Also, the political, economic, legal, and security instability hindered development of IFRS knowledge: the lack of foreign investment led to lack of experience, while the lack of security led to lack of international organizations able to provide training and a lack of foreign investment. Moreover, there is a lack of IFRS education in Iraqi universities at the undergraduate level and a lack of academics who have familiarity with IFRS. Accordingly, the lack of IFRS knowledge creates a massive resistance towards the implementation of the adoption decision and is a fundamental source of behavioural obstacles.

***Accounting culture*** is not the result of a day or night, but it constitutes the heritage of customs and traditions entrenched in individuals' minds, which govern their behaviours. Thus, the accounting practices in a TDC are still influenced by the previous accounting culture, which adversely influences the implementation of IFRS and the financial statements' quality. Although the CPA formally converted the political regime and economic system to capitalism in 2003, the accounting culture, still socialist, has not

changed. It still influences current accounting practices and adversely affects the adoption of IFRS. However, the culture is to some degree affected by the change and no longer a pure socialist accounting culture, as such as existed before 2003. Based on the interview findings, the researcher believes that the entire change in culture may take 30 years. During this time, the accounting culture may pass through six stages, and each stage may last five years: socialist → socialist open to capitalist → mixed but more socialist than capitalist → mixed unclear → mixed but more capitalist than socialist → capitalist.

*Professional organizations* play a vital role in theorising change, endorsing innovations and diffusion of high-level accounting practices. Also, they diffuse the application of IFRS through providing professional training and professional press, which are foundations of professionalisation. However, in TDCs such as Iraq, professional organizations are still influenced by the socialist ideology, and cannot take the initiative and are waiting for guidance from government agencies.

*The universities and other educational institutions* potentially have a crucial role in the implementation of the adoption decision. However, there is a shortage of IFRS education and courses around the world. The IFRS education literature shows that most accounting educators have done little to update and revise their education programmes, courses, and curricula. Moreover, many business schools are not yet ready to introduce IFRS learning materials in their financial accounting curricula because their administrators do not have enough understanding regarding the incorporation of the IFRS in their accounting curriculum. This is the case in Iraq. The IFRS have not yet been incorporated effectively at the undergraduate level. Also, there is a weakness in the post-graduate level (PhD), where coverage of the standards is limited to theoretical issues. The obstacles to introducing IFRS education in the Iraqi universities' curricula are the lack of experience of some esteemed professors, the lack of desire by faculty members to teach

these standards, the lack of full understanding of the terminology, the lack of specialists in this material, lack of desire to update information, inadequate time dedicated to this syllabus, and problems with translation and the English language.

*The Iraqi institutional context* shows two opposite direction pressures (positive pressures and negative pressures) of Scott's (2011) theoretical hierarchy (coercive pressure, normative pressure, and memetic pressure).

*Positive coercive pressures* stem from the WB and IMF (Global Level) on the CBI (Governance Level), while the latter exerts positive coercive pressure on the private banking sector (Entities Level). The aim of the governor of the CBI in the application of IFRS was to implement international requirements. However, *negative coercive pressures* stem from the political instability, security turmoil, and legal conflict. According to the Vice President of the IACPA, the political instability, the security turmoil, and conflicting laws were the critical reasons for non-integration of the Iraqi economy with the global economy and non-application of the IFRS. The political instability and security turmoil are the most prominent factors pushing actively to outweigh the advantages offered by IFRS in attracting foreign investment.

*Normative pressures* stem from individuals' 'norms and social beliefs' that influence their behaviour. Positive-normative pressures primarily stem from professionalisation, when the members of a profession outline an approach to work that significantly influences the harmonization and convergence of accounting practices. It refers to norms and social beliefs that influence organizational behaviour. These values may lead to resemblance to their counterparts in other entities. Normative pressures may grant professional accountants the ability to play a vital role in applying the international accounting standards.

In the case of Iraq, *positive normative pressures* stem from IACPA and CPMAAI. These professional organizations seek to take part in supporting the adoption decision through imposing normative pressures on the private banking sector. The secretary of the IACPA asserts that the adoption decision will be extended to all listed companies if they succeed in the banking sector.

However, these are contrasted by *negative normative pressures*, which stem from the economic instability, the lack of IFRS knowledge, and the previous socialist accounting culture. Iraq was socialist pre-2003 and rhetorically switched to capitalism post-2003, but indeed the practice is socialist, or perhaps hybrid. The Iraqi economy is still a closed economy governed by the laws of the socialist era. Moreover, the lack of IFRS knowledge was a key reason for non-application of the IFRS.

*Mimetic pressure* or pressure to imitate occurs when entities imitate peers that appear to be influential or successful. This pressure grows when there is an absence of a distinct and organized set of accounting standards. Accordingly, entities may imitate peers' accounting practices that are perceived to be associated with a commendable benchmark.

In the Iraqi case, *positive mimetic pressure* stems from external trade partners, 'correspondent banks'. However, *negative mimetic pressure* stems from internal trade partners.

Drawing on the interview findings, two sorts of obstacles have been identified: technical obstacles and behavioural obstacles. *The technical obstacles* include the absence of a transition plan, the non-availability of these standards on the official websites of any authorised body in either Arabic or English, and the lack of qualified professional bodies that could oversee the application of these standards. *The behavioural obstacles* include professional accountants' fear of losing their positions or carrying an extra burden

of work, the belief that the IFRS is complex and difficult to apply, the lack of a desire to learn, and the enormous influence of the dominant conservative socialist culture. Both technical and behavioural obstacles emerged from the lack of IFRS knowledge, legal conflict, political instability, economic instability, security turmoil, and the accounting culture.

To achieve the third and fourth objectives, the results of these interviews were employed to develop a rigorous and coherent questionnaire (see Chapter Seven). A structured questionnaire was distributed to all external auditors (232), all private banks (40), and 70 academics, from which 114 valid responses were collected, by which to examine the impact of both technical and behavioural obstacles on the financial statements' quality (the Expedient Pathway) and the impact of professional bodies on the financial statements' quality mediated by professional accountants' judgements to overcome technical and behavioural obstacles (the Ruling Guide Pathway).

Building on *the Expedient pathway*, the best decision-choice is for the Iraqi banking sector not to respond to the positive coercive, normative, and mimetic pressures and not to implement the adoption decision, due to technical and behavioural obstacles. If this sector responds to such pressures by partial or gradual adoption, the financial statements will be of poor quality; the quality characteristics of the financial statements, which are the core of the IFRS adoption decision, will not be achieved and the financial statements will be hybrid, representing neither the IFRS nor the IUAS. Financial statements' credibility will be in doubt and they will serve neither internal nor external stakeholders.

The best decision-choice of *the Ruling Guide pathway (A)* is also for the Iraqi banking sector not to respond to the positive coercive, normative, and mimetic pressures and not to implement the adoption decision, due to behavioural obstacles. Although

professional bodies (CBI, CPMAAI, and IACPA) may maintain a minimum level of financial statements' quality through assisting professional accountants' judgement to overcome technical obstacles, the lack of knowledge and prevalence of behavioural obstacles will adversely impact the financial statements' quality. Hence, the financial statements will be less effective, less clear and consistent, less productive (not give a competitive value), time-consuming (not quickly reported), unreliable (not represent the entity's financial position fairly), and costly.

*The Ruling Guide Pathway (B)* is the best pathway. In this pathway, professional bodies would control the obstacles and lead professional accountants to make the optimal judgement to overcome both technical and behavioural obstacles after gaining adequate knowledge, and a well-planned transitional process may lead to full adoption and high-quality financial statements, which are understandable, accurate, reliable, credible, relevant, objective (unbiased), consistent, concise, and add value.

## 8.2 Recommendations

Drawing on the research findings, the following recommendations are presented:

**First**, the political regime should determine the country's direction, whether to continue with the socialist tendency or convert to capitalism practically to remove the political instability issue. Moreover, the political regime should determine which sort of economic system to pursue; whether to continue with the socialist economic system or convert to the capitalist economic system. Currently, all economic sectors are socialist except the private banking sector.

**Second**, the legal conflict should be removed through removing or amending regulations issued before 2003 or after 2003.



**Third**, the Iraq Stock Exchange Market should play an active role in imposing listed banks to implement the adoption decision.

**Fourth**, the CBI, CPMAAI, and IACPA should take responsibility and assist professional accountants to overcome technical and behavioural obstacles through: seeking approval to publish the IFRS in their official websites in Arabic; explaining the IFRS terminology and ensure translation accuracy; providing extensive training courses and workshops to professional accountants especially in the private banking sector; selecting one of them to be a reference body to be responsible for removing obstacles that may arise when applying these standards; preparing a comprehensive transitional plan and guidance; determining the main differences between the IFRS and the IUAS; and determining the effect of these differences on the financial statements.

Moreover, IFRS knowledge could assist professional accountants to overcome the sources of behavioural obstacles, including the feeling that the implementation of the adoption decision will create an increased burden of workload; the fear of losing social benefits gained through the exercise of their functions; the feeling that the IFRS is complex and difficult to apply; the lack of desire to learn and develop; the reluctance to change and satisfaction with the IUAS; pride in what they have learned and practised during their working life; the feeling that there is no real need to adopt the IFRS; and the impact of the previous socialist accounting culture.

**Fifth**, the private banking sector should not apply the IFRS until it has gained adequate knowledge and is ready to implement the adoption decision.

**Sixth**, partial and gradual adoption has serious implications for the financial statements' quality. Thus, the private banking sector should not respond to this request.

**Seventh**, in case the adoption decision is extended to other economic sectors, the research findings should be used as guidance to prepare a comprehensive conversion plan.

**Eighth**, universities and other educational institutions should play their part in supporting the adoption decision through introducing IFRS learning materials in their financial accounting curriculum, creating a desire of faculty members to teach it and developing specialist staff in this field. Moreover, they should teach IFRS within two or three courses as an independent curriculum.

**Ninth**, under all these kinds of isomorphic pressure, entities could prepare two kinds of financial statement, if they have enough knowledge and there is no internal resistance. The first financial statement could be prepared according to the IUASBIC, to be submitted to the taxation authority, the departments of Iraqi companies, and internal stakeholders. The second financial statement could be prepared according to the IFRS to be submitted to the CBI and trade partners.

### 8.3 Limitations and Future Avenues

Despite the evidence found in this study, the results of this thesis are subject to the following caveats, which in turn offer avenues for future research. **First**, the Information concept of TM was not examined. Thus, consideration of the Analytical Pathway, the Revisionist Pathway, the Value-Driven Pathway, and the Global Perspective Pathway would be an extension of this study and a future avenue for research. The information concept of TM could be represented by the trend of the political regime, the economic system, the legal system, accounting culture, security position, capital market, and universities and other educational institutions. The information concept requires collecting secondary data, not related to the participants' opinions (questionnaire). **Second**, not all institutional environmental factors (IEF) were examined. The research

examines the impact of technical and behavioural obstacles on the financial statements' quality (FSQ). These obstacles were derived from the analysis of the interview findings. However, to get a better understanding of the impact of the IEF on the FSQ, each factor should be examined separately, and then all of them examined together within the Expedient Pathway of TM. **Third**, the theoretical research builds on TM, IBT, and KBV. However, there are some other theories that could add extra interpretations to the research findings, such as the Theory of Change. Furthermore, Action Research as a methodology could be utilised by the transition committee to facilitate the success of the conversion process. **Fourth**, the Iraqi banking sector was the target sector of the research because currently, the application of IFRS is limited to that sector. However, the adoption decision may be extended to other economic sectors. Thus, other economic sectors would be avenues for future research. **Fifth**, the interpretation and allocation of negative coercive, normative, and mimetic pressure of the Institutional-based Theory hierarchy is limited and somewhat subjective, because there is no previous literature dealing with negative pressures. Moreover, there is no empirical evidence to support this interpretation. Thus, it would be valuable to investigate these pressures empirically. **Sixth**, Zeff (2007) presents four types of cultures that could impede the application of IFRS. However, this study explores merely the influence of the accounting culture. Thus, the three other cultures (business and financial culture, auditing culture, and regulatory culture) are a fertile land for further research. **Seventh**, the data represent the participants' opinions and perceptions. Of course, these are the opinions of experts, and they seem to be consistent with the theories and other studies that have been discussed, but it would need a longitudinal study to verify the actual effects of current policies and practices, and future changes.

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## Appendix (A - 1) Interview Ethical Approval



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**Ref: HUBSREC 2016/03**

5 August 2016

Dear Sinan

**Re: Exploration of implementation of International Accounting Standards in the context of developing countries: the case of Iraq**

Thank you for your research ethics application.

I am pleased to inform you that on behalf of the Business School Research Ethics Committee at the University of Hull, Dr Joanne Cook has approved your application on 4 August 2016.

I wish you every success with your research.

Yours sincerely,

Hilary Carpenter  
Secretary,  
Research Ethics Committee



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## Appendix (A - 2) Questionnaire Ethical Approval



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**Ref: HUBSREC 2016/47**

7 March 2017

Dear Sinan

**Re: Exploration of implementation of International Accounting Standards in the context of developing countries: the case of Iraq**

Thank you for your research ethics application.

I am pleased to inform you that on behalf of the Business School Research Ethics Committee at the University of Hull, Mr Jon Simon has approved your application on Tuesday 7<sup>th</sup> March 2017.

I wish you every success with your research.

Yours sincerely,

David Griffiths  
Secretary,  
Research Ethics Committee



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## Appendix (B) Phone Interview Strengths and Weaknesses

Trier-Bieniek (2012:630) contends that *“being interviewed over the phone may result in more honest data as people have become more accustomed to ‘virtual’ communication, serving to benefit to both the participant and researcher”*. Phone interview is a researcher-friendly tool that is time-efficient for conducting interviews (Trier-Bieniek, 2012). Holbrook et al. (2003) asserted that phone-interview is *“the dominant mode of survey data collection in the United States”* (Holbrook et al., 2003:79).

Nevertheless, researchers have raised some concerns regarding this technique. Holbrook et al. (2003) found that the use of phone interview in gathering quantitative data related to sensitive topics led participants to censor their answers in order to protect themselves, which led several investigators to propose that telephone-interview may be less effective (Shuy, 2003). Another major concern was an absence of interaction among the participants and interviewer (e.g. Shuy, 2003; Weiss, 1994). However, many scholars have contested these suggestions, for instance, Sturges and Hanrahan (2004), Scott (2004), Stephens (2007), Holt (2010), and Trier-Bieniek (2012). Moreover, the use of the protocol analysis technique (see section 5.5) in this practical applied research diminished these concerns. This blend facilitated the ‘sender-receiver’ dynamic and allowed me to get more accurate answers.

Prior research has demonstrated the efficiency of telephone interview. Sturges and Hanrahan (2004) conducted a qualitative study on county jail inmates, in which they compared between face-to-face interview and phone interview. They found *“no significant differences”* between the two kinds of interviews and concluded that *“telephone interviews can be used productively in qualitative research”* (Sturges & Hanrahan, 2004:107). Moreover, studies that directly compare between face-to-face and phone interviewing reveal that phone interviewing *“produces data which are at least*

*comparable in quality to those attained by the face-to-face method*” (Carr & Worth, 2001:511). Furthermore, Stephens (2007) conducted semi-structured interviews both face-to-face and by phone, with ‘elite’ and ‘ultra-elite’ participants, using a Sociology of Scientific Knowledge perspective to understand the social construction of macroeconomics. He concluded that *“telephone interviewing with elite and ultra-elite respondents is both a productive and valid research option”* (Stephens, 2007:203). Additionally, Holt (2010) used phone interviews to collect narrative data through open-ended questions and a semi-structured interviewing technique that yielded detailed and genuine accounts of participants’ experiences. Moreover, he indicates that *“the use of telephones should be seriously considered as a preferred alternative to face-to-face interviews when considering how to conduct narrative interviews with particular groups of participants”* (Holt, 2010:113). Trier-Bieniek (2012:631) proposes that *“qualitative telephone interviews can be used when studying sensitive subjects”*.

Saunders et al. (2009) and Kothari (2004) illustrated some advantages of phone interviews, such as ease of access, avoidance of embarrassment to the participants, a higher rate of response, flexibility, speed, and low cost compared to face-to-face. Practically, the main advantages of this technique, which enriched the research findings in addition to its validity and reliability, was that: it was more convenient and comfortable for both interviewer and interviewees because the interviewees could select the most comfortable day and time for them. In the face-to-face interview technique, the interviewer and interviewee are bound by one place, which is often a place of business (workplace), and this can pose problems. Since working time is dedicated to working; it is very difficult for participants to be interactive, responsive, and devote themselves to answer the interview questions efficiently in the workplace, especially when the interview extends for nearly an hour, without affecting their work. I considered that conducting

face-to-face interview in the workplace during work time would not lead to gaining good information and high-quality knowledge, as participants' engagement in an exploratory discussion will be less willing, since their minds would be busy with the completion of their work, and they would not pay so much attention to thinking and gathering ideas and data for answering the interview questions to provide adequate answers. Therefore, their answers might be brief and inconsistent, and not explained sufficiently, because they would want to end the interview soon and return to their work. In contrast, phone interview gives great flexibility in the time and place of interview. It gives the opportunity to conduct several interviews when participants were out of Iraq, such as in Egypt, Lebanon, and Malaysia. It also gives the participants the opportunity to read the interview questions in plenty of time, enabling them to prepare answers in a knowledgeable manner after collecting reliable data.

The decision to use telephone interview was supported by Sekaran's (2003) suggestion that the telephone interview technique allows the researcher to reduce any embarrassment that some participants may feel in a face-to-face interview. In addition, participants' discomfort in disclosing personal information might be less in phone interview than a face-to-face interview.

A criticism has been raised that telephone interviews lead to *"loss of opportunity to witness the non-verbal behaviour of your participant which may adversely affect your interpretation of how far to pursue a particular line of questioning"* (Saunders et al., 2009:349). However, the witnessing of participants' non-verbal behaviour was not necessary in the present research, and also its impact on the interpretation of findings would be diminished for many reasons, such as the purposive selection of participants from specific groups of specialists, the opportunity for participants to read the questions

in advance, and prepare their responses, and the opportunity for participants to check that the transcripts reflected their knowledge and views accurately.

Saunders et al. (2009:349) raise the concern that *“seeking to conduct qualitative interviews by telephone may lead to issues of (reduced) reliability, where your participants are less willing to engage in an exploratory discussion, or even a refusal to take part”*. This problem was avoided, however, by the sample selection technique (see section 5.7) where emails were sent to prospective participants, who were free to accept or decline the invitation without pressure or embarrassment.

Saunders et al. (2009:349) note the possible technical difficulties of recording telephone interviews, but this concern was overcome by careful planning and preparation of multiple audio-recording devices.

A further weakness raised by Kothari (2004) is that *“little time is given to respondents for considered answers; interview period is not likely to exceed five minutes in most cases”* (Kothari, 2004:100). This did not apply; the average interview duration in this research was around 45 minutes with a range from 32 minutes to 1 hour 43 minutes. Concerns regarding the need for telephone facilities, cost and geographical coverage (Kothari, 2004) were not justified, given the wide spread of Smart Phone among the target population.

### Appendix (C) Protocol Analysis Literature

<b>Author</b>	<b>Field of study</b>	<b>Think-aloud technique</b>
Austin and Delaney (1998)	Psychology	Concurrent
Benbunan-Fich (2001)	Marketing	Concurrent
Berne (2004)	Education	Concurrent
Boren and Ramey (2000)	Computer	Comparison between retrospective and concurrent
Card et al. (2001)	Computer	Concurrent
Chandrashekar et al. (2006)	Computer	Concurrent
Cooke (2010)	Communication	Concurrent
Cotton and Gresty (2006)	Education	Concurrent
Donker and Markopoulos (2002)	Computer	Concurrent
Earle (2004)	Psychology	Concurrent
Freeman (2011)	Humanities	Concurrent
Hamm (2004)	Medical	Concurrent
Hayes et al. (1998)	Psychology	Concurrent
Koro-Ljungberg et al. (2012)	Engineering	Concurrent
Kussmaul and Tirkkonen-Condit (1995)	Translation	Concurrent
Kuusela and Paul (2000)	Computer	Retrospective
Li (2004)	Linguistics	Comparison between retrospective and concurrent
Lundgrén-Laine and Salanterä (2010)	Clinical	Concurrent
Magliano and Millis (2003)	Psychology	Concurrent
Nielsen (1994)	Computer	Retrospective
Schrauf (2003)	Clinical	Concurrent
Van Den Haak et al. (2003)	Computer	Concurrent
Yang (2003)	Humanities	Concurrent



## Appendix (D) the Questionnaire

An Exploration of Implementation of International Accounting Standards in the Context of Transitional Developing Countries: the case of Iraq

Dear Participant,

My name is Sinan Al-Shaikh, a faculty member of Al-Mustansuryah University and a researcher at Hull University. We would like to thank you for accepting our invitation and agreeing to participate in this study, which is supervised by Professor Waymond Rodgers at Hull University Business School. This study is funded by the Republic of Iraq / Ministry of Higher Education and Scientific Research and Al-Mustansuryah University. We would like to provide you with more information about this project.

The primary aim of this questionnaire is to examine the impact of technical and behavioural obstacles on the quality of financial statements when at the first time applying the international accounting standards (IFRS) are applied for the first time on the Iraqi banking sector. Moreover, it examines the role of professional bodies in enhancing the financial statements' quality mediated by assisting professional accountants' judgements to overcome technical and behavioural obstacles. The professional bodies are the Central Bank of Iraq (CBI), the Council of Profession Monitoring and Auditing of Accounting in Iraq (CPMAAI), and the Iraqi Association of Certified Public Accountants (IACPA).

The theoretical framework of this research builds on the Throughput Model, the Institutional-based Theory, and Knowledge-based View to underpin the research findings. The average expected time to complete this questionnaire is 15 minutes.

This is an anonymous questionnaire. Please ensure that you do not write your name or any other comments that will make you identifiable, on the attached questionnaire. By completing the questionnaire, you are consenting to take part in this research. If you have

any concerns about the conduct of this research project, please contact the Secretary, HUBS Research Ethics Committee, University of Hull, Cottingham Rd, Hull, HU6 7RX; Tel No (+44) (0)1482 463410; fax (+44) (0)1482 463689.

Yours sincerely,

Professor Waymond Rodgers  
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- ❖ Please take into consideration that this questionnaire will be sent electronically via email to the expected participants.
- ❖ For all questions, please indicate your response by selecting a number from 1 to 7 for each item in the following manner: (1) Strongly Disagree; (2) Disagree; (3) Disagree Somewhat; (4) Neutral; (5) Agree Somewhat; (6) Agree; (7) Strongly Agree.

### Introduction:

The first phase of this study embedded phone interviews, which revealed several obstacles that are hindering the application of the International Accounting Standards (IFRS) in the Iraqi banking sector. These obstacles are classified into two groups: technical obstacles and behavioural obstacles.

### Technical obstacles (TO)

1. When applying the international accounting standards in the private banking sector, to what extent do you agree that the obstacles listed below will be influential on the efficiency of the application of those standards:
  1. Non-publishing these standards on the official websites of any authorised body in Iraq by Arabic with its last updates.
  2. Confusion in the understanding of some IFRS terminology and translation errors.
  3. Non-understanding of some procedures mentioned in these standards.
  4. Lack of a referencing body responsible for removing obstacles that may arise when applying these standards.

5. Lack of a plan or mechanism for switching to the IFRS, to guide professional accountants.
6. Lack of a qualified professional body to oversee the application of these standards.
7. Failure to determine the main differences between the Iraqi Unified Accounting System (IUAS) and IFRS and how to treat those differences.

### Behavioural obstacles (BO)

2. When applying international accounting standards in the banking sector, to what extent do you agree that professional accountants' resistant behaviour may arise as a result of:
  1. Fear of losing their positions.
  2. Fear of carrying an extra burden of work.
  3. Loss of social benefits gained through the exercise of their functions.
  4. Believing that the IFRS is complex and difficult to apply.
  5. Lack of desire to learn something new, differ from what they have become accustomed to.
  6. Reluctance to change caused by satisfaction with the Iraqi Unified Accounting System.
  7. Pride in what they have learned and practised during their working life.
  8. Feeling that there is no real need for adopting of IFRS.
  9. The impact of accounting culture, which is characterised by the influence of conservative socialism.

### Throughput Model (TM)

The Throughput Model (TM) as a process thinking model, presents a unique strategy of thinking, to build up and formulate an individual's thoughts to be successful (Rodgers, 2006). In TM, there are four factors that may influence the individual's decision-making process; Perception, Information, Judgement and Decision. TM has been used in various studies in different fields. In this research, the TM will be employed to examine the ability of perceptual elements to enhance the quality of financial statements when applied to the

IFRS, by enhancing the knowledge of those standards and overcoming technical and behavioural obstacles.

#### Perception 2 elements:

The perceptual elements are external bodies that may influence the decision of Iraqi banks to adopt the IFRS and the quality of financial statements, which are: The Central Bank of Iraq; The Council of Auditing and Monitoring of Accounting Profession in Iraq; and The Association of Certified Public Accountants.

#### The Central Bank of Iraq (CBI)

3. To what extent do you agree that there is a professional and ethical commitment of the Central Bank of Iraq to the following:
  1. Set a clear transmission plan or guidance?
  2. Determine the main differences between the Iraqi Unified Accounting System and IFRS?
  3. Determine the effect of those differences on the financial statements?
  4. Seek approval to publish these standards on the official website in Arabic?
  5. Explain the IFRS terminology and ensure translation accuracy?
  6. Provide practical training courses and workshops?
  7. Solve obstacles that may arise when these standards are applied?

#### The Council of Profession Monitoring and Auditing of Accounting in Iraq (CPMAAI)

4. To what extent do you agree that there is a professional and ethical commitment of the CAMAPI to the following:
  1. Take part in initiating a transitional plan or guidance?
  2. Take part in the determination of the main differences between the Iraqi Unified Accounting System and IFRS?
  3. Determine the effect of those differences on the financial statements?
  4. Seek approval to publish these standards on the official website in Arabic?
  5. Explain the IFRS terminology and ensuring translation accuracy?
  6. Provide practical training courses and workshops?

7. Play an active role in solving obstacles that may arise from applying these standards?

#### The Association of Certified Public Accountants (IACPA)

5. To what extent do you agree that there is a professional and ethical commitment of the Iraqi Association of Certified Public Accountants to the following:
  1. Take part in initiating a transitional plan or guidance?
  2. Take part in the determination of the main differences between the Iraqi Unified Accounting System and IFRS?
  3. Determine the effect of those differences in the financial statements?
  4. Seek approval to publish these standards on the official website in Arabic?
  5. Explain the IFRS terminology and ensure translation accuracy?
  6. Provide practical training courses and workshops?
  7. Play an active role in solving obstacles that may arise when applying these standards?

#### Overcoming technical obstacles (OTO)

6. To what extent do you agree that professional bodies may overcome technical obstacles through:
  1. Publishing such standards on their official websites in Arabic?
  2. Explaining the IFRS terminology?
  3. Correcting translation errors?
  4. Setting up clear plan or mechanisms to switch to the IFRS?
  5. Having a professional body to oversee the application of these standards?
  6. Determining the expected implications of mixing between the Iraqi Unified Accounting System and IFRS.

#### Overcoming behavioural obstacles (OBO)

7. To what extent do you agree that the knowledge of IFRS can assist professional accountants to overcome the following behavioural obstacles?
  1. The fear of losing their positions.
  2. The feeling that applying IFRS will create an increased burden of workload.

3. The fear of losing social benefits they had gained through the exercise of their functions.
4. The feeling that the IFRS are complex and difficult to apply.
5. The lack of desire to learn and develop.
6. The reluctance to change and satisfaction with the Iraqi Unified Accounting System.
7. Pride in what they have learned and practised during their working life.
8. The feeling that there is no real need to adopt the IFRS.
9. The impact of accounting culture, which is characterised by the influence of conservative socialism.

#### Financial statements quality (FSQ)

8. To what extent do you agree that the application of international accounting standards without gaining enough knowledge and overcome behavioural and technical obstacles will lead to failure to achieve the following qualitative characteristics of the financial statements, intended by the IFRS adoption decision:
  1. Faithful representation.
  2. Comparability (Hybrid and representing neither the IFRS nor the IUAS).
  3. Relevancy.
  4. Understandability.
  5. Verifiability (Credibility in doubt).
  6. Timeliness.
9. To what extent do you agree that the application of IFRS without overcoming behavioural obstacles will cause the financial statements to become:
  1. Less effective.
  2. Less clear and consistent.
  3. Less productive (do not give a competitive value).
  4. Time-consuming (not quickly reported).
  5. Unreliable (not represent the entity's financial position fairly).

6. Costly.

10. To what extent do you agree that the overcoming of technical and behavioural obstacles after gaining enough knowledge will enhance the quality of financial statements to become more:

- 1- Faithfull represented (Accurate).
- 2- Reliable.
- 3- Credible.
- 4- Relevant.
- 5- Objective (unbiased).
- 6- Consistent

### Personal information

Please tick the appropriate answer or enter your reply in the appropriate space. You can select more than one option.

11. Qualification(s):

- PhD       CPA       Ph.D. & CPA       Masters   
BA       Other.....

12. Work Experience:

- Less than 5 years       5 to 9 years       10 to 14 years   
15 to 19 years       20 to 24 years       25 to 29 years   
30 years and more

13. Occupation: You can select more than one option:

- External auditor       Professional Accountant (CEO, CFO)   
Academic       Other .....

14. Gender:

- Male       Female

Dear Participant,

*You have completed this questionnaire, and by having done so, are confirming your participation in this survey.*

*Your time and effort are much appreciated.*

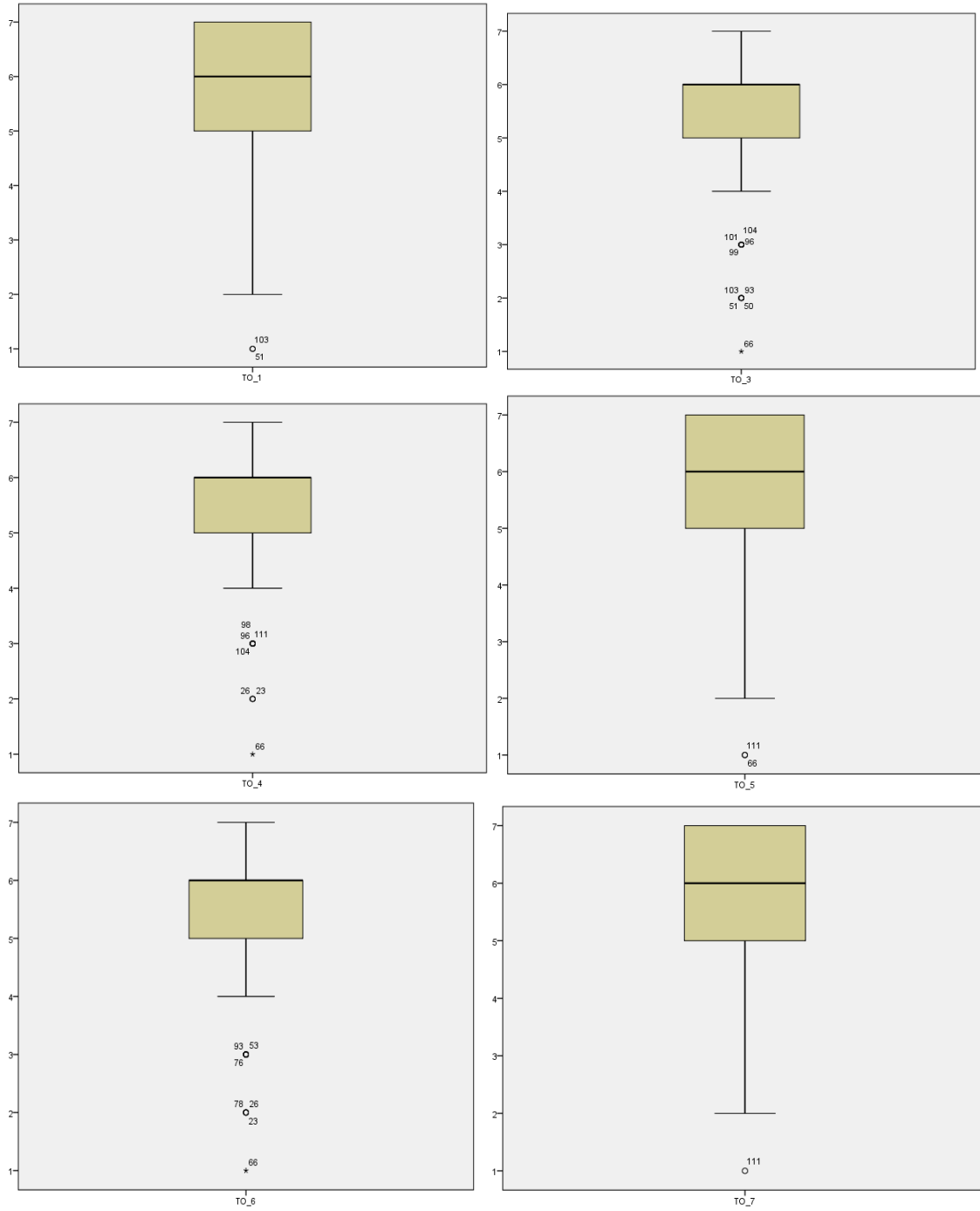
Thank-you once again,  
Yours sincerely,

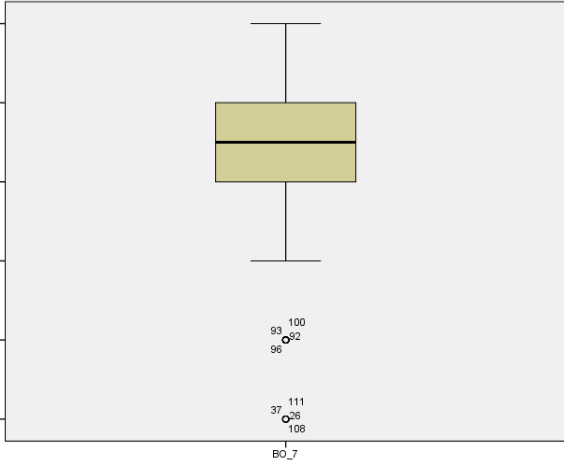
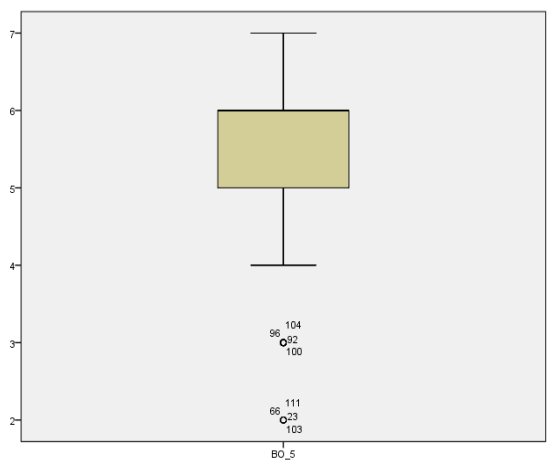
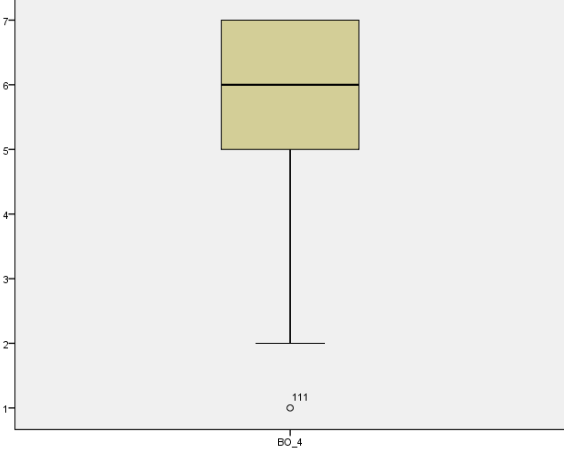
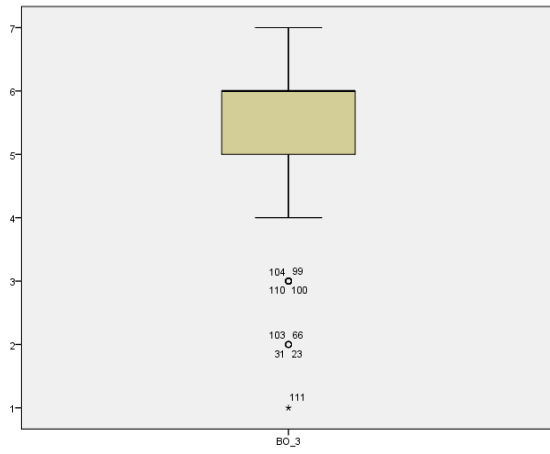
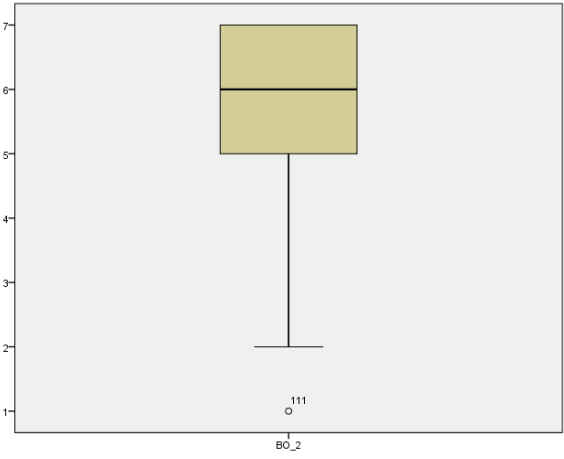
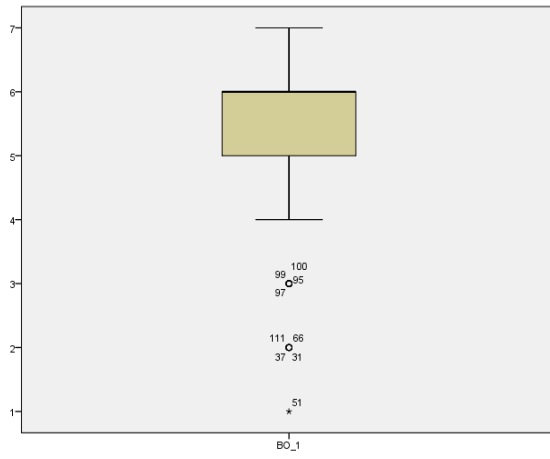
Professor Waymond Rodgers  
PhD Student Advisor  
Accounting and Finance Department  
University of Hull  
Hull, UK  
[w.rodgers@hull.ac.uk](mailto:w.rodgers@hull.ac.uk)

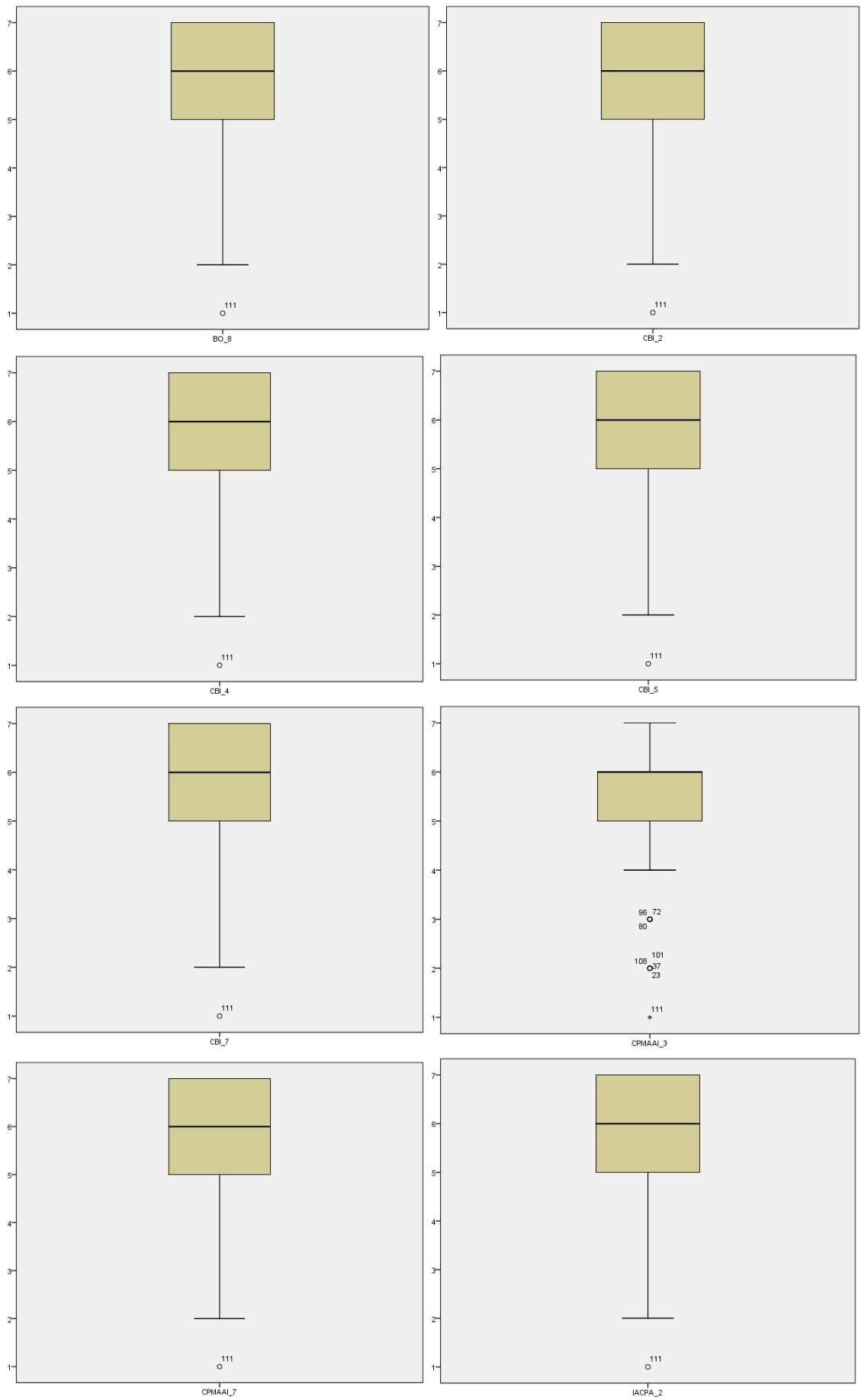
Sinan Al-Shaikh  
PhD Student  
Accounting and Finance Department  
University of Hull  
Hull, UK  
[S.Al-Shaikh@2014.hull.ac.uk](mailto:S.Al-Shaikh@2014.hull.ac.uk)

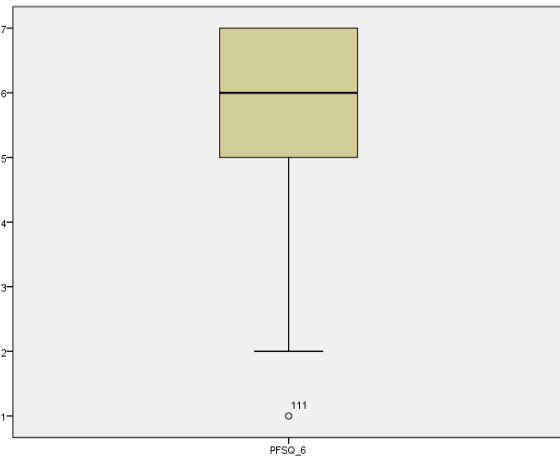
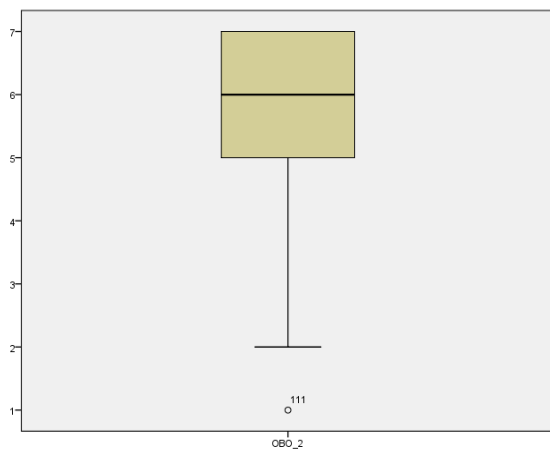
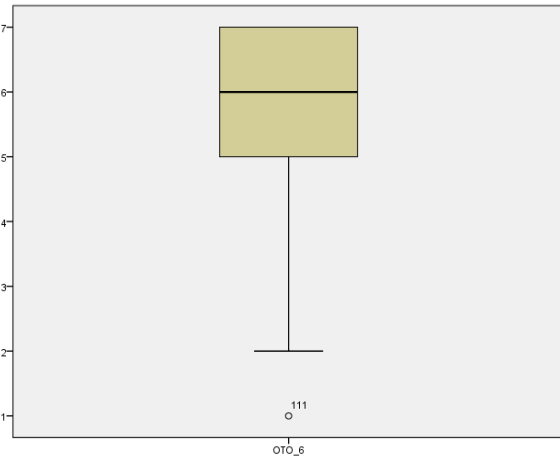
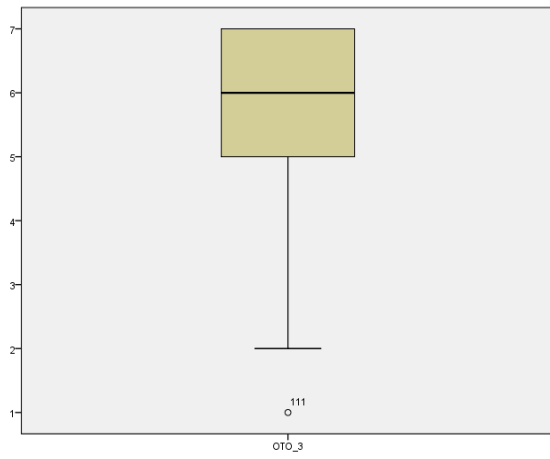
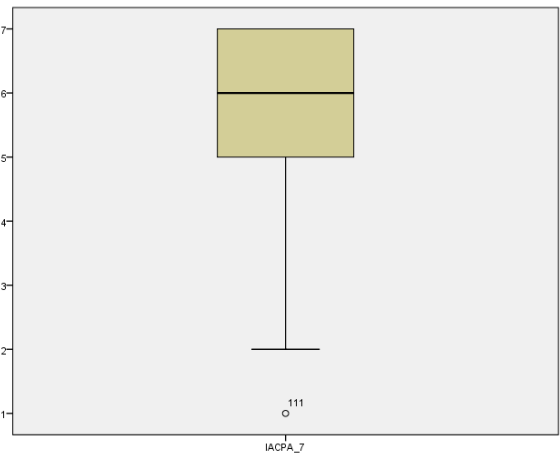
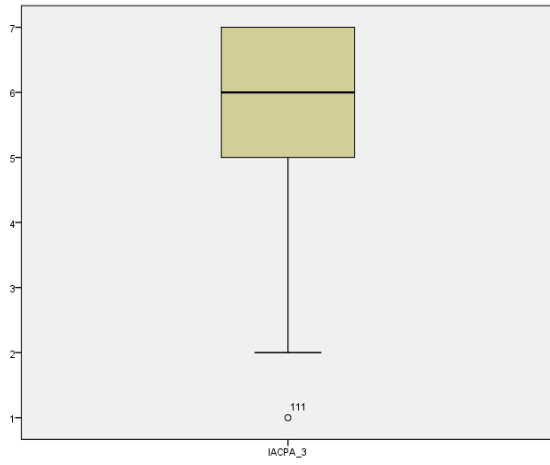


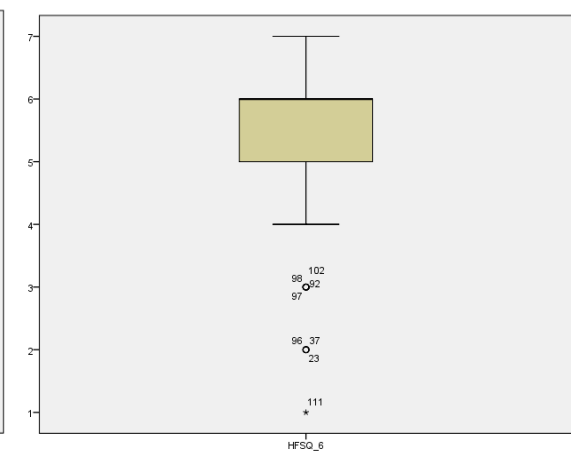
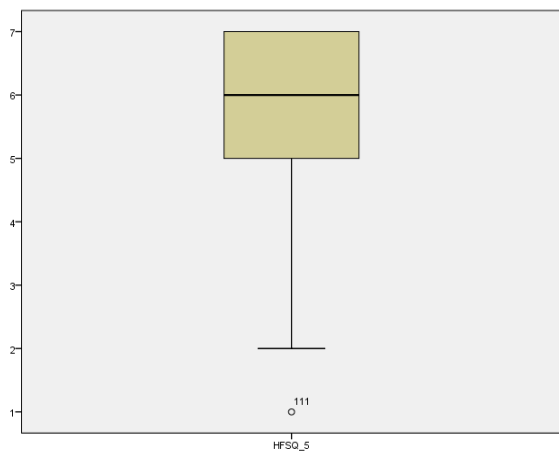
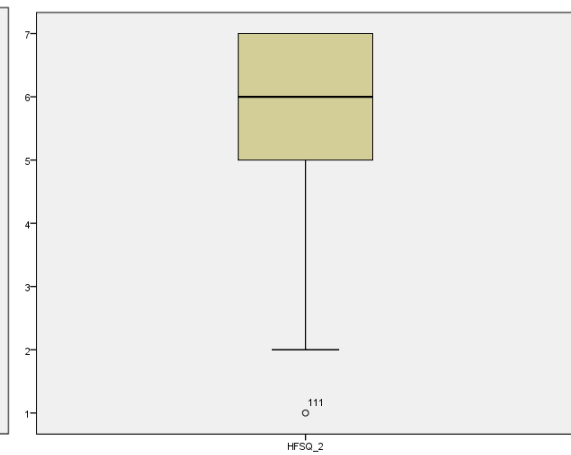
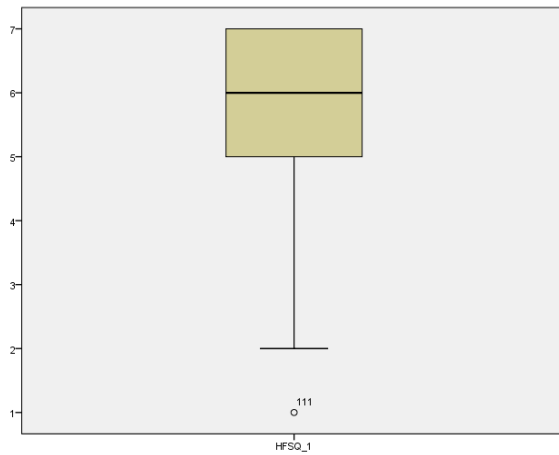
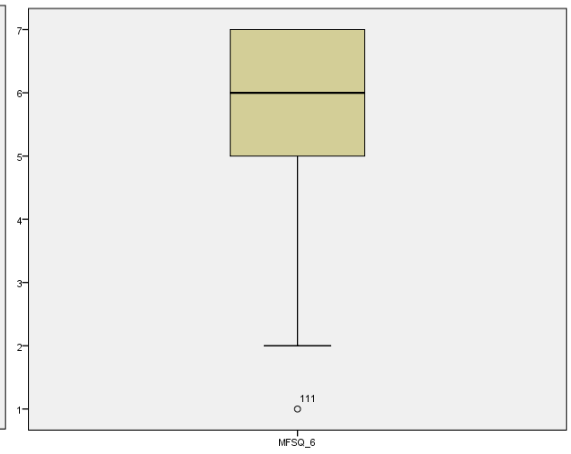
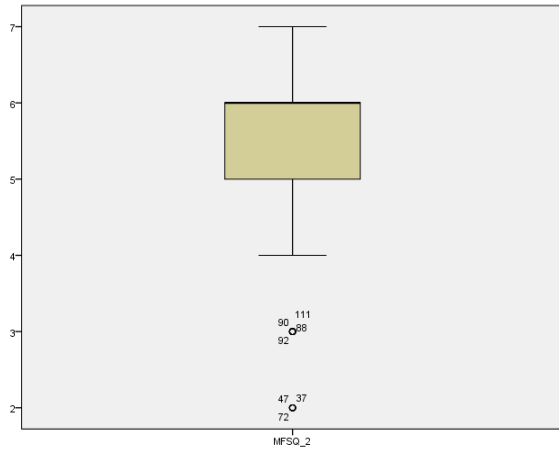
## Appendix (E) Outliers Test





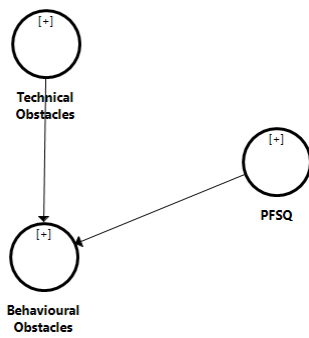






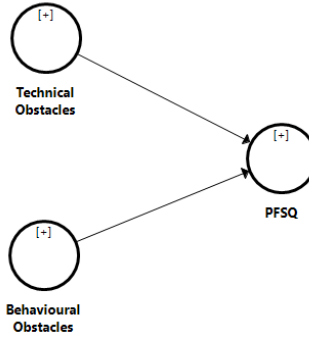
## Appendix (F) Full Collinearity tests

### Full Collinearity test $P \rightarrow D$ Pathway



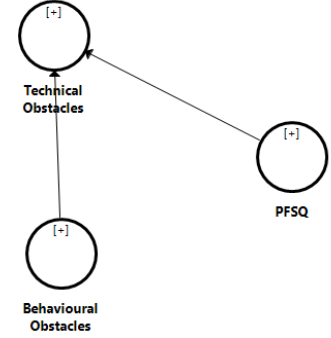
Inner VIF Values

	BO
PFSQ	1.765
TO	1.765



Inner VIF Values

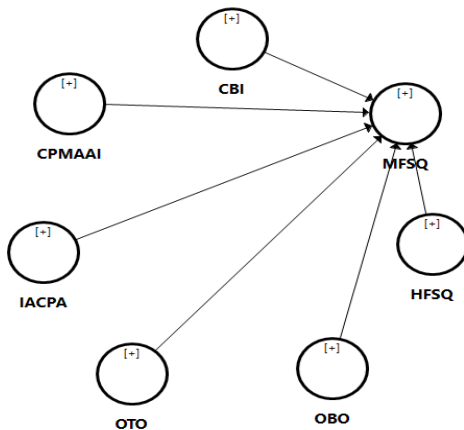
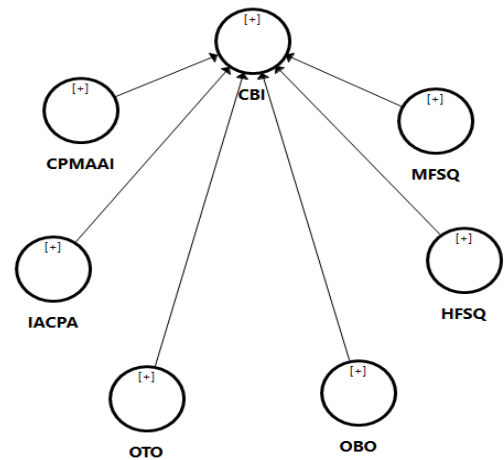
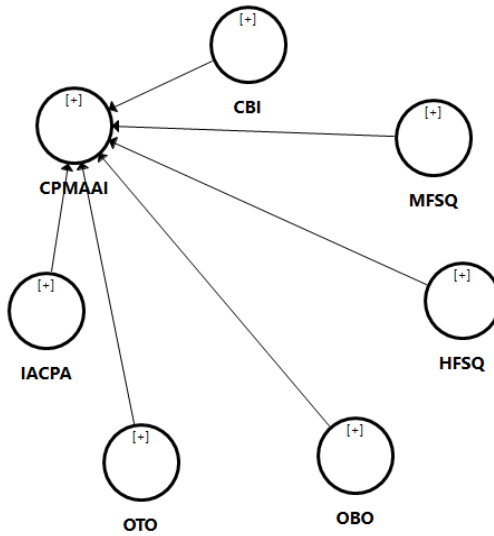
	PFSQ
BO	3.856
TO	3.856

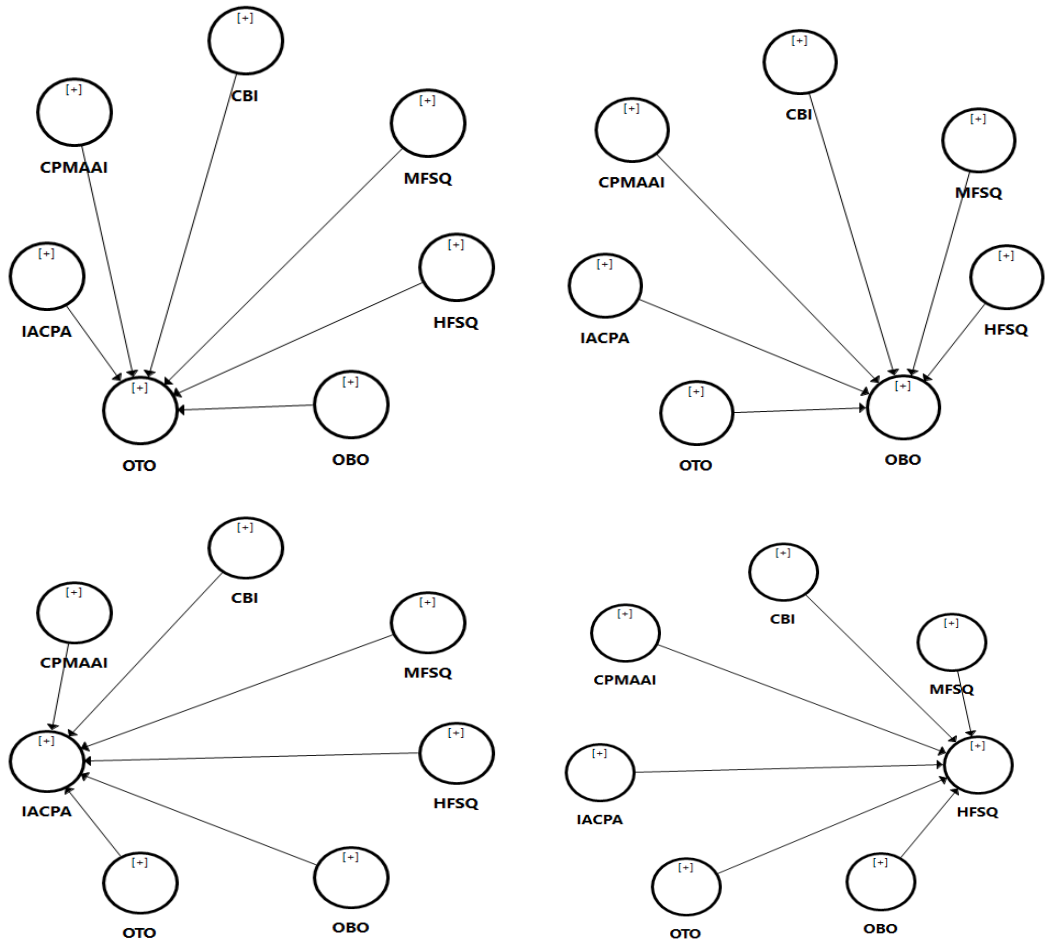


Inner VIF Values

	TO
BO	1.898
PFSQ	1.898

### Full Collinearity test $P \rightarrow D \rightarrow J$ Pathway





**Inner VIF Values**

	CBI	CPMAAI	HFSQ	IACPA	MFSQ	OBO	OTO
CBI		3.484	3.684	3.696	3.739	3.817	3.904
CPMAAI	3.745		4.268	3.116	4.245	4.122	4.118
HFSQ	3.462	3.699		3.682	3.144	3.643	3.197
IACPA	3.307	<b>2.575</b>	3.590		3.479	3.551	3.527
MFSQ	3.447	3.667	3.173	3.625		<b>2.445</b>	3.659
OBO	4.275	4.376	4.514	4.563	3.054		3.515
OTO	4.039	3.958	3.513	4.035	4.008	3.113	

## Appendix (G) Descriptive Analysis

### Technical Obstacles (TO)

		<b>Statistics</b>						
		TO_1	TO_2	TO_3	TO_4	TO_5	TO_6	TO_7
N	Valid	114	114	114	114	114	114	114
	Missing	0	0	0	0	0	0	0
Mean		5.53	5.27	5.32	5.46	5.74	5.44	5.70
Median		6.00	6.00	6.00	6.00	6.00	6.00	6.00
Mode		7	6	6	6	6	6	7
Std. Deviation		1.570	1.495	1.436	1.383	1.408	1.396	1.363
Variance		2.464	2.235	2.062	1.914	1.983	1.948	1.857
Range		6	6	6	6	6	6	6
Minimum		1	1	1	1	1	1	1
Maximum		7	7	7	7	7	7	7

### Behavioural Obstacles (BO)

		<b>Statistics</b>								
		BO_1	BO_2	BO_3	BO_4	BO_5	BO_6	BO_7	BO_8	BO_9
N	Valid	114	114	114	114	114	114	114	114	114
	Missing	0	0	0	0	0	0	0	0	0
Mean		5.36	5.60	5.30	5.59	5.51	5.37	5.30	5.43	5.37
Median		6.00	6.00	6.00	6.00	6.00	6.00	5.50	6.00	6.00
Mode		6	7	6	7	6	6	6	6	7
Std. Deviation		1.421	1.492	1.369	1.480	1.352	1.441	1.350	1.580	1.625
Variance		2.020	2.225	1.875	2.191	1.827	2.075	1.822	2.495	2.642
Range		6	6	6	6	5	6	5	6	6
Minimum		1	1	1	1	2	1	2	1	1
Maximum		7	7	7	7	7	7	7	7	7

### The Central Bank of Iraq (CBI)

		<b>Statistics</b>						
		CBI_1	CBI_2	CBI_3	CBI_4	CBI_5	CBI_6	CBI_7
N	Valid	114	114	114	114	114	114	114
	Missing	0	0	0	0	0	0	0
Mean		5.61	5.52	5.54	5.44	5.46	5.64	5.72
Median		6.00	6.00	6.00	6.00	6.00	6.00	6.00
Mode		7	7	6	6	6	7	7
Std. Deviation		1.437	1.507	1.383	1.470	1.512	1.518	1.520
Variance		2.064	2.270	1.914	2.160	2.286	2.303	2.310
Range		5	6	5	6	6	5	6
Minimum		2	1	2	1	1	2	1
Maximum		7	7	7	7	7	7	7



The Council of Profession Monitoring and Auditing of Accounting in Iraq (CPMAAI)

		Statistics						
		CPMAAI_1	CPMAAI_2	CPMAAI_3	CPMAAI_4	CPMAAI_5	CPMAAI_6	CPMAAI_7
N	Valid	114	114	114	114	114	114	114
	Missing	0	0	0	0	0	0	0
Mean		5.55	5.51	5.46	5.29	5.41	5.58	5.57
Median		6.00	6.00	6.00	6.00	6.00	6.00	6.00
Mode		6	6	6	6	6	7	7
Std. Deviation		1.433	1.434	1.434	1.480	1.486	1.574	1.568
Variance		2.055	2.057	2.056	2.190	2.209	2.476	2.460
Range		5	5	6	6	6	5	6
Minimum		2	2	1	1	1	2	1
Maximum		7	7	7	7	7	7	7

The Iraqi Association of Certified Public Accountants (IACPA)

		Statistics						
		IACPA_1	IACPA_2	IACPA_3	IACPA_4	IACPA_5	IACPA_6	IACPA_7
N	Valid	114	114	114	114	114	114	114
	Missing	0	0	0	0	0	0	0
Mean		5.53	5.51	5.52	5.31	5.50	5.63	5.68
Median		6.00	6.00	6.00	6.00	6.00	6.00	6.00
Mode		6	6	6	6	6	7	7
Std. Deviation		1.434	1.489	1.477	1.482	1.459	1.507	1.548
Variance		2.057	2.217	2.181	2.197	2.128	2.270	2.395
Range		5	6	6	6	5	5	6
Minimum		2	1	1	1	2	2	1
Maximum		7	7	7	7	7	7	7

Overcome technical obstacles (OTO)

		Statistics					
		OTO_1	OTO_2	OTO_3	OTO_4	OTO_5	OTO_6
N	Valid	114	114	114	114	114	114
	Missing	0	0	0	0	0	0
Mean		5.28	5.37	5.50	5.52	5.43	5.48
Median		6.00	6.00	6.00	6.00	6.00	6.00
Mode		6	6	6	7	6	7
Std. Deviation		1.526	1.477	1.410	1.507	1.487	1.518
Variance		2.328	2.182	1.987	2.270	2.212	2.305
Range		5	5	6	5	5	6
Minimum		2	2	1	2	2	1
Maximum		7	7	7	7	7	7

### Overcome behavioural obstacles (OBO)

		Statistics								
		OBO_1	OBO_2	OBO_3	OBO_4	OBO_5	OBO_6	OBO_7	OBO_8	OBO_9
N	Valid	114	114	114	114	114	114	114	114	114
	Missing	0	0	0	0	0	0	0	0	0
Mean		5.34	5.54	5.35	5.52	5.52	5.47	5.25	5.43	5.39
Median		6.00	6.00	6.00	6.00	6.00	6.00	5.00	6.00	6.00
Mode		6 <sup>a</sup>	6 <sup>a</sup>	6	7	6	6	5	6	7
Std. Deviation		1.498	1.446	1.439	1.518	1.428	1.416	1.491	1.451	1.555
Variance		2.245	2.092	2.070	2.305	2.040	2.004	2.222	2.106	2.418
Range		5	6	5	5	5	5	6	5	5
Minimum		2	1	2	2	2	2	1	2	2
Maximum		7	7	7	7	7	7	7	7	7

a. Multiple modes exist. The smallest value is shown

### Poor financial statements' quality (PFSQ)

		Statistics					
		PFSQ_1	PFSQ_2	PFSQ_3	PFSQ_4	PFSQ_5	PFSQ_6
N	Valid	114	114	114	114	114	114
	Missing	0	0	0	0	0	0
Mean		5.47	5.52	5.54	5.57	5.44	5.47
Median		6.00	6.00	6.00	6.00	6.00	6.00
Mode		7	6	6	6	6	6
Std. Deviation		1.541	1.416	1.446	1.317	1.470	1.495
Variance		2.375	2.004	2.091	1.734	2.160	2.234
Range		6	5	5	5	5	6
Minimum		1	2	2	2	2	1
Maximum		7	7	7	7	7	7

### Medium financial statements' quality (MFSQ)

		Statistics					
		MFSQ_1	MFSQ_2	MFSQ_3	MFSQ_4	MFSQ_5	MFSQ_6
N	Valid	114	114	114	114	114	114
	Missing	0	0	0	0	0	0
Mean		5.46	5.39	5.38	5.47	5.29	5.40
Median		6.00	6.00	6.00	6.00	6.00	6.00
Mode		6	6	6	7	6	7
Std. Deviation		1.471	1.406	1.496	1.440	1.474	1.527
Variance		2.162	1.976	2.237	2.075	2.172	2.331
Range		5	5	6	5	6	6
Minimum		2	2	1	2	1	1
Maximum		7	7	7	7	7	7

## High financial statements' quality (HFSQ)

		<b>Statistics</b>					
		HFSQ_1	HFSQ_2	HFSQ_3	HFSQ_4	HFSQ_5	HFSQ_6
N	Valid	114	114	114	114	114	114
	Missing	0	0	0	0	0	0
Mean		5.50	5.51	5.46	5.46	5.45	5.37
Median		6.00	6.00	6.00	6.00	6.00	6.00
Mode		7	7	6	6 <sup>a</sup>	6	6
Std. Deviation		1.559	1.559	1.500	1.494	1.458	1.434
Variance		2.429	2.429	2.251	2.233	2.126	2.058
Range		6	6	5	5	6	6
Minimum		1	1	2	2	1	1
Maximum		7	7	7	7	7	7

a. Multiple modes exist. The smallest value is shown

## Appendix (H) MANOVA Test

### MANOVA Test - F-statistic

			Value	F-Statistic	Hypothesis df	Error df	Sig. (P-value)	Partial Eta Squared	Noncent. Parameter	Observed Power <sup>c</sup>
PFSQ	Qualification	Pillai's Trace	0.092	0.420	24	428	0.994	0.023	10.090	0.354
		Wilks' Lambda	0.910	0.414	24	364	0.994	0.023	8.652	0.297
	Experience	Pillai's Trace	0.372	1.178	36	642	0.223	0.062	42.390	0.966
		Wilks' Lambda	0.671	1.191	36	451	0.212	0.064	30.998	0.854
	Occupation	Pillai's Trace	0.222	1.427	18	321	0.116	0.074	25.692	0.891
		Wilks' Lambda	0.790	1.433	18	297	0.114	0.075	24.266	0.866
	Gender	Pillai's Trace	0.078	1.507 <sup>b</sup>	6	107	0.183	0.078	9.039	0.562
		Wilks' Lambda	0.922	1.507 <sup>b</sup>	6	107	0.183	0.078	9.039	0.562
MFSQ	Qualification	Pillai's Trace	0.275	1.317	24	428	0.146	0.069	31.611	0.928
		Wilks' Lambda	0.750	1.306	24	364	0.155	0.069	27.180	0.869
	Experience	Pillai's Trace	0.354	1.118	36	642	0.294	0.059	40.259	0.955
		Wilks' Lambda	0.686	1.124	36	451	0.290	0.061	29.263	0.826
	Occupation	Pillai's Trace	0.219	1.402	18	321	0.128	0.073	25.229	0.884
		Wilks' Lambda	0.787	1.458	18	297	0.104	0.077	24.688	0.874
	Gender	Pillai's Trace	0.034	.624 <sup>b</sup>	6	107	0.711	0.034	3.745	0.240
		Wilks' Lambda	0.966	.624 <sup>b</sup>	6	107	0.711	0.034	3.745	0.240
HFSQ	Qualification	Pillai's Trace	0.194	0.911	24	428	0.587	0.049	21.863	0.762
		Wilks' Lambda	0.814	0.922	24	364	0.572	0.050	19.224	0.684
	Experience	Pillai's Trace	0.308	0.964	36	642	0.532	0.051	34.691	0.909
		Wilks' Lambda	0.723	0.961	36	451	0.536	0.053	25.079	0.739
	Occupation	Pillai's Trace	0.171	1.077	18	321	0.375	0.057	19.381	0.756
		Wilks' Lambda	0.837	1.073	18	297	0.379	0.058	18.171	0.718
	Gender	Pillai's Trace	0.034	.619 <sup>b</sup>	6	107	0.714	0.034	3.716	0.238
		Wilks' Lambda	0.966	.619 <sup>b</sup>	6	107	0.714	0.034	3.716	0.238

a. Design: Intercept + G

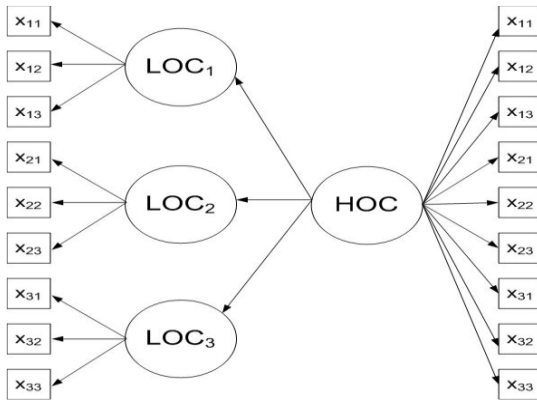
b. Exact statistic

c. Computed using alpha = .05

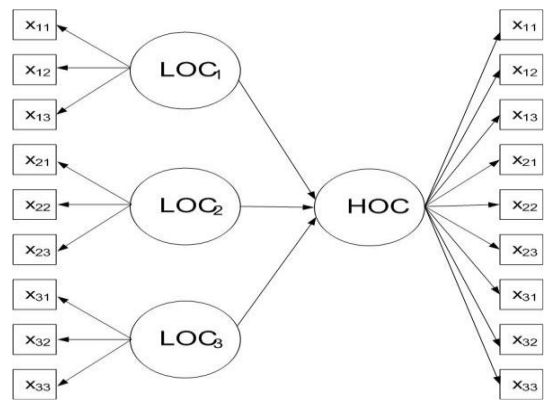
# Appendix (I) Hierarchical Component Model (HCM)

## The Repeated Approach of the HCM

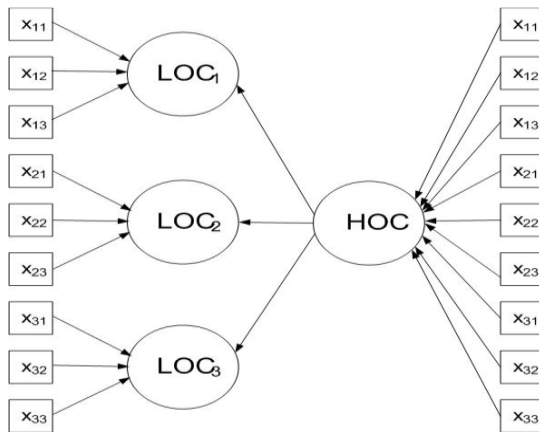
### Reflective–Reflective Type



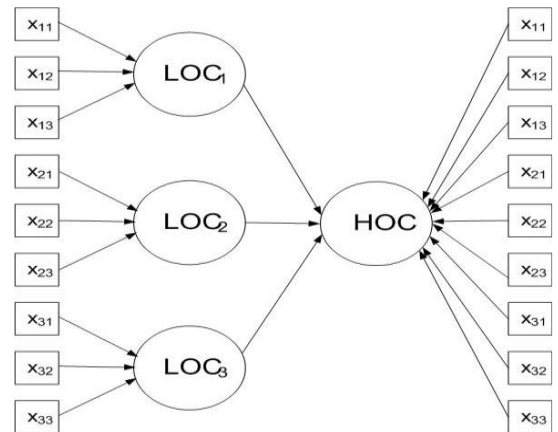
### Reflective–Formative Type



### Formative–Reflective Type



### Formative–Formative Type

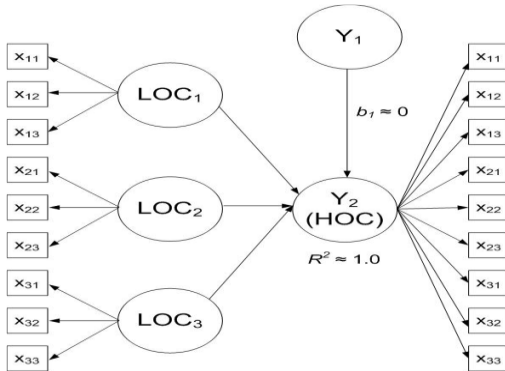


Legend: LOC = lower order component; HOC = higher order component

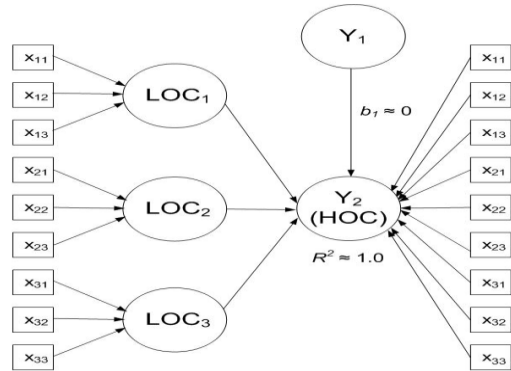
Source: (Ringle et al., 2012:6).

Two-Stage Approach for the HCM

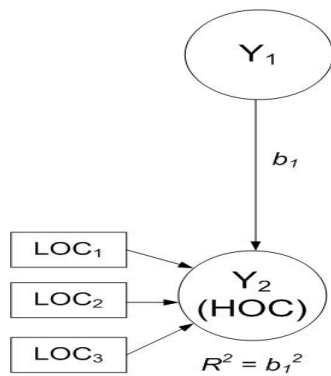
1st Stage for the Reflective-Formative Type



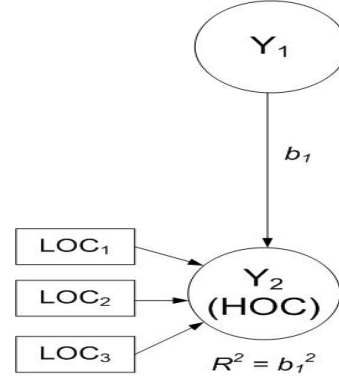
1st Stage for the Formative-Formative Type



2nd Stage for the Reflective-Formative Type



2nd Stage for the Formative-Formative Type



Legend: LOC = lower order component; HOC = higher order component; Y1 = exogenous latent variable in the structural model (its measurement model is not further specified in this illustration); Y2 = endogenous latent variable in the structural model; b1 = standardized path coefficient for the structural model relationship between the latent variables Y1 and Y2.

Source: Ringle et al. (2012:7).

## Appendix (J) Indicators' Outer-loading

### Outer Loadings - First Order

Indicator <- Construct - First Order	Outer Loadings	Indicator <- Construct - First Order	Outer Loadings	Indicator <- Construct - First Order	Outer Loadings
BO_2 <- BO	0.789	HFSQ_1 <- HFSQ	0.940	OBO_5 <- OBO	0.872
BO_3 <- BO	0.769	HFSQ_2 <- HFSQ	0.936	OBO_6 <- OBO	0.893
BO_4 <- BO	0.795	HFSQ_3 <- HFSQ	0.944	OBO_7 <- OBO	0.819
BO_5 <- BO	0.852	HFSQ_4 <- HFSQ	0.922	OBO_8 <- OBO	0.859
BO_6 <- BO	0.885	HFSQ_5 <- HFSQ	0.905	OBO_9 <- OBO	0.857
BO_7 <- BO	0.688	HFSQ_6 <- HFSQ	0.900	OTO_1 <- OTO	0.796
BO_8 <- BO	0.815	IACPA_1 <- IACPA	0.908	OTO_2 <- OTO	0.859
BO_9 <- BO	0.783	IACPA_2 <- IACPA	0.919	OTO_3 <- OTO	0.865
CBI_1 <- CBI	0.902	IACPA_3 <- IACPA	0.930	OTO_4 <- OTO	0.856
CBI_2 <- CBI	0.894	IACPA_4 <- IACPA	0.874	OTO_5 <- OTO	0.851
CBI_3 <- CBI	0.892	IACPA_5 <- IACPA	0.896	OTO_6 <- OTO	0.856
CBI_4 <- CBI	0.830	IACPA_6 <- IACPA	0.891	PFSQ_1 <- PFSQ	0.911
CBI_5 <- CBI	0.907	IACPA_7 <- IACPA	0.898	PFSQ_2 <- PFSQ	0.925
CBI_6 <- CBI	0.866	MFSQ_1 <- MFSQ	0.907	PFSQ_3 <- PFSQ	0.940
CBI_7 <- CBI	0.896	MFSQ_2 <- MFSQ	0.895	PFSQ_4 <- PFSQ	0.921
CPMAAI_1 <- CPMAAI	0.923	MFSQ_3 <- MFSQ	0.915	PFSQ_5 <- PFSQ	0.928
CPMAAI_2 <- CPMAAI	0.918	MFSQ_4 <- MFSQ	0.895	PFSQ_6 <- PFSQ	0.917
CPMAAI_3 <- CPMAAI	0.908	MFSQ_5 <- MFSQ	0.894	TO_1 <- TO	0.748
CPMAAI_4 <- CPMAAI	0.826	MFSQ_6 <- MFSQ	0.859	TO_2 <- TO	0.737
CPMAAI_5 <- CPMAAI	0.861	OBO_2 <- OBO	0.868	TO_3 <- TO	0.769
CPMAAI_6 <- CPMAAI	0.920	OBO_3 <- OBO	0.867	TO_4 <- TO	0.800
CPMAAI_7 <- CPMAAI	0.893	OBO_4 <- OBO	0.886	TO_5 <- TO	0.860
				TO_7 <- TO	0.841

### Outer Loadings - Second Order

Indicator <- Construct - First Order	Outer Loadings	Indicator <- Construct - First Order	Outer Loadings	Indicator <- Construct - First Order	Outer Loadings
BO_2 <- O	0.776	HFSQ_1 <- FSQ	0.854	OBO_5 <- J	0.838
BO_3 <- O	0.731	HFSQ_2 <- FSQ	0.826	OBO_6 <- J	0.867
BO_4 <- O	0.748	HFSQ_3 <- FSQ	0.834	OBO_7 <- J	0.776
BO_5 <- O	0.813	HFSQ_4 <- FSQ	0.839	OBO_8 <- J	0.818
BO_6 <- O	0.852	HFSQ_5 <- FSQ	0.808	OBO_9 <- J	0.822
BO_7 <- O	0.638	HFSQ_6 <- FSQ	0.826	OTO_1 <- J	0.746
BO_8 <- O	0.793	IACPA_1 <- PB	0.817	OTO_2 <- J	0.751
BO_9 <- O	0.770	IACPA_2 <- PB	0.842	OTO_3 <- J	0.819
CBI_1 <- PB	0.866	IACPA_3 <- PB	0.837	OTO_4 <- J	0.791
CBI_2 <- PB	0.828	IACPA_4 <- PB	0.810	OTO_5 <- J	0.806
CBI_3 <- PB	0.802	IACPA_5 <- PB	0.834	OTO_6 <- J	0.812
CBI_4 <- PB	0.706	IACPA_6 <- PB	0.854	PFSQ_1 <- FSQ	0.872
CBI_5 <- PB	0.799	IACPA_7 <- PB	0.857	PFSQ_2 <- FSQ	0.845
CBI_6 <- PB	0.813	MFSQ_1 <- FSQ	0.808	PFSQ_3 <- FSQ	0.866
CBI_7 <- PB	0.856	MFSQ_2 <- FSQ	0.817	PFSQ_4 <- FSQ	0.832
CPMAAI_1 <- PB	0.853	MFSQ_3 <- FSQ	0.829	PFSQ_5 <- FSQ	0.826
CPMAAI_2 <- PB	0.857	MFSQ_4 <- FSQ	0.836	PFSQ_6 <- FSQ	0.841
CPMAAI_3 <- PB	0.844	MFSQ_5 <- FSQ	0.791	TO_1 <- O	0.712
CPMAAI_4 <- PB	0.778	MFSQ_6 <- FSQ	0.816	TO_2 <- O	0.696
CPMAAI_5 <- PB	0.827	OBO_2 <- J	0.850	TO_3 <- O	0.755
CPMAAI_6 <- PB	0.865	OBO_3 <- J	0.808	TO_4 <- O	0.724
CPMAAI_7 <- PB	0.861	OBO_4 <- J	0.883	TO_5 <- O	0.771
				TO_7 <- O	0.750

## Appendix (K) Cross-loadings

### Cross-loading First-Order

#### Cross Loadings - First Order

	BO	CBI	CPMAAI	HFSQ	IACPA	MFSQ	OBO	OTO	PFSQ	TO
BO_2	<b>0.789</b>	0.542	0.522	0.560	0.572	0.515	0.556	0.571	0.631	0.656
BO_3	<b>0.769</b>	0.375	0.401	0.382	0.491	0.471	0.495	0.450	0.476	0.589
BO_4	<b>0.795</b>	0.487	0.504	0.497	0.481	0.490	0.527	0.475	0.507	0.587
BO_5	<b>0.852</b>	0.540	0.493	0.509	0.598	0.493	0.565	0.523	0.475	0.659
BO_6	<b>0.885</b>	0.535	0.535	0.488	0.582	0.483	0.518	0.504	0.522	0.703
BO_7	<b>0.688</b>	0.409	0.389	0.408	0.374	0.341	0.518	0.500	0.353	0.496
BO_8	<b>0.815</b>	0.697	0.621	0.492	0.595	0.471	0.618	0.531	0.551	0.662
BO_9	<b>0.783</b>	0.586	0.564	0.585	0.525	0.546	0.629	0.550	0.581	0.650
CBI_1	0.649	<b>0.902</b>	0.796	0.656	0.720	0.515	0.595	0.622	0.550	0.660
CBI_2	0.614	<b>0.894</b>	0.710	0.630	0.707	0.542	0.571	0.608	0.545	0.631
CBI_3	0.576	<b>0.892</b>	0.683	0.678	0.662	0.472	0.595	0.690	0.533	0.600
CBI_4	0.531	<b>0.830</b>	0.605	0.608	0.534	0.423	0.509	0.666	0.534	0.531
CBI_5	0.587	<b>0.907</b>	0.684	0.631	0.640	0.471	0.552	0.566	0.572	0.619
CBI_6	0.534	<b>0.866</b>	0.725	0.553	0.682	0.379	0.470	0.501	0.448	0.592
CBI_7	0.565	<b>0.896</b>	0.749	0.613	0.745	0.449	0.511	0.565	0.548	0.631
CPMAAI_1	0.517	0.721	<b>0.923</b>	0.556	0.733	0.452	0.467	0.520	0.552	0.549
CPMAAI_2	0.525	0.748	<b>0.918</b>	0.598	0.723	0.457	0.431	0.577	0.574	0.584
CPMAAI_3	0.575	0.730	<b>0.908</b>	0.586	0.712	0.517	0.505	0.600	0.583	0.597
CPMAAI_4	0.637	0.658	<b>0.826</b>	0.555	0.681	0.485	0.489	0.557	0.502	0.622
CPMAAI_5	0.592	0.706	<b>0.861</b>	0.567	0.736	0.486	0.508	0.586	0.539	0.652
CPMAAI_6	0.560	0.726	<b>0.920</b>	0.614	0.766	0.471	0.462	0.558	0.540	0.641
CPMAAI_7	0.565	0.730	<b>0.893</b>	0.599	0.778	0.434	0.444	0.552	0.537	0.651
HFSQ_1	0.544	0.663	0.599	<b>0.940</b>	0.575	0.704	0.647	0.739	0.686	0.583
HFSQ_2	0.529	0.633	0.616	<b>0.936</b>	0.542	0.658	0.588	0.691	0.658	0.577
HFSQ_3	0.536	0.634	0.578	<b>0.944</b>	0.542	0.677	0.628	0.692	0.653	0.551
HFSQ_4	0.632	0.693	0.621	<b>0.922</b>	0.567	0.675	0.700	0.787	0.689	0.588
HFSQ_5	0.535	0.625	0.563	<b>0.905</b>	0.504	0.658	0.677	0.711	0.639	0.512
HFSQ_6	0.635	0.666	0.641	<b>0.900</b>	0.562	0.653	0.670	0.713	0.697	0.584
IACPA_1	0.570	0.621	0.745	0.486	<b>0.908</b>	0.493	0.480	0.455	0.458	0.589
IACPA_2	0.577	0.688	0.738	0.519	<b>0.919</b>	0.515	0.485	0.501	0.473	0.636
IACPA_3	0.590	0.670	0.733	0.479	<b>0.930</b>	0.480	0.440	0.448	0.429	0.606
IACPA_4	0.625	0.675	0.707	0.569	<b>0.874</b>	0.536	0.537	0.549	0.526	0.604
IACPA_5	0.631	0.698	0.731	0.541	<b>0.896</b>	0.474	0.527	0.518	0.476	0.605
IACPA_6	0.611	0.729	0.762	0.569	<b>0.891</b>	0.468	0.478	0.549	0.497	0.656
IACPA_7	0.596	0.723	0.766	0.586	<b>0.898</b>	0.490	0.510	0.531	0.521	0.646
MFSQ_1	0.536	0.469	0.480	0.632	0.521	<b>0.907</b>	0.733	0.626	0.676	0.483
MFSQ_2	0.526	0.426	0.450	0.613	0.457	<b>0.895</b>	0.746	0.606	0.730	0.390
MFSQ_3	0.475	0.448	0.436	0.626	0.475	<b>0.915</b>	0.732	0.586	0.731	0.444
MFSQ_4	0.591	0.478	0.503	0.654	0.487	<b>0.895</b>	0.733	0.627	0.739	0.508
MFSQ_5	0.537	0.477	0.470	0.653	0.504	<b>0.894</b>	0.726	0.595	0.619	0.515
MFSQ_6	0.545	0.528	0.490	0.717	0.492	<b>0.859</b>	0.681	0.655	0.657	0.543
OBO_2	0.565	0.506	0.423	0.621	0.468	0.742	<b>0.868</b>	0.723	0.592	0.431
OBO_3	0.563	0.480	0.403	0.575	0.493	0.708	<b>0.867</b>	0.631	0.569	0.400
OBO_4	0.655	0.567	0.524	0.717	0.538	0.771	<b>0.886</b>	0.770	0.728	0.568
OBO_5	0.585	0.480	0.424	0.552	0.393	0.661	<b>0.872</b>	0.693	0.600	0.423
OBO_6	0.634	0.606	0.525	0.645	0.531	0.746	<b>0.893</b>	0.726	0.621	0.535
OBO_7	0.580	0.526	0.403	0.533	0.384	0.552	<b>0.819</b>	0.624	0.551	0.492
OBO_8	0.551	0.526	0.438	0.588	0.472	0.723	<b>0.859</b>	0.664	0.647	0.459
OBO_9	0.651	0.560	0.506	0.636	0.498	0.698	<b>0.857</b>	0.672	0.687	0.567



Cross Loadings - First Order

	BO	CBI	CPMAAI	HFSQ	IACPA	MFSQ	OBO	OTO	PFSQ	TO
OTO_1	0.526	0.448	0.361	0.548	0.374	0.559	0.647	<b>0.796</b>	0.539	0.305
OTO_2	0.581	0.655	0.577	0.715	0.493	0.547	0.604	<b>0.859</b>	0.641	0.556
OTO_3	0.494	0.556	0.507	0.635	0.463	0.613	0.714	<b>0.865</b>	0.602	0.380
OTO_4	0.507	0.588	0.570	0.702	0.486	0.574	0.672	<b>0.856</b>	0.619	0.443
OTO_5	0.547	0.536	0.535	0.654	0.456	0.594	0.702	<b>0.851</b>	0.528	0.493
OTO_6	0.610	0.668	0.654	0.717	0.583	0.610	0.705	<b>0.856</b>	0.636	0.591
PFSQ_1	0.608	0.546	0.560	0.707	0.504	0.762	0.667	0.631	<b>0.911</b>	0.542
PFSQ_2	0.542	0.561	0.577	0.661	0.494	0.716	0.679	0.655	<b>0.925</b>	0.547
PFSQ_3	0.656	0.589	0.627	0.697	0.508	0.722	0.720	0.686	<b>0.940</b>	0.574
PFSQ_4	0.595	0.527	0.530	0.650	0.467	0.696	0.669	0.623	<b>0.921</b>	0.563
PFSQ_5	0.566	0.531	0.572	0.656	0.484	0.666	0.590	0.647	<b>0.928</b>	0.562
PFSQ_6	0.600	0.582	0.528	0.646	0.507	0.728	0.678	0.643	<b>0.917</b>	0.560
TO_1	0.621	0.549	0.514	0.430	0.594	0.358	0.410	0.416	0.383	<b>0.748</b>
TO_2	0.599	0.480	0.502	0.453	0.474	0.428	0.391	0.389	0.513	<b>0.737</b>
TO_3	0.678	0.498	0.538	0.428	0.562	0.372	0.464	0.451	0.457	<b>0.769</b>
TO_4	0.603	0.525	0.523	0.431	0.492	0.283	0.303	0.330	0.379	<b>0.800</b>
TO_5	0.632	0.584	0.576	0.571	0.561	0.511	0.517	0.470	0.542	<b>0.860</b>
TO_7	0.609	0.648	0.612	0.592	0.589	0.596	0.572	0.531	0.596	<b>0.841</b>

## Cross-Loadings Second-order

Cross Loadings - Second Order

	O	PB	J	FSQ
BO_2	<b>0.776</b>	0.587	0.593	0.626
BO_3	<b>0.731</b>	0.455	0.501	0.487
BO_4	<b>0.748</b>	0.528	0.533	0.548
BO_5	<b>0.813</b>	0.586	0.577	0.541
BO_6	<b>0.852</b>	0.593	0.540	0.548
BO_7	<b>0.638</b>	0.421	0.538	0.404
BO_8	<b>0.793</b>	0.685	0.614	0.556
BO_9	<b>0.770</b>	0.601	0.629	0.628
TO_1	<b>0.712</b>	0.594	0.436	0.430
TO_2	<b>0.696</b>	0.523	0.413	0.512
TO_3	<b>0.755</b>	0.574	0.484	0.462
TO_4	<b>0.724</b>	0.552	0.333	0.402
TO_5	<b>0.771</b>	0.617	0.526	0.596
TO_7	<b>0.750</b>	0.663	0.586	0.654
CBI_1	0.691	<b>0.866</b>	0.640	0.632
CBI_2	0.657	<b>0.828</b>	0.619	0.630
CBI_3	0.620	<b>0.802</b>	0.671	0.618
CBI_4	0.562	<b>0.706</b>	0.607	0.575
CBI_5	0.635	<b>0.799</b>	0.589	0.615
CBI_6	0.591	<b>0.813</b>	0.510	0.507
CBI_7	0.627	<b>0.856</b>	0.564	0.591
CPMAAI_1	0.562	<b>0.853</b>	0.517	0.573
CPMAAI_2	0.582	<b>0.857</b>	0.521	0.598
CPMAAI_3	0.618	<b>0.844</b>	0.575	0.619
CPMAAI_4	0.666	<b>0.778</b>	0.547	0.566
CPMAAI_5	0.654	<b>0.827</b>	0.572	0.584
CPMAAI_6	0.629	<b>0.865</b>	0.531	0.597
CPMAAI_7	0.637	<b>0.861</b>	0.518	0.577
IACPA_1	0.611	<b>0.817</b>	0.496	0.526
IACPA_2	0.636	<b>0.842</b>	0.520	0.552
IACPA_3	0.630	<b>0.837</b>	0.468	0.508
IACPA_4	0.651	<b>0.810</b>	0.572	0.598
IACPA_5	0.656	<b>0.834</b>	0.552	0.547

Cross Loadings - Second Order

	O	PB	J	FSQ
IACPA_6	0.666	<b>0.854</b>	0.536	0.562
IACPA_7	0.653	<b>0.857</b>	0.548	0.586
OBO_2	0.538	0.501	<b>0.850</b>	0.715
OBO_3	0.523	0.494	<b>0.808</b>	0.677
OBO_4	0.655	0.585	<b>0.883</b>	0.812
OBO_5	0.548	0.465	<b>0.838</b>	0.664
OBO_6	0.627	0.596	<b>0.867</b>	0.736
OBO_7	0.575	0.471	<b>0.776</b>	0.599
OBO_8	0.544	0.515	<b>0.818</b>	0.716
OBO_9	0.653	0.561	<b>0.822</b>	0.740
OTO_1	0.458	0.425	<b>0.746</b>	0.603
OTO_2	0.604	0.619	<b>0.751</b>	0.699
OTO_3	0.472	0.548	<b>0.819</b>	0.678
OTO_4	0.508	0.590	<b>0.791</b>	0.695
OTO_5	0.555	0.548	<b>0.806</b>	0.651
OTO_6	0.637	0.684	<b>0.812</b>	0.720
HFSQ_1	0.594	0.659	0.724	<b>0.854</b>
HFSQ_2	0.582	0.642	0.667	<b>0.826</b>
HFSQ_3	0.574	0.629	0.692	<b>0.834</b>
HFSQ_4	0.650	0.674	0.778	<b>0.839</b>
HFSQ_5	0.557	0.607	0.729	<b>0.808</b>
HFSQ_6	0.650	0.671	0.726	<b>0.826</b>
MFSQ_1	0.545	0.528	0.725	<b>0.808</b>
MFSQ_2	0.497	0.479	0.724	<b>0.817</b>
MFSQ_3	0.491	0.488	0.707	<b>0.829</b>
MFSQ_4	0.590	0.527	0.725	<b>0.836</b>
MFSQ_5	0.559	0.521	0.707	<b>0.791</b>
MFSQ_6	0.577	0.542	0.707	<b>0.816</b>
PFSQ_1	0.615	0.578	0.688	<b>0.872</b>
PFSQ_2	0.576	0.585	0.706	<b>0.845</b>
PFSQ_3	0.659	0.618	0.744	<b>0.866</b>
PFSQ_4	0.616	0.547	0.686	<b>0.832</b>
PFSQ_5	0.599	0.570	0.648	<b>0.826</b>
PFSQ_6	0.618	0.580	0.700	<b>0.841</b>

## Appendix (L) Heterotrait-Monotrait Ratio (HTMT)

### Heterotrait-Monotrait Ratio (HTMT)

	HTMT	Sample Mean (M)	Standard Deviation (STDEV)	P≤0.001, Two-tailed		Confidence Intervals	
				T Statistics ( O/STDEV )	P Values	0.05%	99.95%
CBI -> BO	0.698	0.697	0.082	8.469	0.000	0.344	0.890
CPMAAI -> BO	0.676	0.674	0.088	7.707	0.000	0.344	0.893
CPMAAI -> CBI	0.838	0.838	0.046	18.380	0.000	0.612	0.940
FSQ -> BO	0.719	0.717	0.070	10.215	0.000	0.390	0.899
FSQ -> CBI	0.699	0.698	0.069	10.094	0.000	0.399	0.873
FSQ -> CPMAAI	0.681	0.679	0.066	10.384	0.000	0.416	0.840
HFSQ -> BO	0.653	0.652	0.081	8.034	0.000	0.343	0.860
HFSQ -> CBI	0.736	0.736	0.067	11.027	0.000	0.461	0.899
HFSQ -> CPMAAI	0.678	0.676	0.072	9.374	0.000	0.358	0.869
HFSQ -> FSQ	0.927	0.927	0.023	40.780	0.000	0.829	0.985
IACPA -> BO	0.704	0.703	0.084	8.341	0.000	0.313	0.912
IACPA -> CBI	0.791	0.790	0.071	11.183	0.000	0.481	0.960
IACPA -> CPMAAI	0.855	0.854	0.050	16.943	0.000	0.660	0.976
IACPA -> FSQ	0.635	0.632	0.081	7.828	0.000	0.367	0.838
IACPA -> HFSQ	0.616	0.613	0.082	7.472	0.000	0.318	0.834
J -> BO	0.755	0.754	0.075	10.013	0.000	0.422	0.917
J -> CBI	0.708	0.706	0.075	9.454	0.000	0.434	0.883
J -> CPMAAI	0.628	0.627	0.078	8.023	0.000	0.287	0.830
J -> FSQ	0.881	0.880	0.034	25.813	0.000	0.717	0.959
J -> HFSQ	0.806	0.805	0.048	16.621	0.000	0.596	0.933
J -> IACPA	0.606	0.602	0.091	6.672	0.000	0.209	0.835
MFSQ -> BO	0.640	0.638	0.086	7.421	0.000	0.324	0.858
MFSQ -> CBI	0.552	0.551	0.096	5.781	0.000	0.173	0.797
MFSQ -> CPMAAI	0.554	0.551	0.091	6.071	0.000	0.215	0.785
MFSQ -> FSQ	0.950	0.950	0.028	33.977	0.000	0.829	1.010
MFSQ -> HFSQ	0.758	0.756	0.070	10.797	0.000	0.489	0.935
MFSQ -> IACPA	0.573	0.569	0.087	6.566	0.000	0.223	0.779
MFSQ -> J	0.836	0.835	0.047	17.895	0.000	0.663	0.939
O -> BO	1.033	1.034	0.012	89.445	0.000	1.003	1.096
O -> CBI	0.746	0.744	0.076	9.876	0.000	0.446	0.914
O -> CPMAAI	0.731	0.730	0.073	9.993	0.000	0.463	0.906
O -> FSQ	0.733	0.733	0.072	10.227	0.000	0.412	0.906
O -> HFSQ	0.680	0.679	0.079	8.587	0.000	0.372	0.877
O -> IACPA	0.748	0.746	0.073	10.193	0.000	0.424	0.921
O -> J	0.728	0.728	0.078	9.285	0.000	0.416	0.906
O -> MFSQ	0.639	0.638	0.088	7.271	0.000	0.334	0.871
OBO -> BO	0.742	0.741	0.075	9.871	0.000	0.382	0.910
OBO -> CBI	0.645	0.644	0.088	7.305	0.000	0.327	0.854

OBO -> CPMAAI	0.553	0.551	0.095	5.820	0.000	0.174	0.806
OBO -> FSQ	0.849	0.848	0.045	18.957	0.000	0.664	0.946
OBO -> HFSQ	0.734	0.733	0.065	11.265	0.000	0.485	0.919
OBO -> IACPA	0.571	0.567	0.100	5.734	0.000	0.183	0.819
OBO -> J	1.006	1.007	0.009	117.453	0.000	0.971	1.042
OBO -> MFSQ	0.851	0.850	0.041	20.921	0.000	0.692	0.943
OBO -> O	0.710	0.710	0.083	8.546	0.000	0.394	0.907
OTO -> BO	0.700	0.697	0.089	7.900	0.000	0.331	0.910
OTO -> CBI	0.727	0.724	0.069	10.551	0.000	0.397	0.887
OTO -> CPMAAI	0.672	0.670	0.076	8.851	0.000	0.393	0.855
OTO -> FSQ	0.840	0.837	0.054	15.485	0.000	0.577	0.973
OTO -> HFSQ	0.828	0.826	0.045	18.468	0.000	0.614	0.949
OTO -> IACPA	0.596	0.593	0.089	6.706	0.000	0.220	0.828
OTO -> J	0.988	0.987	0.017	59.437	0.000	0.909	1.029
OTO -> MFSQ	0.735	0.733	0.085	8.612	0.000	0.368	0.952
OTO -> O	0.682	0.680	0.088	7.782	0.000	0.332	0.893
OTO -> OBO	0.848	0.845	0.054	15.575	0.000	0.616	0.953
PB -> BO	0.739	0.737	0.073	10.094	0.000	0.461	0.918
PB -> CBI	0.951	0.951	0.022	43.028	0.000	0.862	1.005
PB -> CPMAAI	0.973	0.973	0.013	77.231	0.000	0.911	1.004
PB -> FSQ	0.716	0.714	0.065	11.095	0.000	0.476	0.878
PB -> HFSQ	0.721	0.719	0.062	11.537	0.000	0.492	0.875
PB -> IACPA	0.956	0.955	0.021	46.113	0.000	0.860	1.006
PB -> J	0.690	0.687	0.072	9.540	0.000	0.382	0.861
PB -> MFSQ	0.597	0.594	0.087	6.892	0.000	0.281	0.815
PB -> O	0.791	0.789	0.060	13.179	0.000	0.543	0.930
PB -> OBO	0.628	0.626	0.088	7.149	0.000	0.312	0.839
PB -> OTO	0.708	0.706	0.068	10.414	0.000	0.416	0.886
PFSQ -> BO	0.682	0.681	0.078	8.732	0.000	0.304	0.864
PFSQ -> CBI	0.628	0.627	0.084	7.507	0.000	0.320	0.834
PFSQ -> CPMAAI	0.637	0.636	0.077	8.271	0.000	0.315	0.832
PFSQ -> FSQ	0.945	0.946	0.024	39.807	0.000	0.834	1.001
PFSQ -> HFSQ	0.750	0.752	0.073	10.323	0.000	0.447	0.935
PFSQ -> IACPA	0.555	0.554	0.093	5.971	0.000	0.211	0.801
PFSQ -> J	0.780	0.780	0.066	11.882	0.000	0.521	0.938
PFSQ -> MFSQ	0.808	0.808	0.075	10.713	0.000	0.493	0.978
PFSQ -> O	0.694	0.695	0.086	8.043	0.000	0.304	0.901
PFSQ -> OBO	0.752	0.752	0.076	9.931	0.000	0.420	0.926
PFSQ -> OTO	0.743	0.742	0.085	8.777	0.000	0.414	0.951
PFSQ -> PB	0.646	0.646	0.079	8.147	0.000	0.304	0.834
TO -> BO	0.872	0.873	0.050	17.578	0.000	0.663	0.993
TO -> CBI	0.751	0.750	0.079	9.560	0.000	0.422	0.940
TO -> CPMAAI	0.748	0.747	0.068	11.073	0.000	0.487	0.925
TO -> FSQ	0.693	0.695	0.084	8.208	0.000	0.392	0.904

<b>TO -&gt; HFSQ</b>	0.662	0.663	0.085	7.833	0.000	0.262	0.880
<b>TO -&gt; IACPA</b>	0.747	0.744	0.069	10.859	0.000	0.457	0.906
<b>TO -&gt; J</b>	0.632	0.633	0.094	6.752	0.000	0.310	0.871
<b>TO -&gt; MFSQ</b>	0.586	0.587	0.097	6.023	0.000	0.208	0.855
<b>TO -&gt; O</b>	1.018	1.019	0.017	61.595	0.000	0.962	1.074
<b>TO -&gt; OBO</b>	0.609	0.611	0.103	5.922	0.000	0.255	0.861
<b>TO -&gt; OTO</b>	0.603	0.603	0.094	6.383	0.000	0.281	0.856
<b>TO -&gt; PB</b>	0.798	0.796	0.060	13.320	0.000	0.560	0.933
<b>TO -&gt; PFSQ</b>	0.654	0.660	0.105	6.213	0.000	0.205	0.909