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Telecommunications Regulation in the UAE: The Interconnectedness of Better Governance and Regulatory Performance

Mahra Abdullah Ali Alghawi

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جامعة الإمارات العربية المتحدة
United Arab Emirates University

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College of Humanities and Social Sciences

Department of Political Science

TELECOMMUNICATIONS REGULATION IN THE UAE:
THE INTERCONNECTEDNESS OF BETTER GOVERNANCE AND
REGULATORY PERFORMANCE

Mahra Abdullah Ali Alghawi

This thesis is submitted in partial fulfilment of the requirements for the degree of
Master of Governance and Public Policy

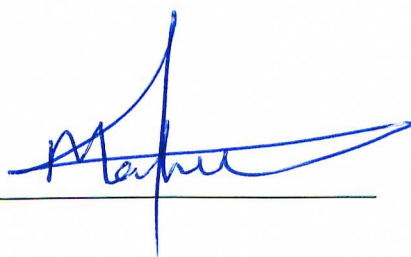
Under the Supervision of Dr. Samiul Hasan

April 2019

Declaration of Original Work

I, Mahra Abdullah Ali Alghawi, the undersigned, a graduate student at the United Arab Emirates University (UAEU), and the author of this thesis entitled “*Telecommunications Regulation in the UAE: The Interconnectedness of Better Governance and Regulatory Performance*”, hereby, solemnly declare that this thesis is my own original research work that has been done and prepared by me under the supervision of Dr. Samiul Hasan, in the College of Humanities and Social Sciences at UAEU. This work has not previously been presented or published or formed the basis for the award of any academic degree, diploma or a similar title at this or any other university. Any materials borrowed from other sources (whether published or unpublished) and relied upon or included in my thesis have been properly cited and acknowledged in accordance with appropriate academic conventions. I further declare that there is no potential conflict of interest with respect to the research, data collection, authorship, presentation and/or publication of this thesis.

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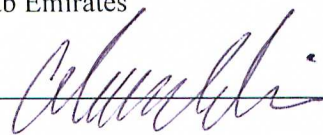
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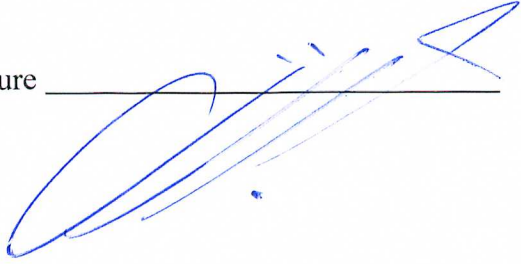
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Abstract

This research focuses on Telecommunications Regulation in the UAE and studies the interrelationship of ‘better public governance’ and ‘performance’ of telecommunications regulation in the UAE. The work is a reexamination of the thesis that, “Countries with better (governance) institutions have better telecom regulators”, and, “Private regulated firms achieve the same public interest goals as state-owned firms”. The study analyzes public governance in the UAE using six internationally recognized criteria: ‘voice accountability’, ‘political stability’, ‘government effectiveness’, ‘regulatory quality’, ‘rule of law’ and ‘control of corruption’. It analyzes the quality of regulatory governance by the Telecommunications Regulatory Authority (TRA) in the UAE in terms of four dimensions suggested in the literature: ‘regulatory transparency’; ‘regulatory independence’; ‘resource availability’, and the ‘enforcement of licenses’ and their subcomponents. The research is a qualitative study using both primary and secondary data. The primary information was collected via comprehensive discussions with six management level personnel from the TRA. The work uses laws, regulations, data analyses, and reports from the UAE government, other relevant government and organizational sources, the World Bank, the World Economic Forum, the World Justice Project, and Transparency International. This research proves that since the UAE has a high level of national public governance, it also has good quality telecommunications regulatory governance across all the relevant criteria. The results also indicated that the private service provider, Du, has done more than Etisalat to prove that the, “Private regulated firms achieve the same public interest goals as state-owned firms”. Finally, the work provides recommendations, based on the shortcomings unearthed by the study, for improving telecommunications governance in the UAE, and for future research on telecommunications regulatory governance.

Keywords: Regulatory Governance, UAE National Governance, TRA, Regulation, Service Providers, Etisalat and Du.

Title and Abstract (in Arabic)

أنظمة الاتصالات في دولة الامارات العربية المتحدة: الترابط من أجل تحسين الحوكمة والأداء

المخلص

يركز هذا البحث على أنظمة الاتصالات في دولة الإمارات العربية المتحدة كما يدرس العلاقة المتبادلة بين "تحسين الحوكمة" و"الأداء" لأنظمة الاتصالات في دولة الإمارات العربية المتحدة، ويعتمد الأساس النظري لهذا البحث على النظريتين "الدول ذات المؤسسات (الحوكمة) الأفضل لديها هيئات تنظيم اتصالات أفضل" وأن "مؤسسات القطاع الخاص تحقق نفس أهداف المصلحة العامة التي تحققها مؤسسات القطاع العام" وتحلل الدراسة الحكومة العامة لدولة الامارات باستخدام سته معايير معترف بها دوليا وهي "المساءلة" و "الاستقرار السياسي" و "فعالية الحكومة" و "الجودة التنظيمية" و "سيادة القانون" و "السيطرة علي الفساد". ويحلل نوعيه الإدارة التنظيمية من قبل هيئه تنظيم الاتصالات في دوله الامارات العربية المتحدة من حيث الأبعاد الأربعة المقترحة في الأدب: 'الشفافية التنظيمية' و'الاستقلال التنظيمي' و' توفر الموارد' و' فرض التراخيص' ومكوناتها الفرعية. ويعد البحث دراسة نوعيه حيث تم استخدام كل من البيانات الأولية والثانوية. تم جمع المعلومات الأولية من خلال مناقشات شامله مع سته موظفين من المستوي الإداري من الهيئة. ويستخدم العمل القوانين واللوائح وتحليل البيانات والتقارير المقدمة من الحكومة الإماراتية، والمصادر الحكومية والتنظيمية الأخرى ذات الصلة، والبنك الدولي، والمنتدى الاقتصادي العالمي، ومشروع العدالة العالمي، ومنظمه الشفافية العالمية. ويثبت هذا البحث انه بما أن دوله الامارات تتمتع بمستوى عال من الحوكمة العامة، فإنها تتمتع أيضا بإدارة جيده لتنظيم الاتصالات عبر جميع المعايير ذات الصلة. تشير النتائج إلى أن مزود الخدمة للقطاع الخاص (دو) حققت نموًا أفضل من اتصالات والتي تؤكد نظرية الباحث بأن "مؤسسات القطاع الخاص تحقق نفس أهداف المصلحة العامة التي تحققها مؤسسات القطاع العام"

وذلك بسبب الحوكمة العامة الجيدة للدولة مما نتج عنه وجود حوكمة تنظيمية جيدة الأداء. وأخيراً، تم تقديم بعض الاقتراحات كتوصيات استناداً إلى أوجه القصور التي كشفت عنها الدراسة والتي تم التوصل إليها في هذه الدراسة للتحسين وإعداد الأبحاث في المستقبل بشأن الحوكمة التنظيمية للاتصالات.

مفاهيم البحث الرئيسية: الحوكمة التنظيمية، الحوكمة العامة لدولة الامارات العربية المتحدة، هيئة تنظيم الاتصالات، الأنظمة، مزودي الخدمات، اتصالات، دو.

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And above all, I truly thank ALLAH who made it possible by every means and helped me graduate.

Dedication

To my beloved Parents, Husband and Family

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List of Abbreviations

ADSL	Asymmetric digital subscriber line
CPI	Corruption Perception Index
DFM	Dubai financial Market
EIA	Emirates Investment Authority
EITC	Emirates Integrated Telecommunication Company
ETC	Emirates Communications & Technology
GDP	Gross Domestic Products
GPRS	Ground Penetrating Radar Systems
ICA	Interconnection agreement
IPTV	Internet Protocol television
OECD	Organization for Economic Co-operation and Development
PCR	Price Control regulation
RO	Reference Offer
SCA	Securities & Commodities Authority
TRA	Telecommunication Regulatory Authority
UAE	United Arab Emirates
UK	United Kingdom
US	United State of America
WEF	World Economic Forum
WJP	World Justice Project
WTO	World Trade Organization

Chapter 1: The General Framework

Governance in general refers to the actions involved in governing public, as well as, private sector organizations. It also refers to improvements in any given organization's collective performance in economic, environmental, political, and social terms, alongside specific international codes and guidelines (Rhodes, 1996). Thus, it can range from national public governance to organizational governance.

Public governance is defined as the manner in which public officials and institutions acquire and exercise the authority to shape public policy and provide public goods and services (Kaufmann and Mastruzi, 2010). The study of national public governance analyzes national codes of conduct by identifying the public values inherent in codes of good governance, public values regarding the role of the public sector in society, the behavior of civil servants as identified in the national code of good governance, and whether the national code of good governance reflects a true set of global public values (Rhodes, 1996). Kaufmann and Mastruzi (2010) suggested many rules and their subsequent applications regarding certain attributes and actions that can serve as indicators for measuring governance. For example, the accountability or the presence of rules covering financial disclosure requirements for public servants. Operating rules, institutional practices and functions within a system of accountability can be based on de jure indicators, or on de facto indicators that are, "in practice but not necessarily ordained by law". The legal and regulatory environment governing the public sector and transparency in public actions helps to understand the key features of any country's political system (Kaufmann and Mastruzi, 2010).

The implementation of a regulatory system is dependent on the existence of appropriate governance institutions and is essential for organizational governance. The

concept of a regulatory regime contains the norms, decision making mechanisms, and a network of actors involved in regulation (Eisner 1993; Drezner 2007). In the modern information age, better regulatory governance of the telecommunication sector is very important for national governance performance. It is also dependent on the latter's performance (Marin and Jayakar, 2013). This research focusses on telecommunications regulatory governance in the UAE and studies the interrelationship of 'better governance' and 'regulatory performance' within the Telecommunications Regulatory Authority (TRA).

1.1 Theoretical Framework of the Research

The World Economic Forum uses specific indicators to compare worldwide governance and to identify continuous improvement through these indicators in a large number of countries. This includes the UAE. According to analyses by the World Economic Forum, the UAE scores very highly in most 'Worldwide Governance Indicators' (WEF, 2017). For example, there was a high score recorded for indicators such as 'voice and accountability', 'political stability', 'government effectiveness', 'regulatory quality', 'rule of law', and the 'control of corruption', where the UAE ranks near the top of the worldwide list (WEF, 2017). Worldwide governance indicators can influence regulatory and corporate organizational governance, as many indicators are interconnected and affect corporate governance.

In this regard, the theoretical foundation proposed by Martin and Jayakar (2013) is of great importance. Their work concludes by citing other empirical studies (e.g. Bauer, 2003; Waverman & Koutroupis, 2011), that indicate that, "Countries with better [governance] institutions have better telecom regulators", and that, "Private regulated firms achieve the same public interest goals as state-owned firms".

The current research seeks to examine the significance of Martin and Jayakar's (2013) theories by analyzing public governance in the UAE through an exploration of governance in the Telecommunications Regulatory Authority (TRA). This includes the regulation of the telecommunications sector by examining the interrelationship between the quality of national public governance and telecommunications governance in the UAE. Relevant literature and theories related to the above are discussed in detail in Chapter 2.

1.2 Purpose of the Research

The purpose of this research is to study the influence of the UAE's public governance on its telecommunications regulatory governance and service provision. This include analyses of public governance in the UAE, telecommunications regulatory governance in the UAE, the regulatory systems provided by the TRA to service providers, and the growth and functions of telecommunications service providers.

1.3 Objectives of the Study

The primary objective of this research is to:

1. Reexamine the theory (Martin and Jayakar, 2013) that, "Countries with better [governance] institutions have better telecom regulators", and that "Private regulated firms achieve the same public interest goals as state-owned firms".

The primary objective of the research can only be achieved via secondary objectives (see below):

2. Analyze the UAE's governance rank according to worldwide governance indicators in terms of 'voice and accountability', 'political stability',

‘government effectiveness’, ‘regulatory quality’, ‘rule of law’, and ‘control of corruption’ (WEF, 2017).

3. Analyze, after Waverman and Koutroumpis (2011), the regulatory governance of the TRA in terms of ‘regulatory transparency’, ‘independence’, ‘resource availability’ and the ‘enforcement of licenses.’
4. Examine if the UAE, with its internationally competitive public governance norms and institution as defined above through the six variables, has high quality telecommunications regulatory governance.
5. Explain the performance of telecommunications service providers to ascertain if private firms achieve the same public interest goals as state-owned firms.

1.4 Methodology of the Research

This study relies mostly on non-numeric data gathered via interviews and content analysis. Thus, it can be defined as qualitative research (Bhattacharjee, 2012). The study uses both primary and secondary data (see below):

- 1) The theoretical section of the study, is based on the theories of Marin and Jayakar (2013) for analyzing telecommunications regulatory authority governance and the regulation of service providers in order to examine the interrelationship of national governance and telecommunications governance in the UAE.
- 2) The analyses are based on evidence collected from relevant international organizations (e.g. Worldwide Governance Indicators), relevant government and organizational sources in order to illustrate the features and concomitant quality of UAE governance in terms of ‘voice and accountability’, ‘political

stability’, ‘government effectiveness’, ‘regulatory quality’, ‘rule of law’, and ‘control of corruption’ (WEF, 2017).

- 3) The theoretical framework is enhanced by discussing the characteristic features and differences between OECD (Organization for Economic Cooperation and Development) governance principles and Islamic governance principles, as well as considering regulatory governance and its key components.
- 4) This research uses indicators suggested by Waverman and Koutroumpis (2011) to analyze the quality of regulatory governance by the TRA in the UAE in terms of four dimensions: ‘regulatory transparency’; ‘independence’; ‘resource availability’, and the ‘enforcement of licenses’ and their subcomponents.
- 5) The telecommunications regulatory system and the regulations that the TRA issues to service providers are reviewed to see if better public governance institutions results in better telecom regulators in the UAE (Martin and Jayakar, 2013). Our analysis reviews the interconnection policy and consultation procedures designed to reflect the TRA’s desire for transparency and wish to act in accordance with best practices. We also review the consultation process in terms of the service delivery achieved by service providers.
- 6) Important primary data was collected in face-to-face meetings with pre-selected management level personnel working for the TRA. These interviews were designed to better understand the laws and regulations of the institution. Additionally, after Waverman and Koutroumpis (2011), we considered regulatory governance by the TRA in terms of ‘regulatory transparency’, ‘independence’, ‘resource availability’, and the ‘enforcement of licenses.’

- 7) The consequent discussion of the above item (6) and the analyses of the TRA's governance were based on four variables with seventeen elements and related components (Waverman and Koutroupis, 2011) (see Chapter 2).
- 8) The characteristic features of the service providers were reviewed in order to compare the service delivery and growth of the two telecommunications service providers in the UAE. This sought to explain their performance as telecommunications service providers so as to identify if private firms achieved the same public interest goals as state-owned firms?

1.5 Significance of the Study

This study has reconfirmed the contention that “Countries with better [governance] institutions have better telecom regulators” (Martin and Jayakar, 2013) in the UAE. The work is unique because the process incorporated the following:

1. A comprehensive documenting and review of public governance in the UAE using certain internationally accepted criteria and the available evidence /data.
2. A through survey and review of the literature on telecommunications governance.
3. A review of telecommunications governance and the TRA based on in-depth discussions with senior regulatory officials from the TRA which focused on four internationally recognized criteria. Those were ‘regulatory transparency’, ‘independence’, ‘resource availability’ and the ‘enforcement of licenses’.

4. A thorough review of laws and regulations related to telecommunications service provision in the UAE as compared to international benchmarks.
5. Establishing the relationship between better governance and better telecommunications regulation in the UAE.

1.6 Limitations of the Study

The study has some unavoidable limitations. These include:

1. The face-to-face interviews protocols are discussed in Section 4.3.1, but there remains potential bias in the choice of a sample of senior officials.
2. Due to time and logistical constraints, other operational personnel from the TRA or from the service providers were not interviewed. This would have helped to better understand the relationship between the TRA and the service providers, and indicate potential improvements that could make telecommunications governance in the UAE more effective.
3. The researcher was restricted to TRA documents. Other potentially key documents, such as parliamentary oversight reports were not available.
4. The study only analyzed TRA regulations and not documentation from the service providers. This would have allowed us to consider the service providers perspectives on their relationship with the TRA.

1.7 Structure of the Thesis

After this introductory chapter (1), the rest of the thesis is divided into five chapters. Chapter 2 (The Theoretical Framework) defines governance in general and identifies different types of governance and their respective significance. This chapter

highlights the ‘Worldwide Governance Indicators’ that will be used to examine the status of national public governance in the UAE. Then, we will consider the premises proposed by Martin and Jayakar (2013) so as to make use of the six variables to measure the quality of national telecommunications governance. We also considered the five main indicators that help to measure regulatory governance in any institution. These include ‘regulatory transparency’, ‘independence’, ‘resource availability’ and ‘enforcement of licensees.’ This chapter also highlights Martin and Jaykar’s (2013) theoretical concept that, “Countries with better [governance] institutions have better telecom regulators”, and that, “Private regulated firms achieve the same public interest goals as state-owned firms”.

Chapter 3 (Telecommunications Regulation and Service Providers in the UAE) is divided into three main sections. The first section describes the history of UAE telecommunications. This starts by identifying different companies in the UAE and leads on to the establishment of Etisalat, who merged all these companies. Then we discuss the establishment of the TRA, created by Federal Law 2003. Finally, this section discusses the end of the period of monopoly. The second section discusses the service provider Du, and describes the current services offered by both service providers; i.e. Etisalat and Du. This chapter presents the organizational structure and governance of both Etisalat and Du. Finally, the last section of the chapter discusses regulation and control by the TRA. By outlining the history of telecommunications regulatory systems in the UAE, this section provides an account of the governance structure and relationships within the TRA. In addition, it deals with the TRA’s regulatory system and how it affects service providers.

Chapter 4 (Public Governance and Telecommunication Regulation in the UAE) has four sections. The first section, referring back to chapter two (2), deals with the features and quality of UAE public governance in terms of ‘voice and accountability’, ‘political stability’, ‘government effectiveness’, ‘regulatory quality’, ‘rule of law’, and ‘control of corruption’. It highlights institutional regulations and practices in terms of the above criteria and how they help make the UAE among the best countries for such governance in the world. The second section, based primarily on face-to-face meetings with selected management level personnel from the TRA, analyzes the regulatory governance performance of the TRA. These analyses revolve around ‘regulatory transparency’, ‘independence’, ‘resource availability’, and the ‘enforcement of licenses’. The third section examines the performance of the telecom regulator by reviewing established regulations and procedures dictated by the TRA to the service providers. This is done in light of the seven variables that emerged from discussions with senior level management personnel from the TRA. The fourth section looks at the performance and achievements of telecommunications service providers in the UAE to ascertain if, “Private regulated firms achieve the same public interest goals as state-owned firms”. This was done by analyzing both service providers (Etisalat and Du) in terms growth of services and revenue in the UAE.

Chapter 5 (Conclusion and Limitations) has four sections. The first section highlights the main conclusions concerning TRA regulatory governance and telecommunications regulations and services in the UAE. In the second section, the conclusions and significance of the analyses are discussed. In third section, we suggest recommendations emerging from this research, before finally highlighting directions for future studies.

Chapter 2: The Theoretical Framework

2.1 Introduction

This research is about regulatory governance practices as carried out by the Telecommunication Regulatory Authority (TRA) in the UAE and their relationship to 'governance indicators'. Despite the importance of regulatory governance, there is no agreement among researchers about the best indicators and measures. Thus, this chapter will examine the available literature to identify and justify a framework for an analysis of regulatory governance within the TRA and to establish any relationship to governance institutions in the UAE.

Implementing regulatory reforms depends on the existence of appropriate governance institutions. The concept of any regulatory regime contains the norms, mechanisms for decision making, and the network of actors involved in regulation (Eisner 1993; Drezner 2007). To implement regulatory governance, the TRA needs to be transparent and accountable, while carrying out its mandates with sufficient authority to ensure that these reforms are translated into actions. Thus, before discussing the TRA's regulatory governance, we need to consider other types of governance, such as public and corporate governance. This preliminary discussion is connected to regulatory governance and will help in understanding and analyzing regulatory governance within the TRA.

This chapter is divided into three main sections. The first section defines governance in general and provides a discussion on public and national governance, which identifies internationally recognized governance indicators that used to study public governance in the UAE. After that, it discusses corporate governance, and the differences between OECD governance principles and Islamic governance principles.

Finally, the chapter defines regulatory governance by identifying key components that can help to measure regulatory governance in any regulatory institution. The primary focus of the discussion is on telecommunications regulatory governance indices (and their subcomponents) that we can use to analyze regulatory governance at the TRA. Finally, the chapter concludes by explaining what ought to be done to study public as well as regulatory governance.

2.2 Governance: Types and Indicators

Governance is a necessary requirement for any country's economic development. The concept of governance deals with the development of public as well as private institutions, and how collective performance can be improved a multiplicity of concepts that include the political, economic, social and even environmental and international spheres of influence. Rhodes (1996) identified at least six separate uses of the term 'governance'. Firstly, governance redefines the extent and form of public intervention and the use of quasi-markets to deliver public services. Secondly, corporate governance is a system where organizations are directed and controlled by the executive functions of management.

Additionally, governance as an aspect of public management can have two meanings. One of these is referred to as 'managerialism' where private sector management methods are introduced into the public sector (professional management, explicit standards and measures of performance, managing by results, value of money and being close to customers). On the other hand, new institutional economics refers to the introduction of incentive structures, such as market competition into public service provision (disaggregating bureaucracies, competition through contracting out, quasi-markets and consumer choice). Moreover, good governance suggests efficient

public services, an independent judicial system, a legal framework to enforce contracts, the accountable administration of public funds, independent public auditors, the responsibility of the representative legislature, and respect for the law and human rights at all levels of government. Furthermore, new governance claims that there is no sovereign authority to govern and that governance is a result of interactive socio-political forms of governing. Finally, governance as a series of self-organizing networks form is a system of local governance involving complex organizations drawn from both the public and private sectors. These networks are made up of organizations who need exchange resources (money, information and expertise) to avoid dependence upon others. Two major dimensions of governance are public or national governance, and private or corporate governance. According to Rhodes (1996), both are important parts of a high performance regulatory system. They will be discussed in this section.

We can conclude that the term governance has different uses and meanings. It can mean a minimal state, as corporate governance, as new public management, as good governance and as interactive socio-political forms. It highlights the limits of governing by a central actor by claiming that there is no longer a single sovereign authority and also by multiplying new forms of action, intervention and control as self-organizing networks.

Governance deals with the delivery of services and the resulting problems of steering policy and being accountable. Governance also highlights the limits of managerial reforms that stress intra-organizational control and management through competition. The suggestion is that different networks require distinctive managerial styles based on facilitation, accommodation and bargaining. All of this is evident in the literature on the subject.

2.2.1 Public and National Governance

Governance is defined as the manner in which public officials and institutions acquire and exercise the authority to shape public policy and provide public goods and services (Kaufman and Kraay, 2007). There are indicators that can measure the governance dimension of any public institution, however Kaufmann and Mastruzi (2010) opine that no single indicator or combination of indicators can provide completely reliable measures of any governance dimension. Kaufmann and Mastruzi (2010) suggest many rules and applications related to certain attributes and actions as indicators for measuring governance. For example, accountability or the presence and application of rules of financial disclosure requirements for public servants. Operating rules, institutions, their practice, and functioning in an accountable system may be based on de jure indicators or on de facto indicators. The second and third governance indicators, that is the legal and regulatory environment governing the public sector and transparency helps us to understand the different features of a country's 'political system'. Moreover, two major advantages of these indicators of good governance should be their clarity and objectivity (rather than having too much subjective judgment) of rules (Kaufmann and Mastruzi, 2010).

Governance has become a core concept in public institutions, and as such there have been many discussions concerning 'good governance'. According to Jorgenson and Sorensen (2012), good governance as a concept is used by states and organizations to suggest how they should be governed. It has very obvious principles and values such as transparency, accountability, effectiveness and the rule of law. They analyzed national codes of conduct by focusing on their text and main purpose in order to identify public values inherent in these codes of good governance, public values

regarding the role of the public sector in society, and the expected behavior of civil servants as laid out in any national code for good governance. They also checked if the national code of good governance reflected a set of global public values. A code of conduct is defined as a collection of rules and principles that are to be followed by public officials (expected behavior). Jorgenson and Sorensen (2012) categorized these value expressions into major categories. The first regards the contribution of the public sector to society and focuses on two modal values: public interest and the dignity of the regime. Public interest (impartiality, innovation, effectiveness, transparency, altruism, democracy and legality) were ranked as a top value in many countries. They also mentioned that the strength of any government system lies in the extent to which it deserves and holds the respect of its citizens. The second category highlights the ‘transformation of interest to decisions’, through majority rule, democracy and respecting the will of the people. In such a ‘constellation’, public administration plays an essential role in democratic societies and must have methods for selecting suitable personnel to properly carry out the tasks assigned by the policy makers. A third area deals with the ‘relationship between administrators and politicians’ that seeks to ensure ‘political loyalty, accountability, and responsiveness’.

Jorgenson and Sorensen (2012) provide examples from Denmark where the code of chief executives in terms of political loyalty suggests that, “It is your responsibility to ensure that the management and staff of the organization are aware of and understand the political goals and intentions, and that they pursue these goals.” The fourth major grouping underlines the ‘relationship between public administrators and their immediate surroundings’. This includes three nodal values: openness, impartiality and neutrality. Openness or transparency is referred to as active acceptance of an external critique and is impartial and neutral. According to Jorgenson

and Sorensen (2012), it can be combined with other values, as in Italy where, “The principles and contents of the present code constitute exemplary specifications of the requirements of diligence, faithfulness and impartiality that characterize the correct performance of the employee’s work obligations.” The area is the ‘intra-organizational aspects of public administration’, which concentrates on the robustness and reliability as significant instrumental values compared to other values such as effectiveness, legality, integrity and impartiality. Another category is the behavior of the public sector. Public sector employees should focus on two key values: accountability and integrity. The civil servant is accountable if he/ she is open to public scrutiny. This is an attempt to avoid mistakes, allowing political considerations to interfere with professional standards and avoiding conflicts of interest. Integrity can be understood as political integrity, meaning that public employee are not influenced by their political affiliations. The relationship between public administration and the citizens, consists of four subgroups: a judicially oriented category with its roots in classic Weberian bureaucracy; a professionalism that reflects the modern welfare state; a dialogue that emphasizes participation and citizens’ involvement, and a user orientation where new public management inspires customer identification (Jorgenson and Sorensen, 2012).

These considerations and principles can be incorporated into governance indicators that help to measure governance in any given country.

2.2.2 Public Governance Indicators

Table 2.1 gives a short introduction to the worldwide governance indicators favored by the World Bank. It captures all 6 indicators and considers how these indicators are connected to a political classification of governments as published in

The Economist. This classification is a “Democratization Index.” It helps to provide a deeper assessment of good governance.

The units for measuring governance follow a normal distribution pattern with a mean of zero, a minimum of -2.5 and a maximum of +2.5 (Kaufmann and Kraay, 2007). These boundaries correspond to the 0.005 and 0.995 percentiles of a standard normal distribution. For a handful of cases, individual country ratings can exceed these boundaries when scores from individual data sources are particularly high or low. This implies, no information on a change in global governance that can be extracted from these indicators. Instead, only the performance of countries individually, or in groups that are cross-referenced with each other, can be extrapolated.

By looking at these worldwide governance indicators we can see that the UAE’s score for ‘governance voice and accountability’ deteriorated by 31% from -0.84 to -1.10 in 2017. Thus the UAE was ranked 18th. In terms of political stability and absence of violence, the UAE’s governance score also deteriorated by 31% from 0.91 to 0.63 in 2017 leaving the country ranked 67. On the other hand, government effectiveness improved by 41% from 0.99 to 1.40 in the same year to reach a rank of 90. The score for regulatory quality was much better as it moved from 0.44 to 1.01, standing in 80th position. For rule of law the UAE ranked 77th in 2017. Finally, the governance indicator for control of corruption in the UAE improved by 24% from 0.91 to 1.13 in 2017. The improvements compared with 2009 as shown in Table 2.1.

Table 2.1: Worldwide Governance Indicators: United Arab Emirates

Indicator	Year	Governance Score (-2.5 to +2.5)	Percentile Rank (0 to 100)	World Rank
Voice & accountability	2009	-0.84	25.59	26
	2013	-1.02	19.25	19
	2017	-1.10	18.23	18
Political Stability and Absence of Violence/Terrorism	2009	0.91	81.04	81
	2013	0.82	74.88	75
	2017	0.63	67.62	68
Government Effectiveness	2009	0.99	79.43	79
	2013	1.18	83.41	83
	2017	1.40	90.38	90
Regulatory Quality	2009	0.44	65.55	66
	2013	0.78	74.88	75
	2017	1.01	80.77	81
Rule of Law	2009	0.40	63.03	63
	2013	0.62	69.01	69
	2017	0.80	77.40	77
Control of Corruption	2009	0.91	78.95	79
	2013	1.28	87.20	87
	2017	1.13	82.69	83

Source: World Bank Organization, 2017

Overall, these worldwide governance indicators help to explain corporate and organizational governance because many of the indicators are connected to the implementation of corporate governance. The UAE's performance with worldwide governance indicators generally show an improvement compared to recent years.

2.3 Corporate and Organizational Governance

Bebchuk and Weisbach (2010) suggested that regulation helps to facilitate efficient corporate restructuring, while avoiding any conflict of interest between management, shareholders and other stakeholders. Moreover, such regulation has an impact on any problems between management, stakeholders and investors in any given institution. Corporate governance focuses on managerial behavior and is therefore connected to regulatory governance.

The question of how best to manage companies and the most optimal structure that allows for the effective allocation of resources is as old as the companies themselves. ‘Corporate governance’ was first used as a term by Richard Eells (1960) to denote the structures and functions of a company (Alnasser and Muhammad, 2012). Nevertheless, the term ‘corporate governance’ is most commonly associated with large corporations. The financial crises at Enron, WorldCom and Parmalat have helped focus the discussion on the proper governance of companies (Alnasser and Muhammad, 2012). The term ‘corporate governance’ derives from an analogy based on the governance of nations or states as compared to the governance of corporations. Indeed, the proper governance of corporations is as important for the world economy as the governance of sovereign countries (Braendle and Kostyuk, 2007).

The term ‘corporate governance’ is susceptible to both narrower and broader definitions, especially when related to the perspectives of shareholders and other stakeholder. It revolves around the debate as to whether the management should run the corporation solely in the interests of shareholders (the shareholder perspective), or whether it should take account of other constituencies (the stakeholder perspective) (Bebchuk and Weisbach, 2010).

Narrowly defined, 'corporate governance' is concerned with the relationship between corporate managers, the board of directors and the shareholders. However, in a broader sense, it can encompass the relationship of the corporation to stakeholders and wider society. Even more broadly defined, corporate governance can encompass a combination of laws, regulations, rules and voluntary private sector practices. These enable the corporation to attract capital, perform efficiently, generate profits, and meet legal obligations and general societal expectations (Bebchuk and Weisbach, 2010). Under such corporate governance, issues such as the separation of ownership and control (Berle and Means) are dealt with. 'Corporate governance', can thus be defined as the framework of rules and practices by which a board of directors ensures accountability, fairness, and transparency in a company's relationship with its stakeholders (financiers, customers, management, employees, government, and the community) (Bebchuk and Weisbach, 2010).

'Corporate governance' can also be defined as the system by which companies direct and control their activities and outcomes. It is important because it creates a situation where the business environment is fairer, more transparent businesses are held accountable for their actions (Youssef, 2010). 'Corporate governance' increases the competitiveness of the business environment, can suggest exit policies and leads to better internal systems and greater accountability. The implementation of 'corporate governance' principles such as effectiveness, accountability and leadership helps to develop companies and to avoid corruption (Youssef, 2010).

Table 2.2 shows different national systems of corporate governance and articulates the primary objectives of these corporations and nations. Some nation states

– predominantly in continental Europe and Asia focus on the need to satisfy societal expectations (Alnasser and Muhammed, 2012).

These expectations take into account the interests of employees and other stakeholders such as suppliers, creditors, the tax authorities and other claims on the company. As owners with property rights, shareholders have a claim to whatever is left after all the contractual claimants have been paid. The focus is on shareholder value. The term ‘corporate governance’ is also related to the different perspectives of shareholders and stakeholders. However, if the main objective is to protect the interest of all stakeholders then this is clearly in the continental European tradition. ‘Corporate governance’ should be an effective monitor on the management and the corporation as a whole. Thus, independent directors have a clear long-term plan to protect shareholder investment and a broad range of corporate performance criteria design to achieve this goal. That is partly achieved through government entities that have an effect on regulatory governance. (Alnasser and Muhammed, 2012).

Table 2.2: Definitions of Corporate Governance (CG)

CG: Definition/ Premises	Origin/ Perspective
Ensuring that corporate actions, assets and agents are directed at achieving the corporation's objectives as established by the shareholders.	Sternberg (1998) gives a definition very much in favor of a shareholder perspective.
Expanding corporate governance to encompass society as a whole benefits neither corporations nor society because management is ill-equipped to deal with questions of general public interest.	Lipton and Lorsch (1992) clearly speak for the shareholder perspective as management is not 'well-equipped' to deal with multiple constituencies.
The process of controlling and administering a company's capital and human resources in the interest of the owners of a company.	Hess (1996). The shareholder is the focus of the company.
Deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment	Shleifer and Vishny (1997). This definition is broader than a pure shareholder perspective, as other creditors, in addition to shareholders, are discussed.
Is the whole system of rights, processes and controls established internally and externally over the management of a business entity with the objective of protecting the interests of all stakeholders?	Centre of European Policy Studies (CEPS, 1995). The objective of protecting the interests of all stakeholders is clearly a sign of a continental European definition and tradition.

Source: Alnasser and Muhammed, 2012

L'Huillier (2014) provides us with a useful analysis of corporate governance. This analysis identified a taxonomy of competing theories of corporate governance from a theoretical perspective. First, he identifies 'agency theory', which traces its origins back to the school of economics and finance which can be used to analyze the

relative efficiency of alternative institutional arrangements as it focusses on the nature of contractual relationships. This theory portrays people as opportunistic players who rationally maximize their own utility and are focused on external rewards even to the detriment of others. Due to the separation of ownership from control, there will be a conflict of interests between owner, and agent or controller (L'Huillier, 2014).

Then there are 'stewardship theorists' who focus on the non-economic influences that guide managerial activity. The basic idea of 'corporate governance' is that in any given situation, managers should be good stewards of corporate assets and work diligently to maximize shareholder return. The basic premises of managerial hegemony proponents is that governing boards are tools used by professional managers to lend support to, and validate, their decisions. These theorists posit that these managers should not be on the board of directors, which serves only in superficial role, serving as a legitimizing figurehead. (L'Huillier, 2014).

There are also the 'resource dependency theorists' with origins in sociology, who focus on linking the role of the governing board to other organizations. These theorists focus on 'corporate governance' that is based on the supposition that board size and composition are not random or independent factors. They are rather, rational organizational responses to the external environment. 'Stakeholder theorists' trace their origins back to management theory, politics and law and within the literature on 'corporate governance' they tend to focus on the coordinating role of the governing board in the pursuit of stakeholder interests. The basic position that the model presumes is that managers and other agents are all stakeholders (L'Huillier, 2014).

A later multi-governance theory concluded that 'corporate governance' is a complicated process reflecting the complex nature of many firms. It suggests a

governing board that embraces the functional aspects of two or more of the theories presented above (L'Huillier, 2014).

With this in mind, it is important to study the Islamic principles behind 'corporate governance' (see Table 2.3). The OECD definition of corporate governance suggests that the basis of effective corporate governance is predicated upon the promotion of transparent and efficient markets complete with respect for the rule of law and a division of responsibilities. 'Corporate governance' should protect the exercise of shareholders' rights, allow shareholders to participate in decision-making, acknowledge the ownership rights of all shareholders (including institutional shareholders), and treat all shareholder equitably. This includes minority and foreign shareholders. Every shareholder should have the opportunity to obtain redress for any violation of their rights. Moreover, the corporate governance framework should recognize the rights of stakeholders as established by law or through mutual agreements that encourage active cooperation between corporations and stakeholders in order to create wealth, jobs, and sustainable, financially sound enterprises (Alnasser and Muhammed, 2012).

On the other hand, from an Islamic governance perspective, 'corporate governance' promotes businesses with ethical framework based on the Shariah code of conduct. The equitable treatment of shareholders, the role of stakeholders in accountability is in tune with Islam and a social welfare orientation that takes care of both social and individual welfare (Alnasser and Muhammed, 2012).

Table 2.3: Corporate Governance from an Islamic Perspective

OECD Principles	Islamic Principles
The rights of shareholders and key ownership functions	Property in trust according to Shariah rules
Promotion of transparent and efficient markets with the rule of law and a division of responsibility	The sole authority is Shariah law
Basic Shareholder's rights	Society as the stakeholders
Participation in decision-making	Accountability not only to stakeholders but also before God
Structure and arrange markets for corporate control	Just and fair values
Ownership rights for all shareholders including institutional shareholders A consultative process between shareholders and institutional shareholders	Equitable distribution of wealth to stakeholders and the expectation of both Zakat and Sadqa
The equitable treatment of shareholders	Social and individual welfare with both spiritual and moral obligations
Protection for minority and foreign Shareholders	Equality
The role of stakeholders in corporate governance	Islamic accountability to Falah and a social welfare orientation
Creation of wealth, jobs and sustainable, financially sound enterprises	A good (halal)/ bad (haram) dichotomy

Source: Alnasser and Muhammed, 2012

In conclusion, best corporate governance practices are about achieving stakeholders' goals and delivering success in an ethical way. To be successful institutions should focus on an ethical approach, balanced objectives, sharing, decision-making, accountability and transparency. According to Alnasser and Muhammed (2012), it is important to take into consideration the differences between OECD type 'corporate governance' in 'corporate governance' in Islamic institutions. However, in terms of the principles of fairness, honesty and justice, there is not much difference between the two. As above, in 'corporate governance' we are focusing on the oversight of executive actions by management and their accountability to established regulations. The following section deals with regulatory governance.

2.4 Regulatory Governance: Why and How?

The implementation of regulatory reform depends on the existence of appropriate government commitment and suitable institutions. These institutions need to be transparent and accountable, with a clear mandate and sufficient power to ensure these reforms are carried out. The institution needs to ensure that regulation is part of the policy environment as to meet policy objectives regulation must be integrated into the policy cycle.

'Regulatory governance' can be defined as, "the mechanisms that societies use to constrain regulatory discretion and to resolve conflicts that arise in relation to these constraints" (Stern and Holder, 1999). Spiller and Tommasi (2004) discussed forms of 'regulatory governance' in the United States and in the United Kingdom. In the US 'regulatory governance' consists of a complex set of formal administrative procedures, while in the UK it is based on the use of contract law. 'Regulatory governance' in the US depends on the electoral system that ensures separation of government

responsibilities and where the President has full control over the legislative process. Legislators are unwilling to delegate too much regulatory discretion to the executive and, instead, they tend to impose stronger procedural burdens to limit the executives' ability to deviate from the legislators' interests. On the other hand, the UK has a parliamentary system that has systematically resulted in unified governments usually without the need for coalition building. This means that the government controls the legislative process and there are fewer procedural restrictions on regulatory decision-making.

The probability of observing independent agency is higher in a divided government. Transparency in making policy involves regulating and formalizing the participation of interest groups in the administrative process, which is what happens in the US. Regulatory agencies must provide notice and information about proposed rules, and must make decisions taking in to account the submissions of all the interested parties. This transparency has two important effects: first, it allows the agency to receive information about the state in an open and organized fashion; and secondly, it allows for the manifestation of particularistic interests. In fact, information regarding specific interest groups' preferences is important as it allows the agency to forecast any potential political problems that they may encounter with the legislature.

Procedural restrictions on decision-making may result in interests groups attempting to block the agency's decision-making through lobbying politicians. Interest groups work like a "fire alarm" in the regulatory process (Spiller and Tommasi, 2004). Transparency allows legislators to supervise the agency without having to be actively involved in the regulatory process and it also limits the amount of time legislators expend in regulating the regulators. Moreover, decisions made

about information provided by a single interest group can result in a biased outcome. However, the participation of multiple interest groups with their concomitant conflicting interests is a method for limiting the power of specific interest groups, and serves as an incentive for politicians to increase the level of transparency. Spiller and Tommasi (2004) cite experiences in the UK concerning contract law. In a unified government system, where the government controls both the administrative and legislative processes, contract law is the body of law that regulates the enforcement of contracts. The main purpose of regulatory and institutional structures is to provide companies with the power of veto over regulatory decisions. The advantage of such regulatory frameworks is that any amendments to the license of contracts between the government and other firms requires the agreement of the company.

Every country has its own institutions for regulation. These normally contain attributes from the legislative and the executive, whether judicial, customary, informal, of social interest or in administrative institutions (Stern and Holder, 1999). The attributes of the legislative and executive can constrain the use and abuse of power in federal states. This is similar to the framework we will use to analyze the relative effectiveness of regulatory institutions in the field of telecommunications. According to Stern and Holder (1999), there are six interrelated aspects of regulatory frameworks.

These are the clarity of roles and objectives between ministers and regulators; autonomy from political intervention (i.e. the regulators answer for their decisions) and transparency. It also includes ensuring that the regulators receive support and cooperation from firms and consumers; are accountable to the legislature in cases of failure to fulfil obligations and are transparent. This transparency aids a better understanding of the factors that influence regulatory decisions. There must also be a

degree of predictability, which include the ability to achieve evolutionary change in regulatory methods and practices in order to meet changes in circumstances (Stern and Holder, 1999).

Stern and Holder (1999) suggest that the key components of a regulatory framework in developing countries are effective when “the closer the results of regulation are to the goals”. It must be efficient (reducing costs while maintaining benefits), transparent and accessible (obtaining information and the views of stakeholders in a timely way that is responsive to policy development). These authors show that regulatory governance reform is relevant in developing countries when they are linked to other government priorities, as well as when certain preconditions are in place, and when the reform is context specific.

However, how do you hold regulatory actors accountable? There are clear arguments as to why governments should consider delegating powers to regulatory agencies. There is a flourishing academic literature analyzing how government and legislative actors can ensure agencies remain accountable to the political system. Democratic theory assumes that at a certain level there should be a link between the citizens of a country and its regulations. There is also an assumption that in most cases citizens must delegate responsibility to elected politicians to create and enact regulations, even if the citizens do not like them (Stern and Holder, 1999).

Of course, they can choose to vote their elected representatives out of office. The creation of agencies that are, to some degree, outside the control of politicians but responsible for important decisions, obviously serves to weaken further the direct link of government to policy. The political challenge is therefore how to minimize the

tradeoff between the advantages of independent agencies and the apparent threat to the normal process of democratic accountability (Stern and Holder, 1999).

The most widely applied theoretical framework used to analyze this trade-off is that of agency. Derived largely from the economics of organizations, where the government and the legislature are considered the principal actors and the regulator is considered as the agent (Moe, 1984; Weingast and Moran, 1983, Epstein and O'Halloran, 1999). The principals are assumed to be seeking to minimize 'agency losses'. These are defined as a situation where agents act contrary to the preferences of the principal. This is because of 'shirking', where agents act to pursue their own preferences. The degree of independence is shaped by ex-ante mechanisms, such as the legislative mandate that describes the role and objectives of the regulator, and by a series of ex-post mechanisms requiring the regulator to report on its actions to the principals. In terms of ex-post mechanisms, legislative committees can choose between two styles of oversight: 'police patrol' or a 'fire alarm.' In the case of 'police patrol', regulatory oversight is "centralized, active and direct" and includes legislative hearings and special inquiries, whereas the 'fire alarm' is less active and indirect, and encourages citizens to bring agency discretion to the attention of the principals (Spiller and Tommasi, 2004).

While the principal/ agent framework has limitations, notably in a European context, identifying exactly who the regulatory principals are plays an important role in EU institutions. It is a useful mechanism to analyze the incentives of the different actors that make up the domestic regulatory regime, and the success or failure of the accountability structure (Spiller and Tommasi, 2004).

Accordingly, regulatory governance is concerned with the commitment of the powers that be to the regulatory framework. This framework is used to analyze the relative effectiveness of regulatory institutions, such as in the field of telecommunications.

2.4.1 Telecom Regulatory Governance

Telecommunications companies today face the ever-increasing burden of managing risk and complying with a plethora of regulations. Specific business challenges include managing capital allocation and expenses to constrain costs, increased competition thanks to consolidation within the industry, the rapid convergence of services and devices, increased regulatory and compliance pressure and the need for effective internal processes and systems. There are five main indicators that can help to measure 'regulatory governance' in any institution or country. These are regulatory transparency, independence, resource availability and enforcement of licenses. Moreover, Waverman and Koutroupis (2011) recommended six main variables to help measure the quality of national telecommunications governance without requiring too large a dataset.

Governments around the world used to own and control their own telecom markets. However, these days many countries around the world have liberalized economic sectors such as telecommunications. According to Alkhasawenah (2009), the adoption of regulations and methods that meet the requirements of the open market has facilitated the establishment of independent national authorities to carry out telecommunications regulatory functions. In theory, the liberalization of the telecommunications sector should have led to a reduction of regulatory intervention, rather than increasing it. This might occur in the long term, but there is an international

consensus that the process of transferring telecommunications markets from a state monopoly to a competitive context requires regulatory controls.

In reality, the transfer of ownership of these networks from the public sector to the private sector (privatization) is the period in which the need for regulation was established in many countries (Alkhasawenah, 2009).

Waverman and Koutroumpis (2011) addressed the issue of how to measure 'regulatory governance' in the telecom sector by using information from individual countries that was presented in the International Telecommunication Union's annual telecommunications regulatory survey. They made use of five indicators for their comparative analysis: regulatory transparency, independence, resource availability, enforcement of licenses and a per capita subcategory. Each one was viewed through the prism of interconnection, licensing and a broad spectrum. The researchers used descriptive analysis to compare the organizations in the study. They tried to show any lack of 'regulatory governance' in certain countries by measuring their political governance. Waverman and Koutroumpis (2011) concluded that countries whose regulatory governance lags behind its general governance should be able to improve telecoms regulations quickly as their economy-wide institutions are already in place. Countries where telecommunications regulatory governance lags behind general political governance may have difficulties in enforcing competition and positive outcomes.

Moreover, policy prescriptions for a number of countries allowed them to improve their telecoms regulation quickly. While, others faced difficulties in enforcing strong competition and positive outcomes because they did not have their own policies.

Martin and Jayakar (2013) created and applied a telecommunication regulatory governance index. These researchers used a descriptive and qualitative meta-synthesis analysis for their study and identified 32 variables to measure governance quality in telecommunication regulatory bodies around the world.

Additionally, they added that it was difficult to measure the quality of governance if they used all 32 variables. Therefore, they selected seven variables that featured in the majority of indices and thus created an index that was not theoretically, but methodologically, optimal. This index makes it easy to measure the quality of national telecommunications governance. The variables are given below:

1. Is the budget of the institution independent from the government?
2. Are institutions members/ heads appointed by the legislature?
3. Are prices set by executives of the institution?
4. Does the institution have enough power over interconnection?
5. Does the institution share regulatory power with the executive?
6. Does the institution report to the executive or to the legislature of the country?
7. Has the institution operated for at least 2 years?

The researchers chose these seven variables as they occurred most often in their analyses of the original 32 variables. They analyzed the correlation between telecommunications sector-specific indices, and more general governance indicators pertaining to government effectiveness, rule of law and regulatory quality. Several of the original indices, as well as most of composites, showed a negative correlation with general governance indicators. Accordingly, the seven variables discussed above are

part of the subcomponent index for telecom regulatory governance that can help us to analyze governance by the TRA.

2.4.1.1 Telecom Regulatory Governance: The Indices

In order to understand telecommunications regulatory governance as expressed by the Waverman and Koutroumpis (2011) index we need to better understand how our analysis of regulatory governance by the TRA was conducted.

This approach presented four major components to make up the index. These are regulatory transparency, independence, resource availability and the ability to enforce decisions (Waverman and Koutroumpis, 2011).

1. Regulatory Transparency

This will focus on the TRA's interconnection, licensing and spectrum activities. The subcomponents are:

- Are interconnection agreements made public?
- Are interconnection prices made public?
- Are operators required to publish references to any interconnection offer?
- Are licensing agreements made public?
- Is there public information on spectrum policy?

2. Independence

This component attempts to measure whether the TRA is acting independently of the executive. The subcomponents are:

- Does the TRA report to the legislature?
- Are members of the board appointed by the legislature?
- Is the interconnection rate set by the TRA or the government?
- Is price regulation controlled by the TRA or the government?

3. Resource Availability

This component measures the availability of resource to the TRA. The assumption is that the longer the agency has been in operation, the more efficient and experienced it will be. The subcomponents are:

- Experience (years of operation)?
- Is the TRA funded by government appropriation or industry fees and consumer levies.
- The status of ownership of the main fixed line operator?

4. Enforcements of Licenses

This component focusses on whether the regulator has been given the power to enforce decisions and penalize operators who infringe their licenses. The subcomponents are:

- Is license revocation possible?
- Are monetary fines possible?
- Is suspension of the license possible?
- Are modifications of the license possible?
- Are additional license obligations possible?

The purpose from the components discussed above is to explain the subcomponents separately in order to analyze the TRA's regulatory governance performance.

2.4.2 Telecom Regulatory Governance: The Public Governance Connection

This research is based on the first two theories (below) identified by Martin and Jayakar (2013). The first is that countries with better [governance] institutions have better telecommunications regulators and secondly, privately regulated firms achieve the same public interest goals as state-owned firms (see Table 2.4).

Table 2.4: Telecom Regulatory Governance: Public Governance

Author/s of Study	Concept Being Measured	Findings
Waverman & Koutroupis (2011)	Regulatory Governance	1) Countries with better [governance] institutions have better telecom regulators
Bauer (2003)	Regulatory Independence	2) Privately regulated firms achieve the same public interest goals as state-owned firms
Mohammed & Strobl (2011)	Regulatory Independence	3) Regulators with operational independence, rather than solely legal independence, from government increased in growth
Ros (2003)	Regulatory Independence	4) Privatization and the establishment of an independent regulator increased teledensity and productivity

Source: Martin and Jayakar, 2013

2.5 Conclusion

In conclusion, governance is a necessary requirement for any country for economic development. Good public governance needs to be participatory, transparent and accountable. It must contain appropriate institutions. Our discussions have highlighted ‘Worldwide Governance Indicators’, whose criteria can be used to measure public governance. For example, ‘voice and accountability’, ‘political stability’, ‘government effectiveness’, ‘regulatory quality’, ‘rule of law’ and ‘control of corruption.’ Waverman and Koutroupis (2011) suggested that TRA governance can be analyzed using five criteria. These were ‘regulatory transparency’,

‘independence’, ‘resource availability’, ‘enforcement of licenses’, and a per capita aspect. All of which contained sixteen essential elements.

The main purpose of examining national public governance and TRA governance in the UAE is to analyze the relationships of public governance with TRA regulation and how effective it is in the UAE. Therefore, the next chapter will focus on telecommunications history, the establishment of service providers, their features, governance and TRA regulations in the UAE.

Chapter 3: Telecommunications Service Providers and Regulation in the UAE

3.1 Introduction

Two telecommunications service providers, Etisalat and Du, serve the UAE telecommunications sector. They are regulated by the TRA in an attempt to create a smooth and fair climate for their business. The purpose of this chapter is to introduce the telecommunications service providers and the regulatory body in the UAE. The chapter is divided into four main sections. First, telecommunications services in the UAE: history and status. In this section, following the history of the telecommunication sector, the status of the current service providers is discussed. The next section (telecommunications service providers: structure and governance) highlights the organizational structure and governance of the two telecommunications service providers. The following section discusses Etisalat and du's services and revenue growth. Finally, the chapter concludes with a section on telecommunications service providers: regulation and control. It outlines the history of telecommunications regulatory systems in the UAE, and deals with the current TRA regulatory system as it impacts upon service providers.

3.2 Telecommunications Services in the UAE: History and Status

This section details the history of the telecom sector in the UAE by explaining the companies, their history, structure and governance. The first part (3.2.1) of the section identifies the major local telecommunications companies in the UAE between 1961 -1976. The discussion then introduces Etisalat as a combination of every telecom company (3.2.2) and, then Du as the second major service provider (3.2.3). This

section ends by describing the TRA and its role as the telecommunications regulatory body in the UAE (3.2.4).

3.2.1 Local Telecommunications Companies 1961-1976

The beginnings of the current telecommunication sector go back to almost 100 years after the first submarine cables were deployed. During British colonial rule all telecommunications were handled through the British Army's wireless network (Emirates Today, 2010). The British presence in the region continued after independence during which the telecommunication sector first came to be with the establishment of the Dubai State Telephone Company in 1960. The first central office was side by side with a British company (Burns, 2010).

The Dubai State Telephone Company was the first telecommunications company in Dubai and was established before the union of the UAE. It established wired and wireless connections and set up communications between the various sheikhdoms – starting with Dubai-Sharjah via wired cables, then Dubai to Abu Dhabi via wireless connections, before expanding to all the Emirates. The Dubai State Telephone Company was able to improve communications with the other Emirates as they each established their own telephone companies:

- Dubai Telephone Company – 1960
- Sharjah Telephone and Electricity Company – 1961
- Abu Dhabi Telephone and Telegraph Company – 1965. Who independently handled all telephone operations and services in Abu Dhabi Emirate
- Fujairah Telephone and Electricity Company – 1968
- Ras Al Khaima Telephone and Electricity Company – 1968 (Emirates Today, 2010)

Even after creating these telephone companies, there were not many services provided because there were only a very few fixed line and telegraph customers subscribing to these companies. The first telephone directory published in 1961 by Dubai State Telephone Company contained only 494 customers (Burns, 2010). However, these services kept developing and the number of subscribers increased significantly to 3,100 in 1969. The speedy process of development included a lot of construction, establishing ministries and companies that owned more than one telephone line, and went hand in hand with a subsequent increase in population. This boom was fueled when the population of expatriates helped to drive the process of development that eventually prompted the government to form Etisalat.

3.2.2 Etisalat 1976-1982

In order to control the quality of the service, Sheikh Zayed Bin Sultan Al Nahayan issued Federal Act No. 1 in 1976 to merge all state telecommunications companies under the umbrella of one corporate entity named Etisalat. In the 'History of the Atlantic Cable and Undersea Communications', Burns (2010) discussed how most telecommunications at that time came from the UK until many territories became independent and their new governments took over the operation of the telecommunication system.

3.2.2.1 Etisalat's Autonomy 1982-1991

The Emirates Telecommunications Corporation launched the Middle East's first mobile network in 1982 (Etisalat report, 2016a). Etisalat new structure meant that it was transformed into a public company with the Federal Government owning 60% of the shares and the other 40% were offered for public trading. The UAE government issued Federal Law No. 1 in 1991 (UAE Gazette, 1991).

This federal act gave corporate rights and power to Etisalat. It was granted the right to provide wired and wireless services within the UAE and at an international level too. According to the act (UAE Gazette, 1991), Etisalat had two main powers. The first one is regulatory power, such as the issuing of licenses for operating or owning telecommunications equipment. The second power is control of the right to give permission for importing and manufacturing telecommunications equipment. Federal Law No.1 (1991) and Federal Act No.1 (1976) complemented each other perfectly in terms of establishing a monopoly in the state telecommunications sector.

3.2.2.2 Additional Services Introduced by Etisalat 1994-2002

In 1994, the first global system for mobile communications was introduced to the UAE (Etisalat Report, 2011). Etisalat launched the Emirates Data Clearing House, one of the world's leading clearing houses, to provide solutions to GSM operators in terms of roaming facilities and Internet services as they were rolled out across the country. Etisalat opened a SIM card factory named Ebtikar, in Ajman, to provide smart card solutions. Moreover, Etisalat was one of the founders of the Thurayya Satellite Communications Company in 1996, which is now the largest contributor to the UAE economy outside the oil sector (Etisalat Report, 2011). In 1998, e-Marine was founded to provide maintenance and services to the growing number of international telecommunications cables passing through the Gulf (Etisalat Report, 2011).

In 1999, Etisalat subscribers exceeded 800,000. The Middle East's first broadband Internet service using the latest ADSL technologies was introduced and in 2002 the number of subscribers reached 2 million as Etisalat developed its mobile network in order to offer GPRS (Etisalat Report, 2011).

In conclusion, the telecommunications sector started with only a few subscribers for their fixed line service, however later when the separate companies combined into one company, they created a large telecommunications company that can provide a varieties of services to millions of customers.

3.2.2.3 Etisalat Structure and Governance

Corporate administrative organization describes how individuals and groups within an organization are organized, coordinated, used, evaluated and appraised. As such, there is a template that can help to govern the firm's operations and how help to decide how the available resources will be used. This template influences the formulation and implementation of business strategies such as successfully facing down threats to the business and also exploiting untapped opportunities. If utilized well this can lead to expansion of the organization or a change in modes of operation and governance in an organization that seeks structural and managerial improvements (Etisalat Report, 2007). Etisalat's organizational structure helps the firm to optimize performance and enhance production. Their management structure has the board of directors and the chief executive officer working separately on different issues that are related to the smooth running of the company (Etisalat Report, 2007).

According to the UAE's corporate governance laws, the board of directors of any company should be independent from the executive to limit any conflict of interest, while enhancing the quality of management. Despite working independently office holders much promote best practice to help their organization achieve its objectives (Etisalat Report, 2007).

Etisalat has a governance structure that promotes better company performance. The structure of Etisalat's governance and its officeholders support a spirit of

excellence by creating and fostering a disciplined relationship amongst the primary stakeholders, most especially shareholders, executive management and the board of directors (Etisalat, 2007). Thus, the company's top executives determine the rights and responsibilities of each staff member and ensure their team has the resources required to perform their roles. Furthermore, this governance systems champions principles of transparency, accountability, and equity through implementing regulations and standards in the UAE that correspond with the best global governance practices. This has created an environment that aligns the company's businesses activities with globally accepted rules and standards that also maintain competitiveness. Trading in securities and transparency are strong pillars in its corporate governance structure (Etisalat, 2007).

Etisalat has adopted a policy called the Etisalat Security Trading Policy that sets out the structure of governance and how official transactions should be carried out. The policy is very comprehensive and incorporates various aspects of company management structure and other roles (Etisalat, 2007). The Etisalat Security Trading Policy takes into account SCA Chairman Resolution No. 7 from 2016 (UAE Government, 2016). The SCA Chairman Resolution No. 7 states how government rules and standards of corporate discipline should be developed and adopted. Through following this policy the Etisalat Telecommunications Group has been able to define its leadership structure and assign its staff various roles to promote efficiency. The policy states how information should flow within an organization and who should give information to the public whenever the firm is required to provide information on performance to stakeholders. The policy also outlines a wide range of rules, regulations, and procedures governing the trading of Etisalat securities in a bid to

protect the rights of the company's shareholders and maintain transparency (Etisalat, 2016b).

The Etisalat Group also has an external audit policy that defines regulations and procedural rules governing an external auditor. Part of the external audit policy comes from the UAE's governance and corporate discipline auditing standards. The policy regulates every matter concerning external auditor. It details the mode of engagement, the roles of each party, how they should execute their mandate and the qualifications that the external auditor should have. Furthermore, the policy defines the professional conduct of the external auditor, including what would disqualify an external auditor from carrying out an independent audit of Etisalat's accounts (Etisalat, 2016b).

According to Figure 3.1, the Etisalat board of directors is the highest decision-making body in the company. The board of directors has a responsibility to supervise how company staff carry out their duties. In addition, they have the authority to reconsider the Etisalat management structure and develop another better structure if that can improve service delivery (Al Mutairi and Yen, 2017). The board of directors can also approve changes in the governance of the firm if that would allow the company to perform better (Etisalat, 2011).

Below the board of directors, three units of governance work hand in hand with the board of directors to enhance performance. These three divisions are the audit committee, nominations and remunerations committee, and the investment and finance committee. Each committee performs specific roles related to Etisalat's operations. The following is a description of the roles played by the three departments (Etisalat, 2011).

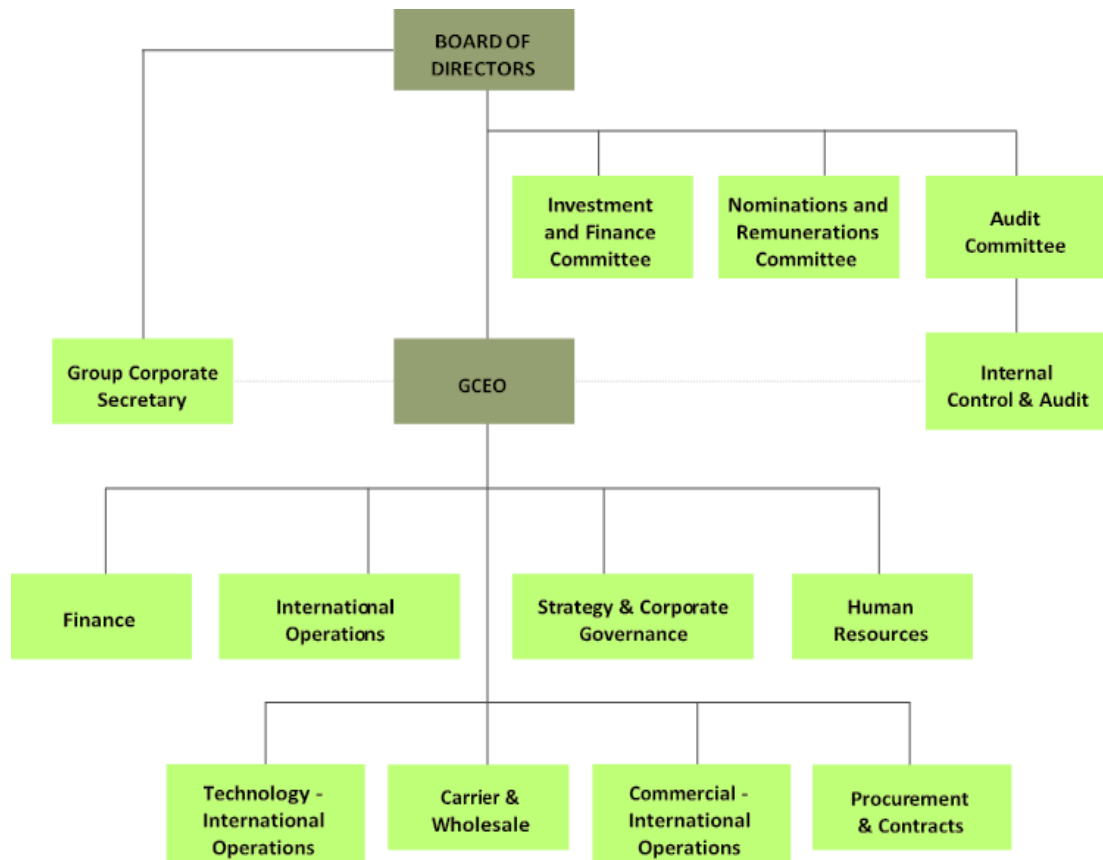


Figure 3.1: Etisalat Organizational Structure
Source: Etisalat, 2007

The audit committee evaluates validity and accuracy. Etisalat is involved in financial transactions with various other companies and has many employees to handle these dealings. Therefore, to avoid improprieties the audit committee must evaluate their performance to ensure the accounting is accurate (Etisalat Report, 2011). The committee is further involved in contracting external auditors and overseeing the auditors work to ensure they are genuinely independent. It is the committee's role to examine Etisalat's financial control systems and their risk management to ensure they can avoid any financial impropriety traps. Etisalat's Internal Control and Audit Department is also under the direct supervision of the Audit and Risk Committee (Etisalat, 2011).

The Nominations and Remunerations Committee set the rules and standards that guide Etisalat's operations related to management and the compensation of workers. The committees ensure the company's compensation structure is productive, competitive and related to the performance of the company (Etisalat, 2011). The department also administers nominations to the board of directors.

The Investment and Finance Committee helps the board of directors to plan and execute activities related to investment. It collaborates with different investment partners with the aim of promoting the company's investment interests. The committee oversees all financial matters fundamental to the company's success (Waverman and Koutroumpis, 2011). The board of directors expects the company to review investment plans and recommend actions to enhance the productivity and return of the investments.

Achieving optimal internal controls and auditing in such a large telecoms company is not easy. The company has developed a three-tier defensive model to protect the company from industrial turbulence (Shahbaz et al., 2016). Various external forces have faced telecom companies in the UAE. Companies need to withstand market forces in order to survive and even thrive in the market. However, those firms with no mechanism to handle turbulent market forces can stumble and fail in such a competitive industry. The three-tier defensive model Etisalat adopted is described below (Etisalat, 2017).

The first line of business protection (also called the front-line business functions protection mechanism) seeks to protect the firm when faced with uncertainties or threats to its existence. The defense mechanism lays out regulations and procedures for various business activities and also business ethics (Samontaray

and Al-Aali, 2016). The front-line business protection mechanism occurs on a daily basis. This approach relies on staff following the accepted modes of doing business. The company has developed business regulations that guide its employees on how to carry out various operations in a manner that protects the corporation from unscrupulous business practices and malicious interventions (Etisalat, 2017).

The internal control function is a second layer of protection from business threats and risk (Etisalat, 2017). This approach entails business risk management and industry compliance requirements. The telecommunications industry is precarious due to the changing nature of technology and high levels of interest from the government, other businesses and other stakeholders in the sector. Etisalat has developed elaborate mechanisms to help the company manage risk (Naimy and Merheb, 2014). Complying with business regulations also helps the company to mitigate these risks. Some of the compliance requirements have been developed by the United Arab Emirates Ministry of Communications. The company has also come up with internal measures and adopted other practices from international guidelines governing the telecommunications industry (Etisalat, 2017).

- The Internal Audit Unit is the last mechanism of defense. The department is under the direct control of the Internal Control and Audit Unit. The department reviews regulations and activities by the company to establish their suitability with the main aim of mitigating risk (Migdadi, 2016). The department identifies potential threats to the business and develops strategies to overcome the risk.

3.2.3 Du as a Second Service Provider

The complete Etisalat monopoly of the UAE's telecommunications ended with the establishment of the Emirates Integrated Telecommunications Company (EITC),

better known under the commercial name ‘Du’ (also nominally called TECOM as part of Dubai holdings in 2005). According to Resolution No. 4 in 2006, the Emirates Integrated Telecommunications Company (Du) is a public joint-stock company. To add to its initially limited structure Du bought all the business related to telecommunications from TECOM in Dubai, Internet City, Dubai Media City and Emaar. du is owned by several companies: 39% of is owned by the Emirates Investment Authority (EIA), 20.08% by Mubadala Development Company, 20% by the Emirates Communications and Technology Company LLC (ETC), and 20.92% by public shareholders after listing on the Dubai Financial Market (DFM). According to the Emirates Integrated Communications Company (2018), du is a privately regulated company.

Du was commercially branded as such in February 2007. Their services include fixed and mobile telephony, broadband connectivity and IPTV services. They sell wholesale products and services, carrier services and to licensed telecom operators. Du also manages a roaming relationship with mobile operators worldwide.

3.2.3.1 Du’s Structure and Governance

The essence of government is to offer services to the people. There are various forms of governance, each with its own characteristics. Du communications developed an administration structure that has enabled it to achieve its goals (EITC, 2016). Du’s system of governance depends on sharing responsibilities between various management stakeholders. Stakeholders in the management of this large telecommunications company include the company directors, the board of directors and various committees. Figure 3.2 represents Du’s governance structure schematically.

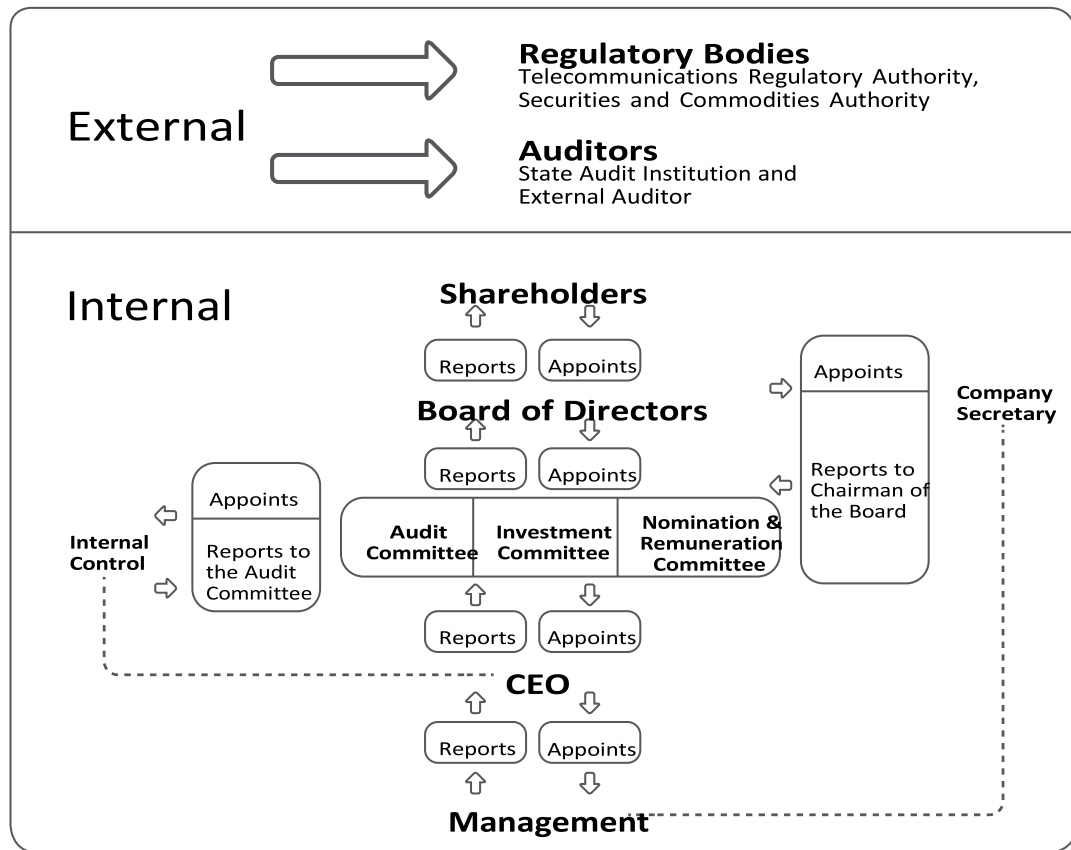


Figure 3.2: Organizational Structure of Du
Source: (Du, 2016)

The Articles of Association, one of the documents prepared during the formation of the company, remains useful in guiding their operations. The Articles of Association listed the Emirates Investment Authority, Emirates International Communications Company LLC and Mubadala Development Company as the founding shareholders and gives them certain influence in running the organization. These three organizations jointly appoint eight representatives to the board of directors (EITC, 2016). The representatives represent shareholder's interest during the daily running of the organization and ensure the organization operates and is organized as per the shareholder's specifications. The representatives must consult the shareholders before making significant changes in the control and organization of the company in order to ensure shareholders know what is going on in the company.

The representatives promote and safeguard the interests of the three majority shareholders. Two members represent shareholder interests and are voted on to the board every three years. Public shareholder equity is less than that of the founding partners and as such represented by only two members on the board of directors. The committee develops and reviews general guidelines related to the company. The board of directors has an independent office holder titled as the secretary to the board. The secretary to the board is responsible for governance and control. The office holder has also to examine and review operational obligations to ensure administrative affairs are carried according to the resolutions of the board (EITC, 2016). The secretary to the council works closely with the Chief Human Capital and Administrative Officer.

The company's audit committee offers advice on how the company should enter into contracts with external auditors. It also evaluates their independence, professional conduct and performance. The Audit Committee must provide the board of directors with an audited statement of accounts when required to do so (Kovacs, 2014). Loopholes in the company's accounting policies and practices are also identified and rectified by the committee. The unit addresses all matters related to the internal control of the company (EITC, 2016).

The Committee on Nominations and Remuneration examines the suitability of board members and their ability to deliberate on the affairs of the company to meet the organization's needs (Ghosh, 2016). This body also reviews the remuneration policy and packages to ensure they are competitive and promote the needs of the company in varying business environments. Grievances related to salaries, bonuses, and incentive schemes are reviewed and resolved by this committee (Waverman and Koutroumpis, 2011). Essentially, this committee supervises the human resources department to

ensure compliance with accepted labor laws and to protect workers' rights and privileges (EITC, 2016).

The internal control units develop and ensure clear execution of regulatory structures to enhance production while complying with various telecommunications governance practices (EITC, 2016). The unit has to monitor company operations to recommend ways of improving them.

In conclusion, both service providers have governance structures to promote better performance in each respective company. Etisalat's corporate governance sheds light on aspects of governance related to the board of directors and its committees in term of their functions, powers and responsibilities. It also highlights the role of the executive management team. On the other hand, Du's systems of governance depend on the sharing of responsibilities amongst various management stakeholders. Stakeholders in the management of this large telecommunications company include the company directors, the board of directors and other committees. The following section will concentrate on the growth of both of these service providers.

3.3 Etisalat and Du's Growth

According to the Regulatory Department of the TRA, Du performed better than Etisalat during the first ten years after both service providers entered the market. From 2007 to 2017 the Du's fixed services increased by 1821% compared to only 33% at Etisalat. Du's mobile service growth reached 639% compared to Etisalat's growth of only 69%, and Du's Internet service growth stood at 1180%, compared to Etisalat's figure of 288% (see Table 3.1).

Table 3.1: Service Providers Growth

Years	1968			2007			2017			% of Growth (2007 - 2017)		
	Fixed	Mobile	Internet	Fixed	Mobile	Internet	Fixed	Mobile	Internet	Fixed	Mobile	Internet
Etisalat	3,100	-	-	1,341,691	6,382,439	284,605	1,784,802	10,784,669	1,105,583	33%	69%	288%
du	-	-	-	27,908	1,2,675	19,000	536,035	9,041,555	243,176	1821%	639%	1180%

Source: prepared by the researcher from data gathered from the TRA (2007-2017)

Table 3.2 shows that Du's income was greater Etisalat's in the first ten years of operation. Du's revenue increased by 767% to 2017, compared to Etisalat, whose revenue increased by 46% over the same time period. This suggests that Du achieved the government target of increasing service provision in a very short time.

Table 3.2: Etisalat and Du revenue analyses (in billions of AED)

Revenue	Etisalat	EITC (Du)
2007	21.3	1.5
2017	31.2	13
Growth in 10 years (%)	46%	767%

Source: prepared by the researcher from data available from the Etisalat and EITC annual reports (2007-2017)

3.4 Forming the Telecommunications Regulatory Authority 2003

The TRA is the statutory body responsible for the regulation of the telecommunications sector in the UAE. The TRA regulates the sector according to its government mandate (UAE Government, 2003). The TRA's regulatory framework

aims to create an appropriate set of regulatory instruments to enable the UAE to reach its telecommunications objectives. The TRA's responsibility covers various areas of regulation such as consumer protection, allocation of scarce resources (spectrum and numbers). In addition, the interconnection of licensed networks ensures that you can reach any subscriber regardless of where they are and whom they are getting their services from. Also, it ensures the use of approved telecommunications devices, licensing and competition safeguards to act as a regulator in a market that would not necessarily be competitive on its own. The TRA's regulatory framework consists of a variety of regulatory instruments.

The governing body has the power to issue executive orders directing how telecommunication companies operating in the United Arab Emirates should carry out their functions. The regulatory authority enacts regulations and guidelines related to the operations of telecom companies. The cabinet approves the regulations promulgated by the regulatory authority before they become effective. This organization also has the power to initiate the process of establishing legal entities that can oversee telecommunications operations. The Telecommunications Regulatory Authority also has the power to set prices for telecommunications products. Any telecom operator in the United Arab Emirates must seek certification and approval from the TRA before starting operations (Waverman and Koutroumpis, 2011). Telecom companies that contravene operational procedures can have their certificates of operation withdrawn.

The Telecommunications Regulatory Authority has also helped the United Arab Emirates to make radical changes in its telecommunication industry since its inception. Communications continues to evolve with the development of more and

more modern technologies (Migdadi, 2017). The TRA has thus guided the nation in adopting regulations that promote the growth of the telecommunications sector. This government body benchmarks how the telecommunications sectors in various countries are performing with the aim of borrowing best practices and enabling the United Arab Emirates to develop its own telecommunications systems up to global standards (Shahbaz et al., 2016). The Telecommunications Regulatory Authority is credited with promoting competition in the industry by enabling the set-up of Du Communications as a second telecom operator in the United Arab Emirates (Shahbaz et al., 2016).

Etisalat had previously monopolized the telecommunications industry. However, by enabling the entry of a second operator, the industry has become competitive as the two companies compete in the marketplace. This results in better services for consumers. Consumers now have more options and can switch service providers if they felt they were not getting value for their money (Al Mutairi and Yen, 2017).

The regulatory body has helped the nation become a leading country in the Middle East in terms of the technologies related to the telecom sector. It has created industry structures that promote innovation and excellence, which did not exist before the creation of the authority. Both consumers and service operators have benefited from the establishment of this organization (TRA, 2017a). Consumers can benefit from increased competition now that another telecom company has been established. The TRA has also been active in determining prices with a view to protecting consumers from unscrupulous telecoms operators (Waverman and Koutroumpis, 2011).

Telecommunications service providers have also benefited since the authority issues license to operators who must not promote unethical or unfair competition if they wish to retain their license. It has also developed guidelines for telecoms operations and helped with the adoption of the latest technologies. For example, the new spectrum management system they launched was the first of its kind in the Middle East region. This system is the second most recent and most potent in terms of spectrum management (Samontaray and Al-Aali, 2016). It has thirteen stations that can cover the entire United Arab Emirates efficiently and provide secure, reliable, fast and cheap communication. Without the efforts of this organization, some of the achievements and milestones that the United Arab Emirates communication sector has enjoyed would have remained elusive.

3.4.1 TRA: General Governance Principles

A set of principles guides any system of governance and guiding principles determine how leaders carry out their responsibilities and influence relationships with other stakeholders. The Telecommunication Regulatory Authority of the United Arab Emirates is guided by a set of governance principles that determine how the institution executes its mandate. The regulations are designed to ensure that the organization regulates the telecommunications industry better and creates an enabling environment where service providers can thrive, while ensuring customers are well served. The TRA operates on principles of transparency, integrity and value. Openness guides the conduct of the organization and integrity ensures the accountability of the organization is above reproach. All staff must demonstrate high moral standards while carrying out their official duties. They must not be unduly influenced in decision-making by other parties.

All the decisions made must promote the interests of the industry and ensure the delivery of better services. Customers should enjoy quality services at reasonable prices. The government has also invested a lot of resources in the TRA with the aim of enabling it to perform more effectively. The TRA, therefore, must utilize its resources to ensure that the telecommunication industry is better regulated and supervised (Kovacs, 2014). The authority has an internal governance policy that requires it to be accountable to the public, to service providers and to the government. The institution is open to scrutiny from all stakeholders. Its leaders, therefore, must operate in a manner that promotes the confidence of stakeholders. Every decision should be justifiable.

3.4.2 Telecommunications Regulatory Authority Organization Structure

According to Figure 3.3, the chair of the board of directors has the responsibility of ensuring the board is continually reviewing TRA processes and fulfilling the governance expectations of the corporation. In addition, the chair must also be aware of further developments or opportunities in the field to help the corporation increase production, improve quality, service, management and profits.

The board is responsible for the eight main components laid out as the TRA's corporate governance expectations, roles and responsibilities. These include the creation and maintenance of a strategic plan, annual budgets and project initiatives. The board must also monitor the performance of the Telecommunications Regulatory Authority. It reviews how the organization supervises the industry. The organization has to consider key performance indicators, which include the board of directors' roles and responsibilities, thus ensuring the organization is effective in discharging its mandate. The board also ensure that financial statements are accurate and that public

resources are used prudently. Similarly, the board of directors follows up on reports submitted by committees and makes sure recommendations are implemented. The various committees have roles, rules, authority and principles that they must follow (TRA, 2009a). These committees must report regularly to the board and the board will evaluate the individual committee's performance, making sure their behaviour adheres to the relevant TRA corporate governance regulations.

The secretariat runs the board. The secretariat's main responsibilities are to first, supervise technical, financial and administrative duties related to the board's agenda. Secondly, the secretariat monitors how programs and decisions approved by the board are progressing, and coordinates objectives and plans. In board meetings, the secretariat is responsible for sharing any directives with the concerned parties (TRA, 2009a). It also takes and distributes minutes to other board members.

Finally, the Secretariat is responsible for taking financial, budget and minuted actions as laid out by the board's governance structure (Figure 3.3). The secretariat also monitors and provides incentives to those responsible for the company's strategic and action plans. This means collating any findings, reports or updated information into the regulations and disseminating them.

Within the corporate governance structure, the board must:

- Approve risk management frameworks as laid out by the Telecommunications Regulatory Authority. They shall identify, analyze, treat and monitor community risks.
- Review and approve risk management frameworks, regulations, procedures, and risk matrices.

- Write risk management into the strategic plan and any other corporate planning processes.
- Hold an internal audit to evaluate and improve risk management effectiveness and governance processes. The Telecommunications Regulatory Authority assigns internal auditors; they must be objective and provide crucial insightful information to the board.
- As per the ICT Fund, ideas are collected as to how the corporation can help the UAE's ICT sector grow. This includes sharing of knowledge capital within the industry, while providing funding to those corporations with new ideas in need of development.
- Work with the Telecommunications Regulatory Authority Director-General to follow through resolutions as they pertain to internal regulations, procedures and corporate strategies under the direction of the board (UAE Government, 2003).
- Utilize the Corporate Development Director to ensure ongoing strategic planning that meets the Telecommunications Regulatory Authority's expectations that such plans will be actionable, have measurable goals, strategies, initiatives and programs. The CDD must follow a model of excellence in implementing its plans.
- Utilize the International Affairs Director to represent and negotiate any international business related to the industry. The IAD will work closely with the Director-General and deputy directors to ensure agreements, treaties, conventions, and the promotion of the TRA's activities with the relevant sector whether regionally and/or internationally.

- Stay abreast of issues that arise between the Legal Affairs Department and senior management. Evaluate the legal impact of decisions made by those in authority, propose laws and regulations to the telecommunications industry and help to make sure those in power assist in drafting new legislation.

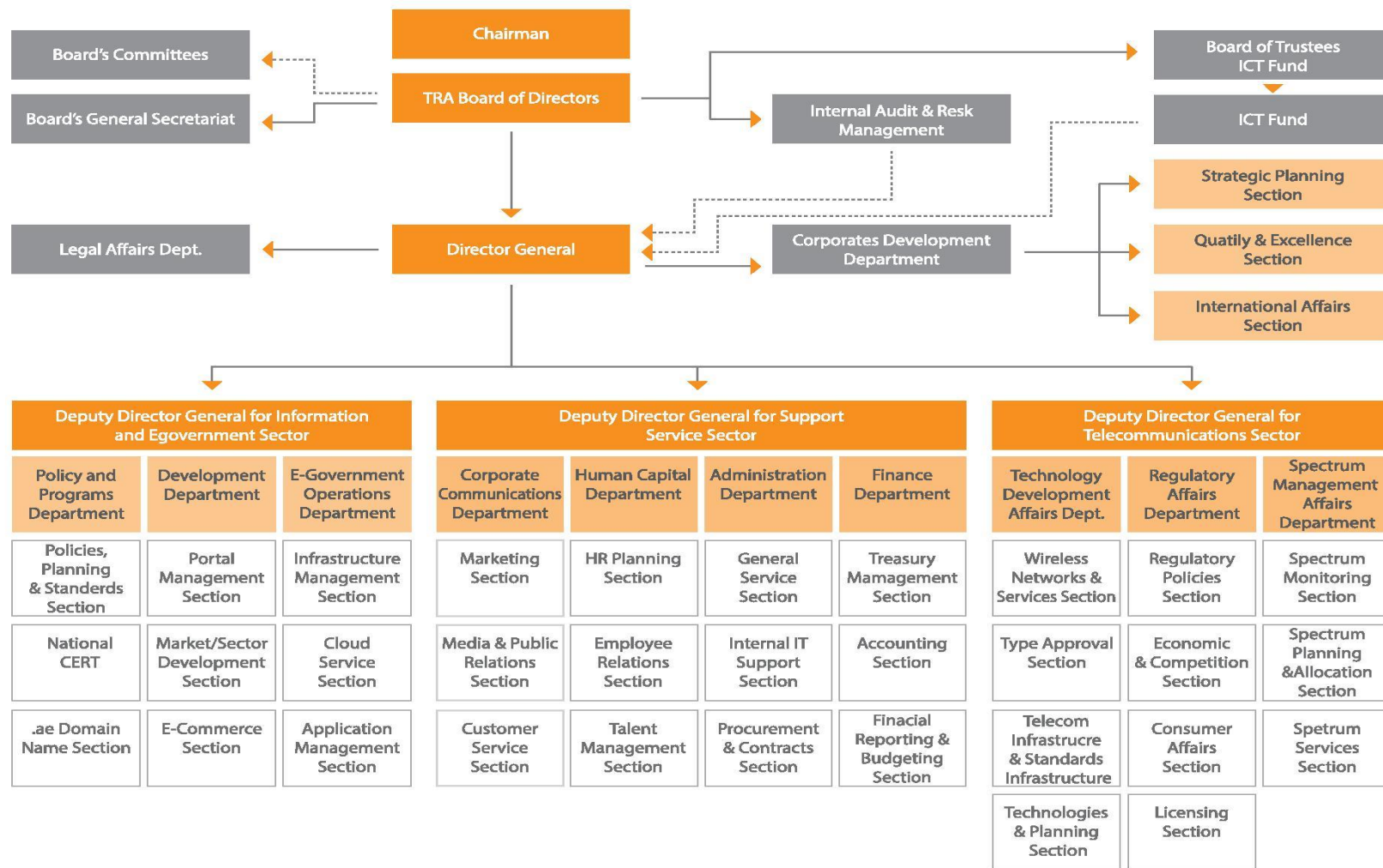


Figure 3.3: Telecommunications Regulatory Authority Corporate Governance Structure
Source: TRA, 2009a

3.4.3 Telecommunications Regulation for Service Providers

The Telecommunications Regulatory Authority has developed a regulatory framework that enables it to perform its functions effectively. Regulatory frameworks developed by the organization conceptualizes the United Arab Emirates telecommunications industry and develops ways to enhance the quality of services and the adoption of the latest information technology equipment. The telecoms industry regulatory body seeks to make the United Arabs Emirates a local information, communication and technology hub. It compares the performance of the nation's telecommunications industry with that of its neighbors. It goes further and compares the industry with that of developed countries to identify what needs to be done going forward.

Service providers have hailed the organization for its active role in benchmarking developed telecom industries and sharing the experience with local service providers to equip them to offer better services. In terms of its regulatory role the authority also deals with cases of dispute over the rules related to interconnections. Operators involved in such a dispute should refer to the formal dispute resolution mechanism, administered by the TRA (TRA, 2014). Competition is one important regulatory role in this sector. The purpose of the regulatory policy is to establish ex-post competition safeguards in the UAE's telecommunications sector. Together with the existing ex-ante regulation already in place, and those that may be introduced in the future, the ex-post rules introduced in this policy, will provide a comprehensive regime of competition regulation. The application of ex-ante and ex-post remedies involves similar basic principles and economic and legal concepts as well as an analysis. Consumer disputes (the TRA handles consumer disputes after a consumer

complaint has been handled by a licensee) may be submitted to the TRA. The TRA will assess the dispute, and if the TRA considers the submission to be warranted, complete and appropriate it will correspond with the concerned licensee on behalf of the consumer (TRA, 2014)

Moreover, the TRA deals with issues between providers (TRA, 2009b). For example, according to a TRA report, one service provider produced an advertisement detrimental to the other service provider, who submitted a complaint and ultimately the TRA issued a violation notice.

Furthermore, the TRA (TRA, 2012) issued report to maintain its values of transparency and act in accordance with best practice. The TRA also wishes to engage stakeholders in the regulatory decision-making process as it acknowledges that the regulatory decision-making process may benefit from taking into account a wider range of views and information. Consultations are therefore intended to enhance the decision-making process through the transparent, active involvement and contributions of other parties who have a legitimate interest in the matter at hand. By ensuring that interested parties can express their views, the decision-making process is better informed, more robust and more accountable. This regulatory instrument sets out details of the manner in which the TRA will conduct both public and closed consultations in order to involve stakeholders and other invitees in the regulatory decision-making process. These Procedures are followed by the TRA for any given consultation (TRA, 2012)

Finally, Etisalat had to provide national roaming services to the operator of the second mobile license. As specified in its license (TRA, 2005), Etisalat was obliged to provide national roaming services in geographic areas not covered by the second

mobile licensee during its mobile network rollout. The TRA informed both licensees regarding Etisalat's requirement to offer national roaming services.

3.4.4 The Telecommunication Regulatory Authority's Performance and the Relationship of the Service Providers

To keep up with the continuous growth of the telecommunications sector and the development of new services, the Telecommunications Regulatory Authority issued regulations related to Telecom law. No 3 (2003). Such regulations help to enhance the TRA's ability to manage and control service providers and achieve efficiency. The licensee or operator shall implement all regulations issued by the Telecommunications Regulatory Authority (TRA, 2017a). Failure to obey these obligations will cause the TRA to administer penalties (Naimy and Merheb, 2014). The published guidelines are transparent and accountable to ensure the reforms are put into action. The Telecommunications Regulatory Authority's responsibility covers various areas of the regulatory framework such as consumer protection. Regulations have been strengthened to ensure that customers are satisfied with the quality of service they receive. Better services also reduce the number of complaints from consumers. (TRA, 2017a).

The TRA requires service providers to make clear the terms and conditions of their services. Customers should be informed of the amount charged for various services, if there are any discounts and what percentage, the amount of time they will enjoy a service and other benefits associated with the service they are being offered. Consumer protection rules prompt service providers to keep a record of consumer consent as well. These records are vital in case of disputes involving consumers and service providers. Approval for payment can only be ascertained after the consumer

has received sufficient information related to the service. In case of a dispute between a service provider and consumers, the Telecommunication Regulatory Authority states that the service provider should be held liable (Samontaray and Al-Aali, 2016). The TRA further mandates service providers to monitor and control the use of third-party mobile applications. Service providers are required to liaise with the developer of the application on behalf of consumers and ensure they do not have any content that poses a security threat to users.

According to the TRA (2006), effective interconnection is necessary for telecommunications market competition. It enables telecom operators to access another network. For the providers of this access, costs, security, and a governing framework must be taken into account. To ensure interconnection, the provider must allow access under non-discriminatory terms, where all operators, including its own, enjoy the same service quality, technical standards, and rates. Also, this access should be promptly supplied after the initial request. The procedures for interconnection arrangements are available to all users, usually in the form of an interconnection offer, or via a directive, as is the case in the United Arab Emirates (Shahbaz et al., 2016). In any dispute related to interconnections, operators involved in such a disagreement should refer to a formal dispute resolution mechanism, administered by the Telecommunications Regulatory Authority. In the case of the United Arab Emirates, the Telecommunications Regulatory Authority has published interconnection dispute resolution procedure on their official website.

The TRA is the statutory body responsible for the regulation of the telecommunications sector in the UAE. The TRA enacts regulations and guidelines related to the operation of telecommunications. Moreover, the TRA utilize its

resources to ensure the telecommunication industry is better regulated and provides the best possible services for customers.

3.5 Conclusion

This chapter showed how the telecommunications sector developed in the UAE. It started with telecom companies in every Emirate then went to having only one service provider (Etisalat) handling all telecom matters. After that, a new service provider (Du) was introduced. The chapter then discussed the performance and services growth of both service providers. Finally, the chapter introduced the TRA's role as a regulatory body regulating service providers in the UAE. This illustrated the TRA handling service providers by publishing and controlling both through regulation. The next chapter will explain national governance in the UAE, and its relationship to regulatory governance. This will involve interviews with TRA management and an analysis of the laws and regulations provided to the service providers.

Chapter 4: Public Governance and Telecommunications Regulation in the UAE

4.1 Introduction

Public governance in a country influences regulatory governance. Government accountability and commitments ensure public institutions perform their duties according to accepted standards that shape the regulatory body's conduct (see chapter 2; Stern and Holder, 1999). The Telecommunication Regulatory Authority in the United Arab Emirates was formed to help the government regulate telecommunications activities in the country in order to ensure compliance with accepted standards. As the regulatory body seeks to execute its mandate, it has to be guided by public perceptions and rules (Waverman and Koutroumpis, 2011).

The purpose of this chapter is to explain the UAE's governance by looking at worldwide governance indicators and criteria from the global competitive index. Then the chapter will discuss regulatory governance in the UAE to analyze the relationship between the two. This Chapter has four sections. The first section, referring back to Chapter 2, deals with the features and quality of the UAE's public governance in terms of 'voice and accountability', 'political stability', 'government effectiveness', 'regulatory quality', 'rule of law' and 'control of corruption'. We will highlight the institutions, regulations and practices in terms of the above criteria. Compliance with these standards makes the UAE among the best in the world for governance. The second section is primarily based on face-to-face meetings with selected management personnel from the TRA. This greatly assisted in analyzing the TRA's regulatory governance performance. The analyses revolve around 'regulatory transparency', 'independence', 'resource availability' and 'enforcement of licenses.'

The third section examines the performance of telecom regulators by reviewing the established regulations and procedures that the TRA transmits to the service providers. This will be based on seven variables that emerged from the interviews with senior TRA management.

4.2 Features and Quality of UAE Public Governance

Chapter two analyzed worldwide governance indicators. This section will highlight the current status of UAE governance in terms of these six indicators. That is, ‘voice and accountability’, ‘political stability’, ‘government effectiveness’, ‘regulatory quality’, ‘rule of law’ and ‘control of corruption.’ Based on these criteria, we can see that UAE public governance has improved over the years to now be among the best in the world. The evidence shows that the quality of the UAE’s public governance improved because of better performance in many individual criteria.

Moreover, according to WEF’s (2017), worldwide governance indicators the UAE ranked 18th for ‘voice and accountability’ out of 203 countries. In terms of ‘political stability’ and absence of violence the UAE ranked 67th. In ‘government effectiveness’ the UAE reached number 90 in 2017. The rank for ‘regulatory quality’ in the UAE stood at 80 in 2017. For ‘rule of law’ the UAE ranked 77th in 2017. Finally, the governance indicator for ‘control of corruption’ placed the UAE at number 82.

The WJP (2019) Rule of Law Index measures adherence to the rule of law in 113 countries (based on more than 110,000 household and 3,000 expert surveys). The WJP index measures ‘rule of law’ performance across eight factors: constraints on government powers, absence of corruption, open government, fundamental rights, order and security, regulatory enforcement, civil justice and criminal justice. The United Arab Emirates rose one position from 33 in 2016 to 32 out of 113 countries in

the 2017 edition. Its score places it first out of seven countries in the Middle East and North Africa region for 'rule of law' and 30th out of 35 high-income countries.

The UAE is among the best in controlling corruption in the public sector. A country's score indicates the perceived level of public sector corruption on a scale of 0 (highly corrupt) to 100 (very clean). The United Arab Emirates scored 71 points out of 100 on the 2017 Corruption Perception Index with an average score of 64.20 points from 2003 to 2017. The highpoint being 71 Points in 2017 (Transparency International, 2017).

In conclusion, based on World Bank indicators, the Global Competitiveness Report, the World Rule of Law Report, and Transparency International, the UAE has good national governance. Following Waverman and Koutroumpis's (2011) index, the next section analyzes regulatory governance in the TRA by looking at its characteristics and performance in terms of 'regulatory transparency', 'independence', 'resource availability' and 'enforcement of licenses.'

4.3 Telecommunications Regulatory Authority: Regulatory Governance Performance

According to Waverman and Koutroumpis (2011), regulatory governance can be understood by analyzing 'regulatory transparency', 'independence', 'resource availability', 'enforcement of licenses' and 'per capita income.' Per capita GDP is a key measure of a country's wealth.

Waverman and Koutroumpis (2011) stated that GDP measured for general resource availability is required to distinguish between countries at a general level. According to the UN Statistics Division (2017), the GDP per capita of the United Arab Emirates in 2017 was \$40,699. With a high GDP per capita the UAE is likely maintain

an effective regulatory body. Therefore, the following discussion will concentrate on the first four criteria.

In this Section, the performance of the UAE Telecommunications Regulatory Authority (TRA) will be analyzed on the basis of the first four criteria discussed above. The performance of the TRA will be explored through interviews with the heads of departments at the TRA and by analyzing laws related to the provision of telecommunications services in the UAE. The main discussion, precedes a description of the main aspects of each criteria (see chapter 2). The analyses are concerned with ‘regulatory transparency’, ‘independence’, ‘resource availability’ and ‘enforcement of licenses.’ The discussion of each criterion is divided into three parts. The first part recaps the main features and references the literature. The second part then analyses the relevant responses of the interviewees and also analyses regulatory governance performance. The analyses are based on criteria relevant to the TRA. Finally, a conclusion is reached for each criterion based on observations from and discussions with the TRA officials. However, before the analyses, the process for collecting information and evidence is detailed below.

4.3.1 TRA Governance Performance: A Brief Description of the Interview Protocol

As above, to analyze TRA governance performance, six semi-structured interviews were conducted. This allows for qualitative observations backed by published data on the regulatory performance of the TRA. It allowed for an evaluation and explanation of the TRA’s governance performance. The interviewees included heads of department and directors from the TRA. They were variously responsible for legal, spectrum and licensing issues and had knowledge of the regulations and

procedures used to tackle issues relating to the service provider, competition and consumers. Interviewing managers who work in similar contexts was vital for the data analysis, as this allowed the researcher to draw conclusions about the context that influences their regulations. This context was particularly important due to the research objectives contained herein. Along with the targeted interviews, the researcher analyzed connection regulations, regulations provided to service providers and the governance systems of the TRA.

To conduct the interviews, the researcher collated themes from the literature on Telecom governance that matched the research questions. Then, the researcher compiled questions and contacted six TRA officials to invite them to participate in the interviews. I explained the focus of the interview and the type of questions.

The researcher was particularly keen to pose questions derived from the respondents' initial answers that were relevant to 'regulatory transparency', 'independence', 'resource availability' and the 'enforcement of licenses.' Furthermore, in order to avoid any researcher-bias the questions were framed as being 'How important' rather than asking the questions directly as in 'How is'.

The researcher assured the interviewees of anonymity. The responses are available in Appendix B. Even though the researcher explained the purpose of the interview, a full understanding of the purpose of the research was only achieved after the researcher took the respondents through the consent document and promised not to misuse any information. The interviewees were helpful and thorough. Each interview lasted around five hours split over two sessions.

The interview guide used is available in Appendix A. This guide was based on Waverman and Koutroumpis (2011), and Martin and Jayakar (2013). Some

supplementary questions (as appropriate) were added about the current status of UAE laws, their application and other practices related to each criterion. Question wording was adjusted by the researcher to suit the UAE telecom context and to help interviewees respond easily. Supplementary questions were helpful in analyzing TRA regulatory governance in an authentic manner.

The questions in the guide helped to analyze regulatory transparency as it concerned interconnection services, the independence of the TRA, resource available with regard to the funding of the TRA, and the enforcements of Licenses. We were seeking to understand the levels of compliance of the service providers to these regulations. The interviews were used to gather information about the respondents' experience and insights in their particular department. Moreover, data collected from these interviews was used not only to understand the 'how' and 'what', but also to place more emphasis on exploring the 'why'. Building on these findings the empirical data available was analyzed. The supplementary questions added are shown in Appendix A. The discussion and observations about each separate criterion are summarized below.

4.3.2 Regulatory Transparency in the TRA

According to Bertolini (2006), transparency refers to being open and transparent across all aspects of regulation. Managing the different and often conflicting interests and expectations of stakeholders, the government, consumers and service providers is a demanding task for the regulators. A core principle of good regulatory governance, transparency creates credibility in regulatory decision making and helps to foster sustainable investment. Good regulatory governance really matters, and is recognized through accountability that makes the regulatory system appear

transparent in the eyes of stakeholders. This also helps to attract investment and enhance the benefits of public policy. Regulatory transparency has evolved over time to fill three primary needs. First, it is to reassure investors. Secondly, it builds legitimacy around sensitive decisions. Third, it reduces corruption by requiring regulators to publish and justify their decisions, and helps to ensure that they will reach well-reasoned decisions and reduce corruption and the suspicion of corruption.

According to Waverman and Koutroumpis' (2011) index, 'regulatory transparency' relates to the publishing of 'interconnection agreements', 'interconnection prices', 'reference interconnections', 'licensing agreements' and 'spectrum policy' (Appendix A). The respondents' opinion of each component is discussed below.

4.3.3 Regulatory Transparency in the TRA: Respondents' Views

The responses regarding interconnection agreements had to deal with three subcomponents, that is interconnection agreements, interconnection prices and publishing of the reference offers (RO). Interconnection agreements are fundamental to interconnections and interoperability between operators. If the licensing environment is open, it is vital to make it public in order to ensure that all eligible licensees can access the agreement and thus ensure that no discrimination is taking place. This is a part of a transparent environment and prevents discrimination. Transparency and non-discrimination are two of the fundamentals for regulation in an environment where the regulator enforces competition mechanisms that were not present historically. In the context of the UAE however there is no open licensing environment, and licensed telecom operators must comply with a strict regime determined by state policy. Hence, there is no need to publish reference offers (RO)

and interconnection agreements (ICA) as the need for transparency is restricted to those eligible for interconnection. Interconnection prices are also fundamental to interconnections and interoperability between operators.

Additionally, the publication of licensing agreements serves a different purpose from interconnection and is related to the ROs and ICAs. The publication of licensing agreements may only serve to inform the relevant licensees about the scope of their license. This depends on what the scope and nature of the licensing agreement is. In addition, it is important for licensing agreements to be made public in order for operators and spectrum users to understand the regulatory regime and to make informed decisions. Furthermore, according to the responses the TRA sets the rates for interconnection services in those instances where the licensees fail to agree. The Telecommunication Regulatory Authority regulates the rates in a transparent manner. The regulatory framework is publicly available which means that the information is open and accessible. Moreover, service providers are engaged in achieving regulatory transparency through consultation procedures with the TRA that involve stakeholders and invitees in the regulatory decision-making process.

4.3.4 Regulatory Transparency in the TRA: Laws and Regulations

The respondents were asked two supplementary questions that sought out information about the laws and regulations relating to regulatory transparency in the UAE. The questions was whether there was any other method, fact, or criterion in the UAE's regulatory system (in telecommunication or otherwise) that falls under 'regulatory transparency'? And, if there was any other method, fact, or criterion in the UAE that can, or should, be used to judge regulatory transparency (Criterion1:

Appendix A). The discussion below is based on these responses and a review of the respective laws and regulations in the UAE

The laws and regulations regarding interconnection agreements have two subcomponents: interconnection prices and publishing the reference offers (RO). As far as publishing information on interconnectivity, as the UAE is a member of the World Trade Organization (WTO) it signed the agreement on Basic Telecommunications Services in 1996, and as a result has been working towards liberalizing the service sector and enhancing competition. In article III of the agreement, each member shall ensure that relevant information on conditions affecting access to and use of public telecommunications transport networks and services is made publicly available. This includes tariffs and other terms and conditions of service; specifications for technical interfaces such as networks and services; information on the bodies responsible for the preparation and adoption of the standards affecting access and use; the conditions applying to the attachment of terminals or other equipment and notifications, registration or licensing requirements.

Furthermore, according to the UAE Government (Article 14, 2003), authority shall have the competence to issue licenses in accordance with the provisions of the law, as well as issue regulations, instructions, decisions and rules. Similarly (UAE Government, Article 14, 2003);

Anything related to the use and interconnection of telecommunications networks and telecommunications services provided by licensees, co-location and sharing of infrastructure by such licensees, including the special conditions for costs of such interconnection, access, site-sharing, time scales principles for negotiations and completion of agreements between concerned entities in relation to the foregoing matters. It shall also issue dispute

resolution regulations to resolve disputes between parties to such agreements.

The interconnection of licensee's networks is designed to ensure that anyone can reach any subscriber regardless of where they are and whom they are getting their services from (TRA, 2006). The agreement also ensures the use of approved telecommunications devices, licensing and competition safeguards, and regulation of a market that would not be competitive on its own. Moreover, it guarantees the interconnection of and access to telecommunication networks and services provided by the licensees, and the co-location of assets and sharing of infrastructure by these licensees (including the terms, conditions and prices), access, co-location and sharing (TRA, 2006).

Effective interconnection is necessary for the telecommunication market to be competitive. It enables telecom operators to access another network. For the providers of this access, issues such as costs, security, and a governing framework are carefully considered. When it comes to publishing ROs, the Telecommunication Reference Paper sets six key principles that should govern any basic telecommunications market. The procedures for interconnection arrangements are not always publicly available due to legal issues, usually in the form of a reference interconnection offer (RO) or are contained within a directive, as in the case in the UAE. In the case of a dispute over the rules related to interconnections, operators involved in such a dispute should refer to a formal dispute resolution mechanism, administered by the regulatory authority or another independent domestic body. In the case of the UAE, the Telecommunication Regulatory Authority published their Interconnection Dispute Resolution Procedure in its 2018 report (TRA, 2018). It included the procedures for disputes between licensees

arising in relation to formal negotiations between licensees concerning an interconnection and/ or access agreement. These can include agreements related to site, infrastructure and/ or facility sharing, and the operation of any interconnection and/ or access agreement.

In terms of licensing agreements, the Telecommunication Reference Paper sets six key principles that should govern any basic telecommunications market. WTO (2006) subcomponents (4) refers to the public availability of licensing criteria: the word 'license' represents the act of permitting something to happen, but in the scope of this paper, it is a certificate issued by the government for the purpose of controlling entry into the telecoms market.

The appropriate use of a licensing regimes is necessary in order to maintain service standards and make best use of scarce resources in an effective manner. However, licensing should not be a barrier to market access or natural competition. Therefore, this paper places the responsibility on the signatories to make information publicly available. These are the licensing criteria, the period of time to grant a license and finally, the terms and conditions for the Licensees. They should also explain the reasons for denying an application if requested to do so. Moreover, it mirrors the spectrum policy, which is available through the TRA. Also the TRA (2016) amateur regulation lays out technical regulations for the authorization and operation of an amateur radio.

According to the UAE government (Article 1, 1971), officials shall publish all the legislation issued by the state and every decree, decision, order, statement, agreement or any other document emanating from the competent authority of the state. Other publications from public organizations or private persons may also be published

after payment of a fee determined by the General Secretariat of the Federal Council of Ministers. This suggests that having public information available on a wide spectrum is of utmost importance for operators and spectrum users alike in order to understand the regulatory regime and make informed decisions.

In conclusion, the UAE's laws and TRA regulations do not allow for publication of reference offers (RO) and interconnection agreements (ICA). On the other hand, licensing agreements and spectrum policy are published and available to all.

4.3.5 Regulatory Independence of the TRA

According to Waverman and Koutroumpis' (2011) index, regulatory independence is connected to the regulatory governance performance of the entity. Regulatory independence measures whether the authority is acting independently of the government executive by assessing its reports to the legislature, its ability to appoint members of the board, its authority to set interconnection rates and also its authority to set price regulations (Criterion 2, Appendix A).

4.3.6 Regulatory Independence of the TRA: Respondents' Views

According to the respondents, the TRA has its own powers and responsibilities under public law. The TRA has to report to the legislature on how it develops and implements regulations related to the telecoms industry. The TRA has to file a periodic report to the government detailing the performance of the industry, which allows it to make recommendations or take action that will make the telecom industry more competitive. Moreover, the government appoints and approves members to the board

of the TRA. Appointments and approval by the legislature helps to ensure equality and promote competency in the management of its affairs.

If licensees cannot agree to a reciprocal rate for interconnectivity on their own the TRA will intervene. However, the advantages of operators setting rates themselves is that they fully understand the costs of their business better than the regulator. However, if this is not possible because of unequal bargaining power, then it is important that the regulator has the mandate to step in and set rates based on the information provided by the operators from their economic cost models.

Therefore, to achieve price regulation licensee shall submit a price control request (PCR) to the TRA. The submission of a PCR must be in accordance with the original PCR and a corresponding transmittal letter that is delivered as specified by the TRA. The TRA then determines whether to accept or reject a PCR. The rejection of a PCR may be based on the form, format or manner of its submission as well as any relevant public interest considerations.

4.3.7 Regulatory Independence of the TRA: Laws and Regulations

According to Waverman and Koutroumpis (2011), regulatory independence attempts to measure whether an authority is acting independently from the government executive. It measures its reports to the legislature, the ability to appoint board members, the authority to set interconnection rates and the authority to set price regulations. The discussion below is based on the respondent's answers to the supplementary questions on laws and regulations (Criterion 2, Appendix A) and a review of relevant laws and regulations in the UAE.

According to the UAE government (Article 22, 2003), the authority shall be exempt from the control of the Audit Bureau as set out in Federal Law No. 7 in 1976 regarding the establishment of the Audit Bureau. The Audit Bureau shall not interfere in the business of the authority and the decisions of its board or with regulations determined by the cabinet, or its delegates, as applied by the authority.

Regarding the appointment of board members, UAE government (Article 10, 2003), decreed that the authority shall be managed by the board of directors that can stand for a period of four years with a similar renewable four year period also possible.

When it comes to setting interconnection prices the UAE government (Article 14, Paragraph 2, 2003) stated that anything related to the use and interconnection of telecommunications networks and telecommunications services is subjected to a price. This include licenses, co-location and the sharing of infrastructure by licensees. It also includes special conditions for costs related to interconnection, access, site-sharing, time scales, principles for negotiation and the completion of agreements between entities. It will also issue dispute resolution regulations to resolve disputes between parties to just such agreements. As to price setting regulations, according to the UAE Government (Article 4 (1), 2003), the authority has the competence to issue licenses in accordance with the provisions of the law. As well as to issue regulations, instructions, decisions and rules regulating tariffs, charges and fees levied by licensees.

Moreover, to have effective governance the TRA reviews prices based on economic analyses (TRA, 2017b) and when reacting to price control requests from a licensee.

The Submission of PCRs should be in accordance with the original PCR and corresponding transmittal letter. The TRA will then determine whether to accept or

reject a PCR. The rejection of a PCR may be based on the form, format or manner of its submission as well as any relevant public interest considerations.

In conclusion, as above the TRA enjoys regulatory independency since it is exempt from the control of the Audit Bureau. It has the ability to set interconnection rates and is allowed to set price regulations in the telecoms sector. However, the board members are appointed by the President of the UAE.

4.3.8 Resource Availability in the TRA

According to Waverman and Koutroumpis' (2011), index resource availability is measured by the Telecommunications Regulatory Authority's operational experience, budget and ownership of a main fixed line operator (Criterion 3, Table 4.1). According to Waverman and Koutroumpis (2011), operational experience (i.e. years of operation) is important because the longer the agency has been in operation the more experienced and efficient it will be. The second subcomponent is the budget. This measures the percentage of government funding (or appropriation) of the regulator's operations by looking at the authority and its performance in mobilizing resources from industry fees and consumer levies. Financially independent regulators have less control from the executive than those that receive government appropriations. The last subcomponent is the status of the main fixed line operator. This means that the less the government owns an operator, the more likely it is that the regulator will be independent.

4.3.9 Resource Availability in the TRA: Respondents' Views

According to the respondents, the more years of operational experience the regulator has the more effective it will be. Ideally, it can exercise control over service

providers and it will get good feedback from the operational field. Moreover, being an independent entity makes the TRA eligible for funding from its own revenues and fees. However, the TRA appoints an independent auditor to audit the annual accounts and to prepare reports on these results.

In addition, the status of a main fixed-line operator is critical in the provision of excellent services. Due to the shares in Du owned by the state and their resultant control of a main fixed line operator the TRA's independence as a regulator fails to meet international standards and ensure that consumers get value for their money. The TRA charges fees for its services to the providers as well as on resources used by to meet its targets. Despite supporting these activities, the organization remains a government entity. It will always be an objective for a country to have national ownership of their telecommunications providers based on the desire for control, security, investment, finance and a concern for the workforce.

4.3.10 Resource Availability in the TRA: Laws and Regulations

According to Waverman and Koutroumpis (2011), resource availability is connected to regulatory governance performance. Resource availability is explained by measuring the availability of resources by subcomponents. These are operational experience, budget and ownership of a main fixed line operator. The discussion below is based on the interview responses and a review of the respective laws and regulations pertaining to the UAE

An initiative by the TRA, (UAE Government, 2003) has produced a number of regulations for service providers. Added to that, the new service provider (Du) was established at the same time as the TRA. According to the UAE Government (2003), the TRA has an independent budget and a budget set by the board (see Article 16).

Moreover, the financial resources of the authority are derived from the following (see Article 17):

- Any funds assigned to the authority in the general budget of the State.
- License fees for any services provided by the board pursuant to the provisions of the federal law decreed in 2003.
- Fees charged for any services provided by the authority or the authorizations or approvals granted by the authority pursuant to the provisions of the federal law decreed in 2003.
- Any other revenues the authority collects in pursuance of its activities and functions.
- Any other financial resources approved by the board.

Which shows that the TRA has an independent budget and so ensures its independence from the government.

Referring to ownership of main fixed line according to (UAE Government, 2003), TRA collect fees imposed by Board in relation to the licenses issued by the Board and the authorizations, approvals, service of the Authority and any other amounts regarding radio spectrum as discussed in (UAE Government, 2003, Article 18).

Regarding the fixed line operator, it has been noted that government control still prevails in the telecommunications sector. This takes many forms, the most important telecommunication services in the country are through Etisalat (established in 1976). Its shares are 60% owned by the government. Du, which was officially launched in 2007, has 59% of its shares in government hands. That however does not tally with the Waverman and Koutroumpis (2011) Index in regard to resource

availability in a fixed line operator. The less the government owns the operator, the more likely it is that the regulator will be independent. This means that government control affects the TRA's independence as a regulator.

In conclusion, the TRA has gained extensive operational experience ever since was initiated in 2003, and it has established regulations that control the service providers in the UAE. Moreover, the TRA is a financially independent regulator since it has its own annual budget. On the other hand, control of the fixed line operator is affected as many shares are owned by the state, meaning that the TRA is not truly independent as a regulator.

4.3.11 Enforcement of Licenses by the TRA: Respondents' Views

According to Waverman and Koutroumpis' (2011), index, enforcement of licenses is connected to the regulatory governance performance of the entity. Enforcement of licenses ensures effective compliance with rules and regulations and is measured with five subcomponents. Those are revocation, fines, license suspension, modification and adding additional licenses. This section draws on criterion four (Appendix A).

4.3.12 Enforcement of Licenses by the TRA: Respondents' Views

According to the six respondents, the TRA has the authority to effectively create and ensure the implementation of rules to promote the growth of the telecom industry. As such, the TRA has the authority to revoke licenses when its rules are violated. The license may be revoked in whole or in part in accordance with the provisions of the Telecommunications Law, its executive order and the regulatory framework in effect at the time. The telecommunications service providers respect the

guidelines issued by the TRA and work closely with the organization to promote the growth of the telecoms sector.

Also, the TRA can charge monetary fines for offering substandard services, or not following telecom rules. This should make the companies strive to adhere to the accepted rules of operation. Moreover, suspension of the operation licenses is also possible if it is established that a service provider is going against the accepted rules of operation as per the law and the license.

In addition, it is not easy to modify a license without the approval of the TRA. The TRA assesses a company and must justify if a modification is worth undertaking. This means even if it is not clear in the law, but it is possible to revoke a license and issue a new one. Also the TRA can impose obligations on a new license, based on mandates defined in the Telecommunications Law.

Moreover, all the rules related to interconnection policies must be made public. The laws make it mandatory for service providers to make the terms and cost of interconnection to consumers obvious. Failure to publish the terms and conditions rules and costs of interconnection can lead to the withdrawal of the license to provide telecom services. The status of the spectrum policy must also be made public. Many companies strive to follow the provisions of the policy. Board members are appointed by the legislature following laws that govern how the appointment process is carried out. The government follows these laws to appoint members to the board of management of the TRA. The TRA and the government of the UAE have facilitated interconnection between telecommunications providers. The current status of interconnection is viewed as a success and price regulations have been effectively

implemented. The laws reviewed are based on the performance of the industry and implemented with guidance from the TRA.

4.3.13 Enforcement of Licenses by the TRA: Laws and Regulations

According to Waverman and Koutroumpis (2011), enforcement of licenses is connected to regulatory governance performance. Enforcement of licenses may be defined as ensuring effective compliance with the rules and regulations and can be measured with five subcomponents: revocation, monetary fines, license suspension, modification of license and additional license obligations. The discussion here is based on the supplementary questions discussed (see Appendix A) with the respondents about the status of UAE law and their practices, as well as a review of the respective laws and regulations in the UAE.

Regarding license revocation, license suspension and modification, according to the UAE Government (Article, 10, paragraph 5, 2003) the board has the jurisdiction to issue, extend, revoke and suspend licenses pursuant to the provisions of the law and its executive orders. This can be seen in Etisalat's licensing (Etisalat, 2006) available on the TRA website in article 15 dealing with terms, renewals, modifications, suspension, revocation and termination.

Regarding fines UAE government (see Article 79, 2003) the board may impose administrative fines on licensees for violating the provisions of the law. These are part of the executive orders, decisions, regulations or instructions issued by the board of the authority. The enforcement of licenses refer to ensuring the compliance of service providers with the laws, regulations, rules, standards or social norms intimated by the TRA. The TRA has the authority to cancel licenses for telecom service providers who contravene the accepted rules of operation (Telecommunications Law, 2003). In fact,

the TRA has, in the past, issued a penalty to Etisalat for non-compliance under ‘Violation Decision No. 1 of 2009’ for publicly announcing a 14-day free trial period for its ‘email push service.’ The announcements included, but were not limited to, a description on the Etisalat website and written and oral communication with consumers. According to TRA price control regulations, the licensee did not apply to the TRA to introduce any new retail or wholesale price. So, the TRA imposed a penalty on Etisalat amounting to AED 200,000 (TRA, 2009c).

According to the UAE government (Article 10, Paragraph 5, 2003), the board has the jurisdiction to issue, extend, revoke and suspend licenses pursuant to the provisions of the law and its executive order. This was seen when Etisalat was sanctioned in 2006. The TRA website UAE government (Article 15, 2003) describes the terms for renewal, modification, suspension, revocation and termination of a license. The license may be completely suspended or suspended in part in accordance with the Telecommunications Law, its executive order and the regulatory framework in effect at the time.

In terms of license modification (UAE government, Article 10, Paragraph 5, 2003) the board has the jurisdiction to issue, extend, revoke and suspend licenses pursuant to the provisions of the law and its executive order. The license may be modified in accordance with the provisions of the Telecommunications Law, its executive order and the regulatory framework effect at the time. This can also be effected by a government decision such as an international treaty.

The UAE government’s Article 14, Paragraph 2 states that anything related to the use and interconnectivity of telecommunications networks services must be provided by the licensees through co-location and the sharing of infrastructure to allow

for interconnection access and site sharing. They have also published time scales and the principles of negotiations and for the completion of agreements between concerned the parties concerned. The TRA also issues dispute resolution regulations to help in resolving disputes between the parties to just such agreements.

In response to the supplementary questions (see Appendix A), the interviewees provided information on the current status of the laws and regulations in the UAE related to the ‘enforcement of licenses.’ For example the TRA (2018) published guidelines regarding disputes over interconnection. The operators involved should refer to the formal dispute resolution mechanism, administered by the regulatory authority (TRA). Competition is one of the important regulations in the sector. The purpose of this policy is to establish ex-post competition safeguards in the UAE telecommunications sector. Together with the existing ex-ante regulations in place, and those that may be introduced in the future, the ex-post rules will provide a comprehensive regime for regulation of competition. The application of ex-ante and ex-post remedies involves a consideration of similar basic principles, economic concepts, legal issues and a careful analysis. According to the WTO (2006), information on interconnection agreements and prices should be available to all public users.

The TRA (2006) has an interconnection policy that enables telecom operators to access another network for telecommunications transport. For the providers of this access, issues such as costs, security, and the governing framework must be considered. To ensure interconnection, the provider must allow access under non-discriminatory terms, where every operator enjoys the same service quality, technical standards and rates. Moreover, in the case of the UAE, the Telecommunication

Regulatory Authority has published an official interconnection dispute resolution procedure. Universal access reflects the social importance of basic telecommunications services. The social importance is even more significant than the direct economic impact. However, it imposes obligations on member states to guarantee service coverage to remote geographical areas, which might have been neglected due to a lack of investment opportunities.

Publication of licensing agreements serves to inform licensees about the scope of their license. According to WTO Principle 4 (2006), the word 'license' represents the act of permitting something to happen. For the purposes of reference paper, it will be taken to mean a certificate issued by governments for the purpose of controlling entry into the telecoms market. The appropriate implementation of a licensing regime is necessary in order to maintain service standards and use scarce resources in an effective manner. However, licensing should not be a barrier to market access or natural competition. Therefore, this paper argues for the responsibility of signatories to make information publicly available. This includes, but is not limited to, licensing criteria, the time taken to grant a license and the terms and conditions of use. Additionally, the TRA should inform unsuccessful applicants of the reasons for denying a licensing request.

Article 14, Paragraph 9, deals with spectrum policy and states that the authority is competent to issue licenses in accordance with the law. They can also issue regulations and instructions. The TRA also decides on the rules regulating the use of the radio spectrum. This includes the allocation, re-allocation and usage of the frequencies for which they can grant authorization.

As such, the TRA has the power to revoke licenses from an operator, to impose fines and suspend, modify or stipulate conditions for granting an additional license.

4.4 Conclusion

This chapter analyzed the quality of public governance in the UAE from surveying international reports and examining the status of telecommunications regulatory governance based on respondent views. The respondents were answering questions derived from criteria suggested in the Waverman and Koutroumpis Index (2011).

According to the worldwide governance indicators (see Chapter Two), governance can be estimated through six main indicators. They are ‘voice and accountability’, ‘political stability’, ‘government effectiveness’, ‘regulatory quality’, ‘rule of law’ and ‘control of corruption’. Based on these criteria, UAE public governance has improved over the years to become among the best in the world. The evidence shows that the quality of UAE Public governance has improved because of better performance in these individual criteria.

The next chapter summarizes the previous chapters and shows the relationships between good national public governance in the UAE and the quality of governance offered by the TRA, before making some recommendations.

Chapter 5: Conclusions and Recommendations

5.1 Introduction

The purpose of the research is to study the influence of the UAE's public governance on its telecommunications regulatory governance and service provision. As such, the work includes analyses of public governance in the UAE, telecommunication regulatory governance and the regulatory systems provided by the TRA to the service providers. We also looked at the functions and growth of the telecommunications service providers. The main objective of this research was to reexamine the theory of Martin and Jayakar (2013) that stated that, "Countries with better (governance) institutions have better telecoms regulators", and that "Private regulated firms achieve the same public interest goals as state-owned firms". In order to achieve this purpose, this research analyzed the UAE's governance ranking based on the Worldwide Governance Indicators. These deal with 'voice and accountability', 'political stability', 'government effectiveness', 'regulatory quality', 'rule of law', and 'control of corruption'. The UAE placed amongst the highest ranked countries (WEF, 2017). This analysis was followed with face-to-face interviews with certain TRA personnel concerning the laws and regulations pertaining to telecommunications regulatory governance in the UAE. Waverman and Koutroumpis (2011) had suggested an index that included, 'regulatory transparency', 'independence', 'resource availability' and an 'enforcement of licenses'. We also reviewed the performance of the telecommunications service providers in the UAE to ascertain if private firms achieved the same public interest goals as the state-owned firms.

This chapter describes the findings in terms of our one primary and four secondary objectives. Section 5.2 presents the conclusion. Section 5.3 deals with the

shortcomings of the research and offers some recommendations to improve telecommunications regulatory governance in the UAE. Finally, Section 5.4 suggest possible areas for future research in terms of telecommunications governance.

5.2 Conclusions

In answer to Martin and Jaykar's (2013) statement that, "Countries with better governance institutions have better telecom regulators", this thesis has shown that the TRA has good regulatory mechanisms, which are guided by the principles of good public governance in the UAE. Public governance in the UAE was estimated using data from the World Bank for per capita income and also made use of World Governance Indicators, the Global Competitiveness Report, the World Rule of Law Report and the CPI from Transparency International. The analysis of public governance used the World Economic Forum's Worldwide Governance Indicators. These six basic indicators are 'voice and accountability', 'political stability', 'government effectiveness', 'regulatory quality', 'rule of law' and 'control of corruption'.

According to the WEF (2017), the UAE has performed very well in terms of these indicators. Its world ranking has improved quite dramatically in the last decade (see Chapters 2 and 4). The UAE scored well in every indicator being ranked 18th in 'voice and accountability', 67th in 'political stability and absence of violence', and 90th in 'government effectiveness'. 'Regulatory quality' was also very strong with the UAE 80th in 2017. The healthy state of public governance is also reflected by the Rule of Law Index, which placed the UAE at number 32 out of 113 listed countries. The UAE has also achieved international recognition for being among the best countries in the world in controlling corruption in the public sector, being placed 21st out of 140

countries in the Corruption Perception Index published in 2017. Thus high quality national governance is likely to ensure effective governance by the Telecommunications Regulatory Authority. This is exactly what we found in the study and is described in further detail below.

The study analyzed the TRA's governance via four criteria: 'regulatory transparency', 'regulatory independence', 'resource availability', and 'enforcement of licenses' and their respective subcomponents (see Chapters 2 and 4). The TRA is doing very well in every criterion. The evaluation of this in Chapter Four was based on the respondents' answers and an analysis of all the relevant laws and regulations.

The first criterion, 'regulatory transparency', was measured by looking at the publishing of their 'interconnection agreement', 'interconnection prices', 'reference interconnection', 'licensing agreements' and 'spectrum policy'. The TRA practices regulatory transparency by publishing their licensing agreements and spectrum policy. However, the publication of reference offers (RO) and interconnection agreements (ICA), suggested by the index does not happen in the UAE due to legal issues.

The second criterion, 'regulatory independence', measures an authority's independence from the government executive in terms of 'reporting to the legislature', 'appointing members of the board', 'setting interconnection rates' and 'setting price regulations'. The TRA is exempt from control by the state Audit Bureau, has the ability to set interconnection rates, and is allowed to set price regulations within the telecommunications sector. TRA board members are, however, appointed by federal decree by the President of the UAE.

'Resource availability' is measured by three subcomponents. They are 'operational experience', 'funding from government appropriations or industry fees

and consumer levies’, and the ‘status of ownership of the main fixed line operator’. The TRA has good operational experience. Having been established in 2003, the TRA has had few problems in creating or implementing telecommunications regulations in the country. The TRA is financially independent since it has its own source of revenues and the authority to spend them. Industry fees and consumer levies constitute additional sources of TRA income. The fees charged to service providers also helps to provide resources for the firm to meet its operational targets. In short, the TRA’s earnings cover its operational costs. Nevertheless, the status of the main fixed-line operators are critical in the provision of excellent regulatory services. The ownership of a high number of shares in Du by the State Fund and the control of the main fixed-line by Etisalat affect the TRA’s independence as a regulator and do not meet international standards that are aimed at ensuring value for money for the consumer.

The fourth criterion for evaluating the quality of regulatory governance is the ‘enforcement of licenses’. This refers to ensuring effective compliance with the rules and regulations by the licensees. This criterion is measured by five subcomponents: ‘license revocation’, ‘fines’, ‘license suspension’ and ‘license modification or granting additional licenses.’ The TRA has the authority to ensure the implementation of rules that promote the growth of the telecoms industry. As such the TRA also has the authority to revoke licenses when rules are violated. The TRA also has the ability to impose fines if the service providers offer substandard services, or do not follow the TRA’s rules. Moreover, suspension of an operation license is also possible if it is established that the service provider not following the accepted rules of operation required by the law and the licensing agreement. The TRA may also modify a license, if the modifications are justified and worthy of the effort. This procedure is not very clear in the law but serves as an alternative to revoking a license and issuing a new

one. The TRA can also impose obligations on the provider in order to qualify for a new license. These conditions and mandates are defined in the Telecommunications Law.

Chapter Three analyzed service and revenue growth at both Etisalat and Du between 2007 and 2017. The data showed that Du grew by 1821% in fixed services, 639% for mobile services and 1180% in its Internet services. On the other hand, Etisalat's growth increased by 33% in fixed services, 69% for mobile services and 288% for Internet services. From the data on growth and the service providers' revenues it appears that the theory that, "private regulated firms achieve the same public interest goals as state-owned firms" is correct. Du, in the private sector, has performed more impressively because it provides cheaper services than Etisalat, and offered bundles, better allowances and introduced per second pricing as well as package deals that could be easily understood.

5.3 Recommendations of the Study

The discussion above describes the quality of governance in the TRA in terms of four criteria. The first criterion, 'regulatory transparency', relates to the publishing of the 'interconnection agreement', 'interconnection prices', 'reference interconnection', 'licensing agreements' and 'spectrum policy'. It was noted that the publication of reference offers (RO) and interconnection agreements (ICA) were not implemented by TRA due to legal constraints. Since it is an international standard for ensuring regulatory transparency, the publication of reference offers (RO) and interconnection agreements (ICA) might usefully be considered. In fact, it may be even more desirable if and when the government considers issuing other telecommunications licenses.

The second criteria 'regulatory independence' is measured by whether the entity reports to the legislature or not, their ability to appoint members of the board, the authority to set interconnection rates and the authority to regulate prices. This research discovered that the TRA was exempt from control by the state Audit Bureau who report to the legislature. The TRA has the ability to set interconnection rates and prices in the telecommunication sector, but cannot appoint members to the board. Again, as it is a common practice elsewhere in the world, then if the government allowed the TRA to appoint its own board members, then the TRA would achieve greater regulatory independence.

The third criteria of 'resource availability' was measured by three components. These were 'operational experience', 'funding from government appropriations or industry fees and consumer levies' and the 'status of ownership of main fixed-line operator'. The status of the main fixed-line operators is critical in the provision of excellent services and meeting international standards aimed at providing value for money to the consumer. However, as many shares in Du are owned by the State Fund and there is government control of the main fixed-line operator the TRA's independence as a regulator is affected. At the moment, Etisalat is primarily owned by the government and it controls the main fixed lines. The less government ownership of an operator, the more the regulator may have 'resource availability' and control over the telecoms market.

5.4 Possible Future Research

This research was conducted through face-to-face discussions with senior personnel at the TRA, and by analyzing TRA documents provided by the interviewees. More in-depth research into regulatory processes, looking at operational details and

personnel or studying the regulator-service provider relationships from the service providers' perspective could nicely complement this research. Future research might also analyze important documents like parliamentary oversights in order to identify operational inefficiencies and suggest possible remedies for the telecommunications regulatory sector in the UAE.

Furthermore, Martin and Jayakar (2013), offered four main contentions. In this research only two – “Countries with better (governance) institutions have better telecoms regulators”, and “Privately regulated firms achieve the same public interest goals as state-owned firms” were incorporated into this research. Future research could explore other theories from the literature. Worthwhile questions might be, “How can regulators with operational independence rather than legal independence from their government increase growth?” or, “How can privatization and the establishment of an independent regulator increase teledensity and productivity?”.

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Appendix A

Interview Guide used for the face-to-face discussions with the TRA officials	
<u>Criterion 1: Regulatory Transparency</u>	
<ul style="list-style-type: none"> • How important is ‘interconnection agreements made public’ in the UAE context? Why? • How important is ‘interconnection prices made public’ in the UAE context? Why? • How important for operators to publish reference interconnection offer to UAE context? Why? • How important is licensing agreements made public to UAE context? Why? • How important is to have public information on spectrum policy to UAE context? Why? • How important is interconnection agreements made public in the regulation and in practice? • What is the status of ‘interconnection prices made public’ in the regulation and in practice? • What is the status of ‘operators required to publish reference interconnection offer’ in the regulation and in practice? • What is the status of ‘licensing agreements made public’ in the regulation and in practice? • What is the status of ‘spectrum policy’ in the regulation and in practice? • 	
<ul style="list-style-type: none"> • Is there any other method, fact, factor, or criterion existent in the UAE regulatory system (in telecommunication or elsewhere) that may fall under “Regulatory transparency”? • Is there any other method, fact, factor, or criterion in the UAE that can be or should be used to judge “Regulatory transparency” in the UAE? 	
<u>Criterion 2: Regulatory Independence</u>	
<ul style="list-style-type: none"> • How important is TRA ‘report to legislature’ for UAE context? Why? • How important ‘appointing members of Board by legislature’ to UAE context? Why? • How important to ‘set interconnection rate’ by TRA or government for UAE context? Why? • How important is to ‘set Price regulation’ by TRA or government to UAE context? Why? • How important is TRA ‘report to legislature’ in the regulation and in practice? • How important is ‘appointing members of Board by legislature’ in the regulation and in practice? • How important is to ‘set interconnection rate’ by TRA or government in the law; in regulation and in practice? • How important is to ‘set Price regulation’ by TRA or government in the law; in regulation and in practice? 	
<u>Criterion 3: Resource availability</u>	

- How important is to have experience (years of operation) to UAE context? Why?
- How important for TRA to be ‘funded by government appropriations’ or industry fees and consumer levies to UAE context? Why?
- How important are status of ‘ownership of main fixed line operator’ to UAE context? Why?
- How important is to have experience (years of operation) in the law; in regulation and in practice?
- How important is for TRA to be ‘funded by government appropriations’ or industry fees and consumer levies in the law; in regulation and in practice?
- How important are status of ‘ownership of main fixed line operator’ in the law; in regulation and in practice?

Criterion 4: Enforcements o Licensees

- How important is ‘license revocation’ possible to UAE context? Why?
- How important are ‘monetary fines’ possible to UAE context? Why?
- How important is ‘license suspension’ possible to UAE context? Why?
- How important are ‘modifications of license’ possible to UAE context? Why?
- How important are ‘additional license obligations’ possible to UAE context? Why?
- How important is ‘license revocation’ possible in the law; in regulation and in practice?
- How important are ‘monetary fines’ possible in the law; in regulation and in practice?
- How important is ‘license suspension’ possible in the law; in regulation and in practice?
- How important are ‘modifications of license’ possible in the law; in regulation and in practice?
- How important are ‘additional license obligations’ possible in the law; in regulation and in practice?

Source: Waverman and Koutroumpies, 2011, Martin and Jayakar, 2013

Appendix B

Thesis questionnaire provided to TRA employees (managerial positions) sample answer of Director of Licensing Section, since all answers are similar.

Criterion 1: Regulatory Transparency

How important is 'interconnection agreements made public' to UAE context? Why?

- Interconnection agreements are fundamental to ensure that interconnection and interoperability between operators. If the licensing environment is open it is vital that such are made public in order to ensure that all eligible licensees can access the agreement and ensure that no discrimination is taking place. This is part of a transparent environment that prevent discrimination. Transparency and non-discriminations are two of the fundamentals for regulation in an environment where the regulator enforces competition mechanisms that are not present due to the history and investment heavy sectors.
- In the UAE context however, there is no open licensing environment, and licensing telecom operators are based on a strict regime determined by State policy. Hence the need for publication of Reference Offers (RO) and Interconnection Agreements (ICA) are not necessary as the need for transparency is restricted to those eligible for interconnection.

How important is 'interconnection prices made public' to UAE context? Why?

- Interconnection agreements are fundamental to ensure that interconnection and interoperability between operators. If the licensing environment is open it is vital that such are made public in order to ensure that all eligible licensees can access the agreement and ensure that no discrimination is taking place. This is part of a transparent environment that prevent discrimination. Transparency and non-

discriminations are two of the fundamentals for regulation in an environment where the regulator enforces competition mechanisms that are not present due to the history and investment heavy sectors.

How important for operators to ‘publish reference interconnection offer’ to UAE context? Why?

- In the UAE context however, there is no open licensing environment, and licensing telecom operators are based on a strict regime determined by State policy. Hence the need for publication of Reference Offers (RO) and Interconnection Agreements (ICA) are not necessary as the need for transparency is restricted to those eligible for interconnection.

How important is licensing agreements made public to UAE context? Why?

- The publication of licensing agreements serves a different purpose than Interconnection and related RO’s and ICA’s. The publication of Licensing agreements may only serve to inform relevant licensees what the scope of a Licence is about. This does however depend on what the scope and nature of a Licensing “Agreement” is.

How important is to have ‘public information on spectrum policy’ to UAE context?

Why?

- This is of utmost importance, Public information in order to understand Spectrum policy for operators and spectrum users to understand the regulatory regime and to make informed decisions.

What is status of ‘interconnection agreements made public’ in the law; in regulation and in practice?

- The Licensees ICA in the UAE are confidential and due to licensing regime in the UAE (few licensees in a closed regime) it is not regarded as necessary to make such public at this point in time.

What is status of ‘interconnection prices made public’ in the law; in regulation and in practice?

- Interconnection prices are public on the TRA’s website

What is status of operators required to ‘publish reference interconnection offer’ in the law; in regulation and in practice?

- The Licensees ICA in the UAE are confidential and due to licensing regime in the UAE (few licensees in a closed regime) it is not regarded as necessary to make such public at this point in time.

What is status of ‘licensing agreements made public’ in the law; in regulation and in practice?

- The Licensees ICA in the UAE are confidential and due to licensing regime in the UAE (few licensees in a closed regime) it is not regarded as necessary to make such public at this point in time.

What is status of ‘spectrum policy’ in the law; in regulation and in practice?

- Public information

Is there any other method, fact, factor, or criterion existent in the UAE regulatory system (in telecommunication or elsewhere) that may fall under “Regulatory transparency”?

Is there any other method, fact, factor, or criterion in the UAE that can be or should be used to judge “Regulatory transparency” in the UAE?

- This last bit is not really clear. The TRA regulates in a fairly transparent manner. 99% of the regulatory framework is publicly available. The TRA has in place a Consultation Procedure that ensures that Stakeholders (licensees and other relevant judicial persons) are being consulted upon issuance of new or amended regulation. This to ensure that we are following the principles of transparency, non-discriminatory, proportional, fair etc.

Criterion 2: Regulatory Independence

How important is TRA 'report to legislature' for UAE context? Why?

- TRA has to report to the legislature on how it is developing and implementing policies related to the telecom industry. TRA has to file a periodic report to the government detailing the performance of the industry, which allows performing make recommendations or take actions that will make the telecom industry more competitive.

How important 'appointing members of Board by legislature' to UAE context? Why?

- the government appoints and approves members to the board of the company. Appointment and approval through the legislature help ensure equality and promote competency in the management of the company affairs

How important to 'set interconnection rate' by TRA or government for UAE context? Why?

- This is only important in the event the licensees cannot agree to a reciprocal rate on their own.
- The advantages of Operators setting the rates themselves, is that operators understand their cost and business better than the regulator.
- However if this is not possible because of unequal bargaining power, then it is important that the regulator has the mandate to step in and set the rates based on sufficient information provided by the operators and recognized economic cost models.

How important is to 'set Price regulation' by TRA or government to UAE context?

Why?

- This is only important in the event the licensees cannot agree to a reciprocal rate on their own.
- The advantages of Operators setting the rates themselves, is that operators understand their cost and business better than the regulator.
- However if this is not possible because of unequal bargaining power, then it is important that the regulator has the mandate to step in and set the rates based on sufficient information provided by the operators and recognized economic cost models.

What is status of 'TRA report to legislature' in the law; in regulation and in practice?

- The TRA reports regularly on all legal and regulatory aspects to the relevant government entity (currently the PMO). There is a new entity setting TRA policies, which is in line with other countries. A regulator should implement set policies but not set the policies themselves.

What is status of 'members of Board appointed by legislature' in the law; in regulation and in practice?

- The government appoints and approves members to the board of the company. Appointment and approval through the legislature help ensure equality and promote competency in the management of the company affairs.

What is status of 'Interconnection rates' set by TRA or government in the law; in regulation and in practice?

- The Licensees ICA in the UAE are confidential and due to licensing regime in the UAE (few licensees in a closed regime) it is not regarded as necessary to

make such public at this point in time. (the TRA has the mandate to set interconnection prices as per the Law and framework. The TRA has set rates regarding interconnection services in those instances where the licensees has failed to agree)

What is status of 'Price regulation' made TRA or government in the law; in regulation and in practice?

- The Licensees ICA in the UAE are confidential and due to licensing regime in the UAE (few licensees in a closed regime) it is not regarded as necessary to make such public at this point in time. (the TRA has the mandate to set interconnection prices as per the Law and framework. The TRA has set rates regarding interconnection services in those instances where the licensees has failed to agree) (the TRA has set rates regarding interconnection services in those instances where the licensees has failed to agree)

Criterion 3: Resource availability

How important is to have experience (years of operation) to UAE context? Why?

- The more experience the better qualified to make the best decisions related to operation, innovation etc.

How important for TRA to be ‘funded by government appropriations’ or industry fees and consumer levies to UAE context? Why?

- The response will depend on a political point of view. But normally it will be best suited for the TRA and the UAE government that the TRA is not funded and that the TRA can cover its operation cost by the fees it recovers from e.g. licensing, number, spectrum etc. This because it make the TRA independent of other government entities and their policies.

How important are status of ‘ownership of main fixed line operator’ to UAE context? Why?

- It will always be an objective for a country to have as much national ownership of their telecommunications providers, this is based on the notion of control, security, investment and finance and workforce.

What is status of Experience (years of operation) in the law; in regulation and in practice?

- Through industry experience, the company has been able to develop means of raising resources to meet its operations. Experience in the performance of the industry helps it appropriate its resource better to enable attainment of set targets.

What is status of TRA ‘funded by government appropriations’ or industry fees and consumer levies in the law; in regulation and in practice?

- being a government entity makes TRA eligible for funding from the government. It submits its annual budgetary needs to the government that allocates resources for use in the actualization of its objectives. Industry fees and consumer levies also constitute sources of TRA income.

What is Status of ‘ownership of main fixed line operator’ in the law; in regulation and in practice?

- As per the Telecommunications Law No 3 of 2003, the requirements of UAE telecommunications Operators are not less than 51% UAE ownership. This requirement stems from the requirements in the Companies Commercial Law. The Fixed line operators exceed the 51% UAE ownership. In addition, the UAE government owns 60% of Etisalat and 40% of du.

Criterion 4: Enforcements of Licensees

How important is 'license revocation' possible to UAE context? Why?

- Important as a regulator/government need the mandate to revoke a Licence depending on the state of affairs and behavior of a licensee.

How important are 'monetary fines' possible to UAE context? Why?

- Important as it serves as a deterrent for meeting the License requirement

How important is 'license suspension' possible to UAE context? Why?

- Se Important as it serves as a deterrent for meeting the License requirement and depending on the state of affairs and behavior of a licensee.

How important are 'modifications of license' possible to UAE context? Why?

- Important as it serves as a deterrent for meeting the License requirement and depending on the state of affairs and behavior of a licensee.

How important are 'additional license obligations' possible to UAE context? Why?

- It is important to have the flexibility in the regulation (licensing framework) and mandates that allows for meeting the ever changing demands of the sector, that follows the change in technology, demands etc.

What is status of 'license revocation' possible in the law; in regulation and in practice?

- In place as per the Law and licence

What is status of 'monetary fines' possible in the law; in regulation and in practice?

- In place as per the Law and licence

What is status of 'license suspension' possible in the law; in regulation and in practice?

- In place as per the Law and licence

What is status of ‘modifications of license’ possible in the law; in regulation and in practice?

- Not clear in the Law, but is being practiced as an alternative to revoke a licence and issue a new

What is status of ‘additional license obligations’ possible in the law; in regulation and in practice?

- The TRA can impose new Licence obligation based on its mandates defined in the Telecommunications Law.