

# **Exploring the Use of E-Government/Online Social Networks in the Government of Oman**

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## Abstract

The rapid development of information and telecommunication technologies (ICTs) in the 21<sup>st</sup> century has changed society at all levels: individual, group, company and government. As a result, there has been a significant rise in the availability of ICTs and related technologies around the globe, including in developing countries. ICTs include internet infrastructure such as the use of mobile devices, the internet connection and the affiliated platforms of online social networks (OSNs). The provision of online products and services by the government is known as electronic e-government. From a theoretical literature review it was found that research emphasising the use of OSNs in e-government and OSNs in Oman was scarce. Further, studies investigating and explaining the use of OSNs in the public sector and government were few. This motivated the researcher to explore and understand this issue, leading to the formation of the aim of this research: *To explore and understand the use of e-government/OSNs in a public sector organisation in a developing country, in this case, government organisations in Oman.* To achieve this, a comprehensive and detailed literature review of e-government/OSN research in developed, developing and Gulf countries was completed. Additionally, related theories on ICT diffusion and adoption, institutional theory and culture theory were used as a lens through which a better understanding of e-government/OSNs would be provided and to develop the initial conceptual framework that was then applied in practice. To acquire the data for this research a qualitative research approach involving the use of a case study was employed. The data collection techniques used included observations, interviews and a review of related archival documents. A total of 44 people were interviewed and an additional 37 participants assisted with the observational part of this study.

The research results revealed that government organisations adopted OSNs to explore the use of the technology and to cope with the increasing public demands of government. The study revealed many benefits for government organisations after OSNs were adopted, including greater public interaction and participation, increased information transparency, better understanding and increased public awareness of government services, leading to better work efficiency and effectiveness. Further, public interaction and participation was noted to be

important for the government as it helped government employees be more responsible and accountable for their work actions. Additionally, due to the application of OSNs, organisational and national cultural changes were identified that led to government work process and procedures being amended such that there was more public participation and interaction. This led to an influence of government policies and decision-making with regards to public services. After the applied part of this study, the initial conceptual framework was revised to reflect the practical aspects of this research.

The contributions of this study are: for e-government research, it will add to the increasing body of knowledge in this area. For Omani theoretical literature, it will widen the boundaries of knowledge and OSN use, particularly for the Omani government and other governments in developing countries that seek to use e-government solutions. In countries where cultural aspects are important, this study can provide insights that may not have been considered before. Further, this study has shown that understanding organisational changes and the cultural contexts with respect to e-government and OSN use is important; therefore, more knowledge in this area can be provided by this study. For policymakers, the contribution of this research is the provision of an understanding of a wide range of issues surrounding the adoption of new technologies. In turn, this can assist policymakers with policy-formation such that their institutional purposes and roles can be fulfilled. This study contributes to private sector organisations including internet and OSN providers by explaining and illustrating the benefits of using OSNs in a developing country with an autocratic regime that seeks to provide citizen benefits.

**Key words:**

developing countries, public sector, ICTs, e-government, OSNs, culture, citizen, organisations, institutional theory, technology diffusion, adoption

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## List of Abbreviations

ABS	Attitudinal Belief Structures
ASMR	Arab Social Media Report
C1	Case Study One
C2	Case Study Two
CAQDAS	Computer Assisted Qualitative Data Analysis Software
DOI	Diffusion of Innovation Theory
DTPB	Decomposed Theory of Planned Behaviour
E-government	Electronic Government
G2B	Government-to-Business
G2C	Government-to-Citizen
G2E	Government-to-Employees
G2G	Government-to-Government
GCC	Gulf Cooperation Council
GTM	Ground Theory Method
ICT	Information and Communication Technologies
IS	Information Systems
IT	Information Technology
ITA	Information and Telecommunication Authority
Ithraa	The Public Authority for Investment Promotion & Export Development
MM	Muscat Municipality
MRME	Ministry of Regional Municipalities and Environment
OC	Open Code
OSN	Online Social Network
PACP	Public Authority for Consumer Protection
RA	Relative Advantage
SM	Social Media
TAM	Technology-Acceptance Model
TEF	Technology Enactment Framework
The Gulf	The Arabian Gulf
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UNPAN	United Nations Public Administration Network

## Publications

Al-Bulushi, A., Choudrie, J. (2017). A Qualitative Study of the Adoption and Use of Twitter: An Oman Public Sector: Proceedings of the 22nd UKAIS Conference; 2017 Apr 3-5; Oxford, UK.

Al-Bulushi, A., Choudrie, J., & Zamani, E., (2017, May). Are Online Social Networks, Leading to a 'Better World in the Omani Public Sector? A Qualitative Study. In *International Conference on Social Implications of Computers in Developing Countries* (pp. 669-680). Springer, Cham.

Choudrie, J. (November 30, 2017). How the absolute monarchy in Oman is turning to Twitter to help government. The conversation.com, available at: <https://theconversation.com/how-the-absolute-monarchy-in-oman-is-turning-to-twitter-to-help-govern-86960>.

## **Chapter 1 : Introduction**

### **1. Introduction**

This research is focused on OSNs and electronic government (e-government) with an the emphasis on government departments handling citizens' matters using OSNs. The chapter begins with a brief background of OSNs and electronic government then describes the research problem and the importance of the study. Also included within the chapter is a brief insight into the research scope and applied research methodology. The chapter ends with an overview of the thesis and a chapter summary.

#### **1.1 Background**

The rapid development of information and communication technologies (ICTs) in the 21st century has changed society at all levels: individual, group, company and government (Helbing, 2010). ICTs, for those unfamiliar with their nature, have three forms: the artefacts or devices used to communicate or convey online information; the activities and practices in which people engage to communicate or share information; and the social agreements or organisational forms that develop around the devices and practices (Lievrouw & Livingstone, 2006).

ICTs have transformed the operations and functioning of countries' social and work activities such that they have been recognised as important for economic development and growth (Margetts, 2006; OECD, 2015). As a result, there has been a significant rise in the availability of ICTs around the globe, including in developing countries (Avgerou & Li, 2013). In terms of developing countries, ICTs are important for their developmental potential (Walsham & Sahay, 1999). It has been argued that ICTs can provide tremendous administrative 'potential' for governments and the public sector in general (Choudrie et al., 2009; Heeks, 2001). This potential is considered to be a natural extension of the technological revolution that has accompanied the knowledge society, which is known as e-government (Rugchatjaroen, 2015). There is no common definition of e-government, however, although many definitions agree that the purpose of e-government is to serve the public-sector stakeholder (Yildiz, 2007). In this research e-government will be defined as "the use of information technology to enable and improve the efficiency with which government

services are provided to citizens, employees, businesses and government agencies” (Carter & Bélanger, 2005: 5).

A recent phenomenon, causing changes in public and private sector organisations and society alike, is that of online social networks (OSNs). OSNs are being used globally, but more so in developing countries. Saudi Arabia, for example, has an estimated 82% of citizens using OSNs (Accenture, 2014). This is closely followed by India and Brazil, both at 81%, and the United Arab Emirates (UAE) at 79%. At the other end of the spectrum, lesser users of OSNs are developed countries such as the USA at 45%, the UK at 40% and Germany at 33% (ibid). In the Middle East, including the Gulf countries, the use of OSNs has grown by 47% in the last 12 months with mobile OSN use up by 40% (Salem, 2017). Such growth is also evident in OSN penetration rates where globally, Qatar and UAE are ranked at the number one and two positions respectively, while Saudi Arabia is at the foremost position when considering worldwide OSN growth (Kemp, 2017). Further, the United Nations Public Administration Network (UNPAN) (2016) ranked Gulf Cooperation Council (GCC) countries among the top ten developed countries in the development of e-government/OSNs. OSNs have become very prominent within the e-government research domain in Arab countries, due to their central role in the so-called ‘Arab Spring’ of 2011 (Al-Debei et al., 2013). Furthermore, it is widely believed and suggested that the use of OSNs significantly contributed to the public uprising of the Arab world (Al-Debei et al., 2013; Al Omoush et al., 2012; Mourtada et al., 2014). The association between OSNs and the Arab Spring phenomenon is being extensively researched in the academic world (Eltantawy & Wiest, 2011; Lotan et al., 2011; Tufekci & Wilson, 2012) with interest focused on the pivotal role that OSNs have played in political information-sharing and exchanges of political movements in Arab countries (Paul, 2011).

The term OSN has been used extensively in this thesis. To familiarise readers with it and to prevent any confusion due to the variations in definition, OSNs are defined as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (Boyd & Ellison, 2010: 211). A term synonymous with OSNs is social media (SM), defined as “a group of internet-based applications that build on the ideological and technological foundation of Web 2.0, and that allow

the creation and exchange of user-generated content” (Kaplan & Haenlein, 2010: 61). The terms OSN and SM, as well as other terms (such as social networks, social networking, social networking sites), are used interchangeably in research studies and are considered to have the same meaning in various contexts (Al-Badi, 2014). Therefore, when completing the literature review for this research, a review of studies focused on OSNs and SM was included and used for the database search terms. Further, this clarification is offered as the term OSN also implies a reference to the previously mentioned terms.

## **1.2 Research Problem**

As mentioned earlier, the use of OSNs in developing countries is still new. However, although OSNs are novel for some developing countries, leading OSN applications in developing and developed countries have some similarities in terms of their use and the reasoning behind it. These include using OSNs for communication, disseminating information and citizen interactions (Khan et al., 2014; Kuzma, 2010; Picazo-Vela et al., 2012).

OSN use in public organisations is viewed as beneficial for a number of reasons. Initially, it was seen as a way of improving public services (Chang & Kannan, 2008; Dorris, 2008; Heeks, 2001), reducing operational costs, increasing productivity, saving time (Dorris, 2008; Kaplan & Haenlein, 2010) and promoting more government-to-citizen (G2C) interaction (Criado et al., 2013). What is also apparent is that OSNs and their wider use in the public sector is still developing, which warrants further research to enable a better understanding of the potential improvements for governments through applying the innovations offered by OSN tools (Al-Badi, 2014; Boyd & Ellison, 2010). Additionally, there could be a better understanding of the risks involved (Bertot et al., 2012; Criado et al., 2013) and ways of overcoming the challenges faced by governments when adopting OSNs.

Research has indicated that there is still a need to understand the use and adoption of OSNs for purposes other than to provide a voice for citizens in political engagements, as governments around the world face diverse situations and contexts. There is little empirical research in this area (Landsbergen, 2010). In a former study, Magro (2012) provided a timeline of e-government research and OSNs, in which recommendations were made for research in the areas of objectives and strategy, categorisation of e-government applications and policymaking.

### 1.3 Research Aim, Questions and Objectives

Having understood that more research is needed in the area of e-government and OSNs, this study was motivated to reduce that gap using the context of a country the researcher was familiar with – Oman. Statistics have shown a steady increase in the number of OSN users in Oman (Mourtada et al., 2014) and that some government agencies are attempting to use OSNs in their daily work activities as a means of increasing transparency, participation and collaboration with the public. With this in mind, the overall aim of this study was formed, which is:

*To explore and understand the use of e-government/OSNs in a public sector organisation in a developing country, in this case, government organisations in Oman.*

To achieve the overall aim of this study and to generate findings that contribute to a greater understanding of how OSN tools are changing the essence of bureaucratic public organisations, the following main research questions were formed:

*Does the use of online social networks in government organisations increase transparency and promote participation and collaboration with the public? How? Why?*

To achieve the aim of this study the following objectives, that also led to the final write-up of the study, were formed:

- To undertake a comprehensive and detailed literature review of e-government/OSN research in developed, developing and GCC countries. Also included in this objective are related theories on ICT diffusion and adoption, institutional theory and culture.
- To understand research methodologies and to develop a research methodology that focuses on achieving the aims of the study. For this, a methodology was developed and applied for data collection in the pilot and final study.
- To obtain findings from the pilot and final phase of the study that are then analysed using an appropriate analytical technique, to examine current e-government/OSN use in government organisations.
- To form research recommendations based on the analysis of findings and the study conclusions.
- To identify research limitations, provide implications and offer future directions for this research study.

## **1.4 Importance of the Study**

The study of governments' adoption and use of OSNs as they attempt to create a dialogue with their citizens is of great importance, especially in developing countries where governments are often criticised for being removed from public needs and concerns (Tosun, 2000). OSNs provide a powerful tool for governments to engage in meaningful communication with their citizens, thereby promoting transparent sharing of information, enhancing public participation in policymaking and developing a culture of collaboration (Criado et al., 2013; Gibby et al., 2014; Landsbergen, 2010; Picazo-Vela et al., 2012).

As governments around the world, especially in developing countries, experiment with the use of OSNs, it is essential to study these different experiences in depth, to fill the current research gaps in this field.

Having reviewed the available literature, it appears that there is a gap in research conducted on Oman and its e-government initiative. Recognising this gap and the fact that OSN users in Oman are growing in number and seeking a more open government has led to public participation being of paramount importance (Mourtada et al., 2014).

For Omani policymakers, this research will be beneficial as it will assist them in identifying the purposes, risks and challenges involved and provide a clear understanding of OSN use, along with solutions and recommendations for its successful adoption.

This research will aid the Omani government, particularly with the adoption of effective OSN applications, as the findings will assist in identifying the purposes, policies, risks and challenges involved in OSN use and, hopefully, provide a clear understanding, solutions and recommendations for successful adoption.

Aside from the academic importance of this study and the application of its findings by Omani government policymakers, this research will also be useful for OSN providers interested in working in Oman. It will provide them with a clear picture of the needs and challenges facing the successful application of OSNs in the work of Omani government agencies.

## 1.5 Research Scope

This study examines the use of e-government/OSNs in public sector organisations in Oman and will not cover technical aspects relating to OSNs. Furthermore, the study applies the qualitative approach to examining the use of OSNs within the scope of OSN diffusion and adoption, institutional theory and culture. The study is not a statistical study, and for this reason numerical techniques and tools are not mentioned, addressed or applied. This study will only focus on public sector organisations in a developing country and will not include private organisations in such contexts nor examine the use of OSNs in developed countries.

The main reason for focusing on the public sector in Oman is the dearth of research examining the use of OSNs in developing countries such as Oman; particular attention is paid to issues such as diffusion and adoption, institutional changes and culture.

## 1.6 Research Methodology

Having offered a research scope, this section now provides some brief insights into the applied research method. Providing a rich and deep understanding is the main focus of this research. Many scholars have suggested the use of a qualitative research approach to achieve a rich description and better explanation (Miles & Huberman, 1994; Stake, 2010), and for this purpose a qualitative research approach is pursued. The main context of this study method is the use of case studies. Eisenhardt (1989b) states that multiple case studies are suitable for comparative purposes. They also “enable broader exploration of research questions and theoretical elaboration” (Eisenhardt & Graebner, 2007: 27). Therefore, this research uses multiple case studies. Eisenhardt (1989b) recommends multiple case studies, and, using this recommendation as support, this research uses two case studies during the pilot phase and two in the final phase.

In the pilot phase, nine participants each were observed from the two case studies (total of 18) and a further 19 participants were interviewed from the two case studies. They were distributed among high-level, middle-level and low-level staff at the Muscat Municipality (MM) and The Public Authority for Investment Promotion and Export Development (Ithraa). The selection of these case studies was based on their use of OSNs.

In the final phase, 19 employees were observed – nine from case study one and ten from case study two, with a further 25 participants from the two case studies being interviewed. They were



distributed among three managerial levels: high, middle and low. The two case studies in the final phase, MM and The Public Authority for Consumer Protection (PACP) are considered to be among the highest e-government and OSN-utilised organisations in Oman’s public sector.

This research seeks to explore and understand the use of OSNs and hence, in-depth data is needed. Scholars recommend the use of methodological triangulation, involving the use of more than one data collection method, to achieve a stronger substantiation and improve research credibility (Creswell, 2003a; Huberman & Miles, 2002; Stake, 2010). Furthermore, and because of cultural factors in Oman in which face-to-face conversation is vital, the researcher used in-depth interviews and observations to seek a richer and deeper understanding. The approach that was used in this study is illustrated in Figure 1.1.

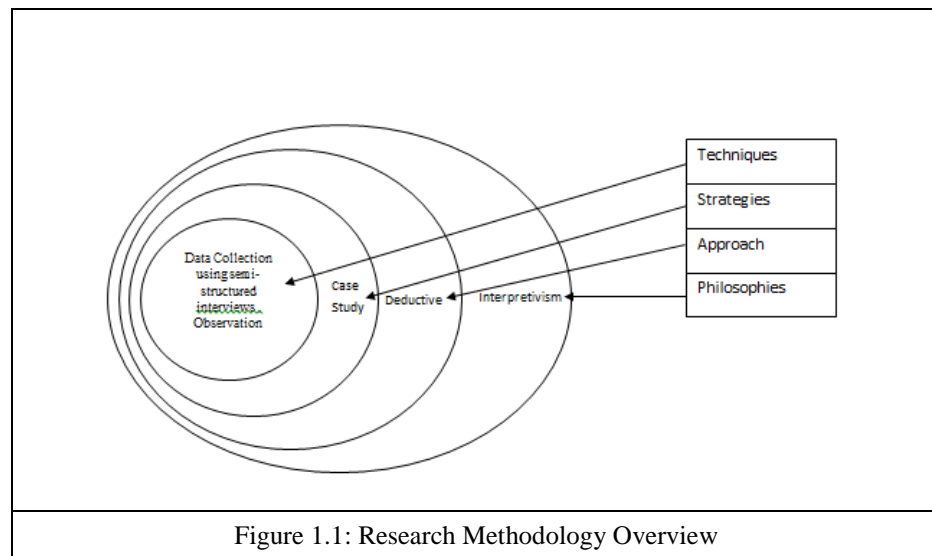


Figure 1.1: Research Methodology Overview

## 1.7 Overview of the Thesis

To familiarise the reader with this thesis, an explanation of the research chapters is provided in Table 1.1 below.

Table 1.1: Thesis Structure

Chapter	Content
One: Introduction	This chapter contains a brief background to OSNs – a definition, identification of the research aim and question guiding this research, brief explanations of the research methodology and the research scope.
Two: Literature Review	An in-depth literature review exploring the literature on e-government and OSNs, and e-government/OSNs in developed and developing countries and the Gulf region. Also, adoption and diffusion theories, institutional theories and culture theories that led to the formation of the conceptual framework of this study.

Chapter	Content
Three: Research Methodology	The research methodology chapter will include a reasoning and justification for the different research methods and techniques used for this research. Also considered are the techniques used for data collection and the duration and types of questions.
Four: Pilot Analysis, Findings and Discussion	This chapter will include information about the case study, analysis and findings of the pilot data, the pilot case study discussion and changes to the conceptual framework.
Five: Final Study Analysis, Findings and Discussion	Findings and analysis from the final phase case studies will be examined in an in-depth manner. Analysis and discussion of the findings will be provided.
Six: Evaluation and Discussion	An evaluation of the research findings will be presented, as well as a discussion of the findings with respect to the literature.
Seven: Summary and Conclusions	The final chapter will include the summary, conclusions drawn from the study, discovered benefits, limitations and future directions.

## 1.8 Summary

This chapter commenced with a background highlighting the importance of OSNs for government organisations. It also explained the motivation for this research, using previous studies of e-government and OSNs by different scholars. There is also a consideration of OSNs in developed and developing countries and a brief review of studies on OSN use in Oman. The importance of this study is covered together with the benefits that will be gained by both the Omani government and citizens. The research aim and questions are also specified to familiarise the reader with this study.

## **Chapter 2 : Literature Review**

### **2. Introduction**

This chapter reviews the literature related to the present study. It begins with a review of previous studies of the public sector and OSNs, highlighting their importance, limitations and the challenges faced by governments when using OSNs, successes and failures and the benefits of OSNs to governments. This is followed by a review of the uses of OSNs in the governments of developing countries. Research on GCC countries' OSNs is reviewed, highlighting current status and the strategies these countries follow. A review of e-government initiatives in Oman, the context of this study, is also included in this chapter.

### **2.1 Public Sector Organisations**

#### ***2.1.1 Understanding the Public Sector***

The nature of the public sector varies among countries, but in most countries it includes agencies that are responsible for the provision of public services such as military and police functions, public transit, transportation, public welfare, education and healthcare as well as many others (Lucifora & Meurs, 2006). When considering the definition and application of the public sector, a term synonymously associated with it is 'government'; other terms are also used (Pathirane & Blades, 1982). For the purposes of this research, the public sector is "the right hand of government in delivering services to the public" (Swales & Al Fahdi, 2010: 6) and is the term used in this study.

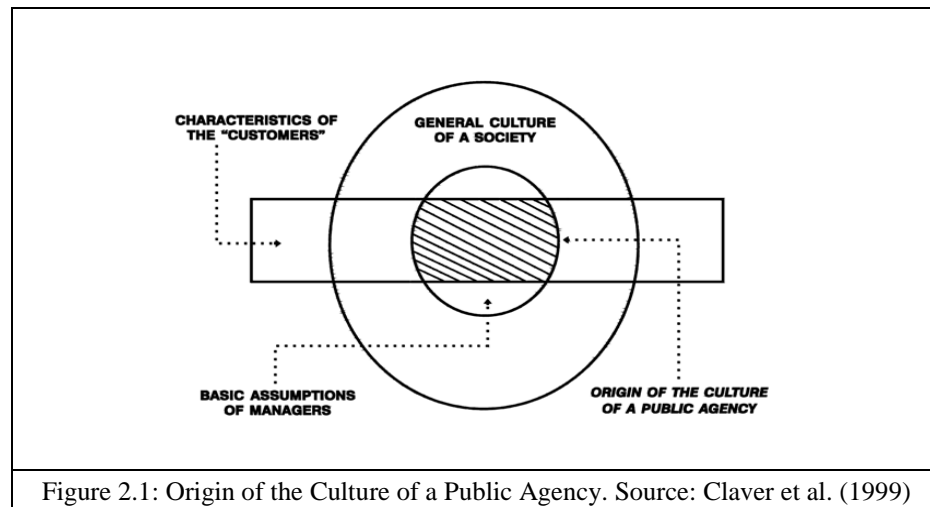
Generally, when considering the public and private sectors, we find fundamental differences between them (Christensen et al., 2007; Newstrom et al., 1976). Firstly, the stakeholders of the two sectors differ. Stakeholder interests, for example, are not the same, as the public sector considers much broader measures and values compared to the self-interest of individuals in the private sector. Secondly, the products and services of the two sectors differ (Christensen et al., 2007). Thirdly, public sector organisations are expected to be more open, transparent and to provide equal treatment in their operations. Private sector organisations are driven by profit, with

individuals having a financial stake in the organisation. These organisations are, therefore, answerable only to those who have invested in them (Christensen et al., 2007).

Despite these differences, some scholars, such as Bozeman (mentioned in Christensen et al, 2007) argue that the differences between the sectors are not always huge and that they share many characteristics. For example, both sectors are subject to the same authority and influence and both are bound by government regulations. It is hard to distinguish between the two when their differences dissolve (as with some state-owned companies), while other organisations' differences are visible and clear (for example, courts and ministries) (Christensen et al., 2007).

### ***2.1.2 Public Sector Culture***

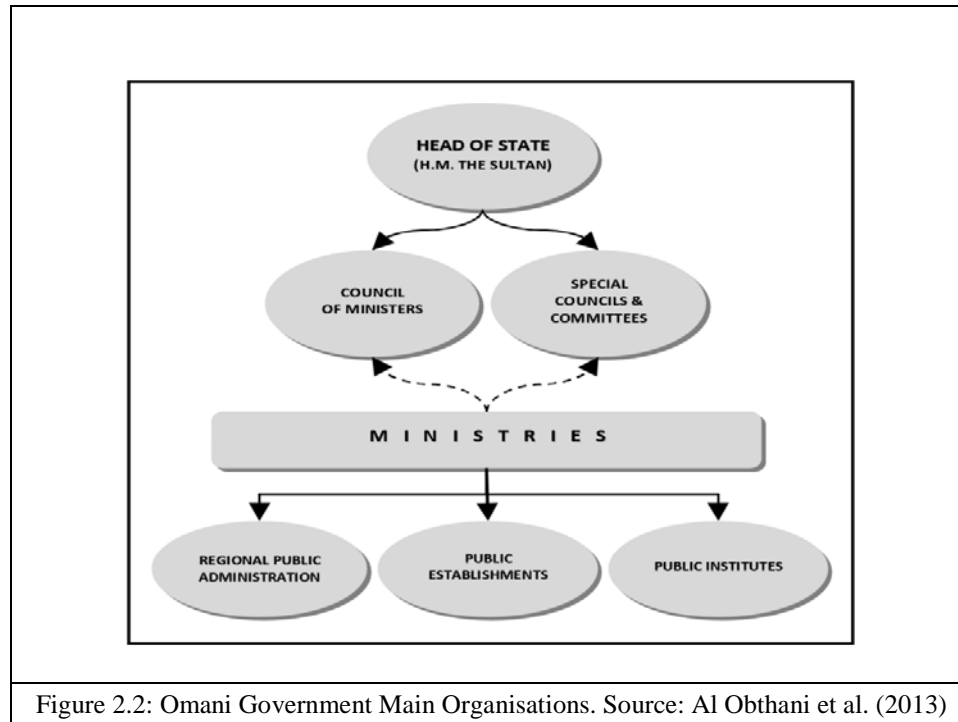
The public sector culture represents how government is designed, with variations across countries and between organisations within the same country (Claver et al., 1999; De Montricher, 1998). Some scholars describe organisational culture as including both the actions and positions of individuals within an organisation that help make the organisation function, including management performance (individually or as a team) and the commitment of the organisation to achieving its objectives, including the training and support it provides (Schedler & Scharf, 2001). It is believed that organisational culture influences and can play an important role in the use and adoption of e-government (Heeks, 2002; Titah & Barki, 2008) or in resisting it (Warkentin et al., 2002). Many factors affecting individuals' interactions have been recognised (Hofstede, 1991). Hofstede's culture factors have been examined in various e-government-adoption studies that have led to recognize the factors of powers distance, power distance is the "measure of how much people at the lower castes of society differ from those at the top" (Hofstede, 1991: 161), to be more likely to have an effect on e-government adoption (Warkentin et al., 2002). Comparatively (the culture of a public agency) is thought of as the intersection of three variables: the general cultural view of society (i.e. Western or Asian society), the characteristics of the customers (i.e. citizens) and the basic assumption of the manager (encourages and transmits beliefs) (Claver et al., 1999) as shown in Figure 2.1 below.



When considering the Middle East, culture and religion differentiate the practices and ways of life of this region's administrations, offering alternative conventions and practices that are implemented in public organisations (Ali, 1995). With this in mind, it is valid to assume that this cultural uniqueness must be considered and carefully attended to when seeking success and when introducing new systems that rely on changes in culture (Hill et al., 1998; Straub et al., 2003).

### 2.1.3 *The Public Sector in Oman*

Since this research study context is Oman, a brief description of the public sector in Oman is offered. The public sectors of Oman and other GCC countries are similar, due to the strong organisational ethos embedded in their unique, shared culture. This uniqueness is related to the similarity of traditions, religious values and community, characterised by the Bedouin and their tribal way of life (Richard, 2008). The Omani public sector is an environment of people, culture and agencies that collaborate under the governance of authority for the purpose of serving the public (Mohammed, 2005). According to the Oman state statute, the government is split into six main organisations that support the Omani Sultan (the Head of State). These six entities work according to a specified protocol of order and communication (Figure 2.2). A Council of Ministers assists the Sultan in forming and drawing up the general policy of the country and provides recommendations regarding economic and administrative matters of concern to the government. The council is also responsible for supervising the operations of the country's administrative apparatus and how the ministries operate and perform (Oman, 2014). The ministries consist of other government entities (Regional Public Administration, Public Establishment and Public Institutes), each headed by a minister (Mohammed, 2005).



The public sector has 11 governorates (vicinities): Muscat (the capital city), Dhofar, Mussandum, Buraymi, Dakhiliyah, North Batinah, South Batinah, South Sharqiyah, North Sharqiyah, Dhahirah and Wusta.

Each one of these governorates has its own administration, and geographical and economic responsibilities, and each governorate governor is appointed by the Sultan. In addition, each governorate comprises a number of wilayats (districts) amounting to 61 in total.

The governance of these wilayats is overseen by the waly (local governor), who reports to the governor. The governor reports to the interior ministry with the exception of Muscat and Dhofar in the south of Oman, which report to the Council of Ministers. The waly is responsible for the local administration of the assigned wilayat and is considered to be the link between citizens' local issues and other government organisations (Oman, 2014).

Overall, Oman's public sector includes 43 municipalities and 14 municipal sections. The municipalities serve the local people of each wilayat and report to the Ministry of Regional Municipalities and Environment (MRME). The MRME is responsible for the allocation of monetary resources in the form of budgets, approves projects and handles the management and operations of environmental and municipality issues (Oman, 2014).

## 2.2 Electronic Government (E-Government)

### 2.2.1 *What is Meant by E-Government?*

Another aspect of this study considers e-government for which, within the literature, definitions vary according to the research focus. However, it is ascertained that e-government serves public sector stakeholders (Yildiz, 2007). E-government stakeholders include citizens, businesses and other public sector organisations. As e-government was and is still being researched, there is no universally accepted definition (Halchin, 2004; Taiwo et al., 2015; Yildiz, 2007). However, many definitions are derived from the functions provided. It is known that e-government definitions vary according to the way in which researchers perceive e-government activity and interests. For instance, activities considered within the e-government realm include, but are not limited to, improving services, reducing operational costs, information dissemination to citizens, increased productivity and time savings (Chang & Kannan, 2008; Dorris, 2008; Khosrow-Pour, 2008).

To ensure a clear understanding of e-government and illustrate the variation in definitions, a few examples are offered. An early definition described e-government as “the relationship between government, their customers (business, other governments and citizens) and their suppliers (again, business, other governments and citizens) by the use of electronic means” (Means et al., 2000: 121). A non-governmental organisation, the United Nations, in an e-government survey, defined e-government as “the use and application of information technologies in public administration to streamline and integrate workflows and processes, to effectively manage data and information, enhance public service delivery, as well as expand communication channels for engagement and empowerment of people” (UNPAN, 2014: 2).

E-government has also been defined in terms of the conceptual frameworks that researchers use: e-government is “government’s use of technology, particularly web-based internet applications, to enhance the access to and delivery of government information and services to citizens, business partners, employees, other agencies, and government entities” (Layne & Lee, 2001: 123). With such variation, this researcher chose to apply the definition of e-government as: “the use of information technology to enable and improve the efficiency with which government services are provided to citizens, employees, businesses and government agencies” (Carter & Bélanger, 2005: 5). This definition encompasses various stakeholders in the use of information technology within the public sector, with the purpose of improving efficiency within the sector and making it suitable

for the purposes of this study – to explore the use of e-government/OSNs in the context of G2C interaction.

### ***2.2.2 Type of E-Government***

When examining e-government, there are various government interactions with a range of stakeholders that have led to variations in the understanding of its forms. The first form of e-government, G2C, involves government delivering services to individuals, where the government establishes or maintains a direct relationship with citizens in order to deliver a service or benefit (e.g. a citizen requesting information about a service) or where there is a relationship between a government and its citizens in the democratic process (e.g. voting online). The second category is government-to-business (G2B), (e.g. paying value added taxes online), where businesses can pay their taxes using government e-services. The third relationship is government-to-employees (G2E) through, for example, an intranet, to provide information about employee benefits. The final category is government-to-government (G2G), in which government agencies must collaborate and/or provide services to one another (e.g. the Federal Bureau of Investigation sharing information online with other parts of government) (Hiller & Belanger, 2001; Khan et al., 2014; Reddick, 2004). In this research, the focus is on G2C and G2G relationships and OSNs.

E-government relationships are identified based on their association with various stakeholders (Siau & Long, 2006). These relationships are illustrated in the e-government portfolio in which possible objectives and activities for each relationship are identified, and are shown in Figure 2.3 below.



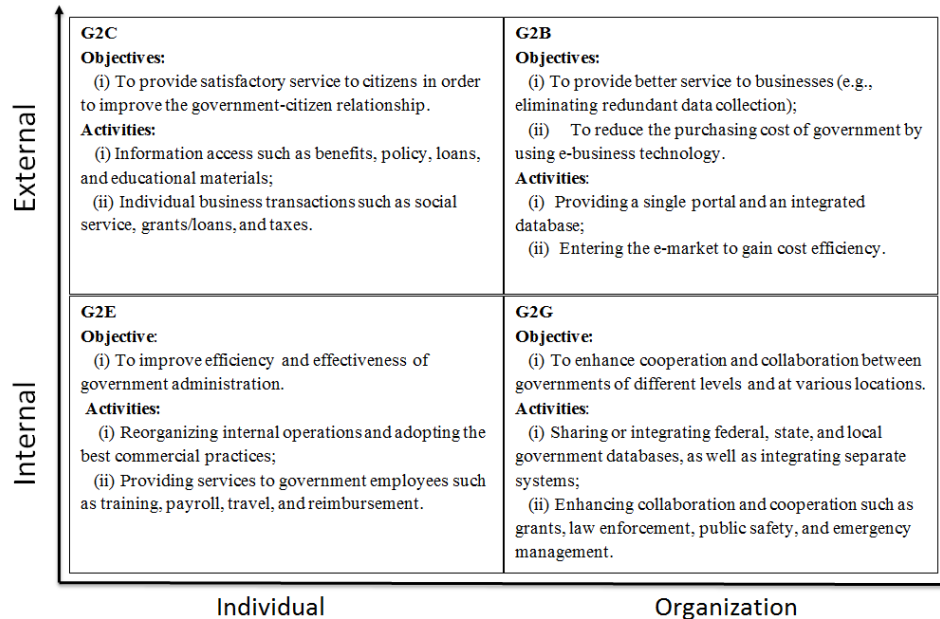


Figure 2.3: E-Government Portfolios. Source: Siau and Long (2006)

### 2.2.3 Significance of E-Government

Having identified the various forms of e-government, this section now offers an explanation of its significance. Global governments are adopting e-government to provide better services and encourage their citizens to participate (Bertot et al., 2010a; Ebrahim et al., 2004; Sandoval-Almazan et al., 2011). Many government services, provided or accessed by phone or face-to-face, are now electronically available to all users. Furthermore, with the increase in citizens’ ICT knowledge and practices, citizens’ expectations have increased in terms of e-government applications, with citizens expecting the products and services of public sector organisations to be similar to those in the private sector and to be offered with the same effectiveness and efficiency (Ebrahim et al., 2004). Therefore, governments are expected to implement e-government strategies to modernise the public sector by identifying the potential for service improvements, and to provide new methods of citizen interaction with other stakeholders; this reduces the cost of implementing such innovations and could also lead to business-process improvements.

E-government has immense potential: for example, governments intending to become global leaders in terms of a green environment and economy could achieve more towards fulfilling that goal. This could promote effective natural resource management, stimulate economic growth and promote social inclusion (UNPAN, 2014), The use of e-government and ICTs generally has proved to be effective when facilitating knowledge sharing, skills development, transfer of innovative e-

government solutions and capacity building for sustainable development among countries (Mattsson, 2016). Similarly, e-government has the potential to generate important citizen benefits. For instance, there could be better health and education for citizens by extending e-services to rural areas and reaching citizens seeking employment (Schuppan, 2009; Venkatesh et al., 2014).

Similarly, research asserts that e-government can “drastically improve all areas of government activities, from democratic participation ... to improving the efficiency of citizens’ interaction with the government” (Barca & Cordella, 2004: 3). To support this view, e-government is seen to be not just an automation of current government functions, but also a way of bringing about further prosperity and development (Choudrie & Dwivedi, 2005). E-government is also viewed as a way of “increasing process-based trust by improving interactions with citizens and perceptions of responsiveness” (Tolbert & Mossberger, 2006: 2). By doing so, it is believed that “e-government can provide communication, transaction and integration of administrative services” (Barnes & Vidgen, 2004: 3). Additionally, it is asserted that e-government has the potential to improve government transparency, responsiveness and accountability (Bélanger and Carter (2008).

#### ***2.2.4 The Failure of E-Government Projects***

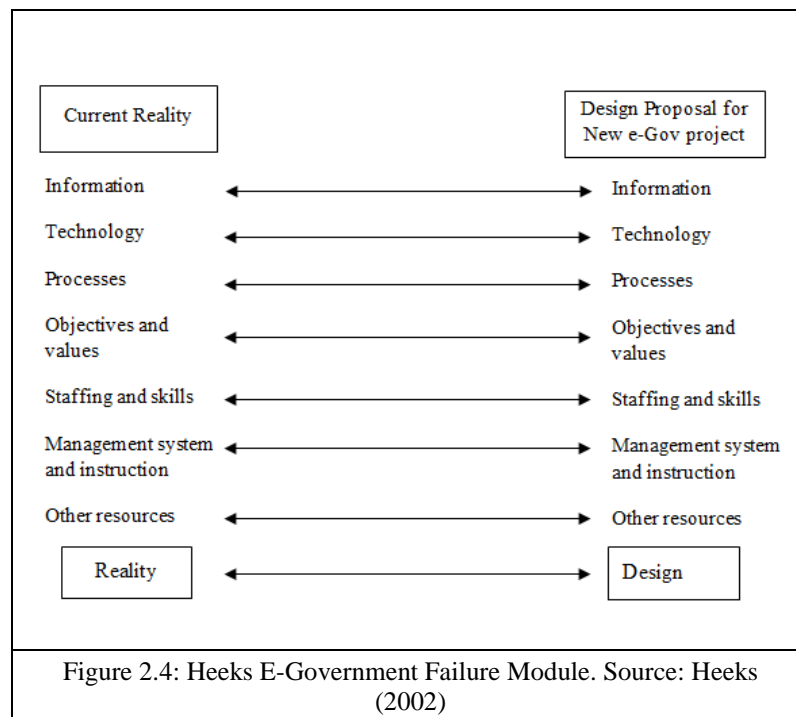
Many e-government projects have been implemented in developed and developing countries, as e-government is seen as a way forward for any government seeking to leverage technology to achieve high levels of improvement in different government areas (Dada, 2006). Governments carry out e-government projects to enhance their functions and improve services (Bonsón et al., 2012). Furthermore, by pursuing e-government, governments use technology to enhance and improve issues such as efficiency and effectiveness within government through the provision of online products and services. However, although success is achieved by e-government, there are also failures in both developed and developing countries (Dada, 2006; Hawari & Heeks, 2010). Researchers have found that developing countries are more affected by such success and failure (Heeks, 2002; Kamal et al., 2013). One reason for this could be their limited resources, which make it difficult to implement many e-government projects and which could account for e-government failure (Heeks, 2002).

Most e-government projects implemented in developing countries are viewed as failures, with researchers finding that 35% are considered to be a total failure (projects never implemented or started but immediately abandoned) (Heeks (2003). Research has also found that 50% of e-

government projects are regarded as partial failures – where major goals were not attained and/or there were undesirable outcomes. Only 15% are seen as successful projects (Malik et al., 2014).

When studying the failure of e-government projects in developing countries a model was developed that identified gaps between current reality (i.e. current e-government) and the design of the new online government service (e-government) (see Figure 2.4 below). The failure of such a system arises when this gap enlarges due to physical, economic, cultural and other factors existing between the system design and implementation environment (Heeks, 2002). However, failure reduction can occur by reducing the gap between reality and the design of the novel e-government service. For example, customising a project specifically for one's needs and not using an 'off-the-shelf' project should increase the success level, as could "adapting" a project instead of just "adopting" it (Heeks, 2002).

Implementing an appropriate e-government strategy is crucial to avoiding failure. The majority of existing published strategies on e-government failure and success are based on developed countries, so may not be suitable for developing countries (Chen et al., 2006). Therefore, studies of developing countries are important.



The failure of e-government projects was described in three different ways, as explained below (Heeks, 2003):

- **Hard–soft gap** (the difference between technology (hard) and social aspects (soft – people, politics, emotion and culture)).
- **Private–public gaps** (projects that are successful in the private sector might not work in the public sector).
- **Country–context gaps** (this gap exists when implementing e-government projects in a developed country and trying to use it in a developing country).

This gap model has been considered by many researchers as a fundamental framework for research studies focused on developing countries (Dada, 2006). Besides the financial cost, there are opportunity costs (money that was spent on e-government projects which instead could have been spent on other government projects), political costs (loss of ‘face’ – individual, organisation national), beneficiary costs (loss of all benefits that could have been gained from e-government projects) and future costs which are the most difficult to estimate and perceive. Future costs are seen as ways of introducing and building new barriers for any e-government project as well as losing the trust and credibility of governments whose intentions are to seek innovative change (Heeks, 2003).

### ***2.2.5 E-Government in Oman and Prior Research on Oman’s E-Government Initiatives***

Having provided a background to e-government, this section describes the e-government programme of Oman, which is the focus of this study. Realising the importance of ICT in transforming a traditional government into a digital one, Oman started its first initiative to implement e-government in 2003. ‘E-Oman’ was the digital initiative of Digital Oman, an organisation established by the government in 2003. Its first task was to develop a government-backed set of standards for all organisations and to establish a common platform that established the basis for government collaboration in the total integration of all government systems. In addition, Digital Oman was to identify the ICT needs of all government agencies. However, these processes took a very long time to be completed. The organisation is called the Information Technology Authority (ITA) and is responsible for developing government portals and the infrastructure needed now (Abanumy et al., 2005; Al-Busaidy & Weerakkody, 2011).

Today the ITA is responsible for developing and implementing the Digital Oman strategy and e-government in Oman. ITA defined ‘digital Oman’ as:

A digital society is a modern, progressive society that is formed as a result of the adoption and integration of information and communication technologies at home, work, education and recreation. (ITA, 2015a).

This vision aims to transform Oman into a knowledge society through the use of information and innovative technology, in order to improve government services and empower the public with technical knowledge (Adeoye, 2014).

A United Nations e-government survey (2012) showed that Oman continues to extend its e-government services, which include expanding the infrastructure and developing government online e-services. As a result, Oman's e-government global ranking improved from 82<sup>nd</sup> place in 2010 to 64<sup>th</sup> place in 2012. A UN e-government survey in 2014 indicated that by implementing e-government, Oman had improved again, by 16 places in the global rankings, to 48<sup>th</sup> position (Table 2.1). Oman is now the second highest ranked GCC country behind Bahrain (UNPAN, 2014).

Table 2.1: E-Government Development of Gulf Cooperation Council Countries

Country Name	2014 Rank	2012 Rank	Change in Rank
Bahrain	18	36	↑18
Oman	48	64	↑16
Kuwait	49	63	↑14
Saudi Arabia	36	41	↑5
Qatar	44	48	↑4
United Arab Emirates	32	28	↓4

Within GCC and Western Asian countries, Oman is ranked among the top ten when considering e-government development. This success is due to its investment in the development of online national portals that aim to provide Omani citizens with innovative e-services. There have also been investments in developing and improving transparency and innovative services offering easy navigation and access.

In Oman, ITA has continued to implement IT initiatives and strategies (e-Oman) to improve the digital knowledge of Oman's government and its citizens. ITA measured the use of OSNs in government agencies in Oman and found an increase in OSN use from 2011 onwards. This growth is reflected in the use of Facebook, YouTube and Twitter, which increased by 16%, 5% and 7% respectively. Furthermore, government agencies showed an increase in the type of e-services they offered (ITA, 2012): see Table 2.2 below.

Table 2.2: Oman E-Government Service Type. Source: ITA (2012)

Type of Services	2011	2010	Change in %
Informational	75%	42%	↑ 33%
Downloaded Form	69%	31%	↑ 38%
Interactive Both Way	47%	20%	↑ 27%
Transactional	22%	9 %	↑ 13%
SMS Mobile Services	53%	11%	↑ 42%
Others	28%	2 %	↑ 26%

### 2.2.5.1 Prior Studies of Oman E-Government Initiatives

Several studies have examined e-government implementation in Oman where, despite ITA initiatives, it has been suggested that the ITA should develop some simple e-services that citizens can understand and use easily (Al-Busaidy & Weerakkody, 2011). Additionally, it has been suggested that intensive training should be provided to government employees to improve their technical skills. Previous research has found that many government agencies in Oman are working in line with the ITA initiatives and implementing e-government with the ultimate goal of transforming the government into a sustainable-knowledge society. It was suggested that services should be enhanced and citizens should be empowered with knowledge (Espinosa and Al-Maimani (2009). This research also found that Oman has a long-term digital development strategy or what is known as ‘Oman 2020’, which involves sustaining and improving ICT as well as increasing research and enhancing technical knowledge. To familiarise readers, the Oman e-government initiative contains several projects that have been implemented as part of the national Oman e-government strategy (e-Oman). These projects include the Electronic Awareness, Innovation and Support Centre, International Relations (INTRL), the National Disaster Recovery Center, Electronic Law (e-law), the National Electronic Payment Gateway, the Information Security Management Framework, the Convergent Government Network, Government Electronic Services (e-services), National IT Training & Awareness and the Standard Framework (STDF) (refer to Figure 2.5).

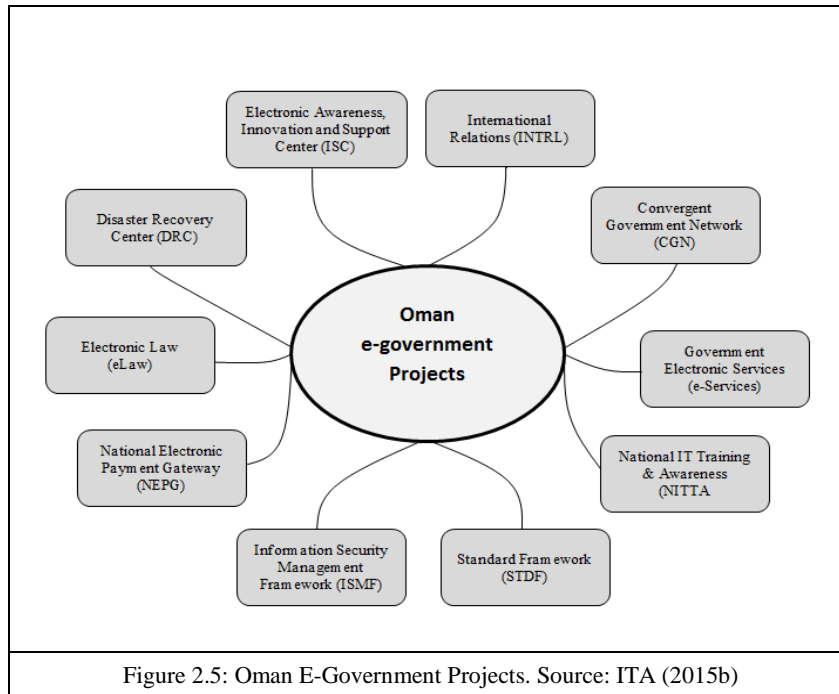


Figure 2.5: Oman E-Government Projects. Source: ITA (2015b)

In 2008 ITA updated e-Oman with an emphasis on three main areas: IT industry development, enabling society and individuals and e-government e-services (Figure 2.6). These changes came about as a result of the Omani Sultan’s address to the Oman Council that sought the government’s assistance in implementing a more simplified e-government e-services process, the adoption of the latest technology for daily government operations and to focus on more electronic delivery of government services to the public (ITA, 2015b).

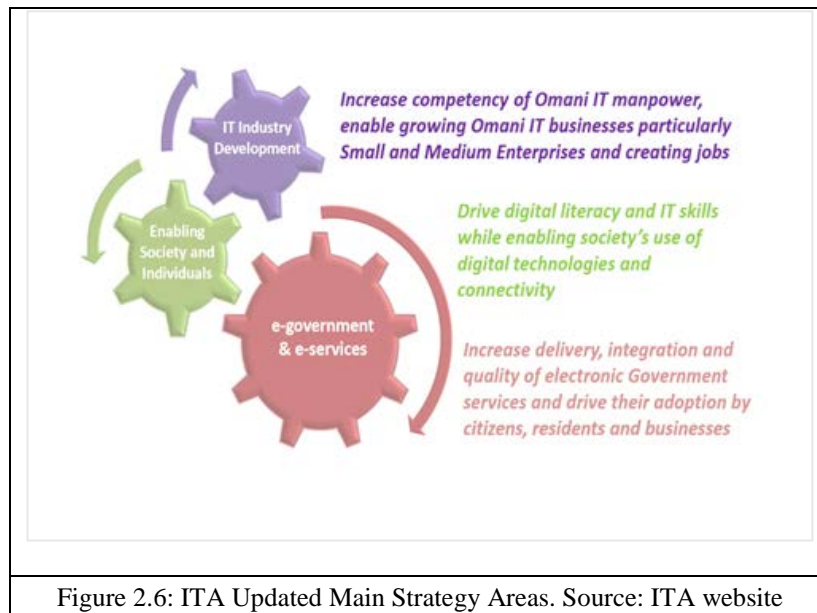


Figure 2.6: ITA Updated Main Strategy Areas. Source: ITA website

When evaluating Oman’s e-government strategies, academic researchers identified a weakness in the new implementing strategies: the ITA had not considered public opinion and government employees, which led to delays in the initial phases of strategy implementation (Al-Mamari et al., 2014).

However, despite the ITA’s initiative to implement the e-government strategy, it has no authority to impose it on other government agencies. It can only coordinate its efforts with those agencies to implement such things. This lack of authority has resulted in variation between these agencies in the adoption of e-government standards in the initial phases, which caused a long delay in ITA-initiative implementation (Al-Mamari et al., 2014).

Oman’s e-government strategy initially developed very steadily and slowly. Its e-government programme is still in its early stages, with suggestions that the government needs to promote training in the skills required for e-government implementation and ICT in general. It is proposed that this could be made possible by focusing on IT institutions, which could lead to an increase in the number of enrolled students (Abanumy et al., 2005). In addition, Oman’s ICT authority (mainly ITA) needs to develop their own e-government guidelines within their own contexts, and avoid adapting guidelines used by others that may be inappropriate. There are 12 critical barriers factors for Oman’s e-government adoption, which have varied degrees of effectiveness. Of these, the first five are the most effective (AlShihi, 2006). The 13 factors are shown in Table 2.3 below.

Table 2.3: AlShihi Barriers to E-Government Adoption. Source: AlShihi (2006)

1. Users’ lack of IT knowledge, awareness and motivation	2. Lack of proper legislation and laws	3. Poor infrastructure and technologies
4. Lack of marketing campaigns	5. Lack of user trust and confidence	6. Lack of skilled IT staff
7. Culture and language conflict	8. Top officials’ lack of commitment and understanding	9. Bad project control and management
10. Lack of user input and feedback	11. Lack of funding	12. Lack of security

### 2.2.5.2 The Challenges of Implementing E-Government in Oman

Implementing e-government in Oman faces many challenges. It was previously identified that insufficient support from top management, difficulties in information integration and exchange among government agencies and the lack of skills and capabilities of those responsible for e-government implementation were the main challenges. In recent years, issues related to outsourcing, external consultancy, infrastructure and legal concerns have been considered to be



the main obstacles (Al-Busaidy & Weerakkody, 2011). These challenges are also commonly found in many developed and developing countries; other concerns include privacy and security (Al-Khouri & Bal, 2007; Bertot et al., 2012), accessibility (Bertot et al., 2012; Choudrie et al., 2004), infrastructure (Al-Khouri & Bal, 2007; Dada, 2006), availability (Al-Busaidy & Weerakkody, 2011), organisational culture (Criado et al., 2013), national strategy (Chen et al., 2006; Kuzma, 2010), the digital divide (Ali, 2011) and management attitudes towards e-government implementation (Kuzma, 2010).

A different Oman and e-government study showed that many stakeholders (citizens and officials) from both the public and private sectors were very optimistic, and expected e-government implementation to be a smooth and quick transition and to take place within one to two years (Espinosa & Al-Maimani, 2009). However, the study stressed that these individuals lacked the knowledge and concepts essential for e-government implementation, and that such implementation required a firm foundation such as technical infrastructure and skills. The e-government report insisted that a gradual and steady implementation would avoid many challenges that might be faced if a quick implementation schedule was followed. E-government implementation thus faced many challenges and obstacles resulting in delays in the implementation of many projects (ibid). These challenges are shown in Table 2.4 below.

Table 2.4: Oman E-Government Challenges. Source: Espinosa and Al-Maimani (2009)

Challenges	Explanation
Difficulties in outlining e-government objectives as stakeholder expectations vary	Some stakeholders overstate their expectations and demands, which result in difficult objectives
Difficulties in locating budgets strategic plans as a substitute plan	Oman strategic plans commenced before the initiation phase of e-government, thus ICT infrastructure was not considered
Stakeholder absence	Key stakeholder moved to other jobs/projects before the end of e-government projects, thus losing interest in the original projects
Resistance to change people, processes and technology	People resist the new changes and want to continue to do what they are used to doing
A tendency among the more ambitious projects to fully deliver the anticipated benefits	This trend increases as the many organisations and complex functionalities involved required added more complexity to the projects
Cultural inappropriateness	Existing culture means that failure is ignored or denied and is not discussed, even for learning purposes, for example
Electronic illiteracy	Exists; e-Oman education program made a higher priority
Skewing of incentives	Situation does exist where there are incentives for ongoing failure, for example; a successful e-government might result in recognition downsizing
Irrelevance of success/failure	Different stakeholders have different interests and gains from such projects; thus the outcome, whether a success or failure, becomes irrelevant
Fear of exposure	Some stakeholders fear that the learning process will expose their shortcomings (knowledge, ICT ignorance, corruption)
Difficulties in defraying e-government failure costs, such as financial costs	Money invested in equipment, consultants, new facilities, training programs as well as public servants

Challenges	Explanation
Difficulty in dealing with intangible costs	Failure increases the barriers for future e-government projects; skilled individuals moving to other organisations, the private sector or to a different country

Furthermore, despite the initiatives which the Omani government is implementing to enhance ICT and e-government, factors such as lack of competition among internet service providers, the absence of well-developed infrastructures and the highly priced internet has caused delays in e-government implementation (Alqudsi-ghabra et al., 2011).

## 2.3 Web 2.0, the New E-Government

### 2.3.1 Understanding Web 2.0

As defined earlier in Chapter 1, social media (SM) is “a group of internet-based applications that build on the ideological and technological foundation of Web 2.0, and that allow the creation and exchange of user-generated content” (Kaplan & Haenlein, 2010: 61). It is important to shed light on the technology of Web 2.0 which is considered by many scholars to be the technical foundation of OSNs (Abdallah & Khalil, 2009; Bonsón et al., 2012).

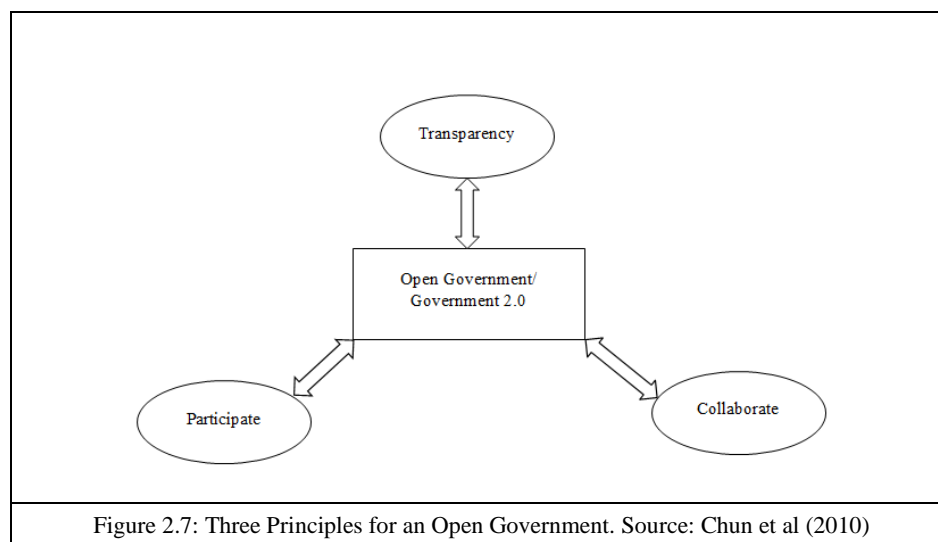
The success of implementing e-government is related to many factors, such as the availability of good infrastructure (Al-Hujran et al., 2015; Weerakkody et al., 2015) and good planning, which includes establishing a link between the government and the community during the building and launching of e-government (Bertot et al., 2013). However, some scholars relate the failure of e-government systems to the technology of Web 1.0 which was used initially. Batorski and Hadden (2010: 3), for example, state that “e-government did not achieve expected results because enabling technology was Web 1.0 oriented”.

Web 1.0 was of the era in which e-government started to launch its websites and establish its presence on the internet. The government also used Web 1.0 to create its website, or, as Chun et al. (2010: 1) say, “e-government can be seen as a process of modernization of the public sector from paper-based tasks and processes to digital ones”. During this modernisation, fast and convenient access to government information and services was provided 24/7 and government achieved more efficient operations with streamlined and automated services within and across its agencies. Furthermore, information at this stage “was flowing in one direction, from the government to the public, with limited feedback from citizens” (ibid). The type of e-government

at this stage was called Web 1.0-based e-government or Government 1.0 (ibid), or the first generation of websites (Mergel et al., 2009).

The term Web 2.0 was introduced by Tim O’Reilly and defined as “a set of economic, social and technological trends, that collectively form the basis for the next generation of the internet – a more mature, distinct medium characterised by user participation, openness, and network effects” (Musser and O’reilly (2006: 4). Web 2.0 introduced two-way communication, in which users were allowed to actively create content and profiles and interact directly with each other. In comparison, Web 1.0 allowed only one-directional content dissemination. Web 2.0 examples include web content management systems, wikis, blogs, image and video sharing (e.g. YouTube, Flickr), social networking (Myspace, Facebook), news sharing and ranking (Digg, Reddit), social bookmarking (del.icio.us) and 3-D virtual worlds (Second Life) (Mergel et al., 2009).

Web 2.0 was also seen as an important technology for the public sector, and governments adopted Web 2.0 to enhance transparency and citizen participation (Bonsón et al., 2012; Mergel et al., 2009). Web 2.0 or Government 2.0 has the potential to create real transformative opportunities associated with key public sector issues of transparency, accountability, communication, collaboration and promote deeper levels of civic engagement (Mergel et al. (2009). The use of Web 2.0 led to the term ‘open government’ being coined, which was meant to imply that Government 2.0 overlapped Web 2.0. It was based on three principles: transformation, participation and collaboration (Chun et al., 2010). See Figure 2.7 below.



### ***2.3.2 OSNs and Transformational Changes***

OSNs are a technology that change the way a government functions, transforming it from using traditional to more collaborative technology in which government agencies, citizens and other stakeholders work together to develop an innovative open government (Bertot et al., 2012; Bertot et al., 2010b; Criado et al., 2013).

An increasing number of governments have adopted OSNs, with OSNs “becoming a central component of e-government in a very short period of time” (Bertot et al., 2012: 31). OSNs continue to shape how governments operate and have immense potential to transform governments into more accessible, available and trusted institutions. Additionally, OSNs allow members of the public to engage and collaborate (Bertot et al., 2012).

OSNs are also viewed as having prompted the emergence of a new communication channel that has the potential to “rethink traditional boundaries between individuals, the public, communities, and levels of government”, and in which this interaction and collaboration are altered to develop solutions and enhance services between government and the public (Bertot et al., 2010b: 5).

OSNs present themselves as powerful channels for citizens and enable citizens to share knowledge with the government in a more efficient and convenient way. Additionally, OSNs are transforming governments from an e-government concept to a ‘we-’ government environment with a new form interaction that views citizens as partners rather than customers (Linders, 2012).

An added benefit for governments when adopting OSNs is that they can contribute to anti-corruption measures. OSNs by nature are known as a tool for collaboration and participation among their network members. They also empower members to express themselves and socialise freely. Additionally, information can be published immediately. This is an important benefit for many governments, particularly for developing countries where corruption is common (Bertot et al., 2010b).

Finally, OSNs have the potential to provide governments with information related to the public behaviour and mood. This is hidden in the information generated by OSNs used by the public, and requires filtering for a better understanding. The filtered information is very valuable to the government especially in making decisions or developing a strategy, because it allows the government to evaluate the public reaction to any issue (Kavanaugh et al., 2012). This feature is

also viewed as a benefit, as governments could gain from obtaining other information, such as citizens' opinions, emotions, intentions, behaviours and characteristics, thus providing opportunities and solutions for government innovations, socio-technical issues, government–citizen interactions and collaboration experiences (Chun & Reyes, 2012).

## **2.4 E-government and Online Social Networks**

The information system (IS) being considered in this study is OSNs, defined as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (Boyd & Ellison, 2010: 211).

This definition of OSNs encompasses members' ability to create a profile, share a text, load images and photos, and share links with other members of the site using the many applications available on the internet (Boyd & Ellison, 2010).

Furthermore, OSN services (e.g. profiling tools, texting, posting, blogging and sharing) enable users to create and exchange the content they generate to satisfy their social needs (Hu et al., 2014). Governments can benefit from OSN tools by implementing them and allowing a movement from an earlier e-government stage that focused on the information delivery system to the new social government (s-government) that emphasises interactive and collaborative dimensions (Khan et al., 2014). This is seen as an opportunity for many governments to strengthen their relationships with the public and improve their image in the eyes of citizens, and facilitate better services between government stakeholders (Bertot et al., 2010b; Khan et al., 2014). OSNs also promote open government and give citizens a voice due to their collaborative and participatory functionality (Bertot et al., 2010b). Further, with OSNs empowering citizens, governments are forced to listen and to increase to a high level their interactions with them (Warren et al., 2014). Finally, and currently, governments are using OSNs that are expected to help regulate and present a professional image during interactions with citizens (Al-Aufi et al., 2017).

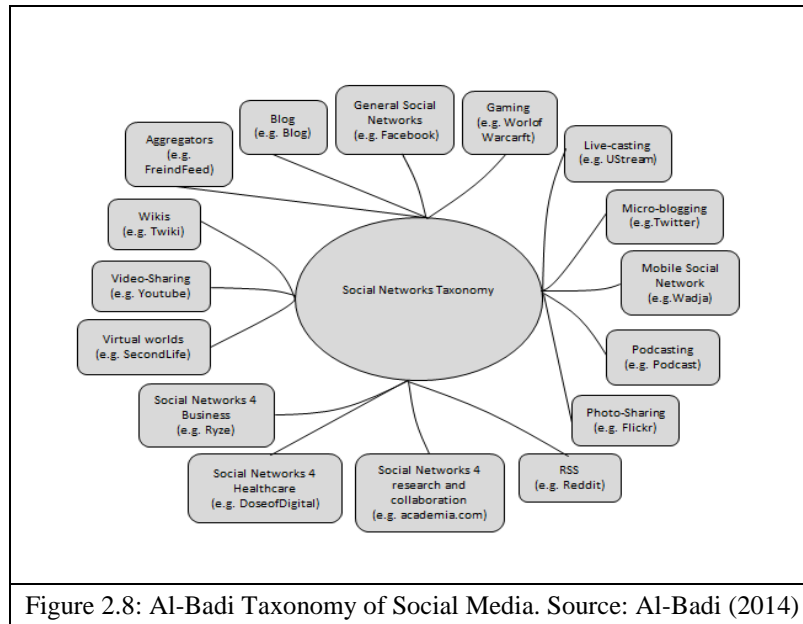
### ***2.4.1 The Nature of OSNs***

Having explained the ways in which OSNs can be used in e-government, this section discusses the attributes of OSNs that enable Web 2.0 government. When considering the benefits of OSNs, one

also has to pay particular attention to the four characteristics of OSNs that enable its potential strength and make them so useful: the ability to collaborate, participate, be empowered and save time (Bertot et al., 2010b). The social interaction possible through OSNs is the reason that it is viewed as a collaborative tool. In this context, users have the ability to participate, socialise and share mutual interests and information. In addition, those who are using OSNs are able to speak and discuss any topic without barriers. In addition, the technology allows its users to publish or broadcast information almost in real time (Bertot et al., 2010b).

It is recognised that OSNs have many applications, e.g. tools such as blogs (e.g. Blog), wikis (Twiki), social networking systems (Facebook, MySpace), web-based systems (chatting, chat groups), photo-sharing (Flickr), video casting and sharing (YouTube), audio sharing (podcasts), mash-ups, widgets, virtual world, microblogs (Twitter), social annotation and bookmarking of websites, RSS (Reddit) and many more (Chun & Reyes, 2012).

Since there are various forms of OSN, there is no single or systematic way to categorise them. This is due to new applications being added to cyberspace on a daily basis and has led to OSN categories being created, based on their presence, media richness and social processes (Kaplan & Haenlein, 2010). Examples include categories being formed based on their scope and functionality, which has led to the conception of ‘the honeycomb’ idea, which represents seven functional blocks of SM (presence, sharing, relationships, identity, conversations, group and reputation) (Kietzmann et al., 2011). OSN categories are based on the functionality they provide, including that for the needs of different people and organisations as well as other services (Al-Badi & Al-Qayoudhi, 2014). The functionality of this social networking can overlap and might be classified as more than one category. This is shown in Figure 2.8 below.



### 2.4.2 *Developed and Developing Countries*

Oman is the research context of this study and when identifying it within the world, the United Nations classes it as a developing country (UNPAN, 2014). For this reason, a definition of the term ‘developing country’ is offered, but, among academics, as research progresses, definitions vary, which is applicable to developing countries, too. The United Nations report classifies countries based on many categories of the condition of their economies (Chen et al., 2006). These include variables such as the Gross Domestic Product per capita, human assets and the degree of a country’s economic vulnerability (UNCTAD, 2007). Other definitions take account of the amount of wealth available to the majority of a country’s people, their education and health (Brahma, 2010) or the country’s industrialisation, health, education, wealth, modernisation and low fertility (Baldwin, 1973). To summarise these various definitions, a developed nation “is a country that has a high Gross Domestic Product and level of industrialization” (Sachs, 2005).

For this study, a developing country is defined as “a nation with a lower standard of living, underdeveloped industrial base and low Human Development Index relative to other countries” (Sullivan & Sheffrin, 2003: 471).

Governments in both developed and developing countries are investing in many areas of development, including education, health, industry, technology and others. However, a gap between them exists and in some areas remains wide (Chen et al., 2006; UNDP, 2013). For

example, in e-government technologies a gap still exists despite the efforts made by many developing countries (Heeks, 2002). The main differences between developed and developing countries in e-government fall into five categories: history and culture, technical staff, infrastructure, citizens, and government officers (Chen et al., 2006). These are shown in Table 2.5 below.

Table 2.5: Main Differences Between Developed and Developing Countries. Source: Chen et al. (2006)

	<b>Developed Countries</b>	<b>Developing Countries</b>
<b>History and Culture</b>	<ul style="list-style-type: none"> <li>• Government and economy developed early – immediately after independence</li> <li>• Economy growing at a constant rate, productivity increasing, high standard of living</li> <li>• Relatively long history of democracy and more transparent government policy and rule</li> </ul>	<ul style="list-style-type: none"> <li>• Government and economy developed early – immediately after independence</li> <li>• Economy growing at a constant rate, productivity increasing, low standard of living</li> <li>• Relatively short history of democracy and less transparent government policy and rule</li> </ul>
<b>Technical Staff</b>	<ul style="list-style-type: none"> <li>• Currently has staff but needs to increase technical abilities and hire young professionals</li> <li>• Has outsourcing abilities and financial resources to outsource; current staff would be able to define requirements for development</li> </ul>	<ul style="list-style-type: none"> <li>• Currently has staff but needs to increase technical abilities and hire young professionals</li> <li>• Does not have local outsourcing abilities and rarely has the financial ability to outsource; current staff may be unable to define specific requirements</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>• Good current infrastructure</li> <li>• High internet access for employment and citizens</li> </ul>	<ul style="list-style-type: none"> <li>• Bad current infrastructure</li> <li>• Low internet access for employment and citizens</li> </ul>
<b>Citizens</b>	<ul style="list-style-type: none"> <li>• High internet access and computer literacy but still has digital divide and privacy issues</li> <li>• Relatively more experienced in democratic system and more active participation in government policymaking process</li> </ul>	<ul style="list-style-type: none"> <li>• Low internet access and citizens are reluctant to trust online services; few citizens know how to operate computers</li> <li>• Relatively little experience in democratic systems and less active participation in government policymaking process</li> </ul>
<b>Government Officers</b>	<ul style="list-style-type: none"> <li>• Decent computer literacy and dedication of resources; many do not make e-government a high priority</li> </ul>	<ul style="list-style-type: none"> <li>• Low computer literacy and dedication of resources; many do not make e-government a high priority due to lack of specific knowledge</li> </ul>

### ***2.4.3 E-Government: OSNs Research in Developed Countries***

As OSNs are the IS of interest in this study, this section now explains and discusses the use of OSNs in developed countries.

OSN use by developed country governments is increasing and changing the world in terms of e-participation and public knowledge (UNPAN, 2014), and providing direct communication and collaboration with citizens (Mossberger et al., 2013). OSNs are widely used in the USA, and European countries such as the UK, which is considered to be ahead of its European neighbours in utilising OSNs in the public sector (Charlton, 2011). OSNs are used by the governments of these countries mostly during elections, to communicate with the public and disseminate information. However, utilisation of OSNs remains arbitrary in most of these countries, with some governments slowly responding to the potential benefits of OSNs (Al-Aufi et al., 2017).

A general search of OSN publications focused on the USA reveals that OSN use was prominent during the American presidential elections of 2008 and 2012 (Chen et al., 2012; Hanson et al.,



2010). In the UK there was increased OSN use during the general election of 2010 (Ampofo et al., 2011) and London riots of 2011 (Tonkin et al., 2012). In many cases the literature examines OSNs in the context of unforeseen events. Both elections and uprising are categorised (Lee & Woo Park, 2013).

Many USA federal agencies adopted OSNs to interact with the public and with other agencies. The increasing use of OSNs is closely related to the 2008 and 2012 presidential elections in which OSNs were employed to encourage citizen participation and change attitudes towards candidates. OSN use was also promoted in the ‘open-government initiative’ of President Obama and later altered to form the US government’s digital strategy (Mergel, 2014).

In the USA, OSNs are used mostly by government officials to provide information and promote their daily activities (Golbeck et al., 2010). Many government agencies in the USA are using OSNs as a one-way communication tool to push information circulated by other agencies, because they are reluctant to establish a direct relationship with citizens or to begin an interactive online conversation (Mergel, 2013b). A study of OSN use in 75 of the largest cities in the USA found that the dispersal of information was a one-way strategy that dominated other forms of communication with the public (Mossberger et al., 2013). In the UK, although the use of OSNs by the government is perceived well by some, others view it as a communication channel that does not have as large an impact as was initially anticipated (Sivarajah et al., 2014).

In South Korea, a leading broadband-implementation country, OSNs were used to interact with citizens based on an open, transparent and collaborative approach. Use of Twitter by the government showed that government entities adopted and followed an interactive strategy to communicate with the public and successfully formed a close-relationship network that encouraged G2C cooperation (Khan et al., 2014). Another study, that explored the use of OSNs by German local government to communicate with its citizens, was completed by Hofmann et al. (2013). The findings proposed a number of guidelines for using OSNs more and exploring their potential to improve the current practice of disseminating information to citizens in traditional ways. Similarly, a Small (2011) study examined the use of Twitter by political parties in Canada and revealed that it was mostly used to broadcast official party information which met the expectations of followers. A study in Norway examined the use of OSNs by parliamentary

representatives and concluded that OSNs were utilised successfully to communicate with electors and the target audience (Sæbø, 2011).

#### ***2.4.4 E-government: OSN Research in Developing Countries***

ICTs have undergone significant developments in the digital arena in many forms, including online services, OSNs and cloud computing (Linders et al., 2015; Sandoval-Almazan & Gil-Garcia, 2012; Vicente & Novo, 2014). The use of such tools by governments in developing countries is increasing, assisted by an increase in e-participation and public knowledge (UNPAN, 2014). These developments have changed the way people view governments and their performance. Members of the public now seek more openness, participation and collaboration, whether in the form of G2C, G2G or citizen-to-government collaboration. One tool that has been seen as an important and vital one to move government administrations to more open government is the use of OSNs (Al-Badi, 2014; Al-Omari & Al-Omari, 2006; Sandoval-Almazan et al., 2011; UNPAN, 2014).

OSN use by governments generally is increasing; for instance, it tripled between 2010 and 2012 with a further 50% increase reported in 2014 (UNPAN, 2014). There was also a huge increase in the number of countries using OSNs for e-government in 2014: in 2012 that figure had been 14; two years later it had risen to 71, a 400% increase. In addition, 118 countries were, by then, using OSNs for e-consultation (UNPAN, 2014). The UN also predicted that the growth and use of OSNs would continue to mean the provision of cost-effective tools and enable governments to provide better services and more public collaboration (UNPAN, 2014).

Developing nations are focusing on new governance initiatives that emphasise more collaborative services to the public and involve all the stakeholders (citizens, civil society, private sector and government) to reengineer current processes and introduce new technology (Mourtada et al., 2014; Sandoval-Almazan & Gil-Garcia, 2012). Despite this, developing nations still show much less headway compared to the rest of the world especially developed nations. This gap has led to calls for many more efforts to be made to increase public awareness, provide sufficient capacities and guide governments and their officials in how to adopt open-government data activities (UNPAN, 2014). Presently, the progress of e-government attainment is seen through the increased use of OSNs in, for example, e-participation and the blossoming of open-government data (UNPAN, 2014).

Developing countries have adopted OSNs rapidly, due to members of the public using these tools (i.e. Facebook and Twitter), familiarity with its functionality and the tools' popularity. Additionally, many governments did not need to invest in setting up their own platform for such tools, which enabled their fast and efficient use. Despite this, many developing countries are lagging behind developed nations, as they often need to have a clear business transformation plan as well as a very strong initiative and commitment to maximise the benefits to their public administrations (UNPAN, 2014).

In Mexico, government portals are important not only as a communication channel to disseminate information between governments and the public, but also to enable participation and collaboration in decision-making regarding public affairs (Sandoval-Almazan & Gil-Garcia, 2012). Government portals were scoring high in information display (42%) and provision of services (34%) while portal interaction was reported to be very limited. In terms of participation, there was low use with no evidence for collaboration. This indicates that government portals in developing countries such as Mexico are mainly used to disseminate information rather than leverage more participation or collaboration with the public (Sandoval-Almazan & Gil-Garcia, 2012).

A comparative study of 20 developed and 20 randomly selected developing country websites and their adoption of OSNs showed that developed nations not only adopted OSNs efficiently but also promoted a higher quality of network compared to developing countries (Chua et al., 2012). Furthermore, both developed and developing nations' governments embraced OSNs in building and enhancing their relations with citizens, and engaged with them at a personalised level. In addition, the study highlighted that continued use of OSNs by government agencies was likely to improve the perceived quality of their websites (Chua et al., 2012).

A study of the use of OSNs and e-government in 50 developing countries in Asia revealed that around 72% disseminated information and promoted tourism; furthermore, only 30% of these Asian governments were utilising OSNs to reach potential users. The study suggests that governments need to build a strategy that enables them to reach more of their audiences and build more functionality into sites that focus on interactive participation. It also revealed that many governments do not have an initiative or a strategy for using OSNs, and that more attention should be paid to changing management attitudes towards adopting OSNs and developing innovative methods and initiatives to utilise OSNs more effectively (Kuzma, 2010).

Research into the Chinese government's OSN use reported that the majority of OSN-posted messages focused on self-promotion instead of public services. Furthermore, the interaction between government agencies and the public was inadequate and preliminary. However, after a year of continuous use of OSNs a significant increase in interaction was reported, reflecting a change from 24.3% to 39.8% in public service posting. This indicated improvements over time and more focus by government agencies on engaging the public to bring about improvements in public services (Zheng & Zheng, 2014).

The use of OSNs and public engagement with governments in the Arab world were reported to be very low (Mourtada et al., 2014). Additionally, information was communicated in a one-way manner: from government to citizens. It was found that OSN tools are largely used by Arab state governments for broadcasting government news and activities (Schwalje & Aradi, 2013). Another study revealed that 55% of those surveyed strongly supported government use of OSNs and saw this as a positive indication of benefits. Furthermore, 50% reported that using OSNs would make governments more open and interactive. This was also the view among government employees who had a positive view of OSN use and related this to citizen satisfaction, which in their view represented a successful indicator (Mourtada et al., 2014).

#### ***2.4.5 E-Government: OSN Research in Gulf Cooperation Council Countries***

In terms of OSN use in the Arab world, GCC countries are seen as leaders in the adoption of ICT and in e-government development in their societies (Salem, 2017). Rapid steps are being made in the development of innovative e-government programmes, with efforts focused on enhancing services based on the citizen-centric model (Salem, 2014; Salem, 2017). As a result of this growth and strategy, citizens in these countries are shifting to a more collaborative interaction with their governments (Al-Khouri & Bal, 2007; Al-Khouri & Bachlaghem, 2011; Mourtada et al., 2014; UNPAN, 2014).

A United Nations report ranked GCC countries in the top ten in Western Asia, reflecting their high investment in OSNs, delivery of e-services and information accessibilities in an effortless way, with a clear focus on citizens' needs and services. According to the report, Bahrain, Oman and Kuwait had the highest rank increase between 2012 and 2014, moving up by 18, 16 and 14 places respectively. All the GCC countries were among the leading 50 in the world, with Bahrain ranked the highest at 18<sup>th</sup> position (UNPAN, 2014).

GCC countries are working together by linking their government's portals with each other to provide their citizens with e-services and access. This is seen as a way to encourage the public sector to collaborate and allow their citizens easier navigation and access, which is seen as a new initiative to stimulate public sectors to deliver more transparent and highly efficient services (UNPAN, 2014).

The UAE is considered by many to be a GCC country that is successfully implemented OSNs use and one that has taken serious steps to develop open government (Mourtada et al., 2014). The Arab SM report that the UAE government was the first of any GCC country to brainstorm ONS use with the public. This resulted in OSNs being used to re-design/improve public services, introduce new ideas and form a joint strategy on issues related to education and health (Mourtada et al., 2014).

The use of OSNs in the UAE was examined in a study by Al-Jenaibi (2011) that focused on the importance of OSNs as perceived by the public. The results showed that the UAE public sector was the most successful of all sectors, including media and tourism, in using OSNs in an innovative way. Public perceptions of the benefits of government use of OSNs was very high and emphasised transparency issues.

A study by Al-Badi (2014) examined several GCC ministries and their OSN use. The study assessed ministries' portals and identified some countries as early adopters of OSNs (e.g. UAE), while others were slower to adopt the technology. Many ministries in this study implemented OSNs in their portals interactively and the variation between them ranged from the highest at 63% (UAE) to the lowest at 43% (Kuwait). Furthermore, and despite these variations, the challenges faced were overcome by dedication and forming strategies such as guidelines for the adoption of this technology by governments.

Another study looking at the use of e-government and OSNs in various Arab countries including GCC countries was conducted by AlAnazi and Chatfield (2012). This study examined the use of OSNs in e-government in the Middle East and stated that among GCC countries only UAE, Saudi Arabia and Bahrain were implementing an open data policy in their portals, as a result of using OSNs. However, the level of OSN use across these governments varied, with the UAE and Saudi Arabia classified as high and Bahrain as limited. Furthermore, it is clear that the use of OSNs is still limited to disseminating information about government news and official press releases. The

study indicated that, while there is an opportunity for the public in these countries to submit their feedback or comments, governments are still not interactively involved with them.

In Oman, a study by Al-Badi (2014) found that 46% of government institutions are using some sort of SM but 54% of them are not using any sort of SM at all. This was confirmed by a study by Al-Wahaibi et al. (2015) on government adoption of OSNs. This study reported that half of all government agencies in Oman do not use SM to reach their users. Furthermore, the research stressed that these government agencies are still utilising old, traditional processes to provide services to their citizens, which led to a reduction in the quality of such services. A description of other studies of e-government and OSNs in the Gulf region is provided in Appendix I.

On the other hand, the use of OSNs among Omani citizens has increased. According to the Omani National Centre for Statistics and Information (NCSI, 2015a), 48% of citizens use OSN tools frequently and 30% of those use them on a daily basis – for an average of at least two hours per day. The report indicated that citizens with higher education levels were using them more than those with lower education levels and that Facebook and Twitter were the most-used tools. More studies on e-government and OSNs are listed in Appendix I.

#### ***2.4.6 E-Government OSN Adoption: Limitations and Challenges***

Despite the fact that OSNs have the potential to transform government from e-government (where governments use ICT to disseminate information to citizens and the citizen is viewed as a customer) to we-government (government participates interactively with all stakeholders and views them as partners), there are limitations and challenges that could potentially limit the benefits of using OSNs (Linders, 2012). Further, the use of OSNs in e-government has many implications that must be addressed (Criado et al., 2013). These challenges include but are not limited to:

- Lack of regulation governing the activities of OSNs among participants in terms of rights.
- Privacy and security of identification and other personal information, guaranteed to all participants, as well as the security of their way of communication.
- Lack of communication between different levels of government.

The above e-government challenges and other challenges were discussed in detail by Bertot et al. (2012), who suggested that regulators need to develop a policy that considers access, privacy, security, governing and governance as well as updating existing government policies for better

guidance for all stakeholders involved with OSNs technologies. Other issues concerning the maintenance of consistent information and regular updates were also important, in addition to assurances on preventing the release of sensitive or secret information.

Governments are required to make information and data accessible to the public if OSNs are to be widely utilised, as transparency and openness are essential to gain public trust and confidence. Attention should also be paid to the needs of others who might want to use e-government OSNs, such as the disabled or non-native speakers. Further, It was suggested that in order to utilise the potential of OSNs, governments should closely examine their OSN policies while these technologies continue to develop and evolve (Bertot et al., 2012).

The provision of IT-skilled people is another issue that concerns many countries especially developing nations. This is seen by scholars as a challenge facing those seeking e-government technologies. Many countries don't have IT departments in place and if they do they lack skilled people and modern equipment. Furthermore, retaining skilled staff – if they exist – is also very difficult, as financial resources are very limited and focused on other development priorities (Chen et al., 2006).

The importance of an e-government implementation strategy is emphasised by some scholars. They argue that lacking a defined strategy is seen as high risk, as is not updating laws and regulations. Furthermore, failing to understand the government's organisational culture and processes could result in a high perceived risk that could be avoided by understanding the culture and being willing to change it (Picazo-Vela et al., 2012).

One aspect that is considered essential in adapting OSNs is the willingness of any government to leverage these tools in the first place. Failing to adapt in this way will impose significant limits and lead to failure. One scholar stated:

The promise will never be realized if governments do not change their corresponding leadership, policies, and governance to become more consultative, participatory, collaborative, and transparent. (Golden Pryor et al., 2014: 24).

Having provided a generalised overview of public sector organisations, electronic government, Web 2.0, and e-government and OSNs, the next section provides an overview of the theoretical foundations of this research.

## 2.5 Diffusion and Adoption

The use of reliable, accepted and well-established theory is perceived to be most appropriate when a researcher aims to develop a new theoretical framework (Macredie & Mijinyawa, 2011; Miles & Huberman, 1994; Yin, 2003). Having explained e-government/OSNs and the public sector it was considered important to shed light on the various adoption theories. This process was also viewed to be important for building a deeper understanding of the factors that might influence ICT adoption (Macredie & Mijinyawa, 2011). As we are considering OSNs and their adoption and use, the importance of the individual aspect emerges; therefore, aspects of the classic theories of acceptance, use and the diffusion of technologies are viewed as appropriate.

The various theories considered for this study are diffusion of innovation (DOI) theory, the theory of reasoned action (TRA), the technology-acceptance model (TAM & TAM2) and the decomposed theory of planned behaviour (DTPB), all of which provided a good basis for understanding; these theories and related research will now be reviewed. The next section explains technology diffusion and adoption theories which were consulted for the theoretical foundations of this research.

### 2.5.1 Diffusion of Innovation Theory (DOI)

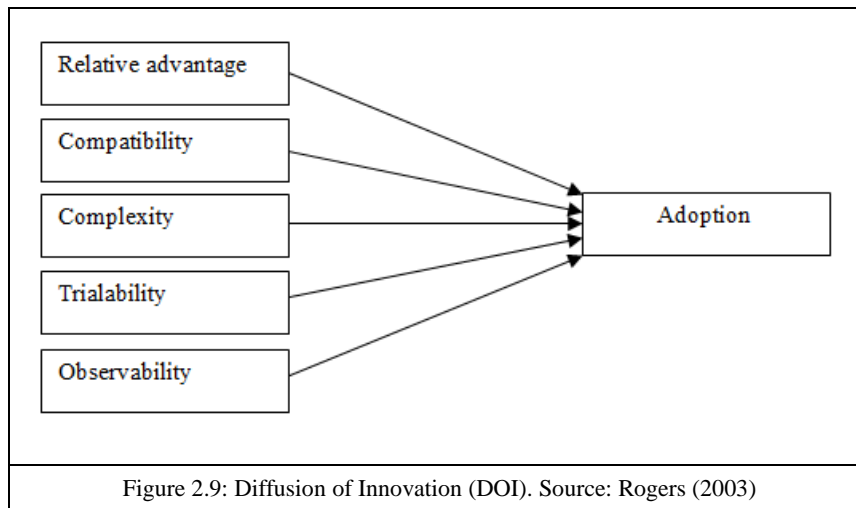
Another widespread model that was developed by Rogers (1995) and used to explain user-adoption of new technology in ISs is the DOI theory. Rogers (2003) defined diffusion as the “the process in which an innovation is communicated through certain channels over time among the members of a social system” (p. 5). He added that innovation might be an idea, practice, or object that is perceived by individuals to be new (ibid). Further, the innovation diffusion process is considered as “an uncertainty reduction process” (p. 232), that motivates individuals during diffusion processes to seek information to reduce this uncertainty. Rogers (2003) identified five attributes that determine the success of the innovation or help to decrease the uncertainty of it: relative advantage, compatibility, complexity, trialability, and observability. Table 2.6 and Figure 2.9 below provides a brief description of these attributes.

Table 2.6: Rogers’ Perceived Attributes of Innovations. Source: Rogers (2003)

Attribute	Description
Relative advantage	“The degree to which an innovation is perceived as being better than the idea it supersedes [ ... ]. The greater the perceived relative advantage of an innovation, the more rapid its rate of adoption will be.” (p. 15)



Attribute	Description
Compatibility	“The degree to which an innovation is perceived as being consistent with the existing values, past experiences and need of potential adopters. An idea that is incompatible with the values and norms of a social system will not be adopted as rapidly as an innovation that is compatible.” (p. 15)
Complexity	“The degree to which an innovation is perceived as difficult to understand and use. Complicated innovations are adopted more slowly than simpler innovations.” (p. 16)
Trialability	“The degree to which an innovation may be experimented with on a limited basis. New ideas that can be tried on the instalment plan will generally be adopted more quickly.” (p. 16)
Observability	“The degree to which the results of an innovation are visible to others. The easier it is for individuals to see the results of an innovation, the more likely they are to adopt it.” (p. 16)



The DOI model suggests that individuals (adopters) of innovation adopt or use innovation at different time sequence. Based on this , individuals are classified as innovators, early adopters, early majority, late majority and laggards (Rogers, 2003).

The five attributes from Rogers’ model, along with two additional attributes – image and ease of use – were introduced by Moore and Benbasat (1991). They argued that in order to improve reliability Rogers’ observability should be decomposed into two new attributes: result demonstrability and visibility. With these new attributes, Moor and Benbasat (1991) developed a model that employs eight attributes to measure perception of using information technology innovation. The model constructs are briefly described in Table 2.7 and illustrated in Figure 2.10 below.

Table 2.7: Rogers’ Perceived Attributes of Innovations. Source: Rogers (2003)

Attribute	Description	Reference
Relative advantage	The degree to which an innovation is perceived as being better than its precursor.	Rogers (2003)

Attribute	Description	Reference
Compatibility	The degree to which an innovation is perceived as being consistent with the existing values, needs and past experiences of potential.	Rogers (2003)
Trialability	The degree to which an innovation may be experimented with before adoption.	Rogers (2003)
Complexity/ease of use	The degree to which an innovation is perceived as being difficult to use.	Rogers (2003)
Result demonstrability (decomposed of Observability)	“Tangibility of the results of using the innovation.” (p. 203).	Moore and Benbasat, (1991)
Visibility (decomposed of Observability)	The degree to which one can see others using the system.	
Image	“The degree to which use of an innovation is perceived to enhance one’s image or status in one’s social system.” (p. 195).	Moore and Benbasat, (1991)
Voluntariness of Use	“The degree to which use of the innovation is perceived as being voluntary, or of free will” (p. 195).	Moore and Benbasat, (1991)

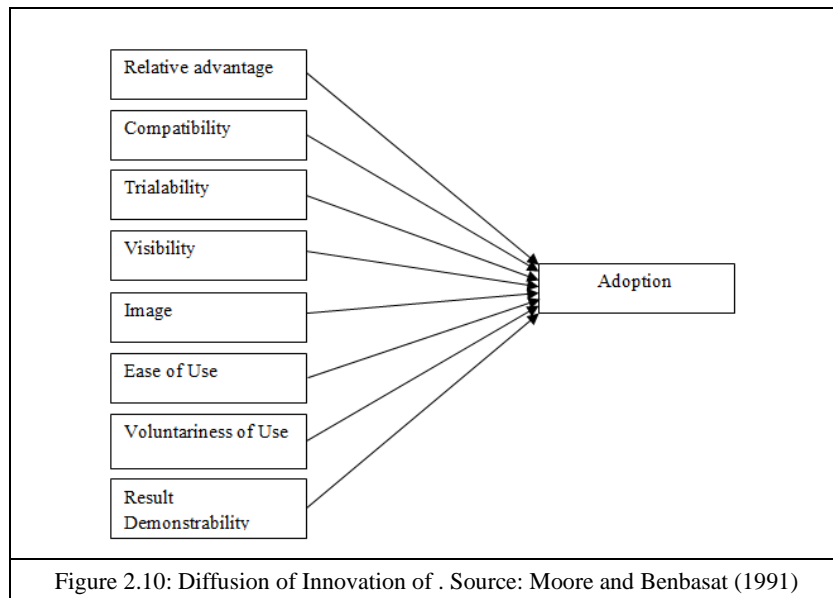


Figure 2.10: Diffusion of Innovation of . Source: Moore and Benbasat (1991)

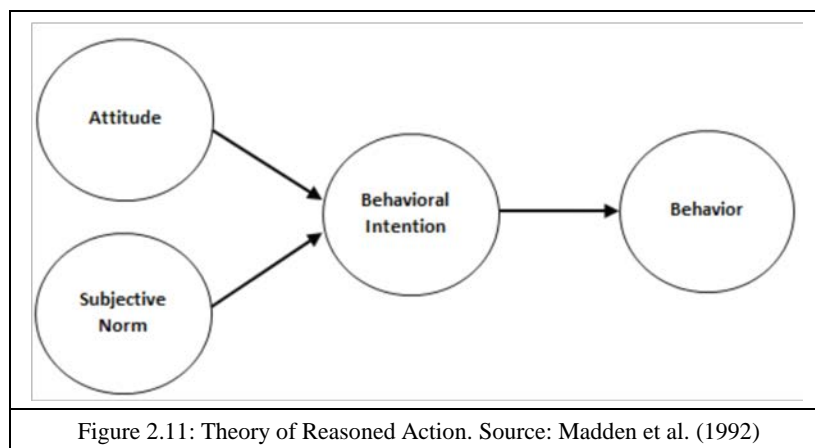
This model, which was developed based on Rogers’ model, offers a useful tool in studying the adoption and diffusion of innovation (Moore & Benbasat, 1991).

**2.5.2 Theory of Reasoned Action (TRA)**

In 1975 Fishbein and Ajzen developed the TRA (Figure 2.11) in which they identified that an individual’s behavioural intentions are determined by the individual’s actual behaviour. This

behavioural intention is determined by the attitudes of this individual, where attitude is “an individual’s positive or negative feelings (evaluative affect) about performing the target behaviour” (Fishbein & Ajzen, 1975: 216), and the subjective norms. A subjective norm is “the person’s perception that most people who are important to him think he should or should not perform the behaviour in question” (Fishbein & Ajzen, 1975: 302). In other words, the information or the individual’s beliefs determine intention and the subsequent behaviour either by his/her attitudes and/or through that person’s subjective norms (Ajzen, 1991).

Thus, TRA has been used to predict behaviour and/or behavioural intentions. Behavioural beliefs are considered to affect an individual’s subjective norms and behaviour. In some cases, TRA was also used to explain behaviour following the adoption of technology (Madden et al., 1992). For example, TRA was used to create a model that examined users’ behaviour (social construct) in using SM blogs (Hsu and Lin, 2008). Similarly, TRA was applied to examine the factors which affect the adoption of Facebook by Tunisian students (Nasri & Charfeddine, 2012).



Despite the popularity of the Fishbein and Ajzen theory, they explicitly acknowledged the existence of limitation, within their model, particularly in the distinction between a goal intention and a behavioural intention (Sheppard et al., 1988). Sheppard et al. (1988) believed that TRA was developed to deal with behaviours but not the outcomes of those behaviours, which meant the model “deals with only those behaviours under a person's volitional control” (p. 326) and that “actions that are at least in part determined by factors beyond individuals' voluntary control fall outside the boundary conditions established for the model” (p. 326).

### 2.5.3 TAM and TAM2

In 1989 Davis developed TAM to measure two constructs: perceived ease of use and perceived usefulness as a theoretical model, to be used when there was a need to predict user behaviour towards technology or how an individual perceived a technology, and the effect of that person's intention to use it (Straub, 2009). This theory thereafter has been widely used among IS researchers and applied to a diverse range of technology and users, to measure technology acceptance and use. TAM is considered by many scholars to be one of the most widely employed models explaining individual acceptance and use of technologies (Dennis et al., 2003).

This model predicts two constructs that determine the actual usage of innovation. The first is perceived ease of use which is the “degree to which a person believes that using a particular system would be free of effort” (Venkatesh & Davis, 2000: 187). The second is perceived usefulness which is the “the degree to which a person believes that using a particular system would enhance his or her job performance” (Venkatesh & Davis, 2000: 187).

Scholars using many empirical tests have found that perceived usefulness has a consistent and strong influence in predicting individual intention to use a technology (Horst et al., 2007; Karahanna et al., 1999; Lippert & Forman, 2005; Venkatesh & Davis, 2000) and that perceived ease of use tends to have a less consistent effect as a direct determinant of intention (Venkatesh & Davis, 2000).

In 2000 the extended TAM – TAM2 – was developed by Venkatesh and Davis (Figure 2.12). It was developed to include other determinants seen as key to perceived usefulness and intention-constructs usage. In addition, it was used to better understand the effects of these key determinants and how they changed over time with increasing user experience, with respect to the target system (Venkatesh & Davis, 2000).

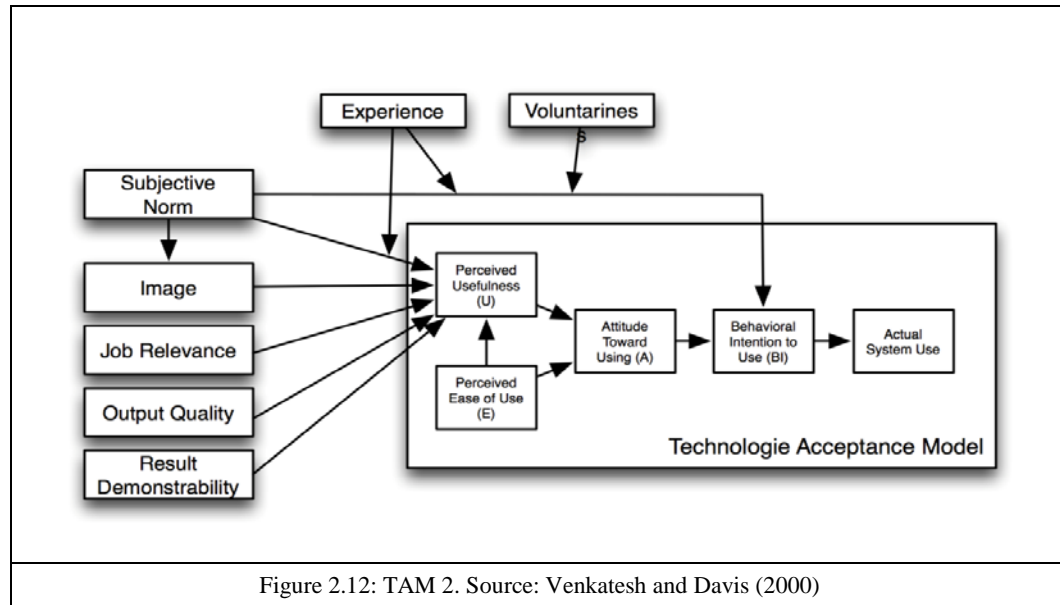


Figure 2.12: TAM 2. Source: Venkatesh and Davis (2000)

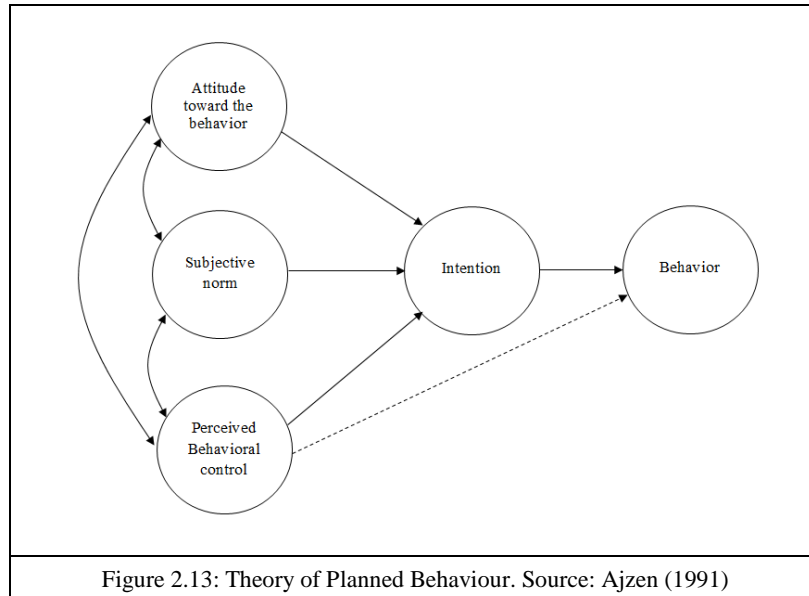
The use of TAM in OSNs or SM research has been widely applied. Such studies include, but are not limited to, a Casaló et al. (2011) study that focused on examining travel-purchase decisions when using a social network travel community. Similarly, TAM was applied by Hossain and de Silva (2009) in examining social structure and influencing factors and the effect of social networks on user acceptance of technology. Another study by Kwon and Wen (2010) used TAM to examine individual characteristics in people starting to use OSN services. Evans et al. (2014) applied TAM to study user attitude and usage behaviour with regard to OSNs in developing future understanding and the development of these technologies.

Despite the widespread use of TAM in IS research, there are limitations in terms of its known weaknesses in not permitting more extendibility (does not provide any extension facilities) (Ozkan & Kanat, 2011) and not being sufficiently explanatory (known for simplicity of its structures (Ozkan & Kanat, 2011).

#### **2.5.4 Theory of Planned Behaviour (TPB)**

The TAM and TPB are an adaptation of the TRA (Ajzen, 1991; Gatewood et al., 1995). The TRA and the TPB emphasised that behaviour is a direct function of behavioural intention. This theory traces the relations between attitudes, subjective norms and perceived behavioural control back to the foundation of beliefs about behaviour (Ajzen, 1991). Similarly, Taylor and Todd (1995b) asserted that TPB provides a richer explanation of behavioural intention and usage behaviour in IT innovation. TPB looks at behavioural intention as a function of attitude and subjective norms,

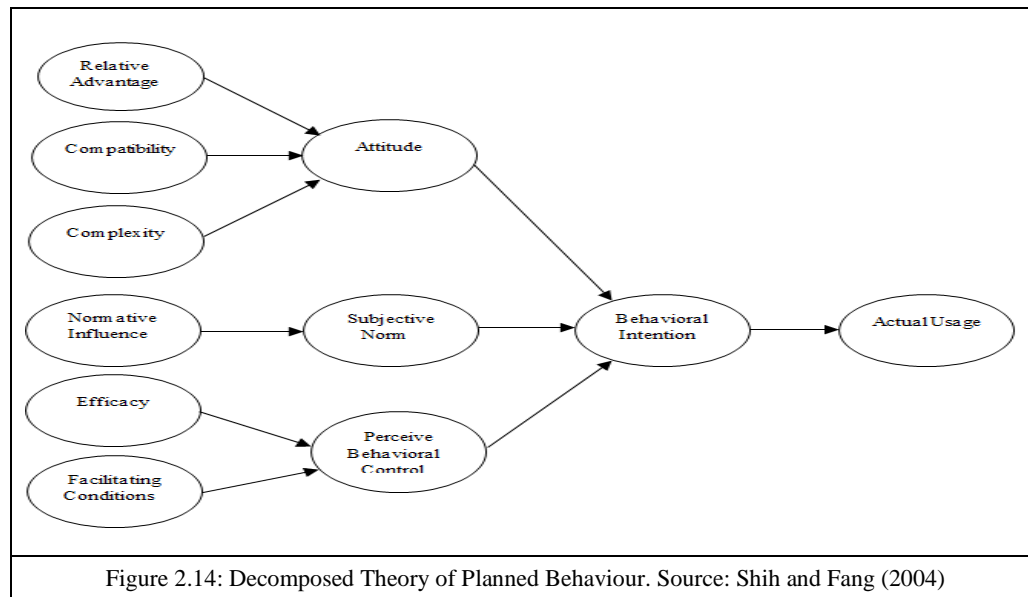
with perceived behavioural control added as an additional construct to the TPB model, to justify situations where individuals lack complete control over their behaviour (Ajzen, 1985, 1991). Figure 2.13 below illustrates the TPB.



Some scholars, such as Taylor and Todd (1995b), argue that TPB contains some limitations when it comes to individual intention, and that individuals need motivation to perform a given behaviour. This raises concerns, particularly when measuring behaviour such as a consumer's adoption behaviours. Further, the model assumes an identical belief structure common to respondents, and that such "limitations provide boundaries to the generalizability of results" Taylor and Todd (1995b: 151). With this in mind, Taylor and Todd (1995b) proposed the DTPB, in which they decomposed the belief structures allowing for crossover effects in the TPB which resulted in model-prediction improvement.

### ***2.5.5 Decomposed Theory of Planned Behaviour (DTPB)***

The DTPB was developed by Taylor and Todd in 1995 (Figure 2.14). Their model tested the antecedents of behavioural intention and they proposed the decomposition of attitudinal belief in order to better understand the relationships between the belief structures and the antecedents of intention (Taylor & Todd, 1995b). The model is an extension of the TPB, which was introduced by Ajzen in 1991 to examine technology adoption in the context of behaviour and social influence. The theory typically combines the belief structures into unidimensional constructs. However, this integration of beliefs has been subject to criticism (Taylor & Todd, 1995b).



Attitudinal belief structures (ABS) consist of three significant characteristics of an innovation that influences adoption. They are: relative advantage, complexity and compatibility. These three constructs are directly and consistently related to adoption decisions (Taylor & Todd, 1995b). Taylor and Todd (1995) argued that, by decomposing ABS, the relationships between the belief constructs and antecedents of intention should become clearer and be better understood, and thus point to other specific factors that could influence behaviour. Further, they argued that this could provide a stable set of beliefs which can be applied across a variety of settings.

DTPB was used in several studies related to OSNs, including a study by Al-Debei et al. (2013) which examined why people continue using OSNs (Facebook). Another study that applied the DTPB was by Hsu and Chiu (2004) who examined predicting e-services continues behaviour which was validated using a field survey of web-based tax-filing-service users. In the same context, DTPB was applied in a study to predict internet banking in Taiwan (Shih & Fang, 2004).

## 2.6 E-Government and Institutional Theory

This research emphasises public sector organisations and reviews of literature suggest that institutional theory is also applicable to this study. Reasons for this are offered below.

The government is seen to be “learning to govern online” (Mahler & Regan, 2002). Institutions in turn are “multi-faceted, durable social structures, made up of social elements, social activities, and material resources” (Scott, 2001). Through the lens of institutional theory, there is an

appreciation of the influence of context on ICTs and of the impact of other factors on their design and implementation, for the provision of e-government (Luna-Reyes & Gil-García, 2011). Institutional theory is more of an integrative approach that recognises the importance of the context in which ICT is embedded and assists understanding of the influences of various factors on their selection, design, implementation and use (Fountain, 2001; Gil-García, 2005).

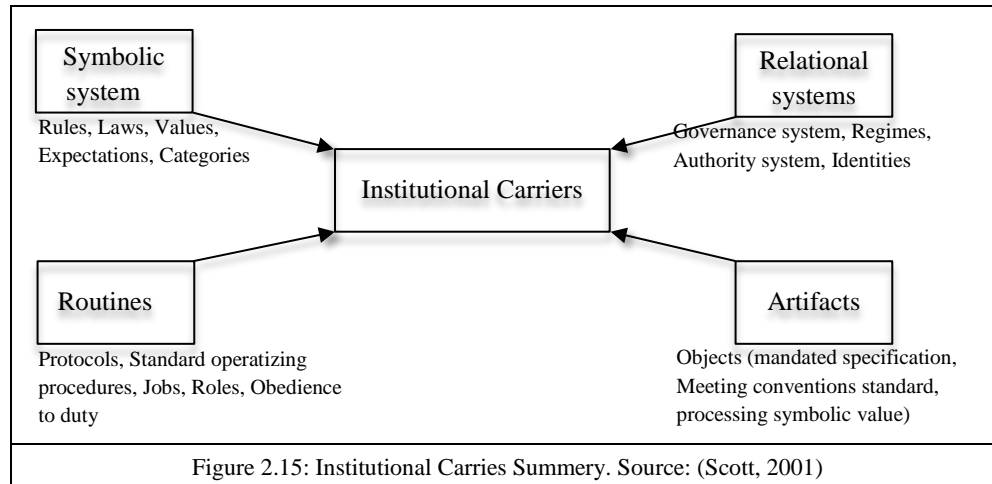
Institutions are social structures or mechanisms made up of a group, individuals or organisations within which collective exercise acts in a controlled environment that will constantly be alerted over time (DiMaggio & Powell, 2000; Scott, 2001). As organisations are also considered within institutional theory, an explanation of the concept of organisations is provided. Organisations are seen as social arrangements, inside an institution's framework, whose members share goals and have separated boundaries from their environment while controlling their performance. In addition, organisations are viewed not only as production systems, but also as social and cultural systems (Scott, 2001).

Within management literature, the term “institutions” is seen as synonymous with “organisations”, even though organisations are considered as formalised patterns of rules and decision-making. However, institutions are not equivalent to organisations, as institutions also have underlying ideological values and norms (Gupta et al., 2010). Further, in institutional theory “the concept of ‘institutions’ does not mean ‘organisations’” (Bjorck, 2004: 2).

Institutions are viewed as being transmitted and managed by being embedded in carriers (Jeppeson 1991 cited in Bjorck (2004). Institutional carriers have four types of characteristics, ranging from regulative, via normative, to cognitive–cultural aspects (Scott, 2001). In Figure 2.15 below it is shown that institutional carriers use different systems to enable their functioning. First, there are symbolic systems, which include the rules, values, expectations and other items that are transmitted to the institution. Then there are relational systems in which the governance and authority aspects impact the institution. The third category is the routines, that include the jobs, operations and daily functioning of the institution, and finally, there are the artefacts that include the symbols, logos and meeting a convention's standards.

Assessing the impact of information technology on institutions (productivity, life style, quality of services, etc.) helps us understand the relationship between the adopted technology, organisational characteristics, institutional arrangements and environmental conditions (Fountain, 2001).





Some examples of an institutional carrier that might be affecting IS/IT are values and expectations (symbolic system), and standard operating procedures and roles (routines). These carriers could affect the adoption of e-government solutions such as OSNs.

It was important to shed light on two concepts (institutions and organisation) for this study since the research is about case studies of public sector organisations and the adoption of e-government solutions that involve other stakeholders or agencies. Having briefly introduced the two key concepts related to management studies, the following sections shed light on the institutional theories that were used to gain more understanding and increase knowledge.

### 2.6.1 *The Institutional Theory*

When considering e-government, an online service or product is not the only issue of importance; the foundations upon which it is built also need to be recognised. This leads to consideration of the institutional theory, where “the evolution of e-government is viewed to be a process of institutionalization” (Yang, 2003: 437). The government is seen to be “learning to govern online” (Mahler & Regan, 2002). Institutions are multi-faceted, durable social structures, made up of social elements, social activities and material resources (Scott, 2001). Through the lens of institutional theory, there is an appreciation of the influence of context on ICTs and of the impact of other factors on their design and implementation for the provision of e-government (Luna-Reyes & Gil-García, 2011).

Institutional theory is largely an integrative approach that recognises the importance of the context in which ICTs are embedded. This, in turn, improves understanding of the influences of various

factors on ICT selection, design, implementation and use (Fountain, 2001; Gil-García, 2005). Further, researchers increasingly recognise that complex relations exist between the ICT and social contexts in which ICTs are adopted, developed and implemented (Fountain, 2001; Orlikowski, 2000). Institutional theory can, therefore, be seen as one of these integrative approaches that recognises the importance of the context in which ICTs are embedded; it helps us understand the influences of various factors on ITC selection, design, implementation and use (Fountain & Gil-Garcia, 2006).

It is argued that IS researchers consider individuals and small groups to be information processing entities that can focus on information flows and alter them in order to enhance learning and feedback (Orlikowski & Barley, 2001). Moreover, IS researchers recognise that technology enhances performance and the processing of information and can alter social relations within an organisation's hierarchies or within another social context (Orlikowski & Barley, 2001).

Institutional theory is a theory that “attends to the deeper and more resilient aspects of social structure. It considers the processes by which structures, including: schemas, rules, norms, and routines, become established as authoritative guidelines for social behaviour” (Scott, 2005: 2). Institutional theory focuses on the creation, diffusion and adoption of these structures over space and time and how they fall into decline and disuse. On the other hand, institutions are “social structures that have attained a high degree of resilience. Institutions are composed of cultural-cognitive, normative and regulative elements that, together with associated activities and resources, provide stability and meaning to social life” (Scott, 2001: 48). Institutional theory has captured the attention of a wide range of social science scholars, whether examining a system at micro-interpersonal interaction level or at macro-global-framework level. An example is the examination of the structure of wider environments and their effects on organisational forms and processes (Scott, 2001).

Institutional theory has been applied to the study of ICTs in government settings where studies have drawn on previous disciplinary efforts, particularly from the fields of sociology, economics and political science (Christensen et al., 2007). Within the context of e-government, institutional theory can help identify the challenges involved in implementing an e-government project, such as the adoption of OSNs. Scholars believe institutional theory could be used for analysing

organisations and developing theoretical perspectives further, in order to enhance its use in empirical research (Currie, 2009; Jensen et al., 2008; Tolbert & Zucker, 1999).

A framework established using institutional theory is the technology enactment framework (TEF) of Fountain (2001). In this framework, technology enactment focuses on the intersections between institutions, bureaucratic structures and information technologies. The basic logic of TEF is that “objective technologies” are shaped by organisational forms and institutional arrangements to become “enacted technologies”. Fountain (2001) explains that the enacted technology can be understood as the perception, design and use of objective technologies, such as the internet and different pieces of hardware and software. Cid and Gil-García (2004) propose that at the organisational level enacted technologies can be characterised as the features of the technology that are actually in place (they are included in the existing IS or systems) in contrast to all the features that could potentially be included (objective technology) but were not selected. The enacted technology produces certain organisational results or outcomes in terms of efficiency, effectiveness and transparency among others. Organisational forms include structural characteristics such as centralisation, formalisation and communication channels (Gil-García, 2005). Other bureaucratic characteristics of organisations are also included in this construct (Fountain, 2001). In contrast, institutional arrangements are laws, regulations and other cognitive, cultural or socio-structural constraints found in government contexts (Fountain, 2001). The enacted technology and the subsequent organisational results also have an impact on the organisational forms and institutional arrangements (Fountain, 2001). Therefore, the TEF acknowledges the recursive nature of the relationships between organisations, institutions and ICT.

In another study, institutional theory was used by Luna-Reyes and Gil-García (2011). They applied it as an integrated and comprehensive approach to understanding an e-government programme (‘e-Mexico’), particularly to examine the strategy for creating web-based content portals for citizens in the areas of education, health, economy and government. Similarly, Kim et al. (2009) employed the institutional theory to develop an analytical perspective to evaluate the development of an anti-corruption system in South Korea. This study investigated how an e-government prototype system evolved to become a national anti-corruption system for the Korean government. The study revealed that regulatory dimension was the most effective factor when implementing an IS system, and strong leadership was considered crucial to the success of its implementation.

The use of institutional theory was also demonstrated in another study which was focused on ICT in a developing country, namely Chile. In this study Silva and Figueroa (2002) argued that institutional theory should be applied because it offered a strong theoretical framework to use in understanding the forces that influence the adoption of ICT. The study suggested ways in which the framework can be applied by planners and decision-makers in the formulation and evaluation of national ICT policies.

A study conducted in Nigeria by Ashaye and Irani (2014) used the institutional theory to explore e-government implementation, benefits, risks and barriers. The study used the qualitative approach along with interpretive inductive analysis to provide an understanding of the structures of e-government implementation in cultural and contextual situations. The study explored and described the state of e-government in Nigeria, a developing country, and highlighted the important factors for its successful implementation.

Other studies targeting the adoption of information technology have applied institutional theory to explain changes in government (Anstead & Chadwick, 2008; Fountain, 2001; Hassan & Gil-Garcia, 2008). One of these studies (Fountain (2001) focuses on the use and effects of information technology on government organisations, mainly from the institutional perspective. The author used the TEF to comprehensively analyse the influence of organisational structure and institutional arrangements on the use of technology for theory building (Schellong, 2007). Other studies using institutional theory in developing countries include a Khanh (2014) study which explored and investigated the key challenges influencing e-government implementation and the factors influencing citizen adoption in Vietnam; AlKalbani et al. (2015) examined how organisational security culture influences information security compliance in public organisations in relation to e-government development in Oman; and Khamallag et al. (2017) examined the utilisation of e-government services in Libya.

### **2.6.1.1 Institutional Isomorphism**

Most modern organisational theory applied to studies that investigate organisational diversity and the differentiated world of organisations seeks to explain and understand the variation or homogeneity among organisations in terms of structure and behaviour (DiMaggio & Powell, 2000). DiMaggio and Powell (2000) asserted that organisations (as a structured field) respond “to an environment that consists of other organisations responding to their environment, which

consists of organisations responding to an environment of organisations' responses” (p. 149). This process of reform or change is called isomorphism. Hawley (1968 cited in DiMaggio & Powell 2000) defined isomorphism as a “constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions” (p. 1353). Isomorphism can be change in formal structure, organisational culture, goals, programmes or the mission of the organisation (DiMaggio & Powell, 2000). In addition, organisational changes can proceed from micro-interpersonal and sub-organisational levels to macro-societal and global levels (Dacin et al., 2002).

In order for e-government services to be successful, significant changes to the business logic and organisational processes (including the core processes) must be implemented (Scholl, 2005). Further, organisations do not always embrace strategies, but instead react to and seek ways to accommodate pressures. This means that they undergo changes in their processes, such as isomorphic transformation (Frumkin & Galaskiewicz, 2004). DiMaggio and Powell (2000) focus on understanding organisational isomorphic changes through three-dimensional intuitional processes. This study also aims to achieve an understanding of why and how OSNs changed – or not – in public sector organisations in Oman.

There are three, identified isomorphic categories through which institutional processes are diffused throughout a field of organisations: coercive, mimetic and normative. The coercive process involves the use of law or regulation. Mimetic isomorphism refers to the tendency to deal with uncertainty by imitating the behaviour of other organisations that had to respond to the same problems. Normative isomorphism stems primarily from the process of professionalisation (DiMaggio & Powell, 2000; Teo et al., 2003). A brief summary is provided in Table 2.8.

Table 2.8: Institutional Isomorphism. Source: (DiMaggio & Powell, 2000; Teo et al., 2003)

Coercive mechanism (constraining)	Stems from political influence and the problem of legitimacy. It is formal or informal pressure exerted on organisations by other organisations upon which they depend.
Mimetic mechanism (cloning)	Developed from standard responses to uncertainty which can be a powerful force that encourages imitation. Mimetic may cause an organisation to change over time to become more like other organisations in its environment.
Normative mechanism (learning)	Linked and associated with professionalisation. Also, sharing these norms through relational channels among members of a network facilitates consensus which in turn increases the strength of these norms and their potential influence on organisational behaviour.

Organisation isomorphism (change) gives “rise to widespread social conceptions of appropriate organisational forms and behaviours that constitute the institutional environment of organisations” (Teo et al., 2003: 21). Teo et al. (2003) believed that coercive and normative mechanisms normally operated through interconnected relations while the mimetic mechanism stemmed from structural equivalence. Further, these mechanisms could develop from different conditions and may lead to different outcomes (DiMaggio & Powell, 2000).

The following sections provide more explanation of institutional isomorphism.

i) **Coercive isomorphism** results from both formal and informal pressures exerted on organisations by other dependent organisations. It can also be the result of pressure exerted by cultural expectations in the society within which organisations function. These pressures can take the form of force, persuasion or invitations to collude (DiMaggio & Powell, 2000). This type of change can be the result of a direct response to a government mandate such as a new regulation or order. For example, manufacturers must adopt new pollution control technologies to conform to environmental regulations imposed by government (DiMaggio & Powell, 2000).

ii) **Mimetic isomorphism** can occur when an organisation models itself on a similar organisation in its field, which it perceives to be more legitimate or successful (DiMaggio & Powell, 2000). A mimetic isomorphism can be encouraged, for example, by either a skilled labour force or a broad customer base. This type of mechanism is encouraged in circumstances where technologies are poorly understood, goals are ambiguous or the environment creates uncertainty; in these instances organisations tend to model themselves on other organisations that are perceived to be successful or legitimate (DiMaggio & Powell, 2000). Further, Teo et al. (2003) said that mimetic isomorphism is encouraged when organisations are faced with an uncertain technical solution, want to reduce costs or avoid risks borne by first-movers. Also, to avoid being perceived as a less technically advanced organisation, organisations tend to adopt innovation (for example e-government or OSNs) which also helps encourage mimetic isomorphism (ibid).

ii) **Normative isomorphism** can be described and viewed in more than one way. DiMaggio and Powell (2000) suggested that professionalisation primarily encouraged normative isomorphism, where professionalisation was defined as “the collective struggle of members of an occupation to define the conditions and methods of their work” (p. 152). One important mechanism for encouraging a normative mechanism is the filtering of staff within organisations based on training,

required skills and experiences (ibid); in adopting e-government and OSNs, filtering of skilled employees is considered important to achieve successful implementation. Similarly, normative isomorphism can be encouraged by government recognition of key firms or organisations that implement e-government or OSNs successfully, through grants or achievement awards. This may give these organisations legitimacy and visibility and lead competing firms to copy aspects of their structure or operating procedures in the hope of obtaining similar rewards (DiMaggio & Powell, 2000).

In addition to institutional theory, alternative theories that were considered in this study were stakeholder theory and agency theory. A description and discussion of these theories is now provided.

### ***2.6.2 Stakeholder Theory***

Freeman (1984: 46) defined a stakeholder as “any group or individual who can affect or is affected by the achievement of the organisation’s objectives”. This definition was widened by Mitchell et al. (1997: 855) to include “persons, groups, neighbourhoods, organisations, institutions, societies, and even the natural environment”. Stakeholder theory was developed from the business-ethics field in order to assist managers considering and incorporating the principles and values of a number of constituencies. It goes beyond just shareholders and includes individuals, organisations and communities that may be influenced by managerial decisions made within the organisation (Freeman, 1984). According to Windsor (1992 cited in Mitchell et al., 1997), stakeholder theorists can either take a broad or narrow view of a firm’s stakeholders. The narrow-view stakeholder perspective is limited to individuals (or groups) on whom the organisation depends for its survival that can contribute to the achievement of organisational objectives or that are affected by the organisation’s objectives. This study argues in favour of a broader stakeholder perspective, since there is reference to a public sector organisation that has the clear objective to provide services and products to the citizens of Oman. This broader view “is based on the empirical reality that [organisations] can indeed be vitally affected by, or they can vitally affect, almost anyone” (Mitchell et al., 1997: 857). It should be noted that stakeholder theory is considered primarily a theory to study private sector firms, but insights from the theory can partly be applied to public sector settings, particularly in the context of managerial decisions regarding major e-government initiatives (Scholl, 2002).

The stakeholder model consists of three aspects that have been used to describe, and sometimes to explain, specific institutional characteristics and behaviours (Donaldson & Preston, 1995). These aspects are descriptive values, normative values and instrumental values. Table 2.9 below provides a brief description of these stakeholder aspects.

Table 2.9: Prospective on Stakeholder Theory. Source: (Clarkson, 1995; Donaldson & Preston, 1995)

<b>Stakeholder Approach</b>	<b>Explanation</b>
Descriptive: understanding the relationship between an organisation and its stakeholders	The theory is used to describe, and sometimes to explain, specific corporate characteristics and behaviours
Normative: organisations should take all stakeholders into consideration, as a moral responsibility	The theory is used to interpret the function of the corporation, including the identification of moral or philosophical guidelines
Instrumental: organisations should take key stakeholders into consideration as this leads to success and competitive advantage	The theory is used to identify the connections, or lack of connections, between stakeholder management and the achievement of traditional corporate objectives

As this research emphasises the public sector and e-government, and the interaction of the government with citizens, the stakeholder concept and broader stakeholder involvements can be applied to this study. The previous sentence has shown that we have a context: the public sector and changes made to working practices in the public sector by OSNs, Twitter and other social processes. These are the process changes brought to the working practices of the public sector workforce, which suggests that stakeholder theory can be applied. This discussion aligns with previous researchers, such as Walsham (1993), who suggest that IT researchers need to consider the issues of content, social content and social process when designing and evaluating IT/IS studies, and imply the involvement of all stakeholders who could help achieve an organisation's objectives or be affected by those organisational objectives.

Considering previous stakeholder theory and e-government studies, Zhang et al. (2005) used stakeholder theory to explore the diverging and converging expectations of various stakeholders when initiating e-government projects, and the benefits and barriers to inter-organisational knowledge sharing. Findings showed that there was a similarity between key participants' expectations and those of other general participants/users. It was also found that local government stakeholders were considerably less optimistic about achieving goals and more concerned about a variety of organisational, technological and financial barriers. Other studies, including Scholl (2002), used the theory to examine public sector managerial decision-making on major e-government initiatives. They revealed and demonstrated that a unified stakeholder theory does not exist and that insights from stakeholder theory can be applied in part to public sector settings,



particularly e-government. Scholl's study also showed that a key factor influencing the success of e-participation initiatives was high saliency and that salient stakeholders varied and changed over the life of a project.

Similarly, a study in the UK by Kamal et al. (2011) used the concept of stakeholder theory to analyse the role of stakeholders during the technology-adoption process in UK local authorities, where various stakeholder categories involved in the adoption processes were identified. Other studies include Axelsson et al. (2013) which used stakeholder theory to identify stakeholder groups and to discuss how they differed in their perceptions. This led to an identification of feelings of relevance and need related to the public e-service. The study concluded that the two frequently applied stakeholders of e-government (agencies and citizens) are much too extensive and heterogeneous to be meaningfully addressed in public e-service conceptualisation and development.

An alternative theory that was also considered in this study was agency theory, which is discussed next.

### ***2.6.3 Agency Theory***

Agency theory was developed in the field of economics to model the relationship between the principal (party that delegates work) and another (referred to as the agent) (Eisenhardt, 1989a).

From its inception, agency theory has been used by scholars in diverse fields including the organisational-behavioural field. The theory offers exceptional understanding of ISs, outcome uncertainty, incentives and risk (Eisenhardt, 1989a). Further, more recent application of the theory in the management field has led to an exploration of the implications of the theory for the disciplines of organisational behaviour, organisational theory and strategic management (Hill & Jones, 1992).

Generally, the overall domain of the theory "is relationships that mirror the basic agency structure of a principal and an agent who are engaged in cooperative behaviour, but have differing goals and differing attitudes towards risk" (Eisenhardt, 1989a: 59). A summary of agency theory is explained in Table (2.10) below.

Table 2.10: Agency Theory Overview. Source: Eisenhardt (1989a: 59)

Key idea	Principal–agent relationships should reflect the efficient organisation of information and risk-bearing costs
Unit of analysis	Contract between principal and agent
Human assumptions	Self-interest, bounded rationality, risk aversion
Organisational assumptions	Partial goal conflict among participants. Efficiency as the effectiveness criteria. Information asymmetry between principal and agent
Information assumption	Information as a purchasable commodity
Contracting problems	Agency (moral hazard and adverse selection). Risk sharing
Problem domain	Relationships in which the principal and agent have partly differing goals and risk preferences (e.g. compensation, regulation, leadership, impression management, whistle-blowing, vertical integration, transfer pricing)

When applied, the theory identifies the principals delegating work to agents, who are expected to complete these demands and work in the principals' best interests (Eisenhardt, 1989a; Mitchell & Meacham, 2011). Further, "The focus of agency theory stems from assumptions that the agent will behave opportunistically, particularly if their interests conflict with the principal" (Mitchell & Meacham, 2011: 151).

The theory has been used in IT/IS research. For example Bahli and Rivard (2003) used it in their framework for the conceptualisation and measurement of the risk involved in IT outsourcing. The theory allowed researchers to identify the risk dimensions and the interrelationships between them for assessing IT outsourcing risks. In a study by Reichelstein (1992) agency theory was used to design government contracts, to predict and observe compensation payments and avoid the problem of overpayment in Germany. The study concluded that it was difficult to trace specific instances where results and insights obtained from agency models had affected actual management practice. In addition to these studies, the theory was used in studies of e-government and OSNs. Guillamón et al. (2016), for example, used the theory to construct a synthetic indicator to measure Facebook use in Italian and Spanish local government. The findings showed how level of e-participation, population size, citizens' income level and level of indebtedness impacted Facebook users in both countries.

More studies on ICT, e-government and institutional theories are provided in Appendix II.

## 2.7 E-Government and Culture

The success or failure of e-government use is based on the fact that IS/IT use is determined to a large extent by the relevant social and organisational contexts (Avgerou, 2001; Heeks, 2002; Heeks & Bailur, 2007; Irani et al., 2007; Irani et al., 2008). In developing countries, social and cultural

aspects have significantly influenced the adoption of IS/IT innovations (Hill et al., 1998; Straub et al., 2003). In e-government research, it has been found that insufficient attention has been paid to the cultural aspect, particularly in terms of OSNs. Recent studies of OSN adoption have shown that there is “minimal research on cultural considerations in social media adoption” (Ngai et al., 2015: 41).

ICT implementation should not consider only the cultural aspects of the organisation, but also, more importantly, the broader national environment (Avgerou, 2001). Since e-government impacts the provision of public sector services, factors related to society and citizens are important for e-government strategies and implementation (Chen et al., 2006). Cultural factors include, for example, the national culture (Hofstede, 1998, 2003), organisational culture (Hofstede, 2003; Schein, 2009) and social norms (Ajzen, 1988). Social and cultural issues have been highlighted as barriers to e-government (Irani et al., 2007; Irani et al., 2008) and viewed as prominent research themes influencing e-government (Ali et al., 2009). They are also considered important when examining the adoption and use of e-government and OSNs in public sector organisations (Chen et al., 2006).

When considering developing countries, matters associated with IS innovation, such as socio-organisational changes and cultural and social forces influencing the innovation process, need to be addressed (Hill et al., 1998). Therefore, since this research is focused on e-government/OSNs in public sector organisations in a developing country that provide services to the public, factors related to society and citizens are considered important to e-government strategies and implementation. They help sustain the organisation’s existence. Because of this, it is essential to address culture in the context of organisation and social factors. Therefore, in this study, attention will be directed to the national culture, since we are addressing e-government and OSNs at national level in Oman. Cultural issues among other considerations have a big influence on organisational change initiatives (Ali et al., 2009; Avgerou, 1993, 2001), such as the introduction of e-government.

As mentioned earlier, the current study focuses on a developing country, Oman, which has unique cultural aspects that could provide an important opportunity to explore cultural considerations in the use of e-government and OSNs. The cultural system in Oman is influenced by factors such as religion, beliefs, values, norms and people educated abroad, and has an impact on the nature of

decision-making (Budhwar et al., 2010); this was seen in the decision to adopt OSNs. Further, Al-Badi and Al-Qayoudhi (2014) have listed culture and perceptions as being among obstacles to the adoption of OSNs in organisations in Oman, but without probing deeper into the nature of these barriers.

The innovation of the internet and recently OSNs has assimilated culture, beliefs, communication patterns and human activities (Al Omoush et al., 2012). With the emergence of OSNs, a new culture has emerged in which male and female citizens in a conservative country such as Oman are being offered a voice to communicate with various sectors of the economy including the government. Previously, this opportunity was dominated by males, and it still is when traditional face-to-face communication with government is needed (Choudrie et al., 2017; Rashidi et al., 2016).

Government organisational culture is changing due to ICT implementation, however (Misuraca & Viscusi, 2015). Traditionally, government adoption of new technologies has followed a top-down approach that focused on organisational needs. But with the use of OSNs this approach has changed and the majority of government organisations are now following a market-driven approach (Mergel, 2013b). For example, citizens are now using OSNs for most of their daily communication (Kavanaugh et al., 2012), news reading (Bullard, 2015) and purchasing (Al-Dhuhli & Ismael, 2013). This means that many citizens are adopting OSNs as the new tool for carrying out their daily activities and communications. As a result, government organisations are now more aware of changes in citizens' beliefs, needs and behaviour (Mergel, 2013a). Changes in beliefs, needs and behaviour once again suggest a focus on culture, which accounts for the application of culture theory.

### ***2.7.1 ICT, E-Government/OSNs and Culture Research***

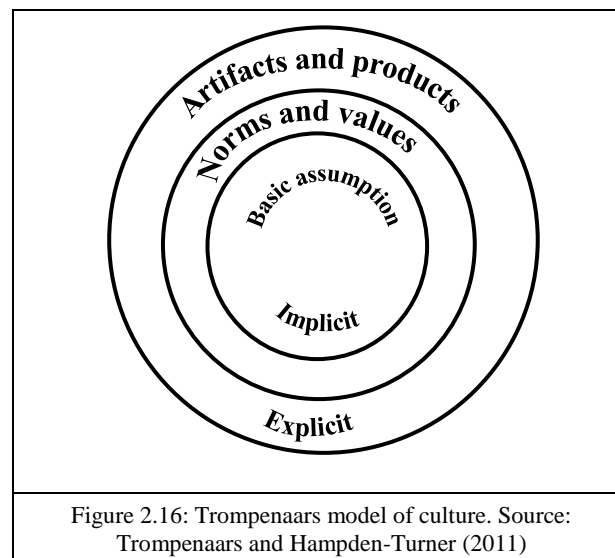
When examining current culture literature, many studies that examined culture and the adoption of ICT highlight the importance of culture in relation to the adoption and use of IS/IT in e-government. For example, Baker et al. (2011) examined culture in Saudi Arabia (a developing country) and its effect on the adoption and use of IT, revealing that cultural context significantly influences technology-acceptance behaviours. Bélanger and Carter (2008) compared e-government adoption in the UK and USA in relation to cultural context. Their research showed cultural differences in e-government adoption between the two countries and indicated ICT

adoption barriers such as access and skill may vary by culture. A more recent study, Olasina and Mutula (2015), in terms of national culture and its influence on the adoption of e-parliament by legislators and citizens in Nigeria, showed that cultural contexts such as individualism, cultural diversity and power (in the context of culture) had no significant effect on performance expectancy of e-parliament adoption. In a wider study that researched the influence of Libya's societal and organisational culture on the adoption of IS in 15 government and public organisations, Twati (2014) highlighted the influence of culture in relation to IS adoption. The findings revealed a direct positive relationship between Hofstede's societal culture dimensions and the adoption of IS, and showed that the adoption of IS was influenced by societal culture. Other studies that looked at cultural values included a Erumban and De Jong (2006) study that examined the role of cultural factors. It used the Hofstede framework to determine ICT adoption across countries. Results suggested a strong relationship between the two. A Straub et al. (2001) study revealed Arab cultural beliefs and values strongly influenced information technology transfer, and a Loch et al. (2003) study concluded that Arab culture can both inhibit and encourage technological innovation. In terms of the social and cultural characteristics of the GCC countries, Arab and Muslim societies have been found to differ from those in the West. The Arab world is considered by many to be one of the most complex systems when considering cultural and social aspects (Hill et al., 1998; Straub et al., 2003). For example, the Gulf region countries are conservative countries where Islamic teachings and Arabian cultural values are dominant (Twati, 2014).

Culture as a term is widely used at national and organisational levels despite the non-existence of a single universal term for it (Nurdin et al., 2010). More important than the definition, perhaps, is the context of its usage (Hofstede, 1998). Hofstede (1984: 125) defined culture as "programming of the mind which distinguishes the members of one human group from another". On the other hand, Leung et al. (2005: 357) defined it as "values, beliefs, norms, and behavioural patterns of a national group". National culture can be practiced by people in a society, organisational culture by the organisation's staff and professional culture by members of a specific profession (Nurdin et al., 2010). Sathe (1983: 6) perceived culture as "the set of important understanding (often unstated) that members of a community share in common". Nevertheless, scholars agree that culture is considered a complex phenomenon that ranges from underlying beliefs and assumptions to a more visible structure and practice (Barney, 1986).

On the other hand, in organisations, which are the context of this research, Schein (2009: 19) recognised organisational culture as a “powerful, tacit, and often unconscious set of forces that determine both our individual and collective behaviour, ways of perceiving, thought patterns, and values”. To better understand organisational culture and related subcultures we need to consider how leaders at all levels and in every function of the organisation behave and influence how the total system functions. Schein also believed “Organizational functioning is heavily dependent on how existing subcultures align with each other, which means that it is critical for leaders to understand and manage subculture dynamics” (ibid: p. 8). Since this study is considering the use of OSNs at all levels, the leadership aspect as dealt with by Schein was also important.

Organisational culture was also recognised by Trompenaars who viewed it as layers: “culture comes in layers, like onion” (Trompenaars & Hampden-Turner, 2011: 6). Trompenaars said that to understand culture, layers must be unpeeled one by one. Trompenaars identified three layers: a) the outer layer (explicit product), b) the middle layer (norms and values) and c) the core (assumption about existence). Trompenaars’ layers are illustrated in Figure 2.16 below.



In this model the explicit layer represents observable reality, including language, building and food, and is the symbol of a deeper level of reality. The second layer is norms and values which are closely related to the principles shared by a group and represent individual sense; norms provide sense of what is ‘wrong’ or ‘right’ while values serve as a criterion to determine a choice from several alternative. The core of Trompenaars’ culture model, the third layer, is artefacts and products or assumptions about existence. This layer leads a to deeper insight into culture

(Trompenaars & Hampden-Turner, 2011). In this model, organisational culture is “the way in which groups have organised themselves over the years to solve the problems and challenges presented to them” (p. 23). Trompenaars’ model of culture was not considered appropriate for this study because it has been applied more in studies related to the environment, relationships and other aspects (Abunadi, 2013; Trompenaars, 1996), while this study focuses more on e-government/OSNs and organisational culture. Although Trompenaars’ model was used in several studies in the context of culture, the majority of these studies are not focused on the e-government/OSNs field.

Another culture theorist that developed a model to understand different national cultures was Schwartz. According to Schwartz (2006), culture is “the rich complex of meanings, beliefs, practices, symbols, norms, and values prevalent among people in a society” (p. 138). Schwartz (1992) developed seven cultural values that are embedded in three pairs or dimensions that can be arranged in a circle. The first dimension is “embeddedness/autonomy”, which refers to the relationship between individual and groups where autonomy culture provides the individual with more control and freedom over their choice. In embeddedness culture individuals must sustain the social order to avoid change and retain tradition. The second dimension is “mastery/harmony” culture. In mastery culture, individuals achieve success through their personal actions, even at the expense of others, and gain individual or group benefits. On the other hand, in a harmony culture, individuals put emphasis on their group more than their individual interests. The third dimension in Schwartz’s model is “hierarchy/egalitarianism”. In a hierarchy culture, individuals are expected to be modest and have due self-control, while in an egalitarianism culture, equality between individuals is considered important and everyone is expected to show their concerns. Schwartz’s culture theory focuses more on the influence of values at individual level (Abunadi, 2013). However, this study concentrates on national and organisational level; hence, it was not considered appropriate for this study. Although Schwartz’s model was used in various studies in the context of culture, the majority of these studies are not focused on the context of e-government/OSNs. More studies on ICT, e-government and culture using Trompenaars’ and Schwartz’s model are provided in Appendix III.

As mentioned earlier Trompenaars’ and Schwartz’s culture model provided a model that scholars could apply when culture research was needed. Yet their utilisation in ICT and e-government studies was not as extensive as that of Hofstede’s cultural dimensions theory. Therefore, before

delving deeper into the applied theories, a discussion of Hofstede's theory, which is commonly applied in e-government studies (Abunadi, 2013), is offered.

### 2.7.2 Hofstede's Cultural Dimensions Theory

Hofstede's cultural dimensions theory is a framework developed by Geert Hofstede to understand cross-cultural communication. It describes the effects of a society's culture on the values of its members, and how these values relate to behaviour, using a structure derived from factor analysis (Adeoye, 2014). Hofstede (1991) identified five dimensions of culture: power distance, uncertainty avoidance, individualism versus collectivism, masculinity versus femininity and long-term versus short-term. Table 2.11 below briefly explains Hofstede's culture dimensions.

Table 2.11: Hofstede's Dimensions of Culture

Dimension	Definition	Clarification	Reference
Power distance	"The degree to which people accept and expect that power is distributed unevenly within a group or society."	People with high-power distance culture are much more comfortable with a larger status differential than those in low-power distance culture.	(Adeoye, 2014: 6)
Uncertainty avoidance	"The degree to which people develop a mechanism to avoid uncertainty."	Involves how culture can vary in the magnitude with which people vary in the extent to which they feel anxiety about uncertain or unknown matters.	(Adeoye, 2014: 6)
Individualism vs Collectivism	"The degree to which taking responsibility for oneself is more valued than belonging to a group, who will look after their people in exchange for loyalty."	Many Asian cultures are collectivist (Hofstede).	(Adeoye, 2014: 6)
Masculinity vs Femininity	"The degree to which people value performance and status deriving from themselves, rather than quality of life and care for others."	The culture considered masculine tends to have very distinct expectations of male and female roles in society.	(Adeoye, 2014: 6)
Long-Term vs Short-Term	A societal preference to be more forward looking or future oriented.		(Hofstede, 1991)

This research emphasises e-government and OSNs and a review of e-government and culture studies reveals that culture has been largely examined using Hofstede's theory (Al Omoush et al., 2012). In Arab or GCC countries, the application of Hofstede's theory has shown that cultural dimensions in the Arab world are significantly different from those of developed countries, particularly Western societies (Al-Hujran et al., 2015). Al-Hujran et al. (2015) asserted that studies of Gulf countries suggest that perceptions, attitudes and behavioural intentions are significantly



influenced by factors including family, friends and colleagues, as well as the social norms, values and aspects related to religion.

Hofstede's cultural dimension has been used in various studies in the public and private sectors. For example, Pimpa (2012) used it to explore culture in Thai management style in the public sector context. This study investigated the key characteristics and the nature of culture in respect to the cultural stereotype found in Thai culture and management in existing literature. It revealed that younger Thai generations are more individualistic and adapted to organisational change and Western management concepts. Another study, by Aldulaimi and Sailan (2012) in Qatar, used Hofstede's cultural dimensions to investigate the influence of national cultural values on public sector employees' readiness to change and their commitment to change. This study revealed that national culture dimensions, uncertainty avoidance, individualism versus collectivism and long-term orientation each have significant relationships with an effective commitment to change. More studies applying Hofstede's theory to e-government and culture are described in Appendix III.

As mentioned earlier, Hofstede's framework of culture has been widely used in many studies that examine culture and ICT in e-government. For example, Khalil (2011) explored e-government readiness and national culture in Kuwait and found that many national cultural values, such as gender, institution, collectivism, uncertainty avoidance and performance influence directly or indirectly e-government readiness. Kaba and Osei-Bryson (2013) applied Hofstede's model in Canada and Guinea to examine the influence of culture on individuals' perception of ICT and found that cultural and social factors may help explain the acceptance of a given ICT.

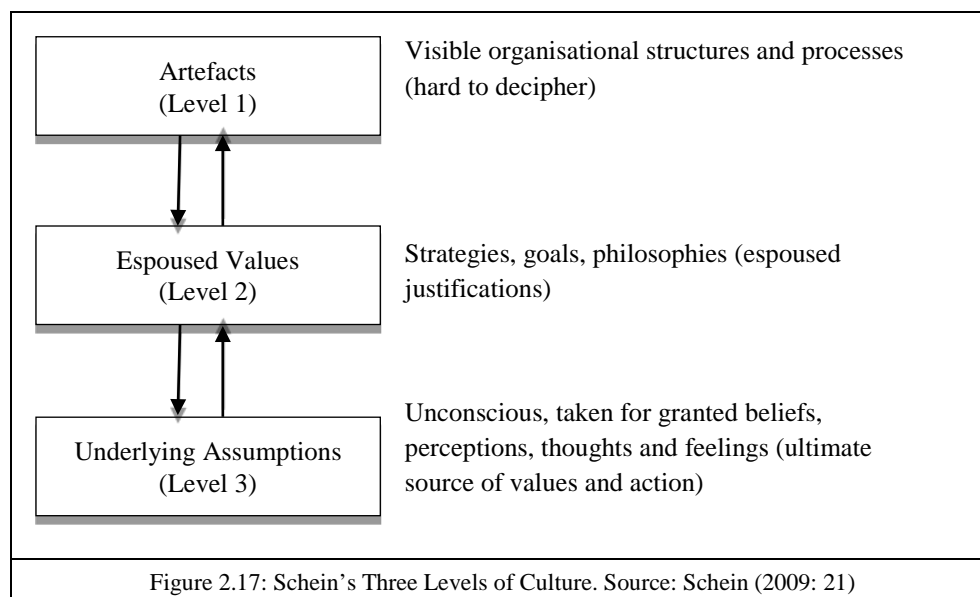
Cultural considerations extend to organisational culture which is commonly referred to as the "values, beliefs, traditions, philosophies, rules and heroes shared by all members of the organisation" (Gatewood et al., 1995: 19). This research is grounded in organisations in developing countries, which led to a consideration of other theories, mainly Schein's management theory which is discussed below.

### ***2.7.3 Schein's Management Theory***

Edgar Schein's management theory focuses on the culture within an organisation. Schein (2009) asserted that organisational cultures are embedded in the national culture in which an organisation operates. Thus, "the deeper assumption of the national culture comes to be reflected through the

founder”, leaders and members’ cultural backgrounds. It was also found that “we are members of a country, an occupation, an organisation, a community, a family, and a social group” (p. 3). These cultures (or subcultures) are part of us, impact us and shape most of our behaviour both inside and outside organisations, and “can become a serious constraint on learning and change” (Schein, 2009: 12).

Schein believed that culture should not and could not be simplified. To avoid this, it was suggested that culture must be developed from three culture levels. These are: level 1 – artefacts that include surface cultures, visible organisational structures and processes; level 2 – espoused values such as conscious goals, strategies, philosophies and underlying assumptions, and level 3 – underlying assumptions such as unconscious beliefs, values, perceptions, thoughts and feelings that form the core of culture and affect everything we do (Schein, 2009). Figure 2.17 illustrates Schein’s Culture Level.



In terms of understanding, Schein’s theory considers the artefacts (the surface level) to be the easiest level of culture, where culture is very clear and has an emotional impact. Culture at this level is developed by hanging around and observing things (Schein, 2009). Once individuals begin to ask questions about what they observe or feel, through insiders called ‘informants’ who can explain and answer the questions raised, they are taken to the next, deeper level of culture: espoused values. Schein (2009) asserted that at this level “the longer you hang around and the more questions you ask, the more you see obvious inconsistencies between some of the espoused values and the visible behaviour”, which prompts deeper thoughts and perceptions. These new

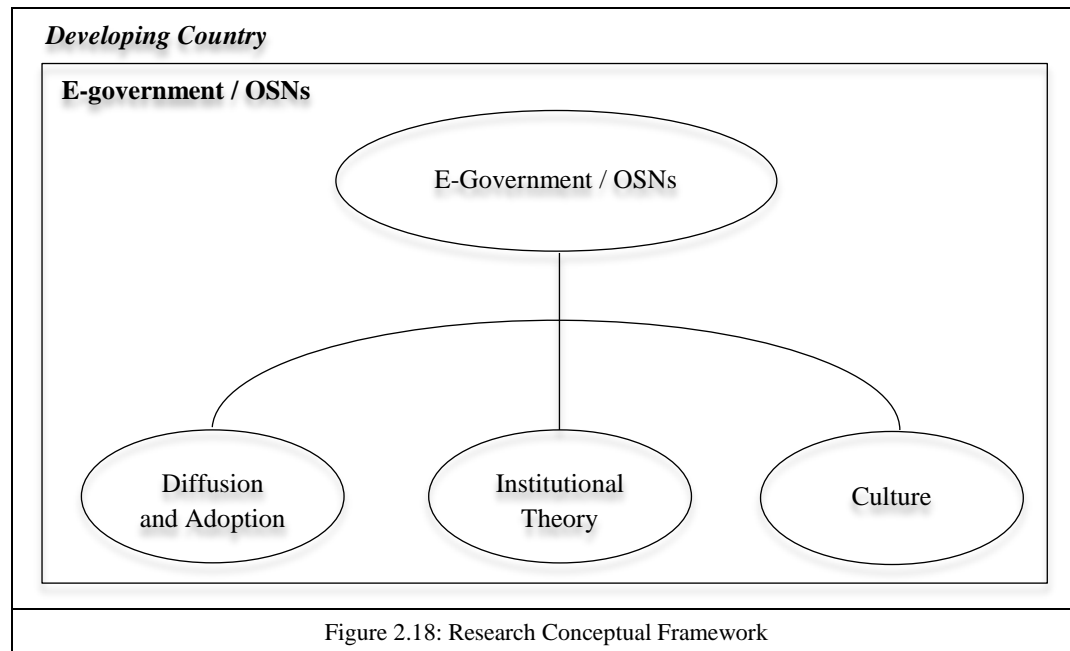
thoughts and perceptions can only be answered by entering the third level of culture: shared tacit assumptions (understanding assumptions). At this level, a deeper understanding is achieved by thinking about the organisation's values, beliefs and assumptions of people. However, among Schein's cultural dimensions more emphasis is on values rather than assumptions or artefacts when measuring organisational culture, due to the fact that values are considered more accessible than assumptions and more reliable than artefacts (Howard, 1998; Parker & Bradley, 2000).

In ICT and culture studies, Schein's culture model has been used extensively. A notable study which applied Schein's model was that of Lopez-Nicolas and Meroño-Cerdán (2009) which analysed the influence of diverse organisational culture on the use of ICT for strategic knowledge management in Spain. The study concluded that ICT use was impacted by various organisational cultures such as clan and adhocracy cultures. A study by Hogan and Coote (2014) used Schein's model to explore layered organisational culture in law firms in Australia. They found layered cultural norms, artefacts and behaviours to facilitate the effect of values supporting innovation in measures of the organisation's performance. Similarly, an empirical study that used Schein's model to explore situations of strategic change to conform with governmental reforms in the healthcare sector was completed by Lalonde and Adler (2015) in public organisations in Canada. The study concluded that the relationship between leaders/clients and consultants varies from one stage to another throughout the consultation process. The consultants are required to play diverse roles, either in combination or alternation during the consultation process. More studies applying Schein's culture model to ICT, e-government and culture are described in Appendix III.

Schein's model offered a multi-layered theory of organisational culture and can offer a useful lens when viewing the processes that foster innovation (Hogan & Coote, 2014). We argue that this study seeks to explore OSN adoption and use (innovation) and that, through the lens of Schein's model, it offers a tractable explanation of the cultural processes that support e-government/OSN innovation, particularly within the public sector as service firm (Hogan & Coote, 2014). Further, Schein was generally considered to be the father of organisational culture (Wright, 2013). In this study, model culture will be examined through the lens of Schein. The model offers not only an insight within the organisations culture, but pays attention to the social and contextual elements interrelated with organisational culture. After all, "we are members of a country, an occupation, an organisation, a community, a family, and a social group" (Schein, 2009: 9).

## 2.8 The Conceptual Framework

Having discussed the theories that provide a better understanding in the context of adoption and diffusion, institution and culture, a conceptual framework is developed. Using the theory discussed above a conceptual framework will be developed and used to explore the adoption and use of OSNs in Oman's public sector organisations. Figure 2.18 below outlines this framework.



## 2.9 Summary

This chapter began with an introduction that focused on the definition of public sectors both globally and in the Omani context followed by a review of organisational culture in the public sector. Literature related to the main focus of this research was reviewed, including an assessment of online social networks, their use in government, their limitations and challenges, e-government project failures and the transformation OSNs can bring about.

OSNs in developing countries, GCC countries and e-government in Oman were reviewed through the available literature, providing a comprehensive view of ICT and e-government development initiatives and obstacles in Oman.

## **Chapter 3 : Research Methodology**

### **3. Introduction**

To ensure that the theoretical aspects of Chapter 2 can be applied to real life, a research approach is warranted and is provided in this chapter, which offers an overview of the philosophical assumptions of the research, its design and approaches. This is followed by a more detailed description of the philosophical assumptions, design and data collection methods. An overview of the research rigour is then provided by exploring general research issues that apply to this study.

#### **3.1 Research Design**

It is essential for researchers to have research designs that are only a working plan. This implies flexibility and clarity, and includes “the entire process of research from conceptualising a problem to writing research questions, and onto data collection, analysis, interpretation, and report writing” (Bogdon & Taylor, 1975, p. 5 cited in Creswell (2012)). In addition, a design is vital to embark on a research road that is described as “a logical plan for getting from here to there” (Yin, 2009: 26), where “here” represents the “initial set of questions” to be answered, and “there” represents the outcome (answers) to these questions. Therefore, a research design is a safeguard to help the researcher “avoid the situation in which the evidence does not address the initial research questions” (Yin, 2009: 26). Using this as a basis for understanding, some illustrations for this study were put together; they provide an overview of the research design for this study (Figure 3.1 below). The research design started with a definition of the research problem, which led to the identification of the gap in the research literature. This led to the development of the research questions, aims and objectives (Chapter 1). This was followed by a literature review of related topics, which helped to provide a better understanding of the related fields and existing studies (Chapter 2). The research methodology (Chapter 3) provided details of the research approach, strategy and technique in general and how they were applied in this research. This was followed by the pilot phase (Chapter 4) that included the pilot study, sample size, technique used and the analysis and findings. The study’s final phase (Chapter 5) followed the pilot phase but had a larger sample size and was subject to more in-depth analysis and findings. This led to a refining of the conceptual framework developed in the pilot phase. The next stage was the discussion and

evaluation of the entire research (Chapter 6) when the research findings were compared to relevant literature. The final chapter (Chapter 7) was then developed, and included the research conclusion, contributions, limitations and recommendations.

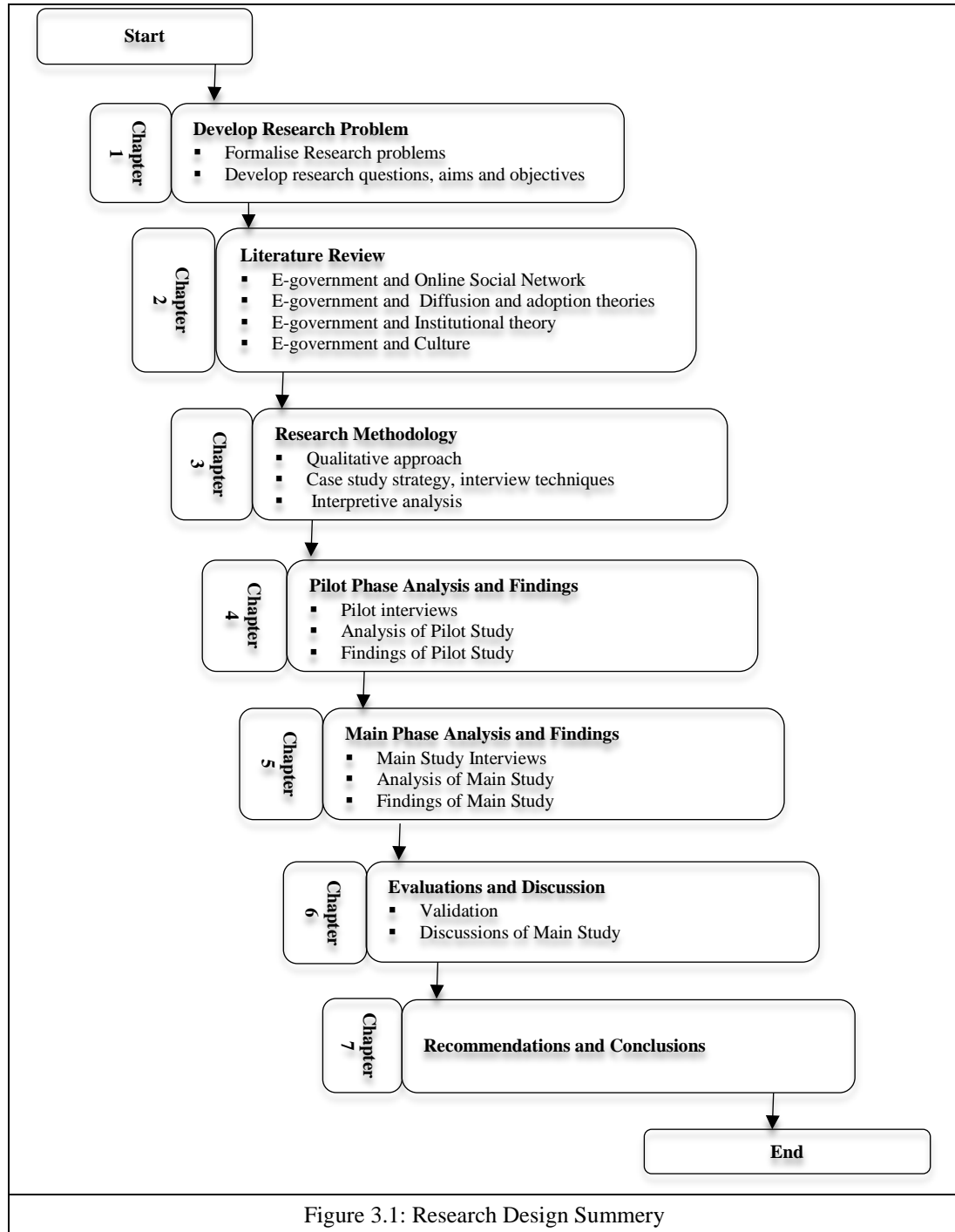


Figure 3.1: Research Design Summary

### 3.2 Qualitative Research versus Quantitative Research

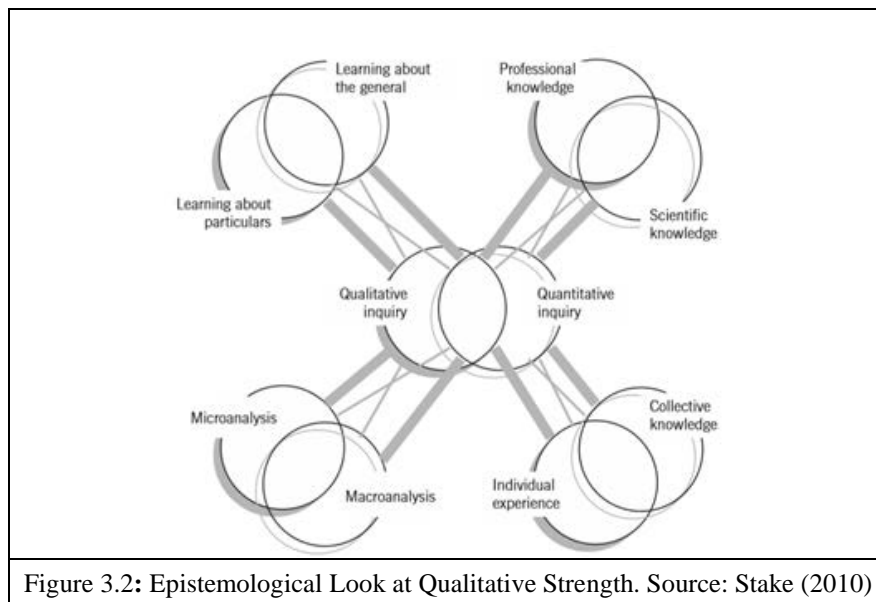
There are two forms of research: quantitative and qualitative (Ron, 2004). Qualitative research refers to “a range of approaches that differ significantly among themselves, but that share some defining characteristics and purposes” (Kaplan & Maxwell, 2005: 32). Qualitative research helps researchers “understand people and what they say and do”, and “understand the social and cultural contexts within which people live” (Myers, 2013: 17). Therefore, and in order to accomplish these tasks, qualitative research is “conducted in natural settings and uses data in the form of words rather than numbers” (Kaplan & Maxwell, 2005: 30). On the other hand, the quantitative research approach is used for “studying static characteristics evaluation questions, in which selected features of the information technology, the organisation, the user and the information needs generally are treated as independent, objective, and discrete entities, and as unchanging over the course of the study” (Kaplan & Maxwell, 2005: 31).

Since users’ perspectives cannot be determined in advance and adopting a purely quantitative research approach for this study would not provide a sufficiently in-depth understanding of the situation, which was the intention of this research. Therefore, following a qualitative research approach ensures that the researcher obtains a deeper and richer understanding of the phenomenon under investigation (Kaplan & Maxwell, 2005), which was the case in this instance. In addition, there were not many studies of Oman’s e-government OSN strategies, which motivated this researcher to use the qualitative approach. Creswell (2003b: 22) states that “If a concept or a phenomenon needs to be understood because little research has been done on it, then it merits a qualitative approach.” In addition, qualitative research “typically involves understanding a phenomenon from the points of view of the participants, and in its particular social and institutional context” (Kaplan & Maxwell, 2005: 32). Similarly Myers (2013: 18) states that “If you want to understand people’s motivations, their reasons, their actions, and the context for their beliefs and actions in-depth, qualitative research is best.” In addition, Myers (2013, pp. 19-20) asserts that “qualitative research is developed in the social sciences to study social and cultural phenomena”, while “quantitative research is developed in the natural sciences to study natural phenomena”. Table (3.1) highlights some of the main differences between quantitative and qualitative research approaches.

Table 3.1: Quantitative vs Qualitative Research. Source: Kothari (2004); (Myers, 2013)

	Quantitative Research	Qualitative Research
<b>Assumption about the world</b>	Based on a positivist philosophy (assumes that there are social facts with an objective reality apart from an individual’s beliefs).	Rooted in a phenomenological paradigm which holds that reality is socially constructed through individual or collective definitions of the situation.
<b>Purpose</b>	Seeks to explain the causes of change in social facts, primarily through objective measurement and quantitative analysis.	More concerned with understanding the social phenomenon from the actors' perspectives, through participation in the life of those actors.
<b>Aim</b>	Prediction and control.	Explanation and understanding.
<b>Approach</b>	Typically employs experimental or correlational designs to reduce error, bias and other noise that keeps one from clearly perceiving social facts.	The ethnography which helps the reader understand the definitions of the situation of those studied.
<b>Researcher role</b>	Ideally is detached to avoid bias.	Becomes "immersed" in the phenomenon of interest.
<b>Representation</b>	Quantity terms are used to express the data.	Words terms are used to express the data.

On the other hand, Stake (2010) provides a different perspective which emphasises that qualitative research has been strongly tied to professional knowledge, generalisation and microanalysis, as illustrated in Figure 3.2 below. Although most researchers prefer to follow either a solely quantitative or solely qualitative approach, some believe in the value of combining these approaches (what is known as mixed research (Myers, 2013). Yet many scholars believe that the use of a qualitative approach achieves a richer description and a deeper level of explanation (Miles & Huberman, 1994; Stake, 2010).



There have been recent calls for a focus on qualitative methods to increase the understanding of the adoption and use of ICT by governments (e.g. Lips, 2008 and Heeks & Bailur, 2007) and, as the researcher had experience of and access to government organisations, the qualitative research approach was considered.



### **3.2.1 Triangulation**

To achieve the objectives of this study and arrive at a full understanding of the adoption and use of ICT in government entities in developing countries, the researcher must examine the phenomenon under study using various research tools, in order to gather data and come to an unbiased understanding. The term used for such an approach is ‘data triangulation’.

Triangulation allows the researcher to gain more in-depth knowledge and provides an overall and deeper picture of the phenomenon under study. For example, a researcher can use interviews and observations as techniques for collecting data. With this in mind, triangulation is defined as “the cross-checking of inferences by using multiple methods, sources, or forms of data for drawing conclusions” (Kaplan & Maxwell, 2005: 50). Saunders et al. (2011) provide another definition of triangulation, which is adopted by the current study: “the use of different data collection techniques within one study in order to ensure that the data are telling you what you think they are telling you”. However, despite its importance in much research, “triangulation is a strategy that may not be suitable for all research purposes” (Jick, 1979: 610).

Although research triangulation can provide more understanding and allows findings to be strengthened by cross-validating them, it can also be very time-consuming (Jick, 1979; Kaplan & Maxwell, 2005; Myers, 2013). In addition, the researcher “needs to be well trained and become an expert in multiple research methods, not just one” (Myers, 2013: 20). In this study, because of its exploratory aims, the researcher found it necessary to adopt data triangulation since it allowed the researcher to look at the use of e-government/OSNs from different angles and to gain a fuller picture and deeper understanding of what was happening (Myers, 2013). Therefore, data was collected using participatory observations and in-depth interviews. A more detailed explanation of data triangulation, its type and the reasons for its selection in this study, is provided in section 3.9.3.

### **3.2.2 Reasons for Using the Qualitative Research Approach**

For a clearer and better understanding this section outlines the reasons for using a qualitative approach.

- (i) This research seeks to address the following overarching question: “*Does the use of online social networks in government organisations increase transparency and promote*

*participation and collaboration with the public? How? Why?”* A qualitative approach is deemed most suitable for this type of research, which seeks to answer questions of “what” and “how” and to explain and understand a phenomenon (Kaplan & Maxwell, 2005; McDonald, 2005; Myers, 1997, 2013).

(ii) “Qualitative research methods are designed to help researchers understand people and the social and cultural contexts within which they live” (Myers, 1997: 3). Since this study seeks to explain and understand the use of OSNs in public sector organisations, it involved people and the social and cultural contexts within which the OSNs were applied. Therefore, it was very important to examine this in the natural setting of Oman’s public sector organisations, which this researcher had access to. Qualitative data collection techniques, such as observation and interview, were the most effective method of obtaining data and would provide a rich understanding of the use of OSNs by the participants in this study. This technique would also show how participants’ social, cultural and work environments affected their OSN use and their personal perspectives on their adoption and use of OSNs.

(iii) This study seeks to understand and explain the adoption and use of OSNs in public sector organisations by employing an interpretive method. Saunders et al. (2011: 116) stated that “Interpretivism advocates that it is necessary for the researcher to understand differences between humans in our role as social actors” and that this is achievable through the adoption of the qualitative research approach.

(iv) The current study seeks to examine in depth “the influence of social, organisational, and cultural context on the area of study, and vice versa” (Kaplan & Maxwell, 2005: 31). These are areas best researched through the use of qualitative methods due to their complexity and interconnectivity.

### ***3.2.3 Qualitative Research Criticism***

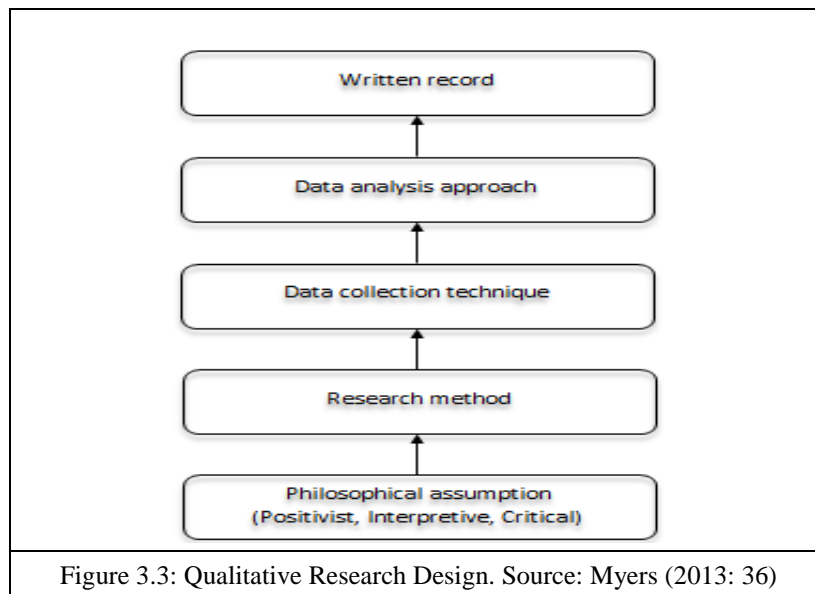
As with any research approach or methods, qualitative research has its advantages and disadvantages. Opponents of qualitative research criticise it for its inability or difficulty in generalising its findings to a larger population (Myers, 2013). This criticism stems from the inherent nature of qualitative research, which does not aim for generalisations but, rather, focuses on the deep analysis of a phenomenon through the use of research methods that allow such

analysis. However, many researchers opt to use more than one research method/tool to allow for triangulation, which “approximates in purpose those in the quantitative fields” (Stake, 2010: 29). Triangulation will be further explained in section 3.9.

Another criticism of qualitative research is subjectivity, as the data provided is dependent on the research sample as well as the documentation, coding and analysis of this data. This, in turn, is dependent to a large extent on the researcher. However, “whether we are looking at the real world through quantitative or qualitative eyes, we reconceive the world in terms of the concepts and relationships of our experience” Stake (2010: 30). Therefore, subjectivity in qualitative research should not be seen as a failing or something that needs elimination, but, rather, as an essential element of understanding human activity (ibid).

### 3.2.4 *Qualitative Research Design*

Having considered the description of and reasoning behind the application of qualitative research, the next part of this chapter explains the research design to be adopted in this study. This research will use a qualitative research model which is based on Myers (2013). Figure 3.3 illustrates the research design processes that this research followed, which will be explained in the next sections.



## 3.3 Philosophical Assumptions

Research approaches are based on certain underlying or hidden assumptions that determine the validity and relevance of studies (Myers, 1997). When conducting research it is important to

understand the philosophy behind it, because assumptions about how we view the world and how we obtain knowledge will determine the research strategy and methods to be used (Myers, 1997; Saunders et al., 2011). Thus, the research philosophy is related to the nature of knowledge and its development (Saunders et al., 2011). This study intends to develop an understanding of the use of OSNs in Oman’s public sector organisations and similar contexts. The actions and words of individuals are critical to this as is the philosophy surrounding it.

One way of thinking about research philosophy is epistemology, which is defined as “concerns about what constitutes acceptable knowledge in a field of study” (Saunders et al., 2011: 129), or the knowledge assumptions and how they can be achieved (Myers, 1997). To achieve the understanding or knowledge for this study, it was important to ensure that the researcher was embedded in the working environment of those involved. This enabled the researcher, through observation and conversation, to understand how individuals adopted OSNs. Thus, data and understanding were obtained from the participants’ perspectives and not from that of the investigator (Saunders et al., 2011). Hence, for this research, participation and understanding will be achieved by **observing, interviewing and interacting** with participants.

Scholars have identified three basic epistemologies used during qualitative research into ISs: interpretive, positivist and critical (Myers, 2013; Orlikowski & Baroudi, 1991). Table 3.2 below summarises the differences in assumptions of these research philosophies.

Table 3.2: Brief Look at Interpretive, Positivist and Critical Epistemology. Sources: (Guba & Lincoln, 1994; Orlikowski & Baroudi, 1991)

Assumption	Positivism	Interpretivism	Critical
Ontology	Physical and social world exists independent of human (person (researcher) and reality are separate)	Physical and social world not independent of human (person (researcher) and reality are inseparable).	Social reality is historically constituted (human not confined to existing in a particular state).
Epistemology	Objective reality exists beyond the human mind	Subjective reality. Knowledge of the world is intentionally constituted through a person’s experiences.	Knowledge is grounded in social and historical practices.
Method	Statistics, content analysis	Hermeneutics, phenomenology.	Long-term historical studies and ethnographic studies.
Validity	Certainty, data truly measures reality	Defensible knowledge claims.	
Reality	Replicability (result can be reproduced)	Interpretive awareness (researchers recognise and address implications of their subjectivity).	Reality can be produced and reproduced by humans.

Assumption	Positivism	Interpretivism	Critical
Goal	Prediction	Understanding.	Critical.
Theory practice relation	Deductive (from theory to practice). Testing theory	Inductive (from practice to theory), interpretive.	Interaction between theory and practice (theory is understood as social critique).

The forthcoming sections will provide a brief discussion of each epistemology and explain the epistemology and ontology applicable to this study.

### 3.3.1 *Positivism*

Positivist research normally assumes the objectivity of the reality described, based on independent measurable properties provided by the researcher and the tools being used. Usually, positivist studies seek to achieve a better understanding of phenomena by testing theories (Guba & Lincoln, 1994; Myers, 1997; Orlikowski & Baroudi, 1991).

In positivism, the researcher must interact with the subjects, and, by definition, dominate the relationship. This encourages deterministic explanations of phenomena, which is not the case with information technology and human affairs (Orlikowski & Baroudi, 1991). As illustrated earlier in Table 3.2, the positivist perspective is used when the researcher wants to test a hypothesis. Since this study did not commence with a theoretical framework leading to a hypothesis, but sought to develop a theoretical understanding from a deep analysis of the collected data, the positivist epistemology was not suitable for this study.

### 3.3.2 *Critical*

Critical research assumes “that social reality is historically constituted and that it is produced and reproduced by people” (Myers, 1997: 5). People might be able to change their social and economic situations, yet this ability is seen by critical research as being controlled by different social, cultural and political powers (ibid). According to Orlikowski and Baroudi (1991) critical research attempts to critically evaluate and transform the social reality it investigates. This is unlike positivism or interpretivism, which tends to predict or explain its content. Furthermore, critical research is concerned with analysing existing social systems to reveal any contradictions and conflicts that may be inherent within their structures. With this in mind, critical research differs from interpretivism, as an interpretation of the social world is not enough. In fact, “the material conditions of domination need also to be understood and critiqued and these are typically not

accessible by merely asking participants, who often are unable to perceive and penetrate the circumstances that shape and constrain them” (Orlikowski & Baroudi, 1991: 20).

According to Guba and Lincoln (1994) a critical research aim of enquiry is the critique and transformation of related structures, such as social, political and cultural, that constrain and exploit the phenomenon. The researcher should be engaged in the confrontations and conflicts that occur. “The enquirer [researcher] is cast in the role of investigator and facilitator” (ibid, p. 113), which requires him/her to establish a prior understanding of the required transformation. This type of research emphasises that the researcher’s voice is that of the “transformative intellectual” and the researcher needs to be “in a position to confront ignorance and misapprehensions” (Guba & Lincoln, 1994: 115). In this study, the researcher did not have prior understanding. Instead, understanding was being formed by immersing himself in the organisation’s context.

### **3.3.3 Interpretivism**

The interpretive approach was used with the “non-deterministic perspective” proposed by Orlikowski and Baroudi (1991), in which phenomena are examined in their natural setting and from the participant’s perspective. There is no prior influence from the researcher’s understanding of the phenomena. Interpretive studies generally “attempt to understand phenomena through the meanings that people assign to them and interpretive methods of research in IS” (Myers, 1997: 5). In addition, they “assume that people create and associate their own subjective and intersubjective meanings as they interact with the world around them” (Orlikowski & Baroudi, 1991: 5). Interpretive studies accept that individuals make and partner their own particular subjective and intersubjective implications as they interact with their general surroundings; therefore, interpretive researchers working along these lines attempt to comprehend phenomena by getting to the implications that are allocated to them (Orlikowski & Baroudi, 1991).

Having considered the three epistemologies for qualitative research and in light of what this research is aiming for, it is believed that the **interpretive** research epistemology is more appropriate for this study since the study seeks to understand the use of OSNs through the involvement of employees and a consideration of their interactions with this technology. Further, the study aims to comprehend the context in which OSNs are used, organisational changes and cultural aspects, which can only be understood if looked at from the inside (Myers, 2013). Walsham (2006: 319) believes the interpretive method continues to gain more ground in the area

of IS research and that “interpretive research has clearly become much more important in the IS”. Further, he states that the interpretive approach seeks to gain in-depth access to people, issues and data. Therefore, as mentioned in Chapter 1, this study is designed to explore and understand aspects of the adoption and use of OSNs; hence, the interpretive approach is considered to be the most suitable, to enable the researcher to explore issues, views and experiences in a deeper and richer manner. The researcher intends to collect data through observing, interacting with and interviewing employees in public sector organisations.

Interpretive researchers tend to focus on meaning in context. They aim to understand the context of a phenomenon, since the context is what defines the situation and makes it what it is.

### **3.4 Research Approach**

An important aspect of any research is to understand its reasoning (Myers, 2013) which can be classified as inductive or deductive (Myers, 2013; Saunders et al., 2011). Inductive reasoning is defined as “a process by which generalisations are made from many particular instances found in the data” (Kaplan and Maxwell (2005: 50). A simpler definition of the inductive research approach is “the development of a theory as a result of observation of empirical data” (Saunders et al. (2007: 599).

On the other hand, the deductive approach is defined as: “a research approach involving the testing of a theoretical proposition by the employment of a research strategy specifically designed for the purpose of its testing” (Saunders et al., 2007: 599). The deductive approach is a process that involves the researcher using the literature for identifying theories and ideas that can then be tested using data analysis (Saunders et al., 2007).

The distinction between inductive and deductive research approaches determines whether the researcher is implementing the study to test a theory or to develop one (Myers, 2013; Saunders et al., 2011). Deductive reasoning is a top-down approach in which the researcher starts with a general theory about the topic which the researcher uses to develop one or more hypotheses that will be tested using the collected data. This is followed by data analysis in which these hypotheses are examined to confirm or otherwise the initial theory. Conversely, inductive reasoning follows a bottom-up approach which starts with the collection of empirical data about the phenomena. Once the collected data is analysed, patterns should emerge that could lead to one or more

hypotheses. These hypotheses are then developed into a more general theory (Myers, 2013; Saunders et al., 2011).

The deductive approach is affiliated more with scientific research that involves the development of a theory and which is subjected to testing in the research context (Saunders et al. (2011). In deductive studies, a researcher is meant to be independent from what is observed in order to follow scientifically rigorous principles (Myers, 2013; Saunders et al., 2011).

More information is provided about the difference between inductive and deductive reasoning in Table 3.3 below.

Table 3.3: Deductive vs Inductive Approaches. Sources: (Myers, 2013; Saunders et al., 2011)

<b>Deductive</b>	<b>Inductive</b>
Confirmatory	Exploratory
Scientific principles	Gaining an understanding of the meanings humans attach to events
The researcher starts with a theory or some hypotheses that he/she wants to test	The researcher starts with empirical data from which he/she wants to build a theory
Moving from theory to data	A close understanding of the research context
The researcher starts ‘top-down’	The researcher starts ‘bottom-up’
The collection of quantitative data	The collection of qualitative data
The application of controls to ensure validity of data	A more flexible structure to permit changes of research emphasis as the research progresses
The operationalisation of concepts to ensure clarity of definition	A realisation that the researcher is part of the research process
A highly structured approach	Less concern with the need to generalise

In this study, the researcher opted for the inductive method, which involved using a bottom-up approach that began with collecting data about the study from Omani public sector organisations, through selected case studies. This was after the completion of an overview of literature tackling the main topics of this study and was followed by an in-depth analysis of the collected data. This led to the emergence of patterns that helped in the development of the study’s theoretical framework.

### 3.5 Research Methods

Having decided on the research approach, the next step was to consider the strategy that would be used for data collection. A research method is “a strategy of inquiry which moves from the underlying philosophical assumptions to research design and data collection” (Myers, 1997: 6). The intention is to provide researchers with the tools for understanding the social and cultural



contexts of people studied when collecting data. In qualitative approaches there are four research methods: case study research, action research, ethnography and grounded theory (Myers, 1997). These will be understood and justified in terms of this study.

### 3.5.1 Case Study Method

Case study research is defined as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2009: 18). A case study is also described as “a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence” (Robson, 2002: 178).

Case studies are more likely to lead to the use of the ‘how’ and ‘why’ research questions that a research study could contain (Yin, 2009: 10). In addition, case study research is the most-used method in IS research (Orlikowski & Baroudi, 1991). For this study, the researcher believes that the case study method is most appropriate because it focuses on studying the use and adoption of OSNs in public sector organisations and because it involves ‘how’ and ‘why’ questions. Further, this method is appropriate as it “is particularly well-suited to IS research because the technology (in this case OSNs) is relatively new and interest has shifted to organisational rather than technical issues” (Benbasat et al., 1987: 382).

Yin (2009) categorises case studies into three types, based on their application to research: explanatory, exploratory and descriptive. Explanatory case studies are used to explain the alleged underlying links in real-life involvements that are seen as being too complicated for survey or experimental strategies. Descriptive case studies are used to describe an intervention and the real-life context in which it occurred. Exploratory case studies could be used to enlighten situations of evaluated intervention where a single outcome is not clear. Table 3.4 below provides a description of each type.

Table 3.4: Case Study Type. Source: Yin (2009)

Case Study Type	Definition
Explanatory	This type of case study is used to explain the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies (Baxter & Jack, 2008; Yin, 2009).
Descriptive	This type of case study is used to describe an intervention or phenomenon and the real-life context in which it occurred (Baxter & Jack, 2008; Yin, 2009).

Case Study Type	Definition
Exploratory	This type of case study is used to explore those situations in which the intervention being evaluated has no clear, single set of outcomes (Baxter & Jack, 2008; Yin, 2009).

This study seeks to explore the recent use of OSNs in Oman’s public sector organisations and will use the exploratory case study method.

When considering case studies, many researchers recommend the use of multiple rather than single examples (Eisenhardt & Graebner, 2007; Yin, 2009). Yin (2009) argues that, even with two case studies, study conclusions will be more powerful than those coming from a single case alone. In this research two case studies were used in the pilot phase and two in the final study. The reasons for using multiple case studies are that the researcher wanted to examine the use of e-government/OSNs in depth in order to explore OSN use, organisational changes and culture, and the factors affecting OSN use within government organisations. Further, multiple case studies allowed the researcher to compare results (cross-case analysis). This will be looked at in more detail in chapters 4 and 5. A comparison between single and multiple case studies is summarised in Table 3.5 below.

Table 3.5: Single Case Study vs Multiple Case Studies, Source: Yin (2009)

Single Case Study	Multiple Case Studies
<ul style="list-style-type: none"> <li>▪ Used to determine whether a theory’s propositions are correct or whether some alternative set of explanations might be more relevant</li> <li>▪ Represent an extreme or unique case</li> <li>▪ Used in revelatory case (where phenomena were previously inaccessible to social science inquiry)</li> <li>▪ Longitudinal case (study same case at two or more different points in time)</li> <li>▪ Need more justification for making an extremely strong argument backing your choice for one case</li> </ul>	<ul style="list-style-type: none"> <li>▪ Can require extensive resources and time beyond the means of a single student or independent research investigator</li> <li>▪ Using multiple case studies raises a new set of questions</li> <li>▪ The evidence is often considered more compelling; hence, study regarded as more robust</li> <li>▪ Multiple case studies produce an even stronger effect</li> </ul>

The current study will apply the multiple case studies method, which will help achieve the research objective to arrive at an in-depth understanding of the adoption of OSNs in public sector organisations in Oman.

### 3.5.2 Action Research

A second research method is action research, which is defined as research that “aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework” (Rapoport, 1970: 499). Thus, action research emphasises and focuses on action and changes to the

organisation being studied, and the person conducting the research who is also part of this change (Myers, 1997). In this research, the researcher aimed mainly to gather and analyse data within selected public sector organisations in Oman, to fulfil the requirements for PhD certification. As the researcher did not hold any authoritative position it was difficult for him to influence or introduce any changes; thus this research method was not viewed as being suitable for this study.

### ***3.5.3 Ethnography***

Saunders et al. (2011: 591) define the third method as ethnography research – a “strategy that focuses upon describing and interpreting the social world through first hand field study”. Ethnography research originated from “the discipline of social and cultural anthropology”, where the researcher (ethnographer) is required to devote a substantial amount of time to the field (Myers, 1997: 8). Furthermore, ethnography research “usually requires long periods of time in the “field” and emphasises detailed, observational evidence” (Yin, 2009: 15). It also requires the researcher (ethnographer) to “immerse herself or himself in the social world being researched as completely as possible” (Yin, 2009: 15). By doing so, the researcher should cope with both roles as a full-time member of a study group and a researcher (Saunders et al., 2011).

In this study, the researcher was obliged to complete the doctoral study programme within a specified timeframe, which was influenced by the sponsoring government of Oman and the academic institution at which this study was completed. Finally, there was a geographical constraint, as the researcher was based in the UK while pursuing the doctoral study programme and it was difficult to be located over a long period of time in the context of this study.

### ***3.5.4 Grounded Theory***

The fourth method, grounded theory research, aims to develop theory from gathering data, and is seen as an approach for developing a theory (Myers, 1997). Martin and Turner (1986 cited by Myers, 1997) define grounded theory research as “an inductive, theory discovery methodology that allows the researcher to develop a theoretical account of the general features of a topic while simultaneously grounding the account in empirical observations or data”. Grounded theory research considers sustaining sampling until “theoretical saturation” is reached and theory is developed (Saunders et al., 2011). Although grounded theory research is used mostly to develop a theory, according to researchers such as Urquhart (2013) grounded theory is also commonly used

to analyse qualitative data rather than to generate theories. This study will apply grounded theory procedures and concepts during the analysis of the research data. More details on this are provided in section 3.8.4.

### 3.6 Data Collection Techniques

In order to establish the current study's research questions, a qualitative, interpretive and inductive research approach using multiple cases studies was viewed as suitable. For data collection, observations and in-depth interviews were most effective in gathering the required data for this research approach. The reasoning behind this is provided in the following section.

#### 3.6.1 Interviews

An "interview" is defined as a "purposeful discussion between two or more people" (Kahn and Cannell (1957). An interview is also described as "a data gathering technique that involves questioning a subject (interviewee)" (Myers, 2013: 253). Additionally, an interview "should allow you to collect a rich and detailed set of data" (Saunders et al., 2011: 351). Furthermore, interviews are considered "the most common technique for collecting qualitative data" (Myers, 2013: 8). There are benefits and drawbacks to interviews, which are shown below in Table 3.6.

Table 3.6: Strength and Weaknesses of Interview. Source: Yin (2009)

Source of Evidence	Strength	Weaknesses
Interviews	<ul style="list-style-type: none"> <li>▪ Targeted – focuses directly on case study topics</li> <li>▪ Insightful – provides perceived causal inferences and explanations</li> </ul>	<ul style="list-style-type: none"> <li>▪ Bias due to poorly articulated questions</li> <li>▪ Response bias</li> <li>▪ Inaccuracies due to poor recall</li> <li>▪ Reflexivity – interviewee says what interviewer wants to hear</li> </ul>

Having considered the strengths and weaknesses of interviews and learning that interviews provide face-to-face interaction, which is important for gaining more in-depth information as well as allowing both the researcher and interviewees to clarify any ambiguity or misunderstanding of the questions asked, it was decided that this study would use interviews for data collection.

The use of interviews in research should be generally consistent with the research question(s) and objectives (Saunders et al., 2011). Interviews are seen to be one of the important sources of information in case studies because they are "a guided conversation" rather than a set of structured queries (Yin, 2009). In Omani culture, a friendly environment is much more appropriate than questions that are very tightly structured. This means that during interviews, the researcher was

able to satisfy the need for a line of enquiry and at the same time practice ‘friendly’ and ‘non-threatening’ questioning techniques.

### 3.6.1.1 Interview Types

Different types of interviews are used in IS research, which can be classified into three basic types: structured interviews, semi-structured interviews and unstructured interviews (Myers, 2013) as shown in Table 3.7 below.

Table 3.7: Summary of Interviews Types. Source: Myers (2013)

Interview Type	Explanation
Structured interviews	The use of pre-formulated questions strictly regulated with regard to the order of the questions and sometimes regulated with regard to the time available.
Semi-structured interviews	The use of some pre-formulated questions, but no strict adherence to them. New questions might emerge during the conversation.
Unstructured interviews	Few if any pre-formulated questions. In effect, interviewees have free rein to say what they want. Often no set time limit.

The use of semi-structured interviews in IS research is seen as the best type of interview because it provides some structure while allowing for a degree of researcher improvisation (Myers (2013). Further, a semi-structured interview “gives the interviewee the opportunity to add important insights as they arise during the course of the conversation” (Myers, 2013: 123). In this research, the researcher wanted to get the most out of the interview by encouraging participants to speak freely and add important insights about OSN use in their organisation, while at the same time maintaining the focus of questions and providing the opportunity to probe during the course of the conversation. This study used an interview guide (Appendix IV) based on the relevant literature and containing the main areas to be discussed with participants. From a pilot study and previously obtained expert-panel feedback, it was found that open-ended questions would generate a better understanding compared to monosyllabic answers that would just verify theoretically formed questions. For instance, if the question asked ‘how’ and ‘why’ it would lead to a better understanding. Conversely, if a question asked, “Did your family or friends lead to you using more OSNs?” and the reply was “Family”, that would not offer any understanding. By using open-ended questions, the researcher learnt that they led to more open-ended and more descriptive answers, which helped obtain much more qualitative data for the study. Therefore, open-ended questions and semi-structured interviews gave flexibility to the questions and allowed for the probing of participants; thus they were used for this study.

It is also viewed as essential for the development of research questions “to consider the expertise of your supervisor or faculty members in your institution” (Myers, 2013: 13). The supervisory team of this researcher were strong and experienced in qualitative research, and could guide the researcher on the design and validation of the questions and questionnaire, which were further verified and validated by academic experts and policymakers involved with information technology and SM in Oman. By using the Omani experts, it was also possible to determine which research instrument would be used in the local context. This led to a version of the interview guide being created in Arabic and ensured that a wider range of participants could be involved rather than limiting the study only to English-speaking individuals.

### 3.6.1.2 Interview Protocol

For the interview protocol, participants were initially identified and sent consent letters seeking their permission for data collection. Interviews were arranged once permission was given. They typically lasted between one and two hours and involved open-ended questions that led to further probing of the participants. All the interviews were recorded and transcribed following the interview. Some initial interpretations from the interviews were discussed further by the researcher and the participants. This led to additional clarification of the data and its interpretation. There were instances of the organisations with some of the participants that were also used for verification and validation. Most of the interviews were held in participants’ offices. However, some high-level staff preferred to meet off-site – in cafes, at their homes or at the residence of the researcher.

### 3.6.2 Direct Observation

The second data collection technique used in this study was observation, defined as “when you are watching people from the outside” with “little, if any, interaction between you and the people you are studying” (Myers, 2013: 137). Observation “can be rewarding and enlightening to pursue and ... [can] add considerably to the richness of your research data” (Saunders et al., 2011: 288). There are advantages and disadvantages to direct observation, summarised in Table 3.8 below.

Table 3.8: Advantages and Disadvantages of Direct Observation. Source: Saunders et al. (2011)

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>▪ It is good for explaining ‘what is going on’ in particular social situations</li> </ul>	<ul style="list-style-type: none"> <li>▪ It can be very time-consuming</li> <li>▪ It can pose difficult ethical dilemmas for the researcher</li> </ul>

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>▪ It heightens the researcher’s awareness of significant social processes</li> <li>▪ It is particularly useful for researchers working within their own organisations</li> <li>▪ Some participant observation affords the researcher the opportunity to experience ‘for real’ the emotions of those who are being researched</li> <li>▪ Virtually all data collected is useful</li> </ul>	<ul style="list-style-type: none"> <li>▪ There can be high levels of role-conflict for the researcher (e.g. ‘colleague’ versus researcher)</li> <li>▪ The closeness of the researcher to the situation being observed can lead to significant observer bias</li> <li>▪ The participant–observer role is a very demanding one, to which not all researchers will be suited</li> <li>▪ Access to organisations may be difficult</li> <li>▪ Data recording is often very difficult for the researcher</li> </ul>

As OSNs are virtual but affect an individual’s behaviours and attitudes, it was important to observe employees in their working environment. By doing so, the researcher could understand the merging of the virtual with real-life situations.

In light of what is discussed above, it was perceived that it would be important to use observations in this study to increase understanding of the adoption of OSNs in public sector organisations. Observations were also useful because they provided the researcher with additional data that was important for the data triangulation necessary for the validation of this study.

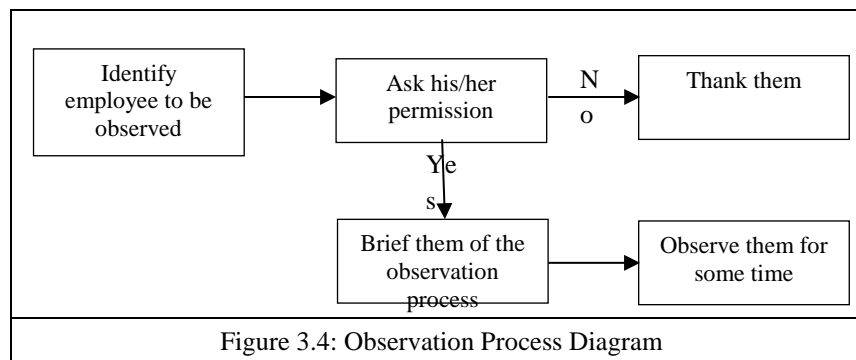
The current study used observation as one of the data collection techniques in both the pilot and final phases because it was important to understand and capture the interactions of employees in their natural settings. It also gave the researcher the opportunity to be ‘part’ of that setting, which helped considerably during the interviewing stage, as participants got used to him being there for some time. This in turn made them more open during interviews. Having informal chats with the participants during their breaks, about various topics of interest to them, was important to build trust and rapport and create an affable atmosphere. It was a valuable experience to see how things are done and to have a feel for the work culture and environment in each of the observed organisations. It was, therefore, important for the researcher to observe without the interference of prior or personal perceptions. This was not easy to do, but the researcher was trained beforehand, by the supervisory team and from secondary data in the form of previous publications, to conduct observations with an open mind.

### 3.6.2.1 Observation Process

Rapport was built quickly with the participants in order to gain their trust. The mere fact that the researcher is Omani was essential as this meant that he shared the same culture as the participants, which proved helpful in building trust quickly. Participants did not see him as an ‘outsider’ the way they would have viewed a foreigner undertaking research on Oman. In such a case access

would have been harder to obtain, due to scepticism about the intentions of the research. Access to information was granted to the researcher from higher management levels, which contributed to the participants' 'comfort' and unreserved sharing of information and knowledge with the researcher. In addition, the researcher was familiar with Omani social ethics and etiquette. For example, the importance of greeting male participants with handshakes (shaking a woman's hand is frowned upon in some areas). Additionally, starting the conversation by asking about the wellbeing of the participant's family and how they were doing before moving on to the interview, is an essential part of Arab and Omani culture and helps establish rapport and trust between two parties. Besides that, the researcher made use of the breaks that participants took for coffee, for example, to establish more friendly conversations about different topics of interest such as sports. These conversations were instrumental in building trust, which is something that Zuboff (1988) also specified in her research.

The process of conducting the observations involved: 1) obtaining permission from the organisations' senior management after the researcher explained the purpose and relevance of the observations; 2) the identification of participants by management. This was based on whether their jobs involved the use of OSNs or related systems/processes; 3) briefing participants about the purpose of the study and observations. Any questions or concerns were answered by the researcher as shown in Figure 3.4 below.



In terms of the duration and time periods, the observations occurred between March and April 2015. Observations were made of nine employees from each case study organisation. The pilot study observations were completed at case study one (C1), MM, and at case study two, Ithraa (C2). The selection of the case studies will be explained in section 3.7.2. Participants were drawn from



three organisational levels: high level or senior manager, middle level or middle manager, and low level or ordinary employee. Details of the pilot participants are provided in Table 3.9 below.

Table 3.9: Pilot Phase Observation Sample Population

Age group	High-level senior manager		Middle-level middle manager		Low-level ordinary staff	
	MM (C1)	Ithraa (C2)	MM (C1)	Ithraa (C2)	MM (C1)	Ithraa (C2)
18–20	-	-	-	-	-	-
21–30	-	-	1	-	2	3
31–40	1	-	-	2	1	-
41–50	2	3	2	1	-	-
50 >	-	-	-	-	-	-

The observations were all conducted by the researcher and took place in the natural (working) environment of both organisations. Employees from MM were observed first for more than two weeks. Employees at all levels were chosen by using a non-random snowball approach that included similar criteria to those described in section 3.7.3. The participants were given a brief about the observation's process and asked to voluntarily decide whether to participate or not. The observations were conducted on different days of the working week and at different times of the working day. By observing public sector employees, the researcher was able to develop a wider understanding of the phenomenon, including the social and working environment of both organisations. This enhanced his understanding and allowed him to establish social networks. This process of gaining respect and generating friendliness is considered important in building a rapport with participants and establishing a safe and comfortable environment in which participants can share their experiences (DiCicco-Bloom & Crabtree, 2006). The researcher was able to understand the processes that are used to communicate and accomplish OSN tasks between employees, within their own departments and with other employees in other departments, thus enhancing his knowledge of each working culture.

### 3.6.2.2 Observation Action

The researcher would sit in a place where he was able to observe the participants without interfering with their work. Observations took between two and four hours. During observations the researcher noted down the employee's behaviour, interactions with colleagues and use of office equipment such as the computer and phone. With the permission of participants, the researcher was able to take photographs that documented the daily work processes in each organisation. Examples of observation photographs are provided in Appendix V.

It is important to note that, despite the researcher's initial aim of observing from a distance with minimal interaction, to maintain objectivity and not affect the natural setting, it was hard for some employees not to start conversations with the researcher. It is considered impolite in Omani culture not to show hospitality to people sitting with you in the same room, by offering coffee, tea or food. Therefore, short, friendly conversations took place during coffee breaks as mentioned earlier. This helped the researcher develop rapport and personal trust with the people he observed.

### ***3.6.3 Participant Observation***

A diverse form of observation is participant observation that involves “gathering qualitative data about the social world by interacting with people and observing them in their own ‘natural’ setting” (Myers, 2013: 136). In this form of observation, the researcher does not only observe people, but also participates and interacts with them with the objective of gaining an understanding of their beliefs and actions (Myers, 2013; Saunders et al., 2011). Myers and Saunders argued that, although participant observation develops a rich and deep understanding of the phenomena in its natural setting, it is also time-consuming.

Due to the time limit on this study, and the challenges of gaining access to some of the public organisations, participation observation was seen as inappropriate for this study.

### ***3.6.4 Documentation***

#### ***3.6.4.1 Archival Records***

Archival records are defined as a “research strategy that analyses administrative records and documents as principal sources of data because they are products of day-to-day activities”. (Saunders et al., 2011: 587). For this study, data was also collected using administrative records and documents. The term archival does not pertain to examining historical data only, but also refers to recent records as a source of secondary data. Examples of archival records include publicly available files, service records, organisational records, maps, charts and survey data, which can be used in conjunction with other sources of information to produce a case study (Saunders et al., 2011). Furthermore, Yin (2009) asserted that the usefulness of these records and their importance to research studies varies between cases; in some cases, they can be the main objects of retrieval analysis, while in others, the relevance is just a passing phase. Despite the importance of archival records, their use might present some challenges to researchers due to accuracy, missing data or

denial of access to this data. In this study, archival records were presented in the form of OSN posters, forms and statistical reports on OSN usage shown to the researcher during observation and some interviews.

### 3.6.4.2 Physical Artefacts

Another source of information considered for this study was physical or cultural artefacts that are defined as “a technical device, a tool or instrument, a work of art, or some other physical evidence” (Yin, 2009: 113). This type of information can be obtained as part of a case study by collection or observation. Physical artefacts are more important in anthropological research, with less potential relevance in mostly, typical kinds of case studies (Yin, 2009). This research focuses more on understanding the use of OSNs in public sector organisations and this method was not, therefore, seen to be useful for the purpose of the research.

To summarise, this research used sources that offered secondary data. Secondary data refers to archival documents such as electronic memos or background company information and any documents formed or distributed during the project, plus any websites or portals used for data analysis. These source documents or supplementary material are listed in Table 3.10 below:

Table 3.10: Source Document used in this Research

Secondary Data	Sources
Background to pilot Study	Organisation website, Government Year Book (Oman 2017), organisation document (booklet)
Background to final Study	Organisation website, Government Year Book (Oman 2017), organisation document (booklet)
References for the literature review	E-government/OSN studies on developing countries, Gulf region and Oman
Additional information	Researcher chats and small-talk during observation and interviews

## 3.7 Information About Data Collection

### 3.7.1 Research Ethics

Ethics is an important issue for any research and many universities require researchers to obtain ethical approval for any study. A number of ethical considerations must be taken into account by researchers, especially when their work involves people. Research ethics are defined as “the application of moral principles in planning, conducting, and reporting the results of research studies” (Myers, 2013: 48). For qualitative researchers, ethical practice involves taking “a moral stance that involves respect and protection for the people actively consenting to be studied”

(Myers, 2013: 48). One of the important ethical principles in qualitative research is informed consent, which means that “potential informants should, as far as possible, be enabled freely to give their informed consent to participate, and advised that they can terminate their involvement for any reason, at any time” (Myers, 2013: 50).

This research was completed at the University of Hertfordshire, where regulations require researchers to obtain ethics committee approval when any research involves people such as is the case in this study. To obtain ethical approval, the researcher contacted several Omani public sector organisations, explained the nature of this study and sought the organisation’s assistance in finding participants. Following several phone calls and emails, agreements were reached with two organisations, the MM and Ithraa. The researcher then requested permission and letters of willingness to participate in this study. For this purpose, approval letters were sought in the form of written acceptance (shown in appendices VI VII). With these acceptance letters, the researcher was able to apply to the university ethics committee. After several months’ wait, final approval was granted (see Appendix VIII).

Before involving a participant in observations and interviews, consent form all participants was sought. Alongside this, participants were assured of their participation being optional. Participants who agreed to the terms of this study were assured of anonymity. They were then assigned a code number that concealed their identity and all their interviews were stored in a secure computer database at the University of Hertfordshire. Access was restricted to the researcher and his supervisory team who were only allowed access if the researcher granted permission. Participants were also informed that the information they provided would be used solely for the purposes of this research and would be stored in a secure place at the university for three years after this study was completed. Thereafter, the data will be destroyed using a secure method.

### ***3.7.2 Case Selection***

One of the important decisions that the researcher had to make during the initial stage of this study was the choice of Omani public organisations to use as case studies. To make that decision, he carefully considered the following aspects in light of the research main question and objectives: public versus private organisations; service-providing versus non-service-providing organisations; OSN-user versus non-OSN-user organisations; and potential access to such organisations. A list of potential organisations was prepared by the researcher based on the above considerations, which

included accessible public, service-providing and OSN-using organisations. The researcher followed those organisations' OSN accounts to get an idea of the type of G2C interaction taking place. Based on how interactive they were online, the researcher shortlisted five potential organisations. At this stage, access was key. The researcher approached the five organisations to seek their approval to carry out research about them, and a final decision took place for those organisations that agreed to participate.

Choosing organisations was easier than gaining access permission. In order to gain access to information and to obtain participants, the participants were informed of the research purpose and provided with assurances that the study was a purely research study with no repercussions for their daily activities.

Having contacts with senior management in some of those organisations allowed the researcher to gain access and obtain the trust and support of the workforce.

### ***3.7.3 Selection of Participants***

Participants were selected on the basis that individuals employed in key organisational positions are best suited to answer research questions (Elmendorf & Luloff, 2006). Diversity in gender terms as well as e-government OSN-project experience was sought (either currently or in the past).

Participant selection was made via a non-random approach that involved using the snowball selection method:

1. Since this study focused on e-government, only employees that worked in public sector organisations were selected.
2. Participants were selected because of their use of OSNs at work, or because they would be using OSNs in future work.
3. Participants were selected from the three organisational levels (high level or senior managers, middle level or middle manager, and low level or ordinary user). This was important in order to arrive at an overarching understanding of the use of OSNs across various staff levels of the organisation and the interplay that occurred between them. Further, focusing only on one staff level would have deprived this study of the richness of its findings and might have provided a distorted picture of the situation in each organisation.

Participants were selected using the researchers' network, a practice common for studies focused on Arab and GCC countries. They were invited informally rather than through an organisation's hierarchy (i.e. a 'senior member of staff'). In the latter case, there would have been a risk of bias,

as it is normal practice for respondents to obey their seniors' command and provide answers aligned with the researchers' aims. Therefore, the researcher sought to ensure that no one was forced to participate and that individuals from all organisational levels took part. The researcher also ensured that there was theoretical saturation of the empirical material – that any additional interviews would be conducted only if they provided substantial supplementary findings and perspectives, thus adding value to the study.

Overall, this study used 19 participants for the pilot phase (details about the participants will be provided in Chapter 4). The final phase used 25 participants (whose details are provided in Chapter 5). The large number of participants was essential to ensure triangulation and allow verification and validation of the findings.

### **3.8 Data Analysis Approach**

There are different approaches for analysing qualitative data, with the three widely used approaches being: content analysis, narrative analysis and grounded theory (Silverman, 2011). Generally speaking, qualitative data analysis involves “summarising data, categorising data and structuring data using narrative to recognise relationships, develop and test propositions and produce well-grounded conclusions” (Saunders et al., 2011: 516). However, analysing qualitative data is considered to be a demanding process (Saunders et al., 2011).

The analysis stage of the current study started with the transcription of interviews reproduced as written (word-processed) accounts using the actual words of participants (Saunders et al., 2011).

The following sections include a description of the three widely used data analysis approaches in qualitative research.

#### **3.8.1 Content Analysis**

Silverman (2011: 64) identified content analysis as analysis that “involves establishing categories and then counting the number of instances when those categories are used in a particular item of text”. This approach is a widely accepted one particularly in the sector of mass communications. In this approach, the researcher starts by establishing a set of categories followed by counting instances that can fall into each category. According to Myers (2013), in content analysis, the researcher needs to first develop a set of categories of words and phrases which will then be applied

to chunks or units of the text until the text is completed. This can be followed by the application of various statistical techniques. Therefore, in Myers' view, this approach is “in effect, a quantitative method of analysing the content of qualitative data (documents, pictures, and videos)” (p. 178). With this in mind, this approach was not considered by the researcher to be suitable for this study as its theoretical basis is “at best unclear and this means that, unfortunately, its conclusions can often seem trite” (Silverman, 2011: 85).

### ***3.8.2 Narrative Analysis***

Riessman (1993: 2) defined narrative analysis as an approach that “examines the informant’s story and analyses how it is put together, the linguistic and cultural resources it draws on, and how it persuades a listener of authenticity”. Myers (2013: 210) states that there are many narrative analysis approaches that exist, but some are preferred over others by researchers in certain fields. These approaches generally describe the life history of individuals and can, therefore, be defined as a “record of events that [is] seen as significant by the narrator”, or can be used to “describe significant events in the life of organisations”. Furthermore, narrative analysis is considered as a “way to systematically study personal narratives of experience”. Besides, it is useful “precisely because storytellers interpret the past rather than reproduce it as it was” (Riessman, 2005: 6). Myers (2013: 210) asserted that the word ‘narrative’ “emphasises the voice of the person telling the story and focuses on the uniqueness of the story”. Narrative analysis is not recommended for research that involves large number of interviews, as it takes considerable time to collect and analyse a participants’ life histories (Myers, 2013). As stated earlier, this study is aimed at exploring the use of OSNs in public sector organisations, a relatively new technology with a short history of adoption. This approach was, therefore, not considered appropriate for this study.

### ***3.8.3 Grounded Theory Approach***

Myers (2013: 104) defines grounded theory as “a qualitative research method that seeks to develop theory that is grounded in data systematically gathered and analysed”. Another definition, provided by Charmaz and Bryant (2011: 292), is “a method of qualitative inquiry in which researchers develop inductive theoretical analyses from their collected data and subsequently gather further data to check these analyses”. Therefore, the purpose for researchers of using this method is to attempt to construct a theory rather than describe or apply existing theories. However, according

to researchers such as Urquhart (2013), grounded theory is also commonly used to analyse qualitative data rather than to generate theories.

Further, researchers such as Silverman (2011) perceived the use of the grounded theory approach to be firmly rooted in assumptions common to qualitative researchers. This study is an example of that because it does not start by defining a certain hypothesis, but instead induces its hypothesis from in-depth data analysis. Similarly, Miles and Huberman (1994) cited in Urquhart (2013) labelled this approach as a “common feature [of qualitative] analytical methods”. Urquhart (2013) mentioned that the strength of using grounded theory research analysis is more appealing in instances where no previous theory exists. Thus, it is no more appealing than the field of ISs in which technologies are constantly being developed that “cause something of a rethink, especially when [they influence] how people relate to information technology” (ibid, p. 10). Examples of this include the use of OSNs, which is at the core of this study.

The use of grounded theory has changed since Glaser and Strauss wrote the original book in which they proposed their coding procedures, ‘The Foundational 1967 Text’. Table 3.11 summarises subsequent changes in coding procedures since then.

Table 3.11: Different Grounded Theory Method Coding Procedures. Source: Urquhart (2013)

Book	Suggested coding procedure
Glaser and Strauss 1967	Comparing incidents applicable to each category (including open coding), integrating categories and their properties (selective coding and theoretical coding), delimiting the theory (selective coding and theoretical coding), writing the theory.
Glaser 1978	Open coding, selective coding, theoretical coding.
Strauss 1987	Open coding, axial coding, selective coding.
Strauss and Corbin 1990	Open coding, axial coding, selective coding.
Glaser 1992	Open coding, selective coding, theoretical coding.
Strauss and Corbin 1998	Open coding, axial coding, selective coding.
Charmaz 2006	Initial coding, focused coding, axial coding, theoretical coding.
Corbin and Strauss 2008	Open coding, selective coding and theoretical coding as distinct stages no longer appear, though open coding and axial coding appear as terms in one chapter. The emphasis is on a broader set of tools named context, process and theoretical integration. Two coding paradigms are used as a foundation for context.

The use of the grounded theory method involves three main stages: open coding, axial coding and selective coding. Open coding is defined by Glaser (1978 cited in Urquhart, 2013, p. 23) as “coding the data every way possible” which must be “open” so that the developed theory is open to any direction rather than limiting its direction at the outset. The open-coding technique involves analysing the data line-by-line and attaching initial labels to it. This is followed by grouping these



codes into larger-code categories in order for the analysis to develop or build a theory (Urquhart, 2013).

According to Urquhart, researchers should be aware of the multiple versions of grounded theory methods as well as the well-known split between Glaser and Strauss, which make it harder for first time users to apply the theory. The disagreement between Glaser and Strauss & Corbin (mentioned by Urquhart, 2011) has two fundamental aspects. The first concerns the suggested processes of coding; Strauss and Corbin identified four prescriptive steps: open coding, axial coding, selective coding and coding for process, while Glaser used three steps to break down codes: open, selective and theoretical coding (Myers, 2013). According to Urquhart (2013), the simplicity of constant comparison is what gives the grounded theory method its fundamental edge. Constant comparison is defined by Urquhart (2013: 192) as “the act of comparing one piece of data you have attached a concept to with another piece of data you have attached the same concept to, in order to see if it represents the same concept”. This is important in Urquhart’s view because it ensures that researchers make the allocation of concepts to the data more explicit to themselves; it also ensures that concept allocations are compared to the data as a whole; hence, the hermeneutic principles of analysis are also applied to the data.

Although the grounded theory method is all about developing a theory, many researchers commonly apply its procedures and concepts to analysing data rather than generating theories (Urquhart, 2013). The application of grounded theory is increasingly common among IS researches (Urquhart, 2013 and Myers (1997) as they find it to be useful in interpretivist studies when the research seeks to describe or explain a phenomenon. The current study has applied the grounded theory concepts to describe and explain the use of OSNs in public sector organisations in Oman particularly because it applies the interpretivist paradigm in which the researcher constructs interpretations of social practices. In fact, Urquhart (2013: 61) believes that the use of grounded theory concepts is “easier because there is more commensurability between the notion of coding (generally subjective) and the idea of constructing interpretation. So, generally, verification of the coding is not required.”

#### ***3.8.4 Study Analysis and Processes Used***

Urquhart (2013: 4) found that using grounded theory method to analyse qualitative data “guarantees an excellent piece of research”. With this in mind, the current study applies the

method's procedures to analyse data rather than to generate a theory. Further, it is used as a practical coding method focusing on the mechanics of coding rather than on what it was designed for.

Grounded theory method coding procedures were applied in this study by finding reference quotes from the interviews and identifying possible open coding (OC) for it. OC is “the process of assigning codes to a piece of data, line-by-line, sometimes word by word” (Urquhart, 2013: 45). The process of coding interviews itself is time-consuming, but serves as a learning process for the researcher; an example of open-coded interviews is given in Table 3.12.

Table 3.12: Example of Open Code Used in Ground Theory Method

Participant	Interview Findings	Interpretative Analysis	Open Code
C1-LLS4	It is a prerequisite for work; the fact that today's society uses these tools to communicate with government institutions forces governments to use them in order to interact with the public and understand public requirements, in order to enhance services.	It is suggested that government organisations must use OSNs to reach the public because this is the tool used by the public to communicate with the government. The organisation is thus forced to use the same tools that the public use so effectively. The organisation needs to reach members of the public and listen to what they have to say about services, and must involve them and get their feedback on how to better serve them.	Adopting OSNs
C1-MLS2	For IT people it might help but it is not a prerequisite for the ease of using these tools. For example, young children know how to use it, so I don't think the education level is significant.	The use of OSNs including Twitter is found to be easy, with users knowing how to use it, especially young people.	Common Knowledge
C1-LLS4	No, the difficulties were due to the fact that this account is the official account of the organisation which made me cautious in replying and interacting with the public tweets.	Twitter as a tool is seen as simple and easy to use. However the organisation's Twitter account is found to be challenging when dealing with public tweets, as it represents the official organisation tweet.	Complexity

Computer-assisted qualitative data analysis software (CAQDAS) that is used to aid data analysis has become more diverse and functional in recent years. It helps researchers organise large amounts of qualitative data text collected from open-ended interviews. Yin (2009) believes CAQDAS software will not do the analysis for the researcher but rather serve as an assistant and as a reliable tool to provide fast access and the fast location of open codes and linked data texts. As explained in Chapter 3, this study is a qualitative study that used observation and interview as the data collection method, to produce comprehensive and in-depth information. With this in mind, the current study used NVivo software following the use of the manual method of examining interview transcriptions and note-taking to enter identified codes and organise the transcribed interviews into a NVivo database. This has provided the researcher with a tool for the fast retrieval of data texts. Prior to the use of NVivo, the researcher manually examined each interview and

developed open codes and the associations and links that emerged during the analysis process. The researcher found Yin's (2009, p. 28) assertion about the use of data tools to be true. Yin described it as "developing a rich and full explanation or even a good description of your case, in response to your initial how or why questions, will require much post-computer thinking and analysis on your part". An example of an NVivo-coded interview is provided in Appendix X.

### 3.9 Research Rigour

Trustworthiness in qualitative research is considered essential. Many of those who have written about research methods highlight how qualitative researches can integrate methods and measures that focus on the issues of research trustworthiness (e.g. Silverman (2006) and Pitts (1995)). Stake (2010: 118) states that "quality of evidence is a concern for reasoning in general, in all human affairs, including the attainment of understanding, making priorities, and choosing a course of action".

Rigorous testing is important for "meeting scientific standards such as validity and reliability" (Myers, 2013: 11). Saunders et al. (2011: 156) add that "reducing the possibility of getting the answer wrong means that attention has to be paid to two particular emphases on research design: reliability and validity". Yin (2009) suggests four tests (Table 3.13) commonly used to establish the quality of any empirical social research which can apply to our case study research as well.

Table 3.13: Case Study Tactics for Design Test. Source: Yin (2009)

Tests	Case Study Tactic	Phase of Research in which Tactic Occurs
Construct validity	<ul style="list-style-type: none"> <li>• use multiple source of evidence</li> <li>• establish chain of evidence</li> <li>• have key informants review draft case study report</li> </ul>	<ul style="list-style-type: none"> <li>• data collection</li> <li>• data collection</li> <li>• composition</li> </ul>
Internal validity	<ul style="list-style-type: none"> <li>• do pattern matching</li> <li>• do explanation building</li> <li>• address rival explanations</li> <li>• use logic model</li> </ul>	<ul style="list-style-type: none"> <li>• data analysis</li> <li>• data analysis</li> <li>• data analysis</li> <li>• data analysis</li> </ul>
External validity	<ul style="list-style-type: none"> <li>• use theory in single case study</li> <li>• use replication logic in multiple case studies</li> </ul>	<ul style="list-style-type: none"> <li>• research design</li> <li>• research design</li> </ul>
Reliability	<ul style="list-style-type: none"> <li>• use case study protocol</li> <li>• develop case study database</li> </ul>	<ul style="list-style-type: none"> <li>• data collection</li> <li>• data collection</li> </ul>

Similarly, Guba and Lincoln (1985) developed four specific standards for qualitative inquiry. These are credibility (internal validity), transferability (external validity), dependability (reliability), and confirmability (objectivity). The following sections will discuss the tests of reliability, validity and credibility.

### **3.9.1 Reliability**

Reliability “refers to the extent to which your data collection techniques or analysis procedures will yield consistent findings” (Saunders et al., 2011: 156). Joppe (2000 cited by (Golafshani, 2003: 598) defines it as “the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable”. Silverman (2011: 360) defines it as “the extent to which an experiment, test or measurement yields the same result or consistent measurements on repeated trials”.

In this study, reliability was addressed earlier in the research design phase, particularly in the research protocol when the researcher planned to collect data from more than one source. Furthermore, during observations of participants the researcher emphasised reliability by observing employees working and interacting with OSNs in their natural environment. The researcher also noted how they interacted with the public, and discussed with their colleagues the processes they needed to follow and their use of this technology.

Qualitative research is expressing the data in words rather than in numbers and this means data is already available, unfiltered through the researcher’s notes. Therefore and according to Silverman (2011: 364), “textual data are, in principle, more reliable than observations”. In the case of interviews which this study uses as one of the main data collection methods, reliability is achieved through the pre-testing of interview schedules and through training the researcher in how to conduct interviews (Silverman, 2011). Furthermore, reliability is also achieved when interviewing participants by using low-inference descriptors as suggested by Silverman (2006). This was accomplished by recording all interviews. The researcher carefully transcribed these interviews in the original language (Arabic or English). His transcriptions were cross-checked by experienced transcribers in the language of context.

### **3.9.2 Validity**

Validity “is concerned with whether the findings are really about what they appear to be about” (Saunders et al., 2011: 157) and it is important for quantitative or qualitative approaches (Silverman, 2011). Validity is concerned with two main issues: firstly, whether the means of measurement are accurate, and secondly, whether they are actually measuring what they are

intended to measure (Winter, 2000). There are two dimensions or levels to research validity – internal and external. Internal validity or internal generalisability ensures that the researcher investigates what he claims to be investigating, while external validity or external generalisability is concerned with the extent to which the research findings can be generalised to a wider population (ibid).

### **3.9.2.1 Internal Validity (Generalisability)**

The first validity test for research is its internal validity. In this study, to ensure internal validity, different steps were followed, including:

1. Different research components, for example questions, objectives, methodology, data collection and analysis were linked together.
2. The researcher understood existing theories pertaining to this study and ensured they related to the research objectives and questions.
3. Interview questions were developed by the researcher with feedback from the supervisory team. There were aligned with the research aims.
4. The researcher shared and discussed the interview questions with different experts such as supervisors, colleagues and key informants.
5. Interview questions were reviewed by Arabic language specialists to ensure the correct language and concepts were used and that questions were understood as intended.
6. The researcher attended different university workshops to develop skills related to interviewing and data collection.
7. The researcher asked the interview questions in Arabic or English according to the choice of each participant, in order to ensure participants' convenience and full understanding.
8. The researcher recorded the interviews with the permission of the participants, to ensure availability of all information discussed.
9. The researcher developed structured data analysis procedures and explained how conclusions were drawn (from within-case to cross-case comparison).
10. The researcher shared analysis (interpretations) of the data with the participants to clarify the interpretation and to enable them to contribute new or additional viewpoints.
11. The researcher kept participants' contact details for further clarifications when required.

### **3.9.2.2 External Validity (Generalisability)**

The second validity test of research is external validity or generalisability. Generalisability of research refers to the extent to which research findings from a particular study are generalisable or can be applied to other settings (Myers, 2013; Saunders et al., 2007).

Myers (2013) states that generalisations in qualitative case studies should not be the core goal and do not depend upon statistical inference. Instead, “reliability and generalizability play minor roles in qualitative inquiry” (Creswell, 2003a: 195). This implies that the goals should be to highlight the logical reasoning used in describing results from the case study, as well as in drawing conclusions from them (Walsham, 1993). In addition, validity aims should offer a rich, in-depth understanding of the phenomenon in its natural context (Creswell, 2003b; Myers, 2013; Yin, 2009), with the understanding being a more fundamental concept for qualitative research than validity (Huberman & Miles, 2002).

Qualitative studies are not usually designed to allow the application of systematic generalisations to a wider population (Huberman & Miles, 2002); however, through analytical generalisation, qualitative generalisations in case studies can be achieved (Yin, 2009). In this study, analytical generalisation was achieved as follows:

1. The researcher produced detailed reports about the specific study context and research aims.
2. The researcher used multiple case studies using replication logic.
3. The researcher applied within-case and cross-case analysis.
4. The researcher reviewed the research findings in light of relevant existing literatures.
5. The researcher developed research frameworks from the findings.

Although validity criteria are considered very useful in establishing standards for qualitative research, they must not be limited to contemplation, but rather need to be implemented in research designs. This is done through triangulation (Decrop, 1999).

### ***3.9.3 Credibility***

One approach to increase the validity and accuracy of research is through the triangulation process. Bradley (1993: 436) defines credibility as the “adequate representation of the constructions of the social world under study”. A number of methodological strategies have been suggested to ensure credibility, among which is triangulation (Driessen et al., 2005; Guba & Lincoln, 1985; Yin, 2009).

Triangulation is “a validity procedure where researchers search for convergence among multiple and different sources of information” (Creswell & Miller, 2000: 126). There are four types of triangulation used in evaluation: triangulation, investigator triangulation, theory triangulation and methodological triangulation (Yin, 2009; Patton, 2002).

**(i) Data triangulation** is defined as “combining data drawn from different sources and at different times, in different places or from different people” (Jupp, 2006: 305). This is a popular practice associated with many researchers in qualitative research and provides corroborating evidence that is collected through multiple methods, for example observation, interviews and documents (Creswell & Miller, 2000; Myers, 2013; Silverman, 2011; Stake, 2010). In this study observations (data in the form of observation comments and reports), interviews (data in the form of semi-structured, in-depth conversations with participants) and archival records (data in the form of forms and reports) were used as different resources for data collection, to ensure data triangulation.

**(ii) Theory triangulation** is the “use of multiple theories or hypotheses when examining a phenomenon” (Denzin, 1970; Thurmond, 2001: 254). It involves the use of multiple lenses and questions to lend support or contradict findings (Thurmond, 2001). In this study, several adoption and diffusion theories, such as DOI, DTPB, TAM, TRA and related institutional and culture theories, were consulted in order to form the researcher’s understanding of the adoption and diffusion of the adopted technology (OSNs) in public sector organisations.

**(iii) Methodological triangulation** entails the use of multiple methods to study a single problem (Decrop, 1999; Yin, 2009). Applying multiple-method triangulation paves the way for more credible and dependable information (Decrop, 1999). Combining methods can be through different qualitative methods (within-method triangulation) or by combining qualitative and quantitative techniques (across-method triangulation), as long as they are not used in a hierarchical order, for instance, qualitative exploration and quantitative inference (Decrop, 1999; Thurmond, 2001).

This study is a qualitative one, using participant observation, interviews and archival documents to fulfil the requirements of reliability and validity; therefore, it is based on within-method triangulation. By combining these methods, it is assumed that the findings obtained with all these methods correspond and draw similar conclusions. This ensures the validity of the research findings (Silverman, 2011) and provides a complete picture of the studied phenomenon.

### 3.10 Summary

This chapter explained the research methodology used for this study by understanding and explaining the research approach, research strategy and the data collection techniques used. Other strategies were also explained to provide the reader with information about the available strategies

in current literature. The chapter looked at the research analysis and evaluation process. To apply this theory in practice, a pilot study and final study were undertaken. In the next chapter (Chapter 4), descriptions of the pilot case studies, details of the pilot study backgrounds, data analysis and findings are provided.



## **Chapter 4 : Pilot Analysis, Findings and Discussion**

### **4. Introduction**

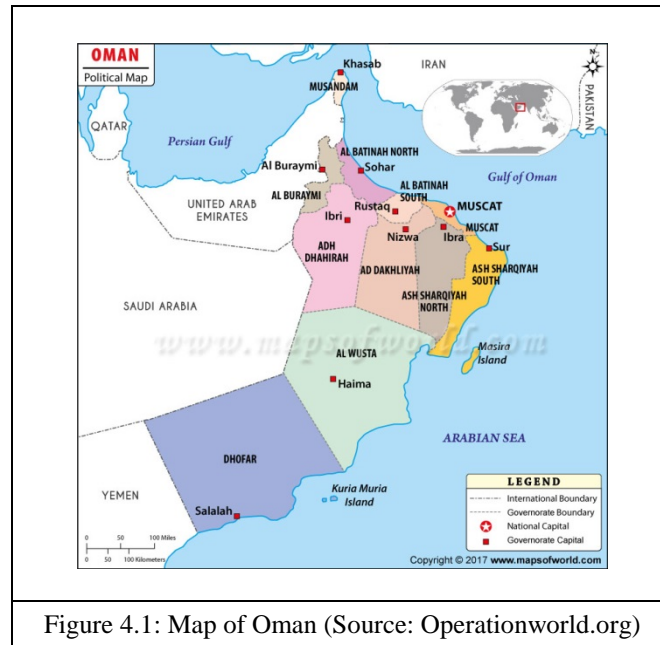
Chapter 3 discussed and described the philosophical assumptions, designs and methodology of the research. This chapter considers the pilot study phase including an overview of Oman, the reasons for selecting it, the analysis and findings and a discussion of the within-case and cross-case analysis of the pilot data. The conceptual framework based on the literature review of Chapter 2 is also used and the analysis and repercussions of the findings considered with respect to it.

#### **4.1 Case Study Profiles**

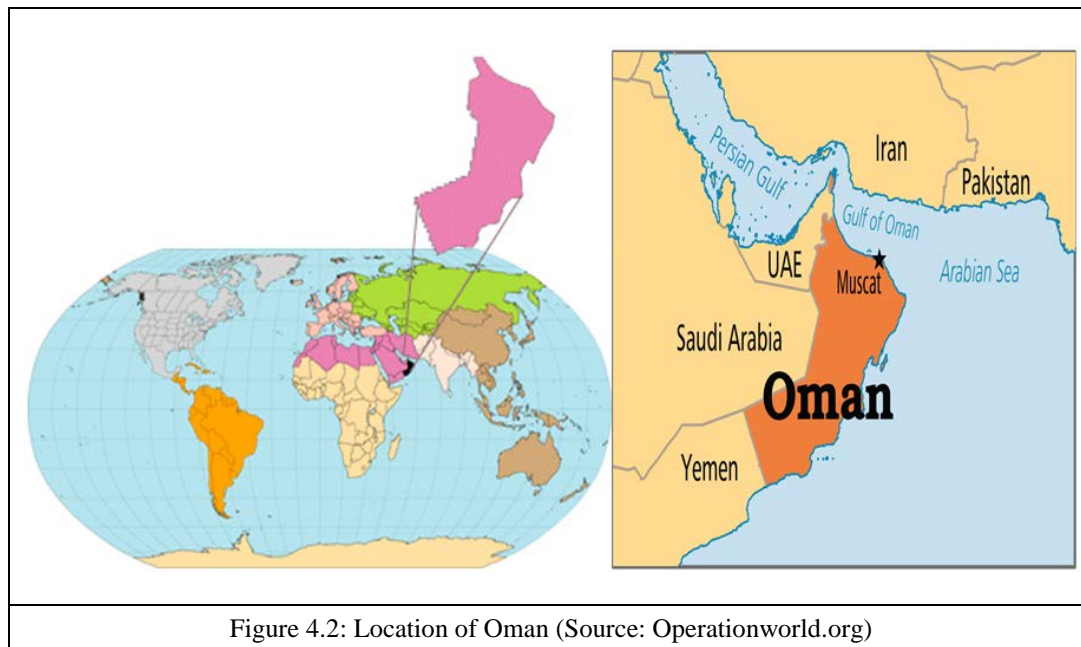
This research is focused on a developing country, specifically the Sultanate of Oman. The background and reasons for selecting Oman will be provided next.

##### ***4.1.1 Oman Country Profile***

Oman is a country located on the Arabian Peninsula in the Middle East. Its size is an estimated to be 309,500-square km; it has a population of approximately 3.9 million citizens (BBC, 2015). Oman consists of 11 governorates (administrative divisions) as shown in the Figure 4.1 below. They are: Muscat, Dhofar, Musandam, Buraymi, the Dakhiliyah, the North Batinah, the South Batinah, North Sharqiyah, the South Sharqiyah, the Dhahirah and the Wusta (Oman, 2016). Each of these governorates has its own distinctive administrative geography and comprises a number of wilayats (state) of which there are 61 in total. The Ministry of Interior is responsible for overseeing all governorates bar Muscat (the capital) and Dhofar (Oman, 2014; Oman, 2016).



A map is provided in Figure 4.2 below to illustrate the location of Oman.



The critical role of citizens in decision-making has been considered by the autocratic government of Oman. This led to the creation of the Council of Oman. This council consists of two main bodies: the State Council (Majlis al Dalwla), to which members who are viewed as esteemed citizens or individuals with high levels of expertise are appointed by the Sultan, and the Consultation Council (Majlis Ash’shura) to which membership is proffered on the basis of

potential candidates' wilayat (state). Both councils play a vital role in the development of Oman, and the achievement of the goals and objectives established by the government.

For this pilot phase, two case studies from the Omani public sector were chosen, MM and Ithraa.

#### **4.1.2 Case Study 1(C1) Profile: Muscat Municipality (MM)**

MM is responsible for delivering an array of services to the public and was selected for this research as it is one of the foremost Omani public sector organisations to adopt OSNs (Twitter, Facebook and YouTube). It has heavily invested in advancing its online services. The municipality's interactive website (<http://www.mm.gov.om>) allows members of the public to request and/or perform a number of services, saving time and effort. MM also serves local citizens and, compared to the UK public sector, is comparable in terms of employees and size to county councils. MM has 11 directorates and more than 8,000 employees (Table 4.1).

Table 4.1: Muscat Municipality (C1) Directorates and Employees (2016)

Unit	Omani Male	Omani Female	Foreigner Male	Foreigner Female
Minister's Office	387	97	143	1
Directorate General of Finance, HR and Admin	244	47	1	0
Directorate General of Technical Affairs	175	54	163	2
Directorate General of Muscat Municipality at Greater Mutrah	332	20	595	0
Directorate General of Muscat Municipality at Seeb	355	40	725	0
Directorate General of Muscat Municipality at Bausher	296	25	607	0
Directorate General of Muscat Municipality at Al Amerat	205	30	255	0
Directorate General of Muscat Municipality at Qurayat	191	17	168	0
Directorate General of Transportation	815	7	485	0
Landscaping and Gardens	521	6	850	0
General Directorate for Roads	72	2	71	0
<b>Total</b>	<b>3593</b>	<b>345</b>	<b>4063</b>	<b>3</b>

All the directorates general have identical organisational structures and functions, but the areas of responsibility (size), densities of population and degrees of development vary according to the population of their respective districts. In 2011, MM initially launched its OSN accounts (Twitter, Facebook and YouTube) with the intention of news dissemination and receipt of citizens' suggestions. In 2012, this intention was amended to include the receipt of low- and medium-priority public complaints. High-priority complaints were still dealt with using the classic communication channels of the call centre.

### 4.1.3 Case Study 2 (C2) Profile: Public Authority for Investment Promotion & Export Development (Ithraa)

The second case study is Ithraa, which was established in 1997. Ithraa is also known as the Public Authority for Investment Promotion & Export Development (RAIPED) and is responsible for promoting Oman as an international investment destination. Its main functions are the facilitation of Omani investment and the promotion of the export of Omani goods, products and services globally.

Ithraa's website (<http://www.ithraa.om>) says it is a certified government export and investment organisation tasked with securing Oman's long-term prosperity. Ithraa supports the Sultanate's efforts to create new and deeper business ties with dynamic and fast-growing economies and businesses across the globe in the form of, for example, developing ports, trade-free zones, airports, industrial areas, tourist resorts, and technology and science parks. Ithraa, has 102 employees, is responsible for five directorates located in its headquarters – Investment Promotion, Export Development, Research Studies & E-Services, Finance & Administration, and Marketing & Media (Table 4.2).

Table 4.2: Ithraa Directorates and Employees

Directorate/Department	Total Employees	Male	Female
CEO Office	14	8	6
Deputy CEO Office	18	11	7
Investment Promotion Directorate	13	8	5
Export Development Directorate	11	7	4
The Directorate of Marketing & Media	11	5	6
The Directorate General of Research and Studies & e-Services	12	4	8
The Directorate of Finance & Administration	23	11	12
<b>Total</b>	<b>102</b>	<b>54</b>	<b>48</b>

Ithraa began to use OSNs in 2012 which led to the creation of several diverse communication channels for citizens contacting the organisation: email, phone, Facebook, YouTube, Twitter and Instagram. OSNs are used to disseminate development-related information and Ithraa's latest news and events, as shown in Figure 4.3 below.

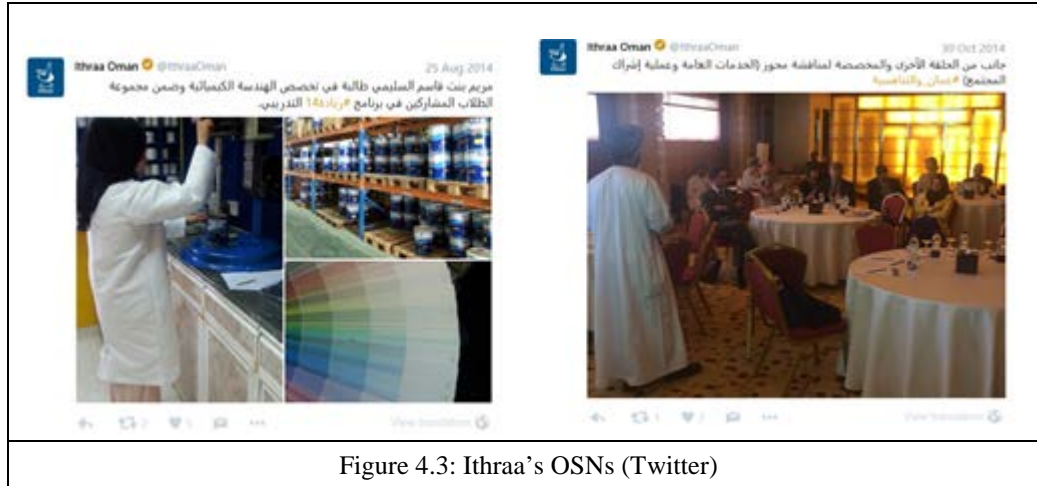


Figure 4.3: Ithraa’s OSNs (Twitter)

In terms of OSN use, anecdotal evidence suggests that Twitter is used more often than Facebook. To verify this, a review of Ithraa’s Facebook page was completed, which showed that it had not been updated since 2012 (Figure 4.4). A middle-level staff member confirmed that, due to staff shortages and to Twitter being more recognised than Facebook within public sector organisations, Twitter was used more often than Facebook. Having offered this background, the next sections will provide the analysis and findings of this research study.

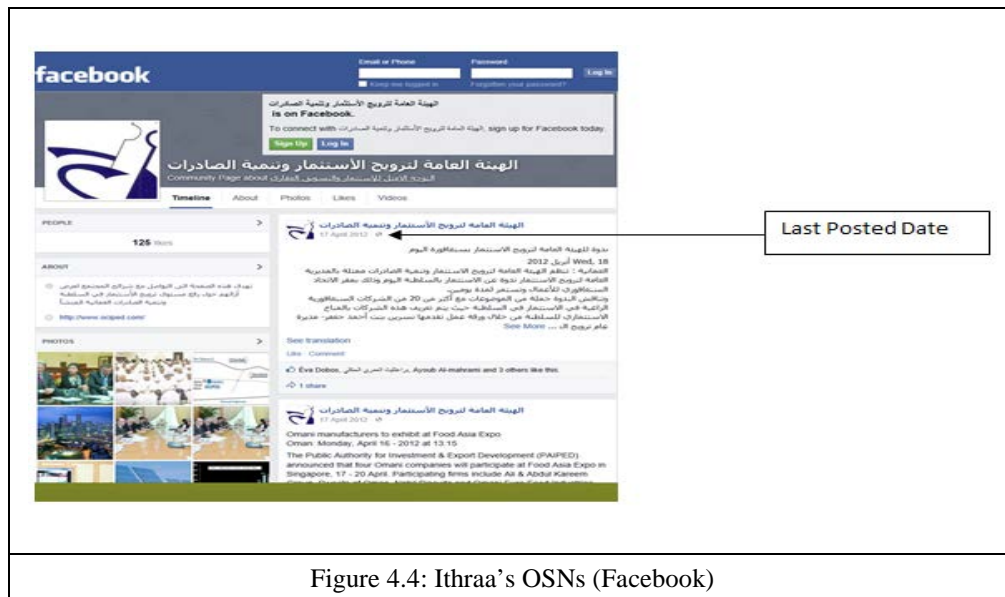


Figure 4.4: Ithraa’s OSNs (Facebook)

## 4.2 Pilot Study: Process and Findings

Having described and explained the research methodology surrounding the pilot and final phases of this research, this section will detail the findings of the pilot study.

### 4.3 Case Study 1 – Muscat Municipality (MM)

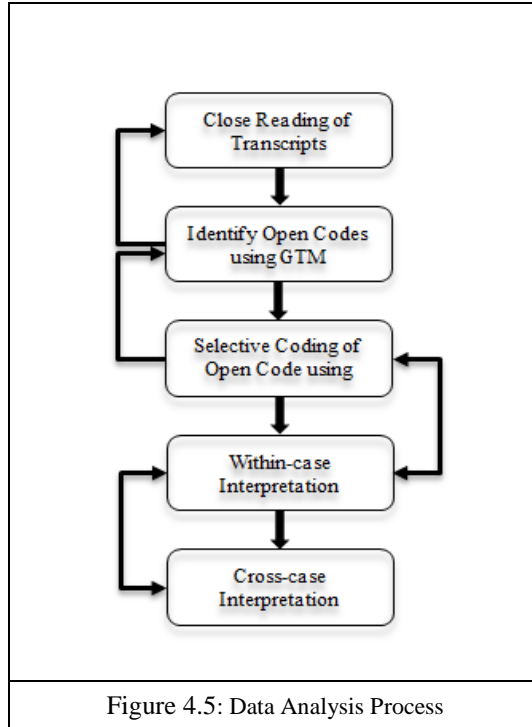
For MM’s case study, 11 participants were used, drawn from three organisational levels: three participants were high-level staff members (HLS), three were middle-level staff (MLS) and five were low-level staff (LLS). Of those, four were directly involved with OSN supervision – one each being HLS and MLS and two being LLS. All the participants used OSNs in their personal lives and for following their organisation’s Twitter account. Details of the participants are provided in Table 4.3 below.

Table 4.3: MM Interviews Sample Population

Participant Code	Organisation Level	Education Level	Gender	Age Group
C1-HLS1	High-Level Staff	Bachelor	Male	41–50
C1-HLS2	High-Level Staff	Post Graduate	Male	41–50
C1-HLS3	High-Level Staff	Higher Diploma	Male	41–50
C1-MLS1	Middle Manager	Bachelor	Female	31–40
C1-MLS2	Middle-Level Staff	Bachelor	Female	31–40
C1-MLS3	Middle-Level Staff	Bachelor	Female	21–30
C1-LLS1	Low-Level Staff	Bachelor	Female	21–30
C1-LLS2	Low-Level Staff	General Diploma	Female	21–30
C1-LLS3	Low-Level Staff	General Diploma	Female	21–30
C1-LLS4	Low-Level Staff	Higher Diploma	Male	21–30
C1-LLS4	Low-Level Staff	Higher Diploma	Female	21–30

#### 4.3.1 Pilot Study Analysis

Data analysis followed a grounded theory approach, solely for coding the research material. This allowed the emergence and coding of newly identified concepts, not previously discussed in the extant literature. In addition, it allowed the researcher to closely examine the opinions, perceptions and behaviours of the participants, without imposing his own presumptions on the coding scheme. As a result, during the stage of open-coding the study material – the line-by-line analysis and interpretation – and while considering OSNs and their impacts in terms of the research question, the approach was loosely based on the extant literature surrounding the three concepts identified in the developed framework in Chapter 2 – OSN use, institutional theory and culture context. Figure 4.5 illustrates the data analysis process.



An example of an open-coded interview is given in Table 4.4 below.

Table 4.4: Open-Coded Interview

Participant	Interview Findings	Interpret Analysis	Open Code
C1-HLS1	I see it as an effective tool to be used to communicate with the public ... it is very fast and costs less.	Twitter is seen as practically a costless tool for communicating with the public. A high-level staff manager finds the adoption of OSNs does not require different infrastructures to those used in the mobile network. The cost of interacting using smart devices is also within everyone’s budget. The OSN application is free to use by all.	Relative cost
C1-HLS1	The organisation identified skilled employees who were interested in SM. They were then trained.	It is suggested that existing skilled employees were identified by the organisation to work with OSNs rather than appointing new staff. These employees were chosen for their positive attitudes towards the use of OSNs and technology in general, as well as the skills they had, such as technical experience and background. These skills were seen by high-level staff as being essential at the early stage of adopting OSNs.	Identifying skilled employees for OSNs
C1-HLS2	The knowledge is also there in the organisation; we have the resources, we are doing it. I think we are the best organisation in terms of adopting and managing SM in the government. I believe we are the best.	A high-level manager places the organisation among top government organisations to have adopted OSNs, based on the knowledge and resources it has. These resources were important in providing support for those who might need it when using OSNs. The knowledge that those employees had was seen by higher management as being essential to maintaining the leading roles of the organisation among government organisations in terms of OSN adoption.	Knowledge & Infrastructures
C1-HLS2	I remember the management said “you want to do it ... you want ... then do”, meaning adopting social media, so they let you do it and take	A high official will not stand by the manager if he fails to adopt OSNs. He should take full responsibility for it. This has left high-level IT staff facing obstacles and challenges alone and has left them with less support and reduced their confidence in the project.	Lack of Policy & Guidelines

Participant	Interview Findings	Interpret Analysis	Open Code
	the full responsibility of this decision.		
C1-HLS1	No guidelines on how the processes is defined, especially the communication between the call centre and the relevant department.	Higher-level manager found policy and guidelines missing; there were no processes defined when communicating with other departments, which left OSNs employees with uncertainty and low self-efficacy, especially because other departments were not supportive or cooperative in providing the required information.	Lack of Policy & Guidelines
C1-HLS2	With the use of smart phones and the difficulties that face e-government implementation in terms of providing the infrastructure to remote areas and its cost, citizens find a way to reach government organisations using smart phones and are able to communicate through OSNs easily.	Mobile infrastructure has given OSN users a new dimension that allows them to interact and use e-government applications on their smart phones or devices while on the move, and has allowed ordinary citizens in remote areas to connect cheaply with government organisations and be able to use OSNs easily using their smart phones. The availability of OSN apps for smart phones without any cost has increased the popularity of OSNs and allowed all citizens the ability to communicate and use e-government applications easily.	Mobility Network Coverage
C1-HLS2	These also allow people to focus on their daily activities and reach government organisations without having to leave their homes or villages.	Mobility infrastructure has allowed the public to interact with government organisations without having to leave their city, thus saving them time and effort.	Mobility Network Coverage
C1-HLS1	I do have it and I try to increase this knowledge with the use of the internet and by accessing information in Arabic and English.	Employees at middle and higher level suggest they have knowledge and ensure continuous learning and knowledge is continually updated.	Updating Knowledge

### 4.3.2 Pilot Study Findings

Following the analysis of the pilot data, the next sections discuss the findings based on the constructs developed from the study analysis and related literature.

### 4.3.3 Attitudinal Belief Structures

This study examines the use of OSNs in government organisations in which the benefits of G2C relations are provided. In addition, it assesses the advantages that OSNs provide to the organisation compared to the use of traditional tools such as telephones. Fishbein and Ajzen (1975), Ajzen (1991) and Davis (1989) relate the use of certain constructs to respondents' perceptions of whether or not the use of technology is favourable. The attitudinal belief structure consists of three constructs: relative advantage, complexity and compatibility. The following sections will discuss these constructs in light of case one's interview data.



#### **4.3.3.1 Relative Advantage**

Relative Advantage (RA) refers to “the degree to which using innovation provides benefits which supersede those of its precursor” (Taylor & Todd, 1995b: 141). For this study, RA will refer to the degree to which using OSNs in government organisations provides benefits in the context of G2C relations compared to the use of traditional methods such as telephone calls or visiting the organisation in person. Bearing this definition in mind while analysing the interviews, it is apparent that all the interviewees maintained a strong belief that the use of OSNs such as Twitter would have a very positive impact on a public institution’s performance. They listed, from their experiences and points of view, different ways in which adopting OSNs had enhanced their work activities. For instance, high-level staff indicated that adopting OSNs was important to the organisation, particularly because “*everyone is using OSNs*” (participant C1-HLS2) as a way “*to keep up with the technology trend in society*” (C1-HLS1) and because “*the public demands to adopt these tools*” (C1-HLS2). There were also a direct way to “*communicate with the public and listen to what they have to say about our services*” (C1-HLS1) enabling improvements in the organisation’s services. Therefore, whereas previously there were communication channels such as the telephone or face-to-face interaction, these new communication channels allowed the municipality to be in line with recent technological trends adopted by the general public. For example, it could provide services via mobile applications, such as parking fee payment, which was appreciated by the public since services were made available at their fingertips.

Participants were also amazed by the popularity and usefulness of certain OSN applications such as Twitter, despite the short period of its adoption by the organisation. They admitted that the effect was felt and appreciated by parties, the organisation and the public. “*The use of OSNs is very effective and started to solve many issues in society. It ensured transparency and facilitated interaction between the general public and government organisations*” (C1-MLS2). Findings pertaining to RA will be detailed in the coming three sections.

##### **4.3.3.1.1 Effective Communication**

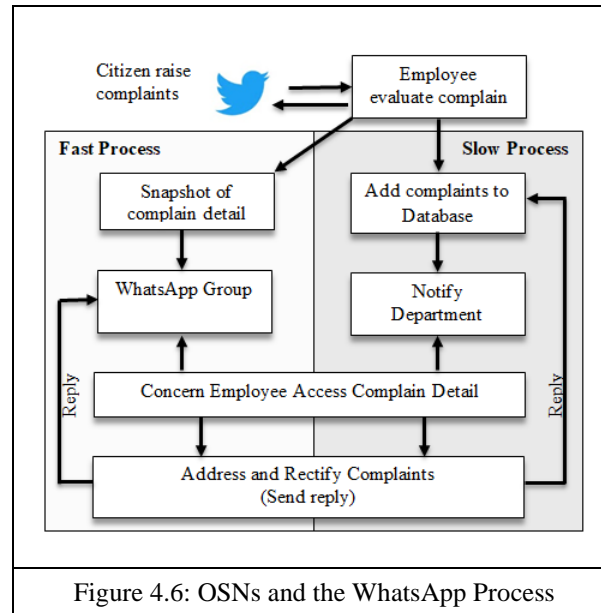
Effective communication is considered important for OSN adoption as it helps enhance the understanding between the public and government organisations. Effective communication is perceived by participants to have brought the organisation much closer to its customers (the public)

and provided fast and instant interaction not only within the organisation's different departments but also with the public and other governmental bodies.

Participants in high-level positions believed OSNs facilitated effective communication and interaction on two levels: within the organisation itself (intra-communication) and with the public (inter-communication). They maintained that both the organisation and the public benefited from such a direct, instant and open communication: *"It allows us to communicate effectively with our colleagues as well as with our customers; it gives us an important communication tool with the general public"* (C1-HLS1). Within the organisation, senior management could be reached at any time by their employees, to be consulted on work issues or to be informed of work-related matters. A high-level member (C1-MLS2) gave an example of how OSNs had helped ensure effective communication within the organisation especially with staff in senior positions. His department had created a WhatsApp group that included senior managers. This group (which used a popular OSN tool in Oman) was created to discuss work issues and, according to the participant, had saved time and effort and improved decision-making, especially when it involved the management of other departments within the organisation. Similarly, he created another WhatsApp group that included the department's employees, to update him and/or communicate work issues. It has been noticed by the researcher that OSNs, particularly WhatsApp, are heavily used in the organisation to speed up communication, especially in departments that provide services to the public.

Middle- and low-level participants shared the view that OSNs were an effective, instant communication channel with the public. The platform it provided to communicate, listen and receive public feedback helped them address public issues and complaints, which, before OSN adoption, did not receive sufficient attention. *"We have noticed an increase in the number of complaints we receive through the use of Twitter while they decreased coming through traditional method like phone calls"* (C1-MLS1). Members of the public posted several types of request, and enquiries include complaints, the service required, criticism, suggestions and appreciation. In order to cope with and address this increase in public complaints, middle management resorted to the use of OSN applications. The use of a WhatsApp work groups was, apparently, a common practice at case study one. The appeal of such groups, as mentioned earlier, was that they created a platform for instant discussion that was readily available at relatively low cost. Such platforms facilitated communication regardless of time or place constraints and speeded up the decision-making process. An example was provided by (C1-MLS3): *"We have created a group in WhatsApp of*

*those managers, supervisors who are directly involved with the public services departments, so that when we receive a post we immediately take a snapshot of it and send it to the group at any time. This way we are able to reach all concerned staff wherever they are and at any time.*” As a result, any complaint or request raised by the public was captured and sent to this group, and all members were able to view it; the relevant staff member had to address the issue immediately. According to middle-level staff, this action saved them time and had proved to be an effective way of communicating public complaints to the concerned department, requiring it to take action. It could also be used as proof that complaints had been seen by the relevant employees. This meant that the reason for any delay in addressing issues could be easily traced. The effective communication between different employees within the organisation, since the adoption of OSNs, had created a new working environment in which more responsibility was taken and there was more commitment to improving public services. This culture was not related to employee culture or attitudes towards their duties, but mainly to the effect of OSNs and public evaluation, and sometimes to criticisms of the services provided, which forced an organisation and its employees to work harder. It was stated that, since the public was using OSNs widely for communication, it should be essential for organisations to use the same tools to communicate with the public. *“Society uses these tools to communicate with government institutions, and this force government organisations to use them in order to interact with the public and get their feedback effectively”* (C1-LLS4). OSNs and WhatsApp were used by employees who managed OSN accounts to speed up the processes between them and the relevant department and to speed up their responses to public requests. Figure 4.6 provides an overview of this process.



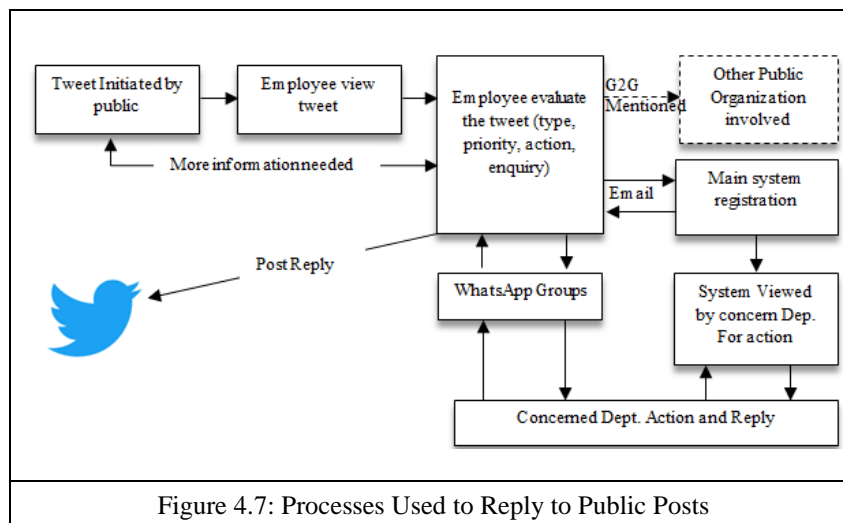
#### 4.3.3.1.2 Public Interaction and Transparency

The next attitudinal factor defines a closer relationship between the organisation and the public in the adoption of OSNs, and the more information is provided by the organisation to the public the more appreciative and understanding the public become.

When comparing the use of OSNs between the three staff levels, high-level staff believed that OSNs promoted more public interaction and transparency between the organisation and the public. This resulted in more public awareness and appreciation of what the organisation was doing. In terms of costs, although real costs, such as the infrastructure costs of the internet connections and the computer systems, could be controlled, there were also relative costs that could not be controlled. For example, citizens switching to OSNs from a postal service or face-to-face interaction involved them becoming familiar with the platform and being trained and informed about the use of the new channel. Therefore, the relative costs were the intangible costs associated with the provision of e-government services using an OSN. These were costs that could not be accounted for or controlled, whereas for the real costs, the organisation and society could prepare. Due to the provision of an OSN, the organisation's departments had become more understanding of the processes and challenges. This encouraged an improved supply of information from organisation departments to the OSN section to enable replies to public complaints or enquiries which had not been received before. *"The use of OSNs is very effective, and started to solve many issues of the society. It provided transparency and interactivity between the general public and*

government organisations” (C1-HLS1), and “increased the public awareness of this organisation” (C1-HLS2). According to high-level staff, communication and interaction had enhanced transparency between the government and the public and this, coupled with mutual understanding and the transparent provision of information through OSNs, had resulted in people backing the government and showing more appreciation of the services offered

Middle-level staff, on the other hand, stated that by providing the right information to the public the organisation had helped promote government transparency and credibility, and enhanced the organisation’s image in the eyes of the public. This had led to more understanding and appreciation of the services offered. Information transparency resulted in simplifying the processes and procedures when communicating with the public or when communicating between the organisation’s departments. “[With OSNs,] processes are made simple and clear, whether when dealing with complaints or when communicating them to the concerned departments. I can say that social media is very effective and saved time and encouraged all to work hard” (C1-MLS2). Figure 4.7 provides an overview of processes developed to reply to public posts.



Similarly, low-level staff perceived OSNs to be effective tools for interacting with the public and getting their feedback. OSNs promoted interaction and information transparency in the organisation as well as increasing government awareness of public needs, and public awareness of government roles, capabilities and limitations. Employees at this level believed that more interaction created more transparency particularly when the public realised the accuracy of the information that the organisation was providing, as explained by C1-LLS4: “Yes, indeed, [OSNs] created more transparency and information openness ... they made both organisation and higher

*official work hard and quickly towards improving the services and providing information to the public.”*

#### **4.3.3.1.3 Work Efficiency and Effectiveness**

High-level staff members believe that OSNs were used and monitored by the public all the time, which meant that more pressure was exerted on the organisation to provide and improve its services. This was because service quality was judged and evaluated by citizens who possessed enough knowledge to compare these services with those of other nations in the region. As a result, employees had tried to complete their tasks rapidly and accurately, with improved work performance, ever since the adoption of OSNs five years ago. This was explained by C1-HLS2: *“I think people are working harder, they are afraid of social media pressure, it is really effective.”* C1-HLS1 agreed, stating that *“[OSNs] by themselves create pressure on the organisation, department, manager and employee to try and do his job very quickly, as their account is viewed by the public.”* High-level staff explained that prior to the use of OSNs many complaints took a very long time, sometime months, to be addressed, because they were known only to the person who raised them. But with the use of OSNs, any complaint was openly posted and could be seen by all individuals with access to those OSNs. Therefore, an immediate reply was posted to explain actions taken by the organisation. An example of a public message before and after OSN use is provided in Table 4.5.

Table 4.5: Public Message Reply Before and After OSNs Use

<b>Public Message Type</b>	<b>Reply Prior to OSN Use</b>	<b>Reply With OSN Use</b>
Enquiries	days to months	minutes to hours
Complaint	days to months	hours to days with updated information on action taken
Suggestion	months or no reply	hours with appreciation-and-thanks reply
Request services	weeks to months	hours

Middle- and low-level staff shared similar views. For example, members of the public evaluated the time it took to provide or improve services and appreciated or criticised the organisation accordingly. This evaluation was posted and could be seen by all. Figure 4.8 provides an example.

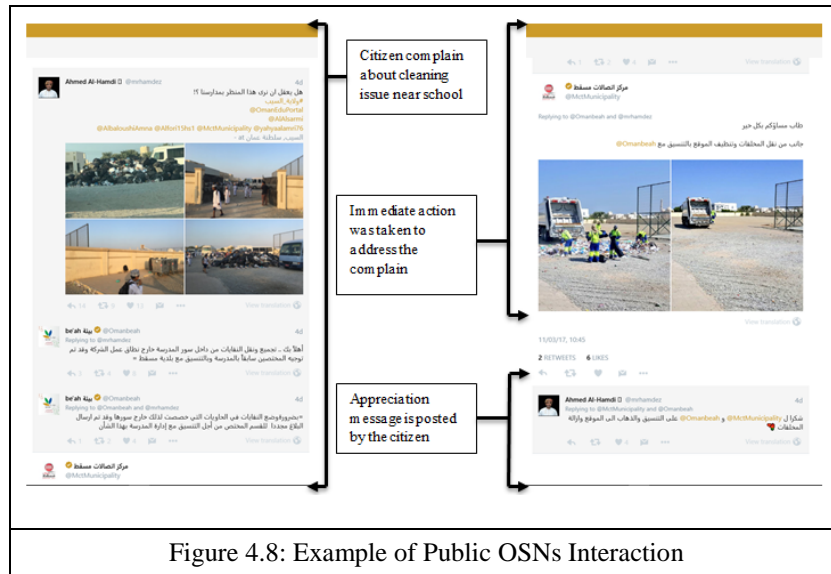


Figure 4.8: Example of Public OSNs Interaction

However, middle-level staff believed that this pressure had created an effective and efficient working environment that encouraged them to improve their services and speed up service provision. They felt that using OSNs meant they could ensure tasks were accomplished even if it was the weekend or they were on leave, as explained by C1-MLS1: *“Definitely it exerted pressure on management... they all now careful to deal with this tweet very quickly and try to solve any problem as soon as they can, even if they are on holiday.”* Further, low-level staff believed the pressure exerted by the public as a result of the use of OSNs, had created a greater sense of responsibility towards tasks and work performance. According to most low-level staff, the pressure to work hard not only affected top management but also themselves as they represented the organisation and were the employees interacting with the public. *“The process of replying to public tweets is becoming faster and this demands a faster way to carry out tasks ... there is no room for delaying this ... there is pressure coming from the public”* (C1-LLS3). Employees were forced to work quickly, as explained in Table 4.4 above.

Low-level staff believed that members of the public were evaluating the organisation’s services all the time, and contributing to the enhancement of the services with their suggestions and discussion during interactions. It was noticed by the researcher during the observation phase, when many discussions took place in his presence, that more positive comments and appreciative messages were posted by members of the public when their complaints were answered quickly. This was seen by employees as an effective way to enhance the image and reputation of the organisation. The researcher noted during the observation stage that public appreciation comments

encouraged employees to work more closely with the public and view citizens as partners rather than customers.

High-level staff agreed that they had seen the advantages of using OSNs and that this had encouraged them to work hard to improve the quality of services and the quality of their work. In addition, the public was now involved in more discussions about improving the services offered to them. Having seen the benefits of OSNs in terms of improving and speeding up tasks, managers at different levels increased their support for them. This support appeared in many forms such as verbal motivation for employees, showing more interest in improving services and following more closely all the interaction and discussion with the public that happened in the world of OSNs.

The use of OSNs had resulted in performance improvements in this government organisation. This improvement included speeding up work and improving the quality of services provided. OSNs had helped higher management monitor and prioritise, through the provision of accurate information and critical feedback from the public. Many interviewees at all staff levels mentioned that the improvement through using OSNs seemed to be not only in the organisation's performance and quality of work, but also in issues that involved other government institutions, whether in the context of joint task coordination or in promoting another organisation's services to the public. *"These tools increased our interaction with the public, and other government organisations to coordinate our services"* (C1-MLS1).

#### **4.3.3.2 Complexity**

Complexity or simplicity of using an innovation is an important factor to consider when adopting it. The definition of complexity is based on Rogers and Shoemaker (1971) who described it as "the degree to which an innovation is perceived as relatively difficult to understand and use" (Thompson et al., 1991: 128). For the purpose of this study, complexity/simplicity was defined as "the degree to which OSNs are perceived by employees to be difficult or easy to understand, learn and use". Participants of varying backgrounds in the current study asserted that OSNs were simple and easy to use. Findings pertaining to complexity will be detailed in the following two sections.

##### **4.3.3.2.1 Ease of Use**

The ease-of-use factor is a complexity factor thought of as how employees perceive the use of OSNs in an organisation.



In this study, high- and middle-level staff appeared to have a common perception about the simplicity of OSN use, particularly Twitter. This simplicity provided an opportunity for OSNs to gain popularity among employees and members of the public, especially younger people. One high-level employer revealed that it was *“used most because it is very easy to use”* (C1-HLS1). OSNs were seen as easy to use due to the fact that they had gained popularity among Omani citizens and were seen as a tool for disseminating information instantly. One participant stated: *“It is very easy to use and it is a fast tool to transfer information and reach people”* (C1-HLS3). Almost all of the high-level interviewees agreed that Twitter was very popular in Omani society and that it *“is the one that is mostly used by the public to communicate with the organisation”* (C1-HLS1). It appeared that the simplicity of OSNs was what made people use them, and by doing so they developed their OSN knowledge and skills very quickly. Other participants believed that because people of a young age were exposed to and used this technology they acquired a good knowledge of its use, regardless of their education level. *“Children at young ages have high knowledge and know how to use it very well ... so I don’t think the education level is important that much”* (C1-MLS2). One high-level employee related the ease of OSN use to his enthusiasm for technology: *“I love the use of technology and enjoy using computers.”* He believed that OSNs required no time to learn and use, giving the example of an ordinary individual who had learnt to use it instantly. This was confirmed by another participant who witnessed people with little practice of OSN use finding them simple and easy: *“It is simple and easy to be used ... even ordinary persons with little practice can use them”* (C1-MLS1).

Similarly, middle-level staff understood how to use them and their features. All middle-level staff stated that the fact that many ordinary and young people were able to learn to use OSNs with little effort was clear evidence of the ease of use associated with them. *“It does not require a lot of time to learn how to use it; even ordinary people find it easy and can learn it instantly”* (C1-MLS2).

Low-level staff expressed mixed views in reply to the same question. Most agreed that OSNs were a very easy and fast tool to learn but they also said that certain efforts had to be made to learn them. These efforts varied between OSN tools and also depended on the willingness of the person and his/her passion for the technology. It was important in the view of low-level staff to practice OSN use as part of the learning process. *“It is not difficult and it does not take very long to learn ... the more you use it the more it becomes easier to understand its features”* (C1-LLS3). Other low-level staff explained the difficulties they faced before using OSNs or in their current use. *“Yes,*

*in the beginning I felt I am dealing with something very strange ... and many features I did not know at all*" (C1-LLS1). The difficulties were overcome by self-learning and with the help of colleagues – *"with daily practices and the help of my colleagues I have overcome this issue"* (C1-LLS5) – and with more practice and acquired knowledge: *"With continuous daily use I am very comfortable with it now"* (C1-LLS3). Further, C1-LLS2, another low-level participant, perceived the use of Twitter, for example, as difficult and said that he was willing to wait before creating his personal account until he had learnt more about it and gained more confidence in using it. He compared the difficulties he faced with those experienced while using WhatsApp: *"Twitter is difficult to use. I want to have my own account once I learn how to use it. I have found difficulties using WhatsApp in the beginning, too."* All low-level staff agreed that in order to gain knowledge about using OSNs it was important to continue using them at all times, to ask friends about the tools' features and to start using them if they were not doing so already. Despite their comments, they all agreed that it did not take a very long time to learn the basics necessary to use OSNs.

#### ***4.3.3.2.2 Effort, Experience of Use and Education***

The interviews at different staff levels revealed how the experience of using ICT applications helped with efforts to use OSNs. As mentioned in the previous section, many participants stated that only limited effort was needed to be able to use OSNs. Further, many of them said the fact that many ordinary and young people could learn the necessary skills with little effort was clear evidence of ease of use: *"It does not require a lot of time to learn how to use it; even ordinary people find it easy and can learn it instantly"* (C1-MLS2).

There were mixed views among low-level staff about the efforts needed to use OSNs. Although most of them believed OSNs were very easy and fast tools to learn, some believed certain efforts must be made during the learning process and that these efforts varied between tools and depended on the willingness of the person and his/her passion for the technology: *"[OSN] use is not difficult, but it varies from one tool to the other. But generally speaking, they need to be used continually to be able to use and master their features"* (C1-LLS4).

Previous experience of the use of technology, and/or education in IT, was also discussed with the interviewees, to see if any of this might influence the extent of their efforts to use OSNs. Those interviewees who had an ICT background did not relate the efforts needed to learn the use of OSNs to their technical background, but agreed that it helped in understanding ICT features. This was

explained by C1-MLS2, a middle-level staff member with IT training: *“For IT people it might help but it is not a prerequisite for the ease of using these tools ... for example, children at young ages have high knowledge and know how to use it very well ... so I don’t think the education level is important that much”* (C1-MLS2). This view was shared by a high-level employee (C1-HLS1) who thought that enthusiasm for OSN use did not depend on experience and that *“Education is important in the language only. For example, knowing English allows you to use it more with English applications. But today almost all applications support all major languages and Arabic is among them.”* C1-HLS2, another high-level staff member, agreed with this and related the use of OSNs to the trend in Omani society to see OSN use as being important for individuals: *“It has nothing to do with education level or type; nowadays I think kids in school are used to this technology. As I said, the trends force people to go and learn and use this technology. Everyone is using it and adopting it even people who are not highly educated.”*

On the other hand, low-level staff believed that the experience they had of using technology was an important factor in the beginning, when the management was deciding who to assign to the OSN team. According to one low-level employee, it was the skills they had and the passion for the use of technology that earned them a place in the OSN section, alongside their graduate education. Desire and skills were important to enhance the performance of these employees especially at the early stages of OSN use: *“I had an internal desire for discovery and self-learning; thus I helped myself to understand. Daily practice and inquiries from co-workers made things much easier”* (C1-LLS4). During the observation phase the researcher noticed this enthusiasm for the use of technology applications among observed low-level staff in the OSN section. They showed great confidence despite sometimes facing technical difficulties, which they tried to solve by searching the internet for solutions. Their passion and joy when they were working with OSN tools was apparent and noted, and many of them shared the knowledge and worked as a team when faced with difficulties. Further, they also acted as the technical guru for colleagues who might encounter difficulties when using or interacting with technology tools.

#### **4.3.3.3 Compatibility**

Rogers (1995: 42) defines compatibility as “the degree to which the innovation fits with the potential adopter's existing values, previous experiences and current needs”. Taylor and Todd (1995b) add that if the use of innovation opposes a cultural or social norm, it is unlikely to be

adopted. In this study, OSN compatibility was discussed with the participants to see how they perceived its benefits and functionality in the provision of public services.

The illustrative factor of functionality was operationalised as the compatibility of adoptive needs, to include current ICT trends and mobility use. These forms of compatibility were perceived as important by participants and compatible with the organisation's requirements. The participants were asked about the importance to the organisation of using OSNs and how these tools fitted in with their work, to determine their compatibility and how they might contribute to the organisation's objectives.

According to high-level staff, OSN popularity was seen as a trend in society. They said that government organisations were adopting OSNs to be compatible with this trend and that they were using more OSN tools to communicate with the public. Further, by using OSNs, the organisation was implementing what a large sector of the public was demanding and using them to communicate with different government organisations, as explained by C1-HLS1: *"I think the organisation is just following the trend of other government organisations in adopting social media, and it is also to keep up with the current trend in the Omani society."* Similarly, C1-HLS2 stated that the organisation had adopted OSNs to *"keep up with the trend that everyone is using OSNs, so also to keep up with the public demand for the organisation to adopt these tools and to be able to communicate with the majority of people"*.

The mobility and use of smart phones or similar devices had provided more flexibility to those who wanted to communicate with government agencies or access their services. This was true for high-level staff who revealed that they all used smart phones to access OSNs, interact with their employees and view other government organisations' OSN accounts. For high-level staff, smart phone use was more convenient and linked them at all times to their offices. *"Social media is there on your hand. Mobile is promoting this very much, and you are forced to work all the time"* (C1-HLS2). Most of them used one or more OSN tools (such as WhatsApp) to create work groups in which discussions relating to daily tasks took place. Or they were simply linking up with their departments when on the move or at the weekend. This type of activity was popular with public service departments providing public services such as public health, environmental protection or cleaning services.

Furthermore, these employees stated that they used their smart devices to access OSNs all the time and that they had enabled OSN features notifying them of new posts to accounts they followed. They followed the organisation's OSNs account as well as other accounts of interest, including government and non-government accounts. In addition, they indicated that OSNs were essential for communicating with friends and family, and their employees when they couldn't reach them in their offices.

When examining the compatibility of high-level staff, OSN use was perceived as an important element that improved their work performance. For example, one participant stated that, through the use of OSNs, high-level employees were able to evaluate the work of their departments and the services offered to the public. This enabled them to use public feedback to evaluate and improve these services: *"The general manager can now evaluate the work of their service department and manager through public feedback. So, you can see the level of improvement resulting from the adoption of OSNs"* (C1-HLS2).

Similarly middle-level staff, who were directly involved with public services, suggested that services were generally enhanced through the use of technology such as OSNs, and that technology was essential in running daily tasks. They added that everyone should use OSNs to carry out their daily tasks as they became central to work technology, as explained by C1-MLS1: *"The use of Twitter has saved us a lot of time and provided us most of the time with accurate information, and this allowed us to accomplish the work very fast and with high accuracy."*

Low-level staff shared identical views about OSN compatibility: interviewees believed that OSNs had provided them with benefits that helped them accomplish their work quickly. Those who worked in the OSN section perceived the benefits of OSNs not only in their work but also in their social life, since OSNs were widely used among Omanis. Other employees were less encouraged to use OSNs, since they were not directly involved with them and only used them for personal and social communication.

Almost all interviewees across all organisational levels related to the use of OSNs in their daily lifestyles and said that they represented their identity when communicating with their social network. This was observed by the researcher during the observation phase, and it was apparent that all observed employees at all organisational levels used their smart phones and different OSN

tools to communicate with their social network and colleagues, and that OSN use was part of their daily lifestyle.

#### 4.3.4 Normative Belief Structures

The normative belief structure, or subjective norms, is used to identify and explain the influence on reference individuals or groups of approval or disapproval of a given behaviour (Ajzen, 1991; Macredie & Mijinyawa, 2011; Taylor & Todd, 1995b). Fishbein and Ajzen (1975: 302) define subjective norms as “the person’s perception that most people who are important to him think he should or should not perform the behaviour in question”. Ajzen (1991: 188) defines it as “the perceived social pressure to perform or not perform the behaviour”. To understand the normative belief structure in the context of the current study, details about the findings for C1 with regard to this belief structure are described in the following sections.

##### 4.3.4.1 Social Network Encouragement

The belief factor of social network encouragement is related to the influence that the employees are under from their social networks when adopting OSNs.

Friends and family played a big role in influencing a person’s attitude towards the use of OSNs, and knowing how to use these tools is very important. Almost all of the staff at high and middle levels confirmed that their friends and family network was the one that most influenced them to learn about and use OSNs. This was seen as a reflection of the trend in the society: “*Again it’s going with the trend as well as our culture. When you have a friend who is using Twitter or Facebook you are more likely to use it as this is your social environment, because you want to be like him or her*” (C1-HLS2). Table 4.6 summarises the participants’ influence list.

Table 4.6: MM (C1) Participant Influencers

Organisation Level	Friends	Family Member	Work Colleagues	Nobody
High-level staff	✓			
High-level staff	✓			
High-level staff	✓			
Middle-level staff				✓
Middle-level staff		✓		
Middle-level staff			✓	
Low-level staff			✓	
Low-level staff	✓	✓		

Organisation Level	Friends	Family Member	Work Colleagues	Nobody
Low-level staff			✓	
Low-level staff	✓			
Low-level staff	✓	✓		

Furthermore, as explained by middle-level staff, most of the time friends were actually members of their families; they could be cousins or close relatives who represented the individual's social (family and friends) network and could have a strong influence when it came to using technology in general. *"I interact with my brother, sister and my cousin, who also is my best friend, through different OSN tools which helps increase my knowledge of it"* (C1-MLS3).

Similarly, most low-level staff asked about those who had influenced their use of OSNs stated that it was their friends and close family members who had influenced them to use it: *"Family members and friends told me to use Twitter to communicate with them ... so I used it"* (C1-LLS2). Sometimes the influence of these friends might be during university periods when there was more opportunity for technological exploration: *"My friends especially during my education time and now, we are always communicating and discussing new things that interest us such as local news, information about products or services"* (C1-LLS4).

#### 4.3.4.2 Image

Image is defined as "the degree to which use of an innovation is perceived to enhance one's image or status in one's social system" (Moore & Benbasat, 1991: 195). In the Omani context, individual images and the ability to keep up with the trend of using OSNs in society were very important; employees, as members of society, considered this important and necessary.

Trying to keep up with societal trends was what encouraged employees to use OSNs, as perceived by a high-level employee who acknowledged: *"Indeed [the adoption of OSNs is] to keep up with the trend in the society"* (C1-HLS1). Omani society is characterised as a very closed network (Goveas & Aslam, 2011) and in this research this closeness was reflected in many aspects, among them trying to keep up with technology trends. One high-level staff member explained: *"People are going with the trend and once they see everyone is going to a direction they will force themselves to learn and adopt"* (C1-HLS2). Adopting OSNs was a trend in Omani society, according to most high-level participants in the organisation, and one that everyone needed to follow: *"To keep up with the trend that is everyone is using OSNs"* (C1-HLS2). Adopting OSNs enabled the individual to communicate with the society as a member of it, and it was very important

*“to keep up with the public demand to adopt these tools and to be able to communicate with the majority of them” (C1-HLS2).*

Low-level staff explained that the trend was also encouraging some non-technical individuals to learn how to use OSNs, despite the fact that they had not been exposed to the technology before. *“Yes, I have noticed that old, non-technical employees want to learn ... a few of the old officials approached me to help them open a Twitter account and explain to them how does it work” (C1-LLS4).* This was related to the fact that they felt that they must keep up with the trend, otherwise their personal image would be viewed as old and outdated. Similar views were expressed by C1-LLS3, another low-level staff member: *“As what I just said to keep up with current trends which demand the use of social media to communicate with everyone.”*

#### **4.3.5 Perceived Behaviour Control Belief Structures**

Control belief structure refers to both externally based resource constraints – facilitating conditions that relate to factors such as time, money and resources – and to internally based concepts of self-efficacy, which relates to individuals’ abilities (Ajzen, 1991; Macredie & Mijinyawa, 2011; Taylor & Todd, 1995b). Perceived control structure, facilitating conditions and self-efficacy will be explained in the next sections.

##### **4.3.5.1 Confidence and Motivation**

When asked about their confidence and ability to use OSNs, high-level staff said that ease of use, simplicity and availability of OSNs were essential to increase their self-confidence, which, in turn, resulted in their acceptance and use of OSNs. It was perceived also that the availability of smart phones, which allowed continuous access to OSNs, significantly boosted a manager’s confidence in using OSNs. At the early stages of adopting OSNs, higher-level managers indicated that the absence of an OSN policy and guidance left them and their employees uncertain as to what was required of them; this resulted in loss of confidence in using OSNs for work purposes. With time, however, and increased OSN awareness within the organisation and in light of the realisation of the important role OSNs could play, their self-efficacy and confidence was increased.

Similarly, middle-level staff said that ease of use of OSNs played a significant role in increasing their confidence, and many middle managers confirmed that, but for OSN simplicity, they would have found it hard to use them and learn about them. They also admitted that since OSNs were



very popular and widely used among Omani people it was important for them to keep up with this trend and match their knowledge of OSNs to that of their social peers. They related the confidence they now possessed when using OSNs to their ability to accomplish their tasks and speed up their work, as well as to socialising with friends and family through the use of these tools.

Interviewees with low-level staff showed they believed that OSNs were simple to use, which gave them the confidence to use them. One employee stated that he/she had a hard time understanding how to deal with OSNs in the early stages of their adoption and felt he/she was left without clear guidance or a policy to follow, which resulted in low motivation and less confidence when dealing with the public. This confusion affected the confidence of those employees who supervised OSN accounts and who were responsible for replying to public enquiries or complaints.

Generally, interviewees at the three staff levels agreed that the simplicity and ease of use, discussed in section 4.3.2.2, that characterised the use of OSNs, had increased their self-efficacy and made them able to show other employees that they could adapt to new technology. When asked to compare their usage of other organisation applications, more than half of them admitted that they only interacted with these applications for work purposes. When asked to stand in for an absent employee they admitted that their confidence in carrying out such work was very low. Because of the nature of other employees' tasks they felt they might not have the relevant experience, as one participant explained: *"It took them [employee] a very long time to use these applications with confidence. Also, if asked to replace other employees – if absent – we struggle to understand their nature of work"* (C1-MLS3).

#### **4.3.5.2 Knowledge and Mobility Infrastructure**

Facilitating conditions reflect the availability of the resources needed to perform a behaviour. Examples of these resources are time, money or other specialised resources (Taylor & Todd, 1995a). The concept of facilitating conditions, for the purpose of this study, is defined as "the degree to which an individual believes that an organisational and technical infrastructure exists to support use of [OSNs]" (Venkatesh et al., 2003).

When high-level interviewees discussed the adoption of OSNs they stated that implementing OSNs in their organisations was done quickly, based on the IT manager's initiative. All high-level staff agreed that this implementation could not have been accomplished if it had required a large budget or big infrastructure, due to the limits on government organisation budgets. Government

organisations found it difficult to implement technologies because of their limited budget. However, with OSNs this was not an issue because of the low cost of implementation and the substantial knowledge available to set up and manage OSN initiatives in a short time.

The diffusion of mobile smart devices and available mobile network infrastructure played a major role in promoting the use of OSNs. All high-level staff agreed that the network coverage and the use of smart phones by the public was behind the spread of OSN tools and the promotion of their use in government organisations. The wide coverage of mobile networks also helped citizens in remote areas to communicate with the organisation, since infrastructures had not reached many remote areas, as explained by C1-HLS2: *“With the use of smart phones and the difficulties that faces e-government implementation in terms of providing the infrastructure to remote area and its cost, citizens find a way to reach government organisations using smart phone and are able to communicate through OSNs easily.”*

High-level interviewees agreed that it was not very difficult to acquire OSN knowledge; in fact, they claimed that such knowledge was common among all. When asked if they had this knowledge, all interviewees replied that they possessed the knowledge which allowed them to use any OSN tool, such as Twitter, and that they kept updating this knowledge which they characterised as common knowledge. *“Knowledge is becoming standard when it comes to using OSN tools, for example in Oman if you are not using WhatsApp you are out of the social environment”* (C1-HLS2).

Middle-level staff believed that the knowledge they had played an important role in their capacity to use ICT applications such as OSNs. They ensured that this knowledge was updated and tried to develop it further, based on the new developments in OSNs. To these employees, the widespread use of smart devices and additional mobility had helped them to keep informed about OSN activities all the time, especially when members of the public posted new information. The availability of various resources, such as internet coverage and smart devices, allowed them to use OSNs not only during work time but also during weekends and holidays. According to middle-level participants, using OSNs did not require complicated resources; in fact, most of them believed that sufficient resources were available and that they could use them easily, as explained by C1-MLS3: *“Yes, I do have the resources, I have the devices, and the internet speed and the capabilities to use it, and with daily experience it is becoming easier.”*

Similarly, low-level staff mentioned that due to the low cost the implementation of OSNs took place quickly. They also believed that because of the popularity of OSNs in the society government organisations considered them an important tool for communicating with the public, not least because of the low budget required.

Low-level staff believed that, due to the availability of smart devices and phones as well as the wide mobile infrastructure and bearable internet costs, OSN use was being implemented in many government organisations. Other low-level staff related the fact that the simplicity and ease of use of OSNs encouraged many employees and individuals to use them, and organisations to adopt them quickly.

Low-level staff revealed that they possessed the knowledge required to use OSN tools confidently. However, they stressed the need to continue updating their OSN knowledge in order to fully understand all of its features. Only one employee at this level expressed a different view, revealing that, due to many social commitments, he found it hard to keep up with technology. But he tried to maintain the minimum knowledge he required to keep up with his colleagues and friends.

Almost all the low-level staff interviewed expressed the view that they needed to increase this knowledge and constantly update it, in order to keep up with changing technology, society trends and which technology was being used. When asked about the availability of the resources needed, all interviewees at the three staff levels agreed that their organisation was providing the resources needed need to run daily tasks and that those employees who managed OSN were provided with smart devices to use when they were on the move or outside of working hours. They also said that they received the support they needed from the IT department and that they visited that department regularly when they needed technical issues explained or resolved.

It was noted during the observation phase that all offices in this organisation had computers and other office equipment. Furthermore, the offices of the OSN employees, besides having computers, also had the latest mobile smart devices such as iPads and smart phones.

#### ***4.3.6 Institutional Isomorphic Pressures***

DiMaggio and Powell (2000) identified three types of isomorphic mechanism: coercive, mimetic and normative. The existence of these forces in an institutionalised environment could influence an organisation's tendency to use information technology (Teo et al., 2003). In this study,

institutional isomorphic pressures were discussed with the participants in the context of the adoption and use of OSNs. Table 4.7 summarises the isomorphic pressures identified in case one.

Table 4.7: Summary of Case Study One Isomorphic Pressures

Isomorphic Pressure	Occurrences
Coercive	ITA 'E-Government Transformation Policies' in which clear instructions and targets were given to all government agencies to improve the quality of the e-services provided to the public.
	Competing for 'Sultan Qaboos E-Government Prize' encouraged coercive pressure to adopt new technologies.
	Top management authorising other managers to take decisions, such as adopting OSNs, to avoid accountability and responsibility.
	Concerned departments' resistance to managing OSNs and allowing other department to take on that role, to avoid accountability.
Mimetic	Global benchmarking develops mimetic pressure on organisations to adopt similar technology to that used by international organisations in order to satisfy citizens' demands for service quality.
	Replicating other organisations' successful experiences with OSNs considered important in participants' opinions – to be among top organisations which adopt the latest technologies.
Normative	The general public demands that government organisations use OSNs in order to communicate effectively with them.
	OSN implementation is fast with few cost implications, in addition to the availability of skills; therefore, these organisations are under pressure to adopt OSNs.
	Competition among government organisations forces them to adopt OSNs in order to be considered among the first organisations to do so.

More details about isomorphic pressures are discussed in the next sections.

#### 4.3.6.1 Coercive Pressure

As mentioned in the literature review chapter, coercive pressure can be the result of pressure exerted by cultural expectations in the society within which organisations function. These pressures can take the form of force, persuasion or invitations to collude (DiMaggio & Powell, 2000). According to Teo et al. (2003), empirical evidence suggests that coercive pressures on organisations could be encouraged by a variety of sources including that from resource-dominant organisations, regulatory bodies and parent corporations. Further, coercive pressures operate through institutional interconnection relations with their environment.

Regulatory bodies such as the ITA in Oman were seen to exert coercive pressure through initiatives and regulations such as the e-government transformation plan (Appendix XI). According to a senior participant, *“One of ITA’s main objectives is to promote the presence of government organisations on the worldwide web with relevant information available on their websites to the general public, such as information about the services they provide as well as work processes and procedures. Embracing OSNs is the next part of e-government”* (C1-HLS2). Further, C1-MSL2 explained the reasons for the adoption of OSNs: *“[OSN adoption] was part of ITA’s initiative for*

*government organisations to compete for the Sultan of Oman technical prize.*” Such competitions and prizes are important for government organisations in Oman as they lead to more funding and training for the winners. For example, the Sultan Qaboos award for excellence in e-government was presented to government organisation projects that had resulted in exceptional impacts and innovations through the harnessing of information technology coupled with reengineering for the delivery of electronic public services (ITA, 2014a).

Coercive pressure can also be exerted from top management in an organisation by authorising managers to take decisions (such as adopting OSNs) and holding them responsible for decisions. For example, one participant explained that the top management did not show enough support for OSN adoption. He was left to make that decision alone. *“I remember they said ‘you want to do it? You want ... then do It,’ meaning adopting social media. So they let you do it and take the full responsibility of that decision”* (C1-MSL2). This coercive pressure is apparent when top management lacks the knowledge or is suspicious of the outcomes and benefits. C1-HLS2 explained: *“They did not realise the effectiveness of social media, but they believe now that social media is not destroying the organisation as [was] the perception of it in the beginning, you know in the beginning they did not care much.”*

Coercive pressure was also encouraged by the resistance of concerned departments to the adoption of OSNs and their willingness to allow other departments to take that role. One high-level participant, C1-HLS2, explained that *“even the media department, they were not interested because they believed once it is adopted, it will give them more headache and responsibility to manage it and people will criticise the department for it, so why accept it? So, they say if you will adopt this you have to take the full responsibility to manage it; we have nothing to do with it.”* This pressure forced other departments to accept the challenge and manage OSNs once they decided to adopt them.

#### **4.3.6.2 Mimetic Pressure**

DiMaggio and Powell (2000) posit that mimetic pressure occurs when an organisation models itself on a similar organisation in its field, one that it perceives to be more legitimate or successful.

When participants discussed the organisation’s reasons for using OSNs, they highlighted regional and global competencies. For example, one senior participant asserted that a citizen’s knowledge and understanding of how other regional and global institutions provide services forced the

organisation to make possible similar experiences and implement similar technologies. *“I think that social media and people’s knowledge access the information and benchmarking your e-services and applications. People nowadays are not comparing you locally but benchmarking you at a global level. We are not benchmarked with local municipalities anymore, but with municipalities in Dubai or Singapore, for example. So, when you are benchmarked with these countries, then citizens’ expectations are very high, and this keeps pressure on you, and you feel unsatisfied actually, but at least you know that you have to do a lot of work. So, it is like a race: you have to do a lot to satisfy your citizens”* (C1-HLS2). This vision developed mimetic pressure on the organisation to adopt new technologies that would satisfy the public and promote the organisation as a leading entity in adopting e-government solutions.

Participants believed the organisation had to adopt and use OSNs in order to be among the first government organisations to do so, as well as replicating other successful organisations’ experiences with OSNs. C1-HLS1 explained: *“For our organisation, I think that others are [adopting OSNs] so we need to do it, because we want to be the first to adopt it. So, when other municipalities are adopting it, then it must be for good reasons and we are like them, I think their reasons will fit ours.”* The organisation in this case modelled itself on the use of OSNs by similar ‘successful’ organisations. As a result, mimetic pressure existed to copy the experience of another organisation in successfully implementing OSNs to provide better services to citizens. Mimetic pressure was also encouraged by using other government OSN services and realising their benefits, as explained by a participant at middle-manager level, C1-MSL1: *“I tell you I appreciate the Royal Oman Police applications which allow us to pay our tickets, renew our car registrations, among many other online services.”* Hence, successful experiences could exert pressure to replicate similar technical adoptions.

#### **4.3.6.3 Normative Pressure**

Normative isomorphism stems primarily from professionalisation. Normative pressures manifest themselves through dyadic inter-organisational channels and through professional, trade, business and other key organisations (DiMaggio & Powell, 2000; Teo et al., 2003). In this study normative pressure was encouraged by increased public use of OSNs and wider public knowledge and understanding of their benefits.

When participants discussed OSN use they perceived it to provide many benefits while exerting more pressure on their jobs. For example, at senior management level participants stated that the public demanded government organisations use OSNs in order to communicate effectively. “[*We adopted OSNs*] to keep up with the public demand to adopt these tools and to be able to communicate with the majority of them,” explained one senior manager. The normative pressure here was exerted by the public, based on their increased use of OSNs as a tool for daily communication. All participants called this a trend. This trend increased normative pressure on the organisation to keep up with the adoption of technology by the general public – it was forced to adopt similar tools for use in communication. “[*The organisation must keep up with the current trend which demands the use of social media to communicate with the public*]” (C1-LLS2).

When participants were asked to discuss the organisations’ reasons for adopting OSNs they stated many reasons. One was public demand. For example, C1-HLS1, a high-level employee, stated the reason was “[*to keep up with the trend that everyone is seen using OSNs, also to keep up with the public demand to adopt these tools and to be able to communicate with the majority of them*]”. This trend, in which OSNs had become a popular communication tool among Omanis, had forced the organisation to adopt OSNs in order to communicate with citizens by using the tools citizens themselves used to communicate with each other and with their social networks. Hence, a normative pressure developed, “[*which demands the use of social media [by the organisation] to communicate with the public*]” (C1-LLS3). The organisation had to make that decision in order to get closer to the public and establish an effective interaction.

According to participants adopting OSNs, they were fast to use and the cost implication was relatively little. This was considered another normative pressure that forced the organisation to adopt and use OSNs. Participants believed that aspects such as OSN adoption time and cost, employees needing skills and available infrastructure added another pressure on them to adopt OSNs. For example, a middle manager, C1-MLS3, believed the organisation adopted OSNs because they were a “[*cost-effective way to reach these people*]”. He added that “[*the organisation is moving to that direction to interact with the public. I think it is not a choice for us ... rather we have to keep up with the public demand, particularly that OSNs is fast to set up and very cheap to implement.*]”

Participants believed that “*the public judge [the organisation] from the quality of the services you provide and the time it takes you to deal with their enquiries and complaints*” (C1-MSL2). As a result, government organisations were also competing to improve their public services. Participants stated that such competition among government organisations forced the organisation to adopt OSNs effectively and to be among the first organisations to use them, as explained by middle manager C1-MSL2: “*The trend was to develop social media accounts for the government organisation, and we try to be among the first batch of government organisations to develop OSNs.*” A similar view was revealed by a high-level employee who explained that the organisation wanted to be among the first government organisations to adopt OSNs: “*The organization wants to be among the first government organisations to adopt it, as part of the OSNs trend*” (C1-HLS2). This normative pressure and the rush to adopt OSNs had its drawbacks. A low-level participant explained that OSN adoption started without a clear policy or defined goals for its use. “*I feel that at the beginning – when the organisation decided to adopt OSNs – we should have had a clear policy and defined guidelines instead of just giving the IT an order to go ahead and create these accounts.*” While the adoption of OSNs was seen by all participants as positive, to the employees who supervised the use of OSNs when they were first adopted it was a horrendous experience, explained one of the participants: “*We suffered at the beginning. When we received a complaint, we did not know what to do or whom to contact. We were new employees and did not know the processes of the department.*” This normative pressure escalated to middle- and high-level staff once the public started to criticise the organisation for its slow responses to their complaints and posted these concerns on OSNs.

#### ***4.3.7 Cultural Prospective***

Organisations are social as well as physical constructions and therefore an understanding of organisational culture can help to shape the process of innovation and performance. Schein’s culture model is considered by many scholars to provide an important lens for exploring organisational culture and fostering the culture of innovation (Hogan & Coote, 2014), which this research study is also doing, and accounting for its use. This means that there is an understanding of organisational culture, individual behaviour and ideas that are communicated and shared among them and their social network (Vroom & Von Solms, 2004). As explained in the literature review, this study explores e-government and OSN adoption, with organisational culture being an



important element of adoption. This is explored by using the lens of Schein's culture model. In his model, Schein identified three cultural layers: artefacts, espoused values and basic assumptions and beliefs. Each of the three layers can influence the layer above or below (Vroom & Von Solms, 2004). For example, a change in basic assumptions and beliefs could prompt changes in the espoused values of the organisation. Schein (2009) cautions that failing to differentiate the levels at which organisational culture manifests correctly causes a failure to define organisational culture. The following section will provide a brief description of the organisational culture that developed following the adoption of OSNs, through the lens of Schein's three cultural model layers.

#### **4.3.7.1 Artefacts (Layer 1)**

Participants admitted that the adoption of OSNs had altered the existing traditional work culture in their organisations, which was characterised by adherence to seniority, paperwork processes and strict adherence to working hours. Among changes was the extension of working hours and the working day. The day no longer ran from 7:30 a.m. to 2:30 p.m., Sundays to Thursdays, and participants were aware that they now worked longer hours with weekends no exception: *"Sometimes we come back or stay longer to finish our work ... even on our weekends and holidays"* (C1-LLS1). *"You are forced to work all the time"* (C1-HLS2). Working hours were not fixed anymore; employees at the three levels were expected to respond to public enquiries, complaints and suggestions around the clock. *"They are all careful to deal with tweets very quickly and try to solve any problem as soon as they can, even if they are on holiday"* (C1-MLS1).

*"OSNs have actually changed the culture of the people ... there is a new culture among people of all age groups,"* C1-MLS3 said. Many individuals' private and work lives were now linked to OSNs in one way or another. This change was experienced more among women in Oman than men. It was a fact that OSNs had provided a new sphere for women to express themselves in Omani society, although in many cases they still concealed their real identity by using pseudo names because of cultural constraints. *"When OSNs were first introduced, women did not reveal their identity, gender or anything that identifies their gender for cultural and religious reasons"* (C1-LLS2). However, with time, women started using their real names and inserting personal photos on their OSN profiles. This change emerged largely among educated women and high-level female officials. C1-LLS2, a low-level employee, explained: *"Once educated women started to put their picture with Hijab on their profile, more women followed in their footsteps and now it is an accepted part of our culture."* This change in culture was accepted by Omanis because women

were using OSN profile pictures of themselves wearing headscarves, which reflected their respect for Islamic and traditional values. In particular, OSNs had provided women with a convenient tool with which to communicate with government organisations, whether to request a service or send a complaint. An example is provided in Figure 4.9 below. In a male-dominated society, this was traditionally a task assigned to men. *“Women now complain without any worry about cultural constraints because they can complain from anywhere using their mobile phone ... no need to physically come to the organisation”* (C1-HLS1). OSNs had enabled working women and housewives to raise their voices and participate in the evaluation of public services offered to them. This was not the case before and was only limited to those women who chose to visit government organisations if they wanted to benefit from the services offered.



Figure 4.9: Example of Female Tweet

#### 4.3.7.2 Espoused Values, Norms and Knowledge (Layer 2)

It is believed that values and norms are developed through the influence of cultural and social contexts (Dose, 1997; Hogan & Coote, 2014; Rokeach, 1973). Hogan and Coote (2014) assert that values espoused within the organisational environment are standards related to work or the work environment which also guide norms or behaviours within the organisational environment.

Interviewees in this study at the three organisational levels believed that cultural and religious values should be considered when using OSNs. For example, it was very important in the Omani culture, when talking to people, to know how to address women or older people. This was reflected

not only in face-to-face conversations but also when talking over the phone. Similarly, in using OSNs and when interacting with the public, it was important to implement similar norms and beliefs. When discussing Omani culture and OSNs, a middle manager stated that, “*As you know, we are a society with specific culture and norms, it is important how we address people and what words in the language we use. This is all very important as we will be communicating with different people, different ages, different education levels, different genders and so on ... this by itself is very important when it comes to communicating with the public*” (C1-HLS2). Knowing the age and gender of the individual when interacting on OSNs seemed important and employees who were assigned this task tried to obtain this information before starting the conversation. This was noticed by the researcher during the observation of a low-level worker interacting with a member of the public through Twitter – see Figure 4.10. The value of respect is highly important within the Omani national culture when communicating with people. This was reflected when employees interacted with members of the public through OSNs. Thus, communication skills were important.



Figure 4.10: Example of Female using Twitter

Another espoused value considered important by participants was appreciation. Participants valued public appreciation for their prompt responses to complaints and enquiries. “*OSNs made the public appreciate our work as it has increased their awareness of all the processes needed to accomplish a task, and the time and coordination needed. The public now understand more and appreciate the efforts and are becoming more patient*” (C1-MLS3). This was also noted by the researcher during his observation of some employees who interacted with the public. He saw that appreciation and understanding were expressed during Twitter interactions. The appreciation value helped develop an organisational culture that encouraged work effectiveness.

Internally, OSNs had brought top management closer to other employees. For example, top management appreciated what their employees were doing to address public issues and respond to public complaints quickly. This understanding and closeness was not felt before the adoption of OSNs, explained C1-LLS3, a low-level staff member: *“The use of OSNs improved the relationship with management. They became closer to their employees and more appreciative and encouraging. They are involved with our work and its quality more than before. They know the public is evaluating our services.”* This practice was noticed by the researcher during the observation phase. For example, several times managers came down to discuss public issues with their middle- and low-level staff and observed how the employees interacted with public tweets. An example is provided in Figure 4.11 below.

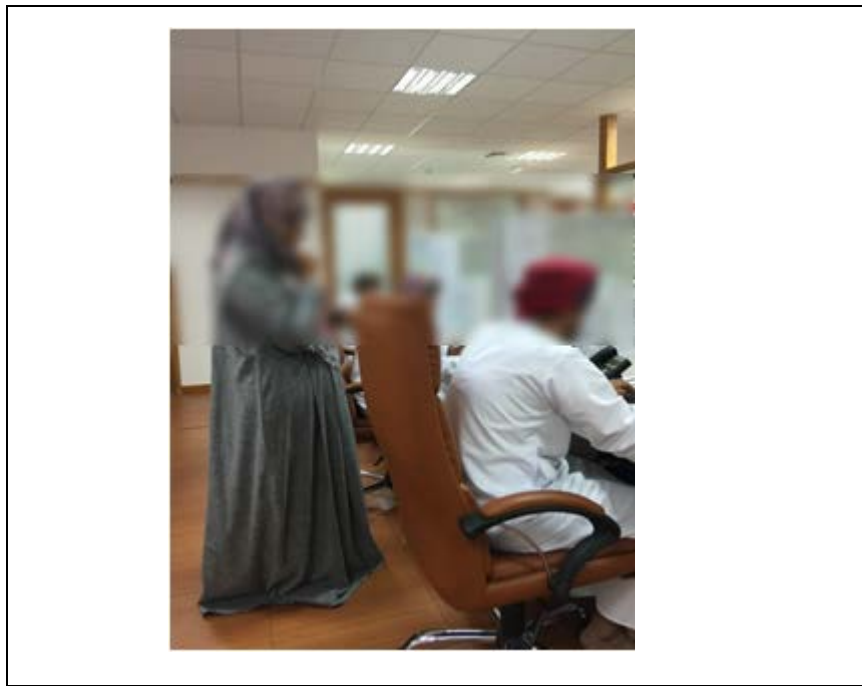
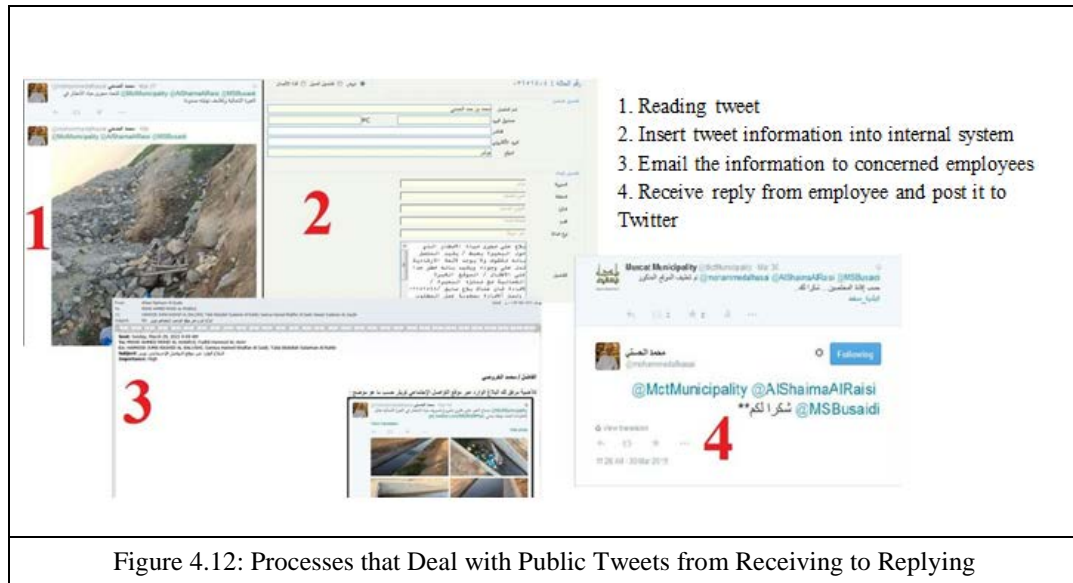


Figure 4.11: Managers Observing Low-Level Staff Interacting with the Public

Participants stated that communication within the organisation had also improved as a result. Clear processes and guidance were now implemented in the organisation to ensure fast and clear information was passed to the public. For example, procedures for addressing public tweets were defined and implemented by all the concerned departments and their employees. This was not the case in the early stages of OSN adoption: *“We did not have any policy or clear guidance when we decided to implement OSNs”* (C1-MLS2). However, according to a high-level participant, this changed: *“Looking at it now we could see the benefit of reducing many processes and cutting costs*

in some areas as well as reducing time and effort.” Similarly, a low-level employee who used to supervise OSN accounts in the early stages of the adoption explained: “Processes have been developed to deal with complaints and the life cycle of the tweet, from receiving it until a reply is posted. It has become more organised than before” (C1-LLS1). Figure 4.12 provides an example of the process that was developed to deal with public complaints on OSNs.



#### 4.3.7.3 Basics Assumptions and Beliefs (Layer 3)

The underlying beliefs and values that employees possess are considered unconscious and hidden and occur at the individual level (Vroom & Von Solms, 2004). These beliefs and values are the original thoughts and beliefs which have been unconsciously communicated and absorbed by the employees. In this study, these beliefs and values concerned work environment, processes and how to carry out daily tasks.

Participants admitted that many employees resisted changes to their ways of working when new technology was adopted. Participants perceived resistance and asserted that it took time to change employees' beliefs, particularly if they had worked in a particular way for a long time. A high-level employee explained that, in many cases, they had faced employee resistance whenever a new innovation was being adopted: “Employees might see adopting a new technology and changing their ways of working as a negative thing, but I think we have to look at the positive side of it. We were able to alter some of the traditional processes that we faced a lot of resistances to change. But looking at it now, we could see the benefits” (C1-HLS2). One of these changes involved reducing processes within the concerned department and across departments to speed up the

response time to public tweets. For example, many middle-level staff created WhatsApp groups with the concerned employees as members, to post public complaints as soon as they received them, so that a quick response could be achieved regardless of where the employees were located.

Many employees were used to traditional ways of making decisions and managing information according to their beliefs. The term 'beliefs' represents employee beliefs, sets and both conscious or unconscious expectancies that employees accept as true to the work environment (Robertson et al., 2001). However, with the adoption of OSNs in Oman, public participation and collaboration increased, which promoted information transparency. This new culture meant more pressure being exerted on employees who believed in traditional ways of working to adopt new processes and new technology such as OSNs. One participant mentioned that employees at various managerial levels sought his help in learning how to use OSNs. *"A few of the older senior officials approached me to help them open personal Twitter accounts and asked me to explain to them how it worked, how to follow the organisations' account and other accounts, and how to look for news"* (C1-LLS2). He explained how he sat and explained the main concept of Twitter and its various benefits and features as well as practically showing the process of using it step by step until they got the hang of it. This indicated that more employees were changing their traditional work behaviour to adopt new processes.

Participants mentioned that through the adoption of OSNs responses to public enquiries and complaints quickened as a result of public participation: *"We have noticed an increase in the number of complaints we receive through the use of Twitter, which reflects citizens' confidence on our fast response to them in record time. We must respond within hours to public tweets"* (C1-MSL1). Although the response time for resolving public complaints depended on the nature and complexity of each complaint, employees had to respond to complaints within hours and had to keep updating the public about the organisation's action until the problem was resolved. This meant changing the traditional ways of addressing public issues – issues that used to take a long time to resolve and which were addressed behind closed doors prior to OSN adoption. Employees were changing their way of working to adapt to a new culture based on the adoption of a new technology that promoted more public participation and collaboration as well as more accountability. *"[With OSNs] nowadays [there is] no more saying 'we did not hear' or 'we did not receive' [public complaints or enquiries] ... it is there and no excuses anymore"* (C1-HLS2). Participants asserted that with the adoption of OSNs more accountability and work efficiency now

existed, as citizens could record or video on their smart phones any behaviour or action that contradicted work ethics, and post their recordings on OSNs or elsewhere online. Employees strove to demonstrate their hard work to their superiors and avoid any public criticism of their work. Figure 4.13 below illustrates the cultural diagram of the study.

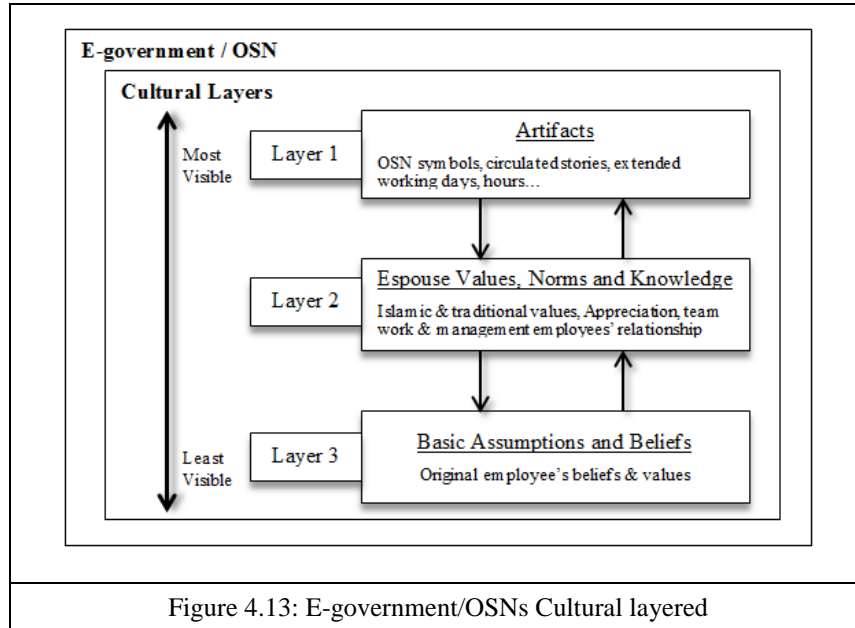


Figure 4.13: E-government/OSNs Cultural layered

#### 4.4 Case Study 2 – The Public Authority for Investment Promotion & Export Development (Ithraa)

A total of eight participants were interviewed in this case study, grouped into three levels: two high-level, three middle-level and three low-level (details of participants’ selection was provided in Chapter 3). The participants in this organisation were considered young and highly educated. For example, three held postgraduate degrees, four held bachelor’s degrees and one held a higher diploma. There was a 50% female/male split. A summary of participants’ details is given in Table 4.8. Two of these participants, one middle manager and one low-level employee, were responsible for supervising the OSN accounts of the organisation. However, all participants confirmed that they used OSN tools for personal purposes as well as following the accounts of their organisation and other government organisations.

Table 4.8: Ithraa (C2) Interviews Sample Population

Participant Code	Organisation Level	Education Level	Gender	Age Group
C2-HLS1	High-level Staff	Post Graduate	Female	21–30
C2-HLS2	High-level Staff	Post Graduate	Female	41–50
C2-MLS1	Middle-level staff	Bachelor	Male	21–30
C2-MLS2	Middle-level staff	Bachelor	Male	21–30

Participant Code	Organisation Level	Education Level	Gender	Age Group
C2-MLS3	Middle-level staff	Post Graduate	Male	21–30
C2-LLS1	Low-level staff	Bachelor	Female	31–40
C2-LLS2	Low-level staff	Bachelor	Male	21–30
C2-LLS3	Low-level staff	Higher Diploma	Female	21–30

#### 4.4.1 Data Findings

Following the analysis of the pilot data the following sections explain the findings, based on the constructs that were developed from the study analysis.

#### 4.4.2 Attitudinal Belief Structures

Attitudinal belief structures consist of three aspects: RA, complexity and compatibility. Fishbein and Ajzen (1975), Ajzen (1991) and Davis (1989) relate the use of these constructs to identifying and explaining respondents' perceptions of whether the use of technology is favourable or unfavourable.

##### 4.4.2.1 Relative Advantage

The benefits of using OSNs will be explained in the following sections.

##### 4.4.2.1.1 Effective Communication

High-level staff addressed the issue of effective communication and stated that OSNs had changed the way the organisation communicated with the public. Interviewees characterised this communication as effective, transparent and as creating closer links between the public and the organisation. Linking young people to the organisation was seen as important and part of the organisation's aims, as explained by C2-HLS1: *"It is a very important tool especially if the focus is on young people who represent the majority of its users here in Oman."* Furthermore, communicating with both public and private sectors was considered to be important and to represent an investment in Oman by the organisation. Hence, using an effective communication tool was viewed as being essential to achieve the organisation's objectives. OSNs allowed this, as explained by C2-HLS1, a high-level worker: *"OSNs are very effective tools when communicating with private and public sectors which, for our organisation, represent a valuable customer. Through them we can promote the potential investment that is available in Oman."* An example of interactive participation on Twitter is provided in Figure 4.14 below.



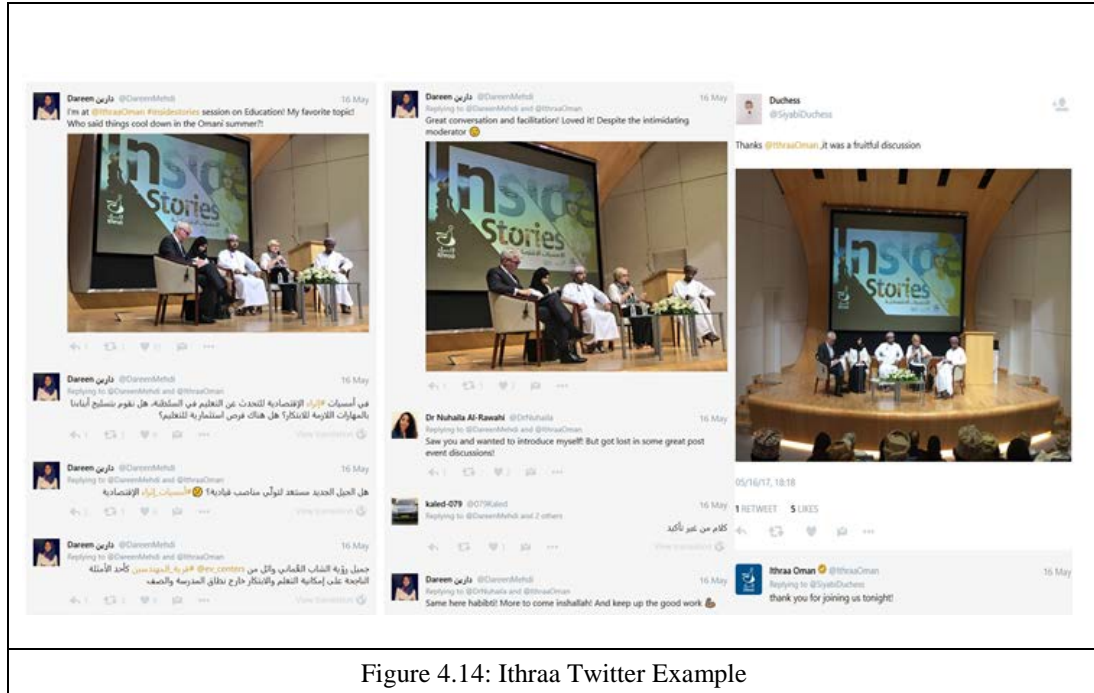


Figure 4.14: Ithraa Twitter Example

One of the organisation's objectives was to promote Oman as a potential place for foreign investors and the adoption of OSNs had opened an effective communication channel for that. According to middle-level staff, OSNs had created a direct communication tool with potential investors who enquired about many aspects or required instant information. This had been amplified to international level, reflected in the many interactions and tweets reported by an employee: *"We do have a lot of enquiries from foreign investors through Twitter following the completion of organisation functions or conferences"* (C2-MLS3). Middle-level interviewees stated that OSNs allowed them to communicate with other government organisations, to coordinate their services or explain to members of the public any services that people thought were part of the organisation's remit.

Other benefits of OSNs included communication with the public when advertising for new jobs, which was only done through local newspapers prior to the use of OSNs. This benefit revealed many issues not discovered when job advertising was only done through traditional methods (i.e. newspapers), explained C2-MLS3, a middle-level worker: *"The use of Twitter for [advertising] indicated to us some issues we did not know before. For example, when we advertised for a new job and specified certain major (i.e. bachelor in economic media), the applicant applied online through our website. If the applicant who applied had a major in media only, the system rejected his application although his major was needed. So, with the use of Twitter, these applicants*

*interacted with us about this issue and we have changed the system to accept 'media' as an education major as well as other minors in media. So Twitter allowed us to evaluate and fix our main application system to be more flexible and allow users to apply for jobs with a major that is related to what we are looking for."*

In general, and based on most of the participants' responses, using OSNs had provided the organisation with an effective communication tool to interact with their customers within Oman or at international level. This communication was fast, direct and did not require a budget or take long to implement.

#### ***4.4.2.1.2 Public Interaction and Transparency***

When participants were asked about public interaction they stated that interacting with the public had proved to be valuable in terms of performance effectiveness. High-level staff mentioned the importance of information exchanged through public interaction. They believed that the organisation could benefit from public evaluation of its services through listening to feedback and suggestions from the public. Participants at middle and low levels shared this view and mentioned the importance of this interaction for increasing public awareness about the organisation and its services. One of the middle-level participants, who supervised the organisation's Twitter account, provided information to increase the awareness of the public whether it was explaining a service provided by the organisation or informing the public about other services requested from this organisation when they should be requested from another government organisation. *"When we receive a tweet from someone asking for a service or criticising a service, and we know that another organisation is concerned with this service or it comes under their roles, we use the feature of 'mention' on Twitter to alert them as well as to educate the public that this service is under another organisation"* (C2-MLS3).

Employees at the three levels believed that interaction with the public was one of the significant benefits they had seen from the use of OSNs. It had also played an important role in promoting information transparency, explained C2-MLS1: *"I believe in some cases, OSNs did increase transparency; also the speed of the work has increased."* However, and despite this openness when interacting with the public, one high-level employee felt that this interaction and information transparency had not yet reached a high level, because the organisation was still *"over protective ... although they are becoming more transparent with the information they exchange. But still I*

*feel they are over protective and formal when interacting with the public” (C2-HLS1). This is a valid statement due to the fact that employees who supervised OSN accounts tried to avoid strong criticism or confrontation with the public in the absence of a clear OSN policy. “[We need a policy] that will protect both the organisation’s rights (its staff, the information) as well as clearly defining what information we need to provide to the general public” (C2-HLS2).*

Many of the interviewed employees at the three levels believed that it was feedback from the public that helped them improve their services; after all, the organisation was there to serve the public as best it could. Adopting OSNs was believed to have *“helped get [the organisation] closer to the public” (C2-MLS1). Public opinion and suggestions were highly valued by the management and helped the organisation to better serve people at the national level in Oman, as well as at the international level outside Oman. The organisation was also responsible for promoting Oman to foreign investors, as explained by C2-HLS1, a high-level employee: “We can also evaluate the public opinion when we do functions so that we can improve our services, as well as listen to their suggestions and views on many issues related to the organisation, especially to the functions we do outside Oman.”* An example of public interaction on Twitter is provided in Figure 4.15 below.

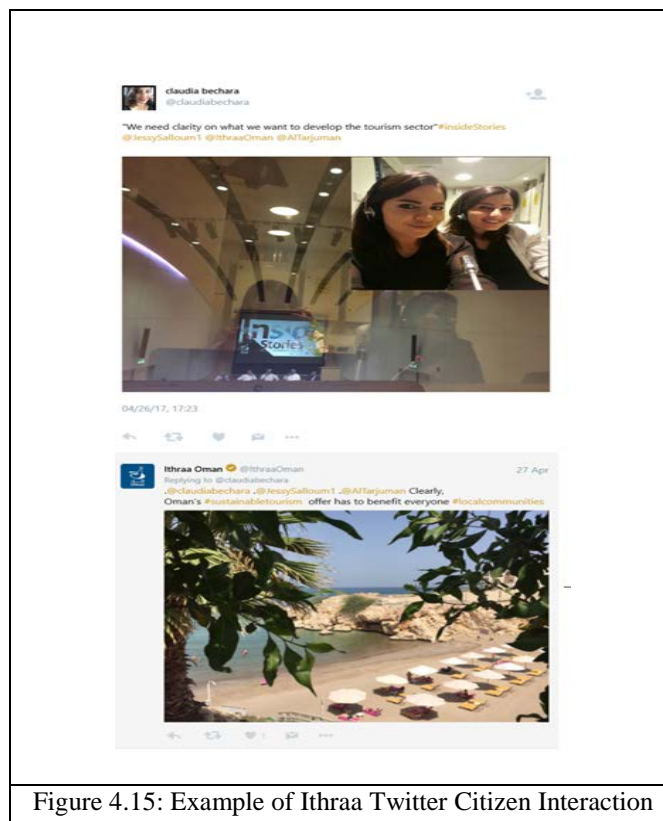


Figure 4.15: Example of Ithraa Twitter Citizen Interaction

The public expressed their appreciation when organisations provided the right information when interacting with them. This promoted transparency and gained the trust of the public. Interviewees at middle and low levels had noticed more appreciation from the public when the right information was provided to them. Participants believed that the public was educated and well informed. Therefore, if the organisation did not provide the right information it would lose their trust and will come under more criticism from them, as explained by C2-MLS3: *“Also we need to be transparent when it comes to information, the public are very well educated and they can distinguish the right information from other information.”*

#### **4.4.2.1.3 Work Efficiency and Effectiveness**

High-level staff admitted that since the adoption of OSNs performance had improved and that management was practically following the employees’ tasks and encouraging them to speed up their work to be able to provide better services to the public. *“I believe in some cases, SM did increase transparency. Also the speed of the work has increased because the public needs a very quick reply to what they tweet”* (C2-HLS1). In addition, middle-level staff stated that since the adoption of OSNs many higher officials from this organisation as well as other government organisations had started to follow the organisation’s Twitter account. This was considered by this participant to be another reason for performance improvements, as C2-MLS1 explained: *“Social media is not only the concern of managers following the organisation’s account, but also of other officials whether from the same organisation or other government organisations ... and that is another reason why performance has increased.”*

Furthermore, it was considered an important benefit of OSNs, when officials were closely monitoring the performance of the organisation, that the performance of departments directly responsible for public services was being evaluated. This evaluation resulted in performance improvements in the form of quicker work, faster resolution of complaints and instant public interaction. The use of OSNs, such as Twitter was also monitored when evaluating employee’s performance, alongside other appraisal tools. *“These applications are also used sometimes to evaluate the employee’s performance. For example, in the media department, at the end of the year we go back to look for all the reports and posts that were done to see how the employees performed”* (C2-MLS3).

Similarly, low-level employees perceived the use of OSNs to have encouraged them to work harder especially when they received appreciative comments from the public. Further, the interviewees believed that OSNs had raised the level of performance and they felt some pressure, especially when they didn't reply to public tweets quickly due to not receiving the required information from the relevant departments, as explained by C2-LLS1: *"It is important to interact with the public and continuously update and reply to public tweets very quickly."* The pressure here increased if the tweet was posted outside of working hours, when it was harder to address the issue. Some of the interviewed employees believed that it was difficult to manage the account after working hours and said they were under pressure because of this, especially when an immediate action was required. In addition, participants explained that the situation was changing, as more tweets and more public interactions were posted, more time needed to be allocated to manage these tools. *"We feel there are a lot of pressures to manage the account and follow it all the time"* (C2-LLS2).

#### **4.4.2.2 Complexity**

Participants of varying backgrounds in this case study agreed that OSNs were simple and easy to use. Findings pertaining to complexity will be detailed in the coming two sections.

##### **4.4.2.2.1 Ease of Use**

Observing how the employees at different levels in this organisation interacted with their computer and the applications they used to carry out their daily tasks revealed that the majority of them were educated and possessed the required skills when it came to ICT interaction. This was verified during employee interviews at different organisational levels.

When asked to explain the complexity of their use of OSNs, all participants stated that the use of OSNs was easy and did not require a lot of effort to learn. High-level staff stated that, because of the simplicity of using OSNs, all of society, regardless of education level, was able to use them: *"OSNs are used by anyone in the society regardless of their ages, knowledge or education levels"* (C2-HLS1).

Similarly, middle- and low-level staff agreed that the use of OSNs was very simple and user-friendly. C2-MLS3 explained that his exposure to OSNs during his study time had helped him to understand OSNs and to know all of the features they contained. He insisted that the tools were very simple and user-friendly. *"No, it is very easy and the time I spent during my study helped me using it and gaining experience in it."* When a participant who supervised the organisation's OSN

accounts was asked to explain the complexity of OSNs, he mentioned that using them was easy and that his employees were very comfortable when they started using them. This view was shared by another middle-level staff member who related the level of ease to the fact that even young children were able to use OSNs: *“Social media is easy to use; even kids can use it”* (C2-MLS3).

All the interviewed employees at the three organisational levels agreed that the use of OSNs was easy, simple and required little effort for any person to use them comfortably. They believed that OSNs were not a complex tool requiring a big effort to learn and many of the interviewees argued that if the tool was complex, other people, such as the young and elderly, would not be able to use it easily. The fact that even a non-educated individual was able to use OSNs was enough proof, from their viewpoints, that it was a simple and easy tool.

#### **4.4.2.2 Effort, Experience & Education**

As mentioned earlier, all the participants agreed that OSNs were easy to use even for an uneducated person. The availability and popularity of smart phones and affordable mobile data in Oman facilitated the widespread public use of OSNs as communication tools. Yet some participants believed that any technology initially required some effort to learn but that with continuous practice, its use became easier: *“New technologies can be difficult at the beginning but with training and use it gets easier”* (C2-LLS2). This was not considered a factor in this case study since the majority of the employees at all staff levels were young and educated. Thus, adopting new technologies was embraced by all employees. In fact, it was observed by the researcher that most of the employees were young and enthusiastic about working with technology: *“Our management are young and educated people. Most of them hold master’s degrees and our minister holds a PhD. Not only is their education level high, but they also believe in the important role of these OSN tools in developing and promoting the partnership we are seeking with our audiences”* (C2-HLS1). An example of an organisation meeting involving young employees at different levels is provided in Figure 4.16.



Figure 4.16: Example of Employees Attending a Meeting

When interviewees were asked whether their previous experience of using technology had made a difference to their ability to use OSN tools they provided mixed answers. Most thought it did not make a big difference, since they believed that the tool itself was easy, simple and user-friendly. Others believed the previous experience had helped them, especially when they were learning and using the organisation's system applications: *"I have come with some experience of using computers and other systems during my study, and this helped me in understanding and using the organisation's applications comfortably"* (C2-MLS3). Previous experience and exposure to different ICT tools during their education period had helped C2-MLS3 to better understand OSNs and enhance his knowledge of their features: *"[OSNs] are very easy and the time I spent during my study helped me using them and gaining experience in them,"* he said.

Education level could help when it came to dealing with new technology and could help save time and effort when learning new tools. However, education level was not significantly seen as a strong variable when learning to use OSNs. High-level staff stated that the tools were very simple and easy to use and interact with, and that they supported all major languages. Therefore, education level was not seen as a variable that had a strong effect, as explained by C2-HLS1, a high-level employee: *"It has nothing to do with the education level or studying abroad ... I think it is just simple and easy to learn and use, even among older people who are using it a lot nowadays"*. Exposing the person to more technology was possible when the person had been educated at a Western school, as explained by C2-HLS2, which meant their knowledge and experience was superior to that of people educated locally: *"I feel if they were educated in the USA or the West,*

*they would have been exposed to more modern technology and knowledge; therefore, they would have gained more experience and more technical knowledge in that sense.”*

Similarly, middle-level staff, when asked the same question, stated that the previous experience helped in speeding up the learning process for OSNs or other technology, and saved time. *“It isn’t difficult to use SM if a person is educated and has an idea about how to use it”* (C2-MLS2). However, despite these minority views, almost all interviewees at the three organisational levels agreed that OSNs, particularly Twitter and WhatsApp, did not require a high level of education or previous ICT experience, because of their simplicity, ease of use and friendly interface.

#### **4.4.2.3 Compatibility**

In order to determine the compatibility of OSNs and match them to the employee’s work and the organisation’s objectives, the participants were asked to explain how OSNs fitted in with their work and how important they perceived them to be.

High-level participants stated that the use of OSNs was very important for the organisation and fitted in with its objectives and aims. For example, one of the organisation’s objectives was to communicate with the public and interact with them to understand their needs and get their feedback on the services provided to them, which is what adopting OSNs had enabled. According to C2-HLS1, OSNs were considered compatible with the organisation’s strategy and what it intended to achieve with OSN usage: *“OSNs are tools that can be made available to many investors as well as tools that do not cost money. ... With the use of OSNs, we are connected all the time and we can be reached at any time and any place.”*

Middle- and low-level staff shared views regarding the use of OSNs and how they fitted in with the organisation’s aims and objectives. They considered OSNs to be an effective communication tool that allowed the organisation to interact with its customers in and outside of Oman, and that they were compatible with the role of the organisation in promoting Oman as a potential investment country for foreign and Omani investors alike. These participants also stated that the use of OSNs helped them promote the organisation and its services to the public more quickly and helped with recruitment marketing previously done through traditional methods such as newspapers. They also viewed OSNs as a tool that fitted very well with today’s world and with members of the public and their lifestyles.



### 4.4.3 Normative Belief Structures

Normative belief structure, or subjective norms, explains the influence of employee social networks, such as peer influence, on performing certain behaviours such as using OSNs. The following section details this.

#### 4.4.3.1 Social Network Encouragement

The network that an individual is socialising with plays an important role when it comes to adopting technology. Most interviewees said that they adopted OSNs because of the direct influence of their friends, family members or others. Table 4.9 summarises case two participants' influence list.

Table 4.9: Ithraa (C2) Participant Influence Summary

Organisation Level	Friends	Family	Work Colleagues	Nobody
High-level staff	✓			
High-level staff		✓		
Middle-level staff	✓	✓		
Middle-level staff				✓
Middle-level staff	✓	✓		
Low-level staff			✓	
Low-level staff	✓	✓		
Low-level staff	✓			

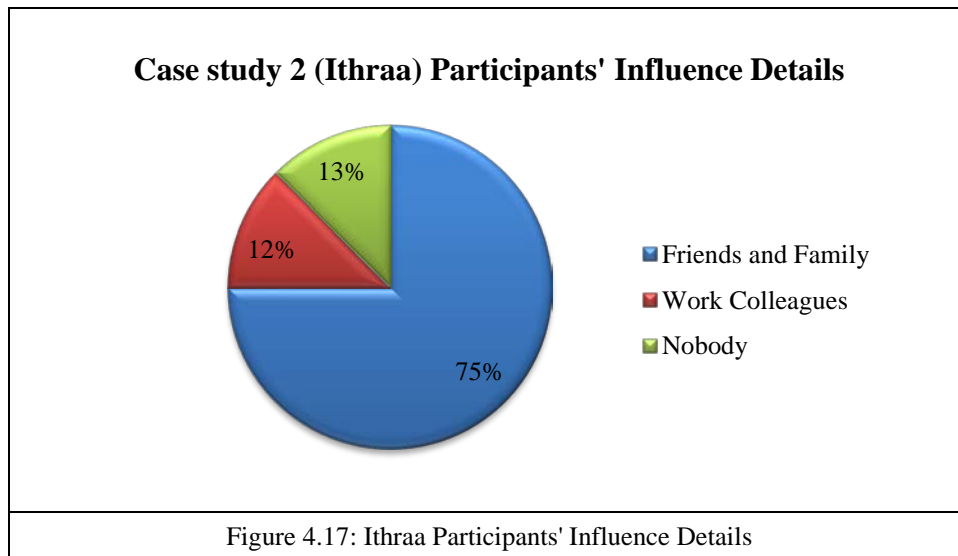
When high-level staff were asked about who might have influenced their adoption of OSNs, they mentioned the influence of their friends and family members. For example, C2-HLS1, a high-level employee, explained that his friends were surprised that he did not use OSNs and that what prompted him to start using OSNs was the new tools. His sister was already using one of those new tools – Snapchat – and he started using it and became active. He said: *“I have friends and colleagues who influenced me to use these tools. Before 2009, I did not use any tools, but my colleagues at work were asking me, ‘how come you don’t have any account?’ So I started my first Facebook account with their help to set it up. Lately my sisters were talking all the time about Snapchat, and people they follow, so that influenced me to start my account which now I am very active on.”*

Middle-level staff also said their friends and family had most influenced their use of OSNs: *“I am not a technology-oriented person and I learn about new technology particularly the use of OSNs*

through my friends and my family” (C2-MLS1). Further, their family member could also be their best friend, which is very common in Oman. For example, C2-MLS3 stated that his cousin and best friend, who he hung out with, was always playing a big role in his adoption of new technology: “I was influenced by my friend and my relative in the same time – he is my cousin and also my best friend, the one I spend most of my time with.” However, one middle manager stated that nobody had influenced his decision to use OSNs.

Similarly, two of the low-level employees who were interviewed mentioned their friends or family members as the ones who had influenced their usage of OSNs. Classmates could also influence a person to adopt OSNs, as C2-LLS3 explained: “I was influenced by my classmates at university who used to talk about Facebook, and that encouraged me to learn about it.”

The majority of participants at the three organisational levels said that their friends or family members had influenced them most in their adoption of OSNs. One employee mentioned colleagues at work, with only one other interviewee denying any influence from anyone: “No I wasn’t influenced by anyone to use SM” (C2-LLS2). He claimed that he decided to use OSNs by himself after reading about them. Figure 4.17 summarises the details of participants’ influence.



#### 4.4.3.2 Image

When high-level staff were asked about the importance of using OSNs, they highlighted its importance in socialising with their social network. C2-HLS2 explained: “I use OSNs to socialise and connect with friends and family; I consider them to be important tools” that “also keep me up with the current trend” that the Omani society is experiencing with the use of OSNs. Another

higher-level manager (C2-HLS2) mentioned the importance of keeping up with this technology. Otherwise she would be considered by society as a person who was very old and unable to keep up with new technology. *“You have to go with the trend otherwise you are seen as an old-fashion person”*. She mentioned that this criticism sometimes came from her own children and close family.

The same view was voiced by middle- and low-level-staff who said how OSNs had become part of their life and how it was considered awkward for a young person with a decent education not to use one of the OSN tools available. *“It is important to keep up with technical trend within the Omani society,”* C2-MLS1 said.

#### **4.4.4 Perceived Behaviour Control Belief Structures**

Perceived control structure, facilitating conditions and self-efficacy will now be examined to identify and explain the role of these constructs in exploring factors that control the use of OSNs in government organisations.

##### **4.4.4.1 Confidence and Motivation**

Confidence in using technology in general and OSNs in particular was discussed with high-level interviewees who stated that it was very important to have such confidence when using OSNs. They added that the ease with which OSNs could be used increased employees' confidence. For example, one high-level worker said she was confident learning and using OSNs and that her self-efficacy was high due to her engineering background, which had helped her acquire technical knowledge more quickly. She also stated that because of the simplicity and ease of use of OSNs *“I do have high confidence, again due my engineering background which always encourages us to learn and improve and try other resources to increase our capabilities and usage of new technologies.”* A similar view was expressed by C2-HLS2, a high-level employee, who believed that individual confidence was crucial when using new technology and that the more confidence you had when using technology the more effective you would be in carrying out the tasks given to you. *“Yes, I think we depend on technology more than before so anyone who is not confident and is not aware of using technology very well will not be able to complete the tasks given to him/her.”*

When middle-level staff discussed the use of OSNs they described ease of use as a major factor in their popularity and high usage among employees and individuals alike. The confidence that

middle-level staff had, helped them improve their performance when using OSN resources, as explained by C2-MLS2: *“Yes, I do have the confidence, also the resources that are needed, for example any hardware is provided by the organisation. Also, personally, I do feel I have the technical confidence to use [OSNs].”*

Similarly, low-level staff were encouraged by the fact that OSNs were very simple to use; this perception increased their confidence in using them, They even associated its simplicity with the fact that children could use it: *“SM is easy to use; even kids can use SM”* (C2-LLS3).

It was clear to the researcher during observations how confident the staff in this organisation were when interacting with technology in general or when using OSNs in particular. They showed a very high self-efficacy in their ability to use the different technologies the organisation had introduced.

#### **4.4.4.2 Knowledge and Mobility Infrastructure**

Generally, government organisations face constraints on their new-technology budgets. However, when this organisation wanted to adopt OSNs cost was not an issue, since the adoption of OSNs did not require a high budget or perhaps any budget at all. When asked about OSN implementation, high-level staff said that it was an initiative by the media department that was applied without a clear stagey, as explained by C2-HLS1: *“As I said earlier, the use of OSNs was based on individual efforts; we don’t have a clear, written approved policy that provides us with all the processes we can follow to manage these tools.”* Despite this view, high-level staff admitted that the organisation was providing the resources needed to use the technology available. For example, each employee was provided with a computer and other necessary office equipment. This was also apparent during the observation phase when the researcher noticed that all offices were equipped with the latest personal computers and other necessary office equipment, such as telephones and printers.

High-level staff said that they had the support of their managers when it came to implementing the new technology and associated this support with the higher education and young ages of those officials. *“We have a lot of support because our management are young and highly educated people. Most of them hold master’s degrees and our minister is holding a PhD. Not only the education level is high, but they also believe in the importance and role of these OSN tools in developing and promoting the partnership we are seeking”* (C2-HLS1).

Middle-level staff shared this view and stated that they had the full support of their managers when it came to implementing new technology or requiring training. *“As I said, the management is all very well educated and they encourage the adoption and use of ICT in the organisation”* (C2-MLS1). This was also the case with low-level employees, who mentioned the understanding and encouragement of their managers and their support in implementing new technology and providing the training required for them to be able to use that technology to improve their work: *“Yes, I do have the resources personally, and also whatever we need our management is always providing us with it”* (C2-HLS1). It was apparent in this organisation that when management was highly educated and believed in adopting technology to improve the organisation’s performance, they encouraged and supported their employees. Employees expressed their appreciation of this and were encouraged to work hard to accomplish their tasks and the organisation’s objectives.

The availability of mobile infrastructure and the diffusion of smart devices were also said by high-level staff to have helped in the diffusion of OSNs and increased their popularity. The affordable cost of mobile internet was seen as an important factor that allowed many citizens to interact with the organisation, especially those living in remote areas where e-government infrastructure was not yet available but mobile data was.

When interviewees were asked about the knowledge they had regarding the use of OSNs, they agreed that OSNs did not require substantial knowledge for a person to be able to use them. In fact, they said that with only a little effort and practice OSNs could be understood quickly. Although interviewees highlighted the simplicity of using OSNs and management support for their OSN training, they said that other non-technical training was also important. Those who supervised OSNs stated that they needed specialist training in how to interact with the public, which was an important element for employees supervising OSN use, as explained by C2-LLS3: *“Using SM does not need a lot of training, but a person needs skills to write and reply and should have a general idea about other departments in the institution as sometimes people ask for internal information.”*

#### **4.4.5 Institutional Isomorphic Pressures**

According to Teo et al. (2003), institutional isomorphic pressure exhibits a significant influence on intentions to adopt innovation (OSNs). Table 4.10 below summarises the isomorphic pressures identified in case study two.

Table 4.10: Summary of Isomorphic Pressure

Isomorphic Pressure	Occurrences
Coercive	ITA e-government transformation policies in which clear instructions and targets were given to all government agencies to improve the quality of the e-services provided to the public
	Top management urged to use latest technology in order to communicate with the public
Mimetic	Competition between government organisations exerts mimetic pressure to adopt OSNs and other new technologies
	Copying successful government organisations that provide public services to model their success and implement similar technology
Normative	Social influence forces the organisation to adopt OSNs in order to increase public interaction and promote more collaboration
	Institutions with more public services will face more pressures from the public to adopt OSNs than those with fewer public services
	Cost and time effectiveness to implement OSNs force the organisation to adopt them

More discussion on isomorphic pressures is provided in the following sections.

#### 4.4.5.1 Coercive Pressure

As mentioned in case study one, isomorphic pressure stemmed from Oman's regulatory body, ICT. As with case study one, coercive pressure to adopt OSNs in case study two was a direct response to a government mandate to comply with the ITA e-government transformation plan (Appendix XI). More details of this were provided in section 4.3.6.1. Complying with the ITA e-government initiative was a form of coercive pressure exerted on the organisation as a result of a government mandate, as explained by one participant: *"We seek to have the organisation among the top government organisations in adopting and implementing e-government initiatives"* (C2-MLS3). By defining this goal, the organisation was forced to pursue the e-government transformation plan to promote e-services and public e-participation, as explained in the e-government plan.

When asked to identify the organisation's reasons for adopting OSNs, participants mentioned top management's pursuit of the latest technology for use in communicating with the public. For example, one participant perceived the establishment of a new media department and the appointment of a qualified general manager who believed in the value of OSNs as the main reasons for the implementation of OSNs in the organisation. *"The changes which took place with the establishment of the Directorate General of Marketing and Media and the appointment of highly educated general manager have helped us adopt effective tools to communicate with the public"* (C2-HLS1). Participants believed that the top management was well educated and well informed and believed this helped them implement the latest technology: *"Our management team is well*

*educated and is always on the lookout for new technologies*” (C2-MLS3). This suggested another form of coercive pressure existed in the organisation whereby top management sought to implement the latest technology such as OSNs to better communicate with the public and increase public interaction. Top management’s vision was important for some participants as they perceived that vision to be the strategy for the organisation’s adoption of OSNs, as explained by low-level user C2-LLS3: *“My manager believes in the importance of SM and says that today you don’t communicate with the public in words, but through SM tools, which they use for their daily communication.”* By implementing the tools that citizens used for their communication and interaction, the organisation was better able to listen to suggestions from the public and promote participation, which could also win public trust and support.

#### **4.4.5.2 Mimetic Pressure**

Competition between government organisations can exert mimetic pressure to adopt OSNs. Participants perceived that the organisation’s management was highly educated and sought to implement new technologies to promote the organisation and achieved its goals. This was considered important for the use of OSNs. As C2-HLS1, a senior participant, explained: *“Because our management are young and educated, most of them hold master’s degrees and our minister is holding a PhD, not only the education level is high, but they also believe in the importance and role of [OSNs] in developing and promoting the partnership we are seeking with our audiences, to better understand their needs so that we can improve our services for them.”* Hence, the organisation sought to mimic other similar and successful organisations in order to quickly implement technologies, particularly OSNs, which were tools *“that can be made available to many investors”* and which *“do not cost money”* (C2-HLS1).

Another motive for implementing technical solutions was modelling successful service provision on other government organisations. When senior participants discussed the reasons for OSN adoption they clearly mentioned modelling other government organisations that had successfully managed to implement OSNs. This is explained by interviewee C2-HLS2:

*[We implemented OSNs] to keep up with the current trend that government organisations follow in adopting OSNs. We have seen organisations that have a strong presence utilise these tools very effectively, like the Consumer Protection Authority for example.*

Participants perceived the use of OSNs to be a trend among government organisations generally, giving them an active presence and demonstrating their technical competence/presence. They believed that this had forced their organisation to use OSNs: *“The trend is that all government are establishing social media accounts”* (C2-MLS1).

Another high-level participant said that OSN adoption was basically *“to go with the [government] flow and the trends of the governments and the public”* (C2-HLS2). This perception among participants that their organisation was mimicking other government organisations was an example of mimetic pressure.

#### **4.4.5.3 Normative Pressure**

Normative pressure was apparent through the popularity of OSNs among the general public, which was seen by participants as a trend their organisation was forced to follow in order to interact and collaborate with the public. According to participants, members of the public were increasingly using OSNs to communicate with each other and with other government organisations. As a result, the organisation was under pressure to use OSNs to communicate, explained middle manager C2-MSL3. *“The general public is increasingly using these tools. Therefore, we have to use the same tool to reach them.”* Social pressure had forced the organisation to adopt OSNs in order to increase public interaction and promote more collaboration. A senior participant explained that, because the public were using OSNs for their communication with each other or with government organisations, his organisation must use the same communication tools to communicate with them: *“We have to communicate with the public the way they communicate with each other, and with the same tools they are using, and that nowadays is done through the use of different online social networks”* (C2-HLS2).

According to a senior participant, the popularity and trend of public use of OSNs had changed how the organisation’s management perceived OSN adoption. He added that government organisations that provided more public services would adopt OSNs more quickly: *“The use of SM in government institutions depends on the type of institution and the kind of service it provides to the public. Ministries like education, housing, and the municipalities need channels to communicate with the public as they provide more public services”* (C2-HLS2). This meant that institutions with more public services would face more pressure from the public to adopt OSNs than those providing fewer public services. In this case study, since the services offered were considered to be of



moderate size, the organisation was under less pressure than that faced by government organisations providing more public services. However, all participants agreed that OSNs were important to the organisation's interactions with the public and that they were improving technology adoption in the organisation: "*SM has changed how management thinks in terms of the necessity to keep up with technology and use of SM in a way that promotes the institution in the public eye*" (C2-LLS1).

Another normative pressure stemmed from the fact that adopting OSNs was cost-effective and its implementation did not require big investments in infrastructure, hardware or software. Participants stated that one of the main reasons for the organisation's adoption of OSNs was its low cost and fast implementation. For example, a high-level participant said that "*OSNs is a tool that can be made available to public, private and foreign investors; it is also a tool that does not cost money to acquire and does not require investment on infrastructure. It is a tool that you can implement and run in no time*" (C2-HLS1). Normative pressure on the organisation to adopt OSNs stemmed from the cost-effectiveness of its implementation. According to a low-level participant, "*We adopted OSNs to keep up with technology and society particularly because it is costless and takes no time to implement, so we have no excuse not to adopt it*" (C2-LLS2). It was apparent from this statement that pressure existed on the organisation if OSNs were not adopted, because of the low cost involved and the minimal time required to implement these tools.

#### **4.4.6 Culture Prospective**

Culture prospective can be explained through the lens of Schein's layers of culture since this research is grounded in organisations in a developing country and looks at behaviour change within public organisations and the national culture, with respect to OSN implementation. Schein's model provides a chance to look at organisation culture change by involving every level of the organisation (high, middle and low staff level) as well as examining the extent of social influence on national culture. This will be detailed in the following sections.

##### **4.4.6.1 Artefacts (Layer 1)**

Participants mentioned that the public could post to the organisation's OSN accounts at any time, which forced employees to be continuously ready to reply to these posts. By using OSN symbols on the organisation's website and brochures, the organisation was promoting its use of OSNs in

its communication and interactions with the public. Figure 4.18 provides an example of using OSN symbols to promote OSN use.

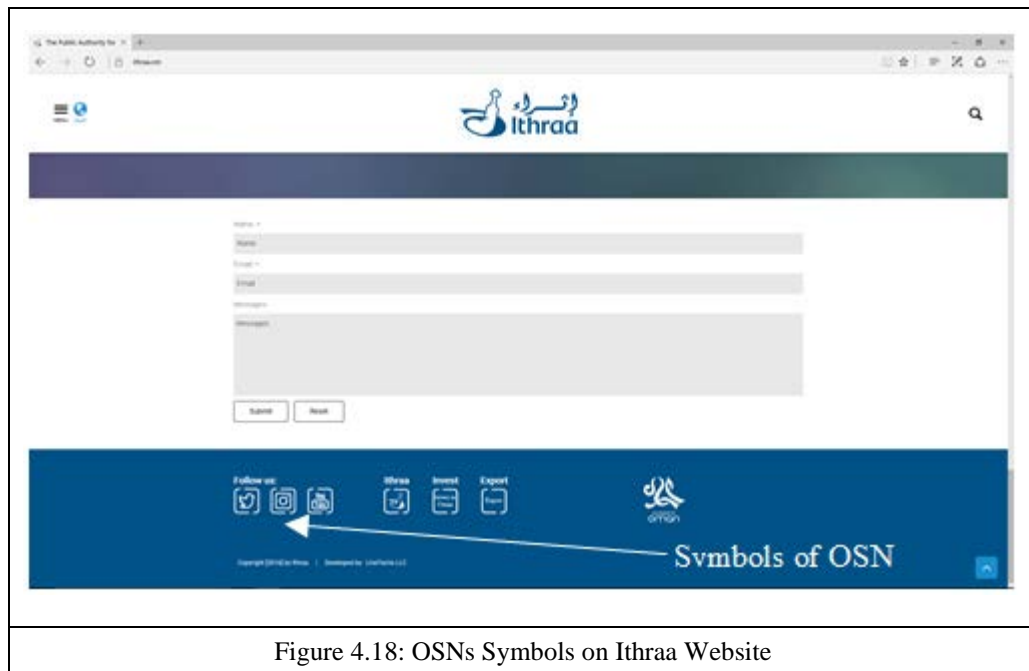


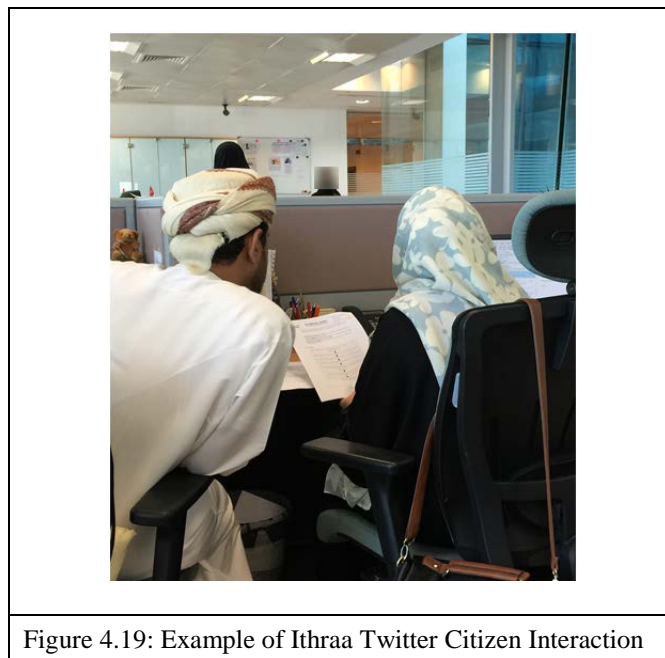
Figure 4.18: OSNs Symbols on Ithraa Website

One participant (C2-MLS3) who supervised OSN accounts had to monitor OSNs account all the time and then reply to public posts. *“I am supervising the Twitter account of my organisation, so I have to post and read all the tweets whenever they is posted. This forces us to be on alert and work round the clock. Citizens can post complaints or enquiries at any time of the day.”* Such pressure was perceived by another participant who expressed his sympathy with employees who supervised OSN accounts: *“The few employees managing SM accounts feel a lot of pressure on them. The public expect instant replies to their posts regardless of the time or the day”* (C2-LLS2). Maintaining constant links to work after formal working hours was made possible by the widespread use of smart phones which provided quick access to work emails and OSN accounts, as explained by a middle-level staff member: *“Because of new technology such as smart phones, we are always reachable anywhere and at any time”* (C2-MLS2). This put pressure on employees to work outside of working hours. As a result, the organisation’s culture had also changed. Prior to the adoption of OSNs, fixed working hours and days existed; that was no longer the case and certain employees were expected to work seven days a week.

#### 4.4.6.2 Espoused Values, Norms and Knowledge (Layer 2)

Participants mentioned the importance of observing Omani traditions when interacting with the public through OSNs. For example, showing respect to all people regardless of their age is considered an important tradition and these values must be expressed not only in face-to-face conversations but also when interacting with citizens through OSNs, by carefully formulating sentences and words, as explained by a middle-level participant: *“As you know we are a traditional society, we have to observe our culture and social respect in our interaction with different age of people”* (C2-MLS1).

Espoused values were reflected in the management’s support for the adoption of new technology. Participants stated that the organisation’s top and middle management were young and well educated and believed in the use of OSNs to communicate with the public. *“Our management is very well educated and always looking for new technologies to adopt, and seeks to have the organisation among the top government organisations in adopting and implementing e-government initiatives and solutions”* (C2-MLS3). In fact, working as team was considered an important value that was practiced by management at different levels. *“We all share our knowledge and help each other; I think this is part of our culture as a close and very social society which always seeks to help other people whenever you can and this is also reflected in the organisation’s culture”* (C2-MLS3). Figure 4.19 below provides an example of the organisation’s teamwork.



#### 4.4.6.3 Basic Assumptions and Beliefs (Layer 3)

When participants discussed individual beliefs and attitudes towards the adoption of new technologies they characterised the organisation's management as young and well educated. Participants said positive management behaviour regarding the adoption of technology such as OSNs was facilitated by their high education level and their belief in the important role technologies could play in increasing work effectiveness, as one participant explained: *"Because our management are young and highly educated people, most of them hold master's degrees and our minister holds a PhD, not only the education level is high, but they also believe in the important role of these OSN tools in developing and promoting the partnership we are seeking with our citizens"* (C2-HLS1). This was important in encouraging the adoption of new ICT and helped reduce employee resistance. Employees praised their managers when they received such support, which helped them adopt a positive attitude towards the use of OSNs and other technologies. For example, an ordinary participant stated that, because of his manager's support for the use of technologies such as OSNs, he was motivated to adopt the organisation's culture quickly and utilised technology in running his tasks. *"My manager believes in the importance of SM and says that today you don't only communicate with the public in words, but also through pictures, by using SM tools to promote the services, events and activities. This really helps us to adopt this culture towards technologies"* (C2-LLS3).

With a highly educated management that believed in adopting technologies such as OSNs, and young employees that could utilise the adopted technology well, organisational culture could easily change to reflect the adoption of technologies. As explained by a senior participant: *"We used to follow traditional ways of working; hardcopy, papers, manual processes. ... The technologies changed all of that, and saved in the cost and efforts ... so it made our work much easier and more practical"* (C2-HLS2). As a result, employees at the three management levels who were young and educated did not show resistance to new, adopted technology. *"The majority of employees are young and educated; therefore, we don't have resistance when we adopt a new technology like SM. The organisation's culture supports the use of technologies to reach all citizens and interact with them"* (C2-MLS3). Further, this was observed by the researcher during the observation phase, in which the majority of employees were observed to be young, educated and working as one team. They tried to help each other if any technical difficulties arose. Similar findings were confirmed by participants: *"We all share our knowledge and help each other. I think*

*this is part of our culture as a close and very social society always seeks to help other people whenever you can, and this culture is also reflected at in our organisation” (C2-MLS3).*

#### **4.5 Pilot Phase Cross-Case Analysis and Findings**

The within-case analysis that was explained previously focused on developing constructs and identifying relationships to describe the process experienced by each case. However, this limited the detection of similarities and differences between the diverse cases (Myers, 2013) and for this reason cross-case analysis was used to overcome this weakness. (Miles & Huberman, 1994) identified two reasons for carrying out cross-case analyses: to enhance generalisability and to deepen understanding and explanation. Both of these reasons apply to this study. According to (Myers, 2013), cross-case analysis begins after the analysis of all cases has finished. By using cross-case analysis techniques, similar constructs and relationships across multiple cases are developed, together with similarities and differences. Further, “cross-case analysis provided the basis for developing the study’s propositions” (p. 89).

An example of a cross-case analysis of RA is shown in Table 4.11 and will be explained in the next section.

Table 4.11: Cross-Case Analysis of the construct Attitudinal Belief Structure: Relative Advantage

Main Themes	Explanation of Themes	Muscat Municipality			Ithraa		
		1 <sup>st</sup> (High) Level Staff	2 <sup>nd</sup> (Middle) Level Staff	3 <sup>rd</sup> (Low) Level Staff	1 <sup>st</sup> (High) Level Staff	2 <sup>nd</sup> (Middle) Level Staff	3 <sup>rd</sup> (Low) Level
Increase Public Interaction	OSNs promoted more public and government interaction	❖	❖	❖	❖	❖	❖
		Higher-level managers stated that OSNs promoted discussion with the public regarding government public services, and increased public interaction	Middle managers perceived the use of OSNs to have increased public interaction with the organisation and provided valuable feedback	Low-level employees suggested that Twitter was reliable and promoted more public interaction than when it started	Higher-level managers believed OSNs allowed them to understand the public more and get closer to their needs	Staff at the middle level supported the use of OSNs for getting closer to customers and increasing their understanding	Ordinary staff listed interaction as one of the benefits provided by the use of OSNs
Promote Transparency	OSNs led to better information transparency with the public	❖		❖	❖	❖	
		Higher-level managers believed OSNs promoted information transparency, but that more was needed		The use of Twitter was reliable and promoted transparency of information	Higher-level staff believed that, through the use of OSNs, more transparency was provided and more understanding had been achieved with the public	Staff at this level believed public knowledge of their rights when it came to the organisation's services was improved as a result of OSNs' transparency	
Provide Awareness	OSNs increased public awareness of the organisation's roles and services	❖	❖	❖	❖	❖	❖
		Higher-level managers believed public awareness had improved since the start of OSN adoption	Middle managers had seen public awareness increased through the use of OSNs; public knowledge had also increased	Ordinary employees felt that OSNs helped increase public awareness regarding the organisation's services and the limitations of the organisation	A manager at this level argued that OSNs provided more public awareness	A middle manager listed the increase in public awareness as an important benefit of adopting OSNs	Ordinary staff had noticed an increase in public awareness since the adoption of OSNs in the organisation
Effective Communication	OSNs provided fast and instant communication	❖			❖	❖	
		OSNs had provided the organisation with a fast, cheap and instant tool to communicate with its customers			A manager believed OSNs had provided them with a fast, instant and continuous communication tool to reach customers	Middle managers saw the effectiveness of OSNs when communicating with the public	
		❖					

<i>Main Themes</i>	<i>Explanation of Themes</i>	<i>Muscat Municipality</i>			<i>Ithraa</i>		
		<i>1<sup>st</sup> (High) Level Staff</i>	<i>2<sup>nd</sup> (Middle) Level Staff</i>	<i>3<sup>rd</sup> (Low) Level Staff</i>	<i>1<sup>st</sup> (High) Level Staff</i>	<i>2<sup>nd</sup> (Middle) Level Staff</i>	<i>3<sup>rd</sup> (Low) Level</i>
Confidentiality of Data	OSNs protect public data	Higher-level managers believed OSNs were open, so they work to protect public information and asked them to pass and personal information privately and not openly					

Attitudinal belief structure was examined closely using cross-case analysis of the two case studies across the three staff levels. There was a similarity in the two themes: public interaction and awareness was found across all staff levels of both organisations. When examined closely, staff at all levels said public interaction was an important benefit of OSNs in terms of improving their organisation's services because it enabled them to examine public feedback and suggestions. Similarly, OSNs were considered by all staff in both organisations to have increased public awareness of the organisations' roles and services, and when awareness increased the image of the organisation improved in the eyes of the public.

Information transparency was perceived by low- and medium-level staff in both organisations to have increased through the use of OSNs. Providing the right information to explain the organisations' actions and improve citizens' knowledge was important when interacting with the public through answering public complaints and enquiries. Furthermore, transparency was considered important by managers to eliminate rumours and false information that might be circulated by the public and linked to government organisations. However, some participants in case study two expressed their concern that transparency levels were still low, although they had increased since the adoption of OSNs; government organisations needed to increase transparency to satisfy public knowledge and keep people informed, particularly about services and complaints.

Table 4.11 shows that managerial staff at middle and high levels saw OSNs as an effective communication tool which allowed them to communicate with their customers instantly at any time of the day, and allowed customers to communicate in the same way. OSNs were an effective communication tool that permitted customers in remote areas where government infrastructure was poor, to communicate with both organisations using mobile networks.

Confidentiality of data when using OSNs was considered only by one higher-level manager in MM as safe. When personal information was exchanged between the organisation and members of the public, OSNs were not seen as a safe tool by the majority of staff at all levels; they preferred other means of communication such as a phone call.



## 4.6 Pilot Phase Discussion

### 4.6.1 Actual Use Discussion

Staff who supervised the use of OSNs in both organisations, as listed in Table 4.12, showed more regular use of OSNs as part of their daily work. They monitored and interacted with the public whenever a new message was posted. Their responsibilities also included coordination with the relevant departments within their organisation, to inform them of public OSN enquiries and to urge them to provide the information so that they could post back the reply via OSNs. These staff were considered heavy users of OSNs. During normal office time (7:30 a.m. to 3 p.m.) they were using the computer provided by their organisation to manage OSN accounts and interact with the public. They were also supplied with smart devices (phones and tablets) to access OSNs when they were on the move or when outside normal office times.

Table 4.12: OSN Supervisors in MM & Ithraa

Organisation Level	Case Study 1 (MM)	Case Study 2 (Ithraa)
High-level staff	1	-
Middle-level staff	1	1
Low-level staff	3	2

Staff who worked in public service departments in both organisations monitored OSNs for posts that concerned their department's services and that required action, as well as making sure their replies to enquiries concerning their department were posted on time. These staff used OSNs to answer complaints or enquiries raised by the public through OSNs or other channels such as phone calls. During research observations it was noticed and confirmed by interviewees that complaints or enquires raised through OSNs received more attention and were prioritised over messages received via traditional means such as phone calls, because an organisation's employees, particularly middle- and high-level staff tried to avoid public criticism on OSNs. Compatibility and RA were important factors when evaluating the adoption of OSNs among staff supervising OSNs or working in public service departments.

High- and middle-level staff revealed the positive role OSNs played in improving employees' and the institution's performance. They talked openly about the pressure exercised by the public through OSNs on their organisations and their officials. They also maintained a positive attitude towards the use and adoption of OSNs in their work, detailing its benefits to their organisations' performance. Higher-level managers such as an IT manager in MM who contributed to IT policy

believed that OSNs helped promote e-government and that they would dominate the next phase of e-government.

At the early stages of adopting OSNs, staff who supervised OSN accounts in both organisations were not sure how to accomplish their tasks, mainly because of the lack of clear guidelines. The employees could not demand information from the relevant departments to enable them to reply to public posts; there was no written policy or procedures defining the processes to follow and obliging departments to provide the necessary information. Therefore, in the early stages, replying to posts was neglected and members of the public were left without feedback, causing frustration and anger especially when the eventual reply, which several employees would post, was formal or diplomatic in its language. For example, “We will look into this issue”, “We are in the process of dealing with ...” and so on. In addition, sometimes employees had no choice but to provide an inadequate reply because they had not received information from the relevant department or it was taking so long to obtain the information that employees were forced to write replies that might not be approved by a higher-level manager. This lack of policy and regulation has been reported in many studies as a barrier to adopting e-government (Bertot et al., 2012; Ebbers & Van Dijk, 2007; Picazo-Vela et al., 2012).

#### ***4.6.2 Behavioural Use Discussion***

The intention to use OSNs by staff in both organisations was examined, and revealed that all staff were using or intending to use them. Staff at both organisations, working in public service departments, were using OSNs in their work and for personal purposes, such as communicating with friends or family. Almost all other staff were using OSNs for personal purposes with the intention of using them for work purposes if needed.

Many older staff had shown a strong intention to use OSNs for personal use and to follow some OSN accounts that broadcast subjects of interest or which were known for criticising government officials or government projects. With the increasing number of applications government organisations were launching targeting smart mobile users, many individuals had started using OSNs to benefit from these applications. The Royal Oman Police (ROP), for example, launched a mobile application allowing users to pay their traffic fines or renew car registrations.

Despite these benefits, staff resistance was reported during the early stages of OSN adoption particularly in case study one. This resistance stemmed from the fear of criticism and evaluation, in a society characterised by excessive submission to authority and lack of public participation in policymaking. Resistance towards e-government and OSN adoption has been reported in other studies (Bertot et al., 2010a; Ebbers & Van Dijk, 2007). Despite the resistance noted in this study at the early stages, greater awareness and understanding of the positive impacts that OSNs could provide meant many staff began to realise its potential for improving their organisation's performance, public services and transparency.

#### ***4.6.3 Attitudinal Belief Structure***

The majority of staff in both organisations believed that the RAs of OSN adoption – “the degree to which using innovation provides benefits which supersede those of its precursor” (Taylor & Todd, 1995b: 141) – were clear. However, their views varied according to their position in the organisation. For example, high-level staff highlighted the importance of OSNs as a communication tool that allowed them to effectively interact and receive public feedback and in turn improve public services. However, they were concerned about public criticism especially in the early stages of OSN adoption, yet agreed that OSNs did play an important role in raising public awareness of the organisation's services and capabilities, which in turn helped reduce criticism:

*In our society, I think we are not used to seeing strong criticism of the government from the public. Yet, public awareness is rising and the level of criticism is also becoming rational and not exaggerated like before. (Participant C2-HLS2).*

Participants in middle-level positions argued that transparency was very important and that the organisation should be transparent with the public by providing sufficient information when public enquiries and complaints were raised, in order to clarify matters and update people about the actions taken. Yet, there was a concern among some about how to decide which information should be shared with the public and what to keep confidential. It is currently left to the people managing the OSN accounts to decide. This is a valid argument since providing the wrong information to the public in an open platform might have legal implications for employees who supervise OSN accounts. In the case study organisation, this had led to those supervising government OSN accounts becoming conscious of what they shared with the public.

*There is no policy or guidance for those supervising social media accounts, and this could mean the organisation or the employees supervising these accounts face legal complications. To be honest, when the decision was made to transfer the management of social media accounts to the call centre, personally I was very pleased ... and I felt a big relief because of the legal consequences that we could have faced. That is why most of the replies to Twitter you see are more formal and diplomatic: “We will look at this issue”, “We are in the process of dealing with ...” and so on. (Participant C1-MLS2).*

Although low-level staff mentioned transparency as a RA of OSN adoption, they argued that public interaction was also considered important. Staff at this level were concerned with their performance and how fast could they reply to complaints or enquiries raised by the public. According to some of these staff, they sometimes ended up doing tasks that were not part of their job description just to speed up the process of getting information back to the public. For example, they might start calling other employees within relevant departments and encourage them to speed up certain jobs in order to avoid leaving enquirers frustrated.

To summarise, RA as a construct in attitudinal behaviour structures is very important for identifying and explaining the degree of benefit when adopting e-government. Many studies have identified RA as one of the important constructs when adopting e-government (Carter & Belanger, 2004b; Carter & Bélanger, 2005; Carter & Weerakkody, 2008; Shareef et al., 2011). Comparatively, in this study the interviewees in both MM and Ithraa clearly explained the many benefits that the adoption of OSNs provided to their work, complementing what they were already using. Furthermore, the adoption of OSNs was also considered by some policymakers (a higher-level IT manager) to be the new phase of e-government, focused on a large sector of the Omani public who were adopting and increasing their use of OSN tools.

Complexity or simplicity is important when adopting an innovation. Interviewees at both organisations across the three levels agreed that OSNs were simple and easy to use. Further, older staff with little education and no previous experience of using ICT found OSNs easy to use and, with little effort, were comfortable using them.

As explained earlier, staff who had previous experience of ICT or had an IT qualification did not relate either of this as a major contribution to OSNs simplicity. In fact, they said that previous IT experience or an IT background only helped slightly reduced the effort required to use OSNs. They also stressed that OSNs did not require much effort from ordinary people; many staff believed that

ordinary employees had sufficient knowledge to be able to use OSNs comfortably. Further, as mentioned earlier, the majority of employees at Ithraa and MM had computers and used them when communicating with their colleagues or managers, using the organisation's email and when they wanted to check personal information or apply for leave. Thus, they were used to ICT and would not have difficulty in using OSNs.

According to participants, the use of smart phones and devices was popular and rising among Omanis. This had created common knowledge of OSNs, driven by the use of the many popular and well-used mobile applications such as WhatsApp to communicate with friends and family. Many staff related the ease of use and simplicity of using OSNs to this common knowledge. In fact, many of them mentioned that young individuals and children were now able to interact and use many SM applications because of their simplicity and because of the common knowledge that young children possessed. For example, one higher-level manager mentioned that it was her children who had influenced her decision to use OSNs because they kept telling her that she was old fashioned and still using an old phone and not a smart phone.

Almost all interviewees at the three organisational levels agreed that OSNs did not require a high level of education or previous ICT experience because of their simplicity, ease of use and friendly interface. In the literature, most studies say ease of use and simplicity are important factors when adopting e-government (Carter & Bélanger, 2005) and OSNs.

Staff at public service departments in both organisations mentioned that OSNs were compatible with their work and lifestyles, and with public demands that these organisations use OSNs when communicating with them and providing services. For example, MM was receiving more complaints from the public through Twitter than traditional means of communication such as phone calls. Furthermore, MM's main database was altered to include information received through OSNs in the central system. This was important and considered by higher-level managers to be necessary to classify any complaints that the public posted through OSNs and to allow public service departments to prioritise these complaints.

Similarly, in the second case study, Ithraa was using OSNs to advertise for new recruits and interactively answer any enquiries from those interested in applying for such jobs. This was compatible with what their administration department was doing. Further, interacting with their customers inside and outside Oman was one of their main objectives; the use of OSNs allowed

them to communicate anywhere and at any time and was compatible with their objectives and needs.

The lifestyle within both organisations had to be compatible with that of the public. The adoption of OSNs was considered compatible with public lifestyles, which required government organisations to adopt OSNs in order to communicate effectively and align themselves with these lifestyles and ways of communicating.

Many studies view compatibility as an important factor when adopting e-government, and the demand by citizens to implement OSNs is considered compatible with this (Carter & Belanger, 2004b; Carter & Bélanger, 2005).

#### ***4.6.4 Normative Belief Structure***

Friends and family members are considered to be the most influential peers when adopting OSNs. In this study, the majority of participants (13 out of 19) confirmed that it was their friends or family members, or both, who contributed to their decision to use OSNs. Colleagues at work or in study were reported to have influenced some employees, although two employees stated that they were not influenced at all and that it was their decision alone to use OSNs. Despite these varied views it was suggested that individual social influence was very important when it came to the adoption of OSNs, and many studies confirm that social influence such as friends and family is an important factor when adopting e-government (Al-Shafi & Weerakkody, 2010).

Most employees revealed that they were using OSNs as part of a public trend, while others who supervised the organisations' OSN accounts thought it was one of their work requirements and helped them keep up with the trends in Omani society. It seems that trying to keep up with the society's trends and improving their personal image was what encouraged most employees to use OSNs. This was clearly explained by C1-HLS2: *"People are going with the trend and once they see everyone is going in a direction they will be forced themselves to learn and adopt."* This was also found among older employees who were not exposed to technical usage such as computers but who found themselves asking their peers to help them learn how to use OSNs. In fact, they felt that they must keep up with the trend otherwise their personal image would be viewed as old and outdated. Similar views were explained by employees who were approached by older employees to help them learn OSNs, which was also confirmed by the researcher during the observation stage,

particularly at MM. Some studies perceive that image is not a significant contributor to e-government adoption (Carter & Belanger, 2004b). However, other studies say that culture could be an important factor when adopting e-government (Lee et al., 2011; Warkentin et al., 2002). In the current study, image was considered important and played an important role in the adoption of OSNs and e-government, as it promoted employees as individuals who kept up with current technology trends.

#### ***4.6.5 Perceived Behaviour Control Belief Structure***

Employees at the three organisational levels expressed confidence in using OSNs and other ICT applications within their organisations. In case study one those employees who worked in offices were used to doing their tasks using computers and the organisation's applications, and had shown confidence and demonstrated their ability to use applications that focused only on their job description. However, when using OSNs they showed more confidence than when dealing with the organisation's applications. This clearly showed that employees needed more training in using the organisation's applications but not in their use of OSNs which, as stated earlier, did not require training because of its simplicity and ease of use.

Employees who worked in fields such as health and food safety, were less likely to use computers for their work. These employees showed less interest in using computers and depended on other employees to scan their handwritten reports into the main system. However, they expressed confidence in using a computer if proper training was given before they were transferred to an office job. Field employees depended on the use of their smart phones to access the organisation's OSN accounts and be linked to their offices to deal with any complaints they needed to address. These employees showed high confidence in using OSNs.

In case study two, all of the employees were using computers and the organisation's internal email to carry out their daily work, as well as other applications for human resources or finance. The employees were used to using computers and other ICT applications and showed a high level of confidence; notably, most of them were young and well educated. For example, employees who worked in the media department depended on both the internal applications and on OSNs to carry out their work. These employees possessed high confidence especially in using OSNs, for the reasons stated earlier: simplicity and ease of use. Further, some employees expressed their need to

have more training in some of the applications used in the organisation, especially if they had been transferred to a new department and had a different job description.

Resources and technical facilitating conditions were examined in both organisations and it was found that both had provided all the resources needed for their employees. Computers had been provided for all employees with office jobs while other employees had been provided with both computers and smart devices (smart phones and smart devices). Allowances were also provided to those who choose to use their own smart phones especially employees who supervised OSN accounts.

Training was arranged for employees who in some cases were allowed to choose the training they felt would help them do their jobs. For example, an OSN supervisor in Ithraa selected his own training which was then approved by his manager. However, many employees complained that not enough training was given to them and that their management blamed this on the limitations of the training budget. Some employees were not convinced by this.

IT support was also made available for the employees who needed it and could be accessed by phone or email. But IT visits could take longer especially in case study one, as some of its directorates were located more than 50 km away from the main IT offices.

It seems that both organisations were trying to provide all the resources needed, but sometimes this was not possible for all employees. Budget constraints were seen as a barrier to providing ICT resources in these public sector organisations, which is confirmed by other studies (Heeks, 2002; Linders, 2012).

#### ***4.6.6 Institutional Isomorphic Pressures***

The findings of this study reveal a clear link between the three isomorphic pressures (coercive, mimetic and normative) and the adoption of OSNs as an innovation. According to Teo et al. (2003), institutional isomorphic pressures have a significant influence on intentions to adopt an innovation (OSNs). More discussion on isomorphic pressure is provided below.

##### **4.6.6.1 Coercive Pressure**

In this study, coercive pressures were identified in various forms and types. The first isomorphic pressure stemmed from the regulatory body of ICT in Oman since “key institutions that could influence organisational behaviour with respect to IT innovation adoption include government



sanctioned bodies” (Teo et al., 2003: 24). The ITA developed an e-government national transformation policy (Appendix XI) to encourage government organisations in Oman to implement the national e-government strategy including the adoption of OSNs. Government organisations that provide public services are now forced by regulations to implement e-payment for public requests or for the organisations’ services as part of the e-government plan. This procedure is now adopted by all government organisations and payments are only accepted using the e-payment method.

The e-government transformation strategy was approved by the Omani ministerial cabinet in 2012. Clear instructions and a timetable were given to all government agencies, including the two case studies, to improve the quality of e-services, increase public participation and implement new technologies such as OSNs to improve e-government solutions. In this study coercive pressure to adopt OSNs on both case studies was a direct response of the government mandate (DiMaggio & Powell, 2000) to comply with the ITA e-government transformation plan.

It was apparent, particularly in case study one, that it was necessary to compete to win e-government prizes in order to prove competency in implementing the latest e-government technology and to secure government grants in the form of winners’ prizes. Government recognition of key firms through prizes or grants can provide an organisation with legitimacy and create the image of a leading organisation that others should follow. MM was under pressure, not only to comply with government regulations and fulfil e-government initiatives, but because it considered itself among the leading organisations in the adoption of new technologies. Hence, by placing itself as a leading government organisation in implementing e-government technical solutions, the organisation was under coercive pressure to achieve this goal. On the other hand, the organisation in case study two adopted OSNs more slowly because of the limited public services it offered compared to case study one, which resulted in less public participation and interaction.

Furthermore, because the organisation in case study one was considered by the participants to be a successful model in the use of new technology for other government organisations, its implementation of OSNs had been encouraged, since the “organisations face pressures to conform to these shared notions of appropriate forms and behaviour” (Teo et al., 2003: 21) and failure to do so “may call into question the organisation's legitimacy and thus affect its ability to secure ...

social support” (ibid). By presenting itself as a successful model for other government organisations in implementing e-government and OSNs, the organisation in case study one was forced to act quickly to adopt and use OSNs. As an early adopter of OSNs, the organisation and its employees faced many challenges and obstacles ranging from ambiguous processes to undefined goals for OSN use. This is why organisations need to develop their policies and define their procedures to guide employees on their OSN engagement (Kietzmann et al., 2011).

Coercive pressure can also occur in the form of pressure exerted by social expectations in the society within which organisations function (DiMaggio & Powell, 2000). This type of coercive pressure was identified by participants in both case studies as the “OSN trend”. They referred to the increased popularity of SM as an effective communication tool in Omani society, which exerted social (coercive) pressure on the organisation to adopt and use OSNs. This pressure was expressed by the majority of participants as being one of the main reasons their organisation adopted and used OSNs. Effective communication with the general public was essential for both case studies as the public was the organisation’s main stakeholder (dominant actor). The public was therefore seen as the dominant actor and both organisations depended on the public for their success and survival as a public service organisation established mainly to provide public services. Hence, the existence and success of these organisations depended on public satisfaction. However, the organisation in case study one perceived the public as a partner and in need of its services on a daily basis.

According to Teo et al. (2003: 27) “managers decide based more on their perceptions than on their actual understanding of the real world”. With this in mind, top management in this research were found to exert coercive pressure. For example, in case study one this existed in the form of a higher-level manager authorising other managers to make decisions in order to avoid taking responsibility and blame for such decisions himself, if the implemented technical solutions did not meet the organisation’s goals. This was revealed by participants to whom the decision to adopt OSNs was delegated: “*I remember top management said, ‘You want to do it ... you want ... then do it’ meaning adopting social media*” (C1-HLS2). This coercive authority transferred the pressure from high-level managers to junior managers enabling the higher-level managers to avoid blame and uncertainty. Similar coercive pressure was also apparent in case study one when specific departments rejected their responsibility to manage OSNs and gave other departments that role to avoid any blame from top management and avoid public criticism. According to participants, this

pressure developed from a lack of knowledge and understanding of OSNs and its benefits, particularly in the early stages of adoption: *“They did not realise the effectiveness of social media ... you know at the beginning they did not care much”* (C2-HLS2). However, following the implementation of OSNs and through the continued use of them, OSN benefits evolved and were therefore realised by these managers, and as a result *“they believe now that social media is not destroying the organisation as the perception was at the beginning”* (C1-HLS3).

In case study two the situation was different. Participants said the organisation’s top management was well educated with high academic degrees. For example, the CEO has a PhD and believed in implementing the latest technologies to enhance the work environment, and in the value of interaction and collaboration with the public. Educated higher management encouraged the adoption of technologies if they improved results. They therefore provided the necessary physical and financial support for the effective use of such technologies. Participants gave examples of this support such as the immediate approval of their requests to purchase equipment and receive special training.

Managerial decision-taking is important in the pursuit of e-government solutions and adoption of new technology such as OSNs. In fact, studies have found that the presence of institutional support such as more professional legislatures (including professional top management) is important for promoting e-government adoption (Jun & Weare, 2010). In addition, there is also a need for legitimacy when an important innovation is introduced that increases the likelihood of successful adoption of innovations (Dacin et al., 2002).

#### **4.6.6.2 Mimetic Pressure**

Mimetic pressure was not very strong in case study one, with only a few participants identifying its existence when adopting OSNs. According to participants in case study one, mimetic pressure stemmed from increased public knowledge of the quality of the public services they should receive compared to those provided by similar international public service organisations. Hence, the organisation in case study one was benchmarked against successful international organisations, which, in effect, put the organisation under pressure to adopt and copy their international counterpart’s technical model, in order to satisfy the public. The organisation understood that citizens’ satisfaction was harder to achieve since people were able to access information to increase their knowledge and compare the service quality they received to the global service quality

experienced by citizens in other countries. This pressure was, in fact, beneficial as it had encouraged the organisation to adopt technologies used by other organisations. The organisation in this case might find itself uncertain about which technologies to adopt, however. Uncertainty is a powerful force that encourages imitation (DiMaggio & Powell, 2000); it forces an organisation to adopt other successful experiences to satisfy its citizens.

On the other hand, as a newly established body (established in 1996) the organisation in case study two looked for other well-established government organisations on which to model its technical requirements. Participants said that, by modelling the organisation on a leading government organisation in the same field in the adoption of e-government solutions, the organisation could quickly establish and benefit from these technologies. Furthermore, this practice was considered by many participants to be a cost-effective solution that could raise the organisation's competency level to that of more established government organisations. In fact, "Organisations tend to model themselves after similar organisations in their field that they perceive to be more legitimate or successful" (DiMaggio & Powell, 2000: 152). Further, decision-makers may react to mimetic pressures from the government environment to minimise costs or to avoid risks that are borne by newly establishment firms (Teo et al., 2003).

Participants in case study one placed the organisation among top government organisations in implementing technical and e-government solutions such as OSNs. "*I think we are the best organisation in implementing e-government solutions; we are the best organisation in adopting and managing social media in the government*" (C1-MLS2). According to DiMaggio and Powell (2000: 151), "Modelling is a response to uncertainty." Hence, by modelling itself as a leading organisation among government organisations in adopting and implementing e-government solutions, the organisation had forced itself to copy the experience of international organisations in the same field. This meant the organisation had started to look for successful solutions in global countries and copy their experiences, since it sought to be placed among top government organisations in implementing e-government solutions. Further, organisations that perceive themselves to be leaders in their field are more prone to mimetic pressures (Flanagin, 2000), and copying other organisations' solution can be effective, particularly among organisations that have common goals. "Homogeneity in organisational structures stems from the fact that despite considerable search for diversity there is relatively little variation to be selected from" (DiMaggio & Powell, 2000: 152). This variation tends to be even smaller among public service organisations.

Participants in case study two believed that locally there were a few government organisations considered to be successful model organisations in implementing e-government solutions. As a result, decision-makers in the organisation were encouraged to benefit from the experiences of those organisations in adopting technical solutions to enhance public services and promote public interaction and participation. According to Teo et al. (2003), an organisation will imitate the action of equivalent organisations (i.e. public service organisations) because those organisations occupy a similar position in the same industry (government environment) and, thus share similar goals and customers (citizens), produce similar services and experience similar constraints (pressures).

#### **4.6.6.3 Normative Pressure**

While the popularity of OSNs among Omanis continues to rise, citizens have gained more insight into the potential benefits of OSNs for government organisations, particularly in the promotion of communication and citizen interaction. Participants in both case studies said social pressure had encouraged their organisations to adopt OSNs. Social pressure stemmed from the fact that with the increased use of OSNs among citizens more discussions took place about public services and their quality. OSN applications such as WhatsApp had become public platforms for the discussion of public issues including government organisations and services. An example was the number of public WhatsApp groups formed by government employees and others. Each group specialised in a certain field such as e-government, social responsibility or tourism. Members of these groups could be selected by the group administrator or be self-selected, joining through shared involvement in representing government organisations. A lot of discussions took place in such groups and many virtual acquaintances were translated into face-to-face meetings and collaborations. As a result, normative pressures were exerted on organisations that did not have an active presence on OSNs. This forced them to adopt OSNs to participate in public discussions and explain their points of view to the public. On the other hand, organisations with an active OSN presence were under pressure to enhance their services and participate more in public interaction. These social norms or pressures shared through the relational channel between the public and the organisation help facilitate consensus which in turn increases the strength of these norms and their potential influence on organisational behaviour (DiMaggio & Powell, 2000; Teo et al., 2003).

Another mechanism for encouraging normative pressure stems from the skill levels required for particular jobs (DiMaggio & Powell, 2000). The participants in case study one mentioned that the organisation had recruited new employees with certain skills to supervise OSNs. These employees

were carefully selected based on an evaluation of their skills, such as knowing how to use OSN tools including Twitter, Facebook and YouTube, and having good Arabic writing and communication skills. This was considered important by management in both case studies in order to achieve the successful implementation of the tools. The organisation in case study one also filtered through existing employees to identify employees with the skills to manage OSNs and interact with the public. Filtering employees is considered a sign of a normative process in which the organisation is encouraged to allocate skilled employees in order to manage OSNs effectively. In fact, filtering employees is thought to be one of the important mechanisms for encouraging normative isomorphism (DiMaggio & Powell, 2000).

Participants said that the organisation encouraged the implementation of OSNs because it was cost-effective in terms of the required software and infrastructure. This was another type of normative pressure exerted on the organisation, to use this technology. Participants in both case studies believed cost-effectiveness was an important feature of OSN use for government organisations, particularly with public organisations suffering from budgetary austerity (Grindle, 1997). With the availability of existing infrastructure and free OSN software, organisations found it hard not to adopt OSNs particularly given the popularity of OSN use among the general public. Criado et al. (2013) believes the goal or objective behind the adoption of OSNs in public sector organisations is derived from various sources including the need to increase participation, promote collaboration and save costs. As mentioned before, OSNs helped the public increase their knowledge and understanding, particularly of OSN tools and how fast and cheap it was to implement them. This understanding exerted normative pressure on government organisations that complained about budget constraints when adopting new technology.

In case study one, both coercive and normative pressure proved to be stronger forces than mimetic pressure. This is a valid argument because the organisation had made itself one of the first government organisations to adopt e-government solutions such as OSNs. However, the organisation had also shown signs of mimetic pressure, particularly when the public benchmarked the organisation against successful international organisations providing similar services. Teo et al. (2003) asserts that organisations may adopt innovation to absorb isomorphic pressure when cutting costs, whether to save on experimentation costs or to avoid the risks borne by first-movers. We argue that in the case of e-government and OSN adoption an organisation can save on the cost of infrastructure, software and implementation since OSNs are considered cheap to own and

implement. “Social Media allows firms to engage in timely and direct end-consumer contact at relatively low cost” (Kaplan & Haenlein, 2010: 67).

In case study two, however, coercive pressure did not appear to be as strong as in case study one. This was because of the nature of the public services this organisation provided. As stated by participants, the importance of OSN adoption was determined by the importance and criticality of the public services the organisation offered: “*Use of SM in government institutions depends on the type of institution and the kind of service it provides to the public*” (C2-MSL1). For example, government organisations that provided municipality services would be under greater pressure to adopt OSNs to increase public interaction and promote collaboration than government organisations that offered less tangible/essential public services such as investment consultancy. On the other hand, mimetic pressure was perceived by participants to be more important because of the recent establishment of this organisation compared to the organisation in case study one, in order to establish the technical capabilities of the organisation and to bring the technical level to those government organisations that are relatively in similar situation. Further, by learning from the technical experiences of other successful organisations, the organisation sought to save costs in the operation and implementation of e-government solutions.

#### **4.6.7 Culture**

According to Hogan and Coote (2014), Schein’s model provides a tractable explanation of the cultural processes that support organisational innovation, especially in service providers such as those this study assessed. Through the lens of Schein’s model, cultural aspects relating to the adoption of OSNs in public service organisations were explored. Schein (2009) identified three layers: 1) artefacts, 2) espoused values, norms and knowledge, and 3) basic assumption and beliefs through which culture develops. More discussion on that will be provided next.

##### **4.6.7.1 Artefacts Values**

Artefacts is the first layer and is visible and easily spotted by an organisation outsider (Schein, 2009). An example of artefacts is national culture and organisational structures and processes (Hogan & Coote, 2014; Schein, 2009; Vroom & Von Solms, 2004). Scholars have indicated that national and organisational cultures have a significant influence on success in adopting new technologies such as OSNs (Bertot et al., 2010a; Gallupe & Tan, 1999; Lee & Kwak, 2012). The Arab world is considered by many to be one of the most complex systems when considering

cultural and social aspects (Hill et al., 1998; Straub et al., 2003). Within the Arab world are the GCC countries which are conservative countries where Islamic teachings and strict Arabian cultural values are dominant (Twati, 2014). Culture reflects the customs, traditions, beliefs and religions of any group of people, (Baporikar, 2015). These values and beliefs are also reflected in national and organisational culture. In both organisations in this study, participants mentioned the importance of observing Omani traditional values when interacting with the public. For example, by being courteous, avoiding argumentative discussions, being patient and respectful, and displaying sympathy and understanding when a member of the public expressed frustration or posted strong criticism of the organisation and its services.

Participants in both case studies perceived the adoption of OSNs to be instrumental in developing a new or changed culture within Omani society and among public sector organisations. For example, the public in Oman used OSNS widely as tools for social communication, searching for information, reading news and other activities. Within this culture women were provided with tools that allowed them to interact with government organisations while at the same time respecting the national culture that reflected traditional values. For example, many women included a picture in their OSN personal profile that reflected their traditions – they wore the Hijab. This was also seen in their behaviour when they worked in governments organisations: women were able to complain and enquire about public services and participate in discussions from their home through the use of OSNs and mobile phones. Prior to the adoption of OSNs this role was limited to men because of the Omani tradition which discouraged women from visiting government organisations because they were perceived first and foremost to be wives and mothers (Chatty, 2000). However, this is changing and many women are now working in both private and public sectors (Ghouse et al., 2017).

According to participants, organisation working time had changed since the adoption of OSNs. Some employees used to work fixed hours from Sunday to Thursday and when they finished their work they didn't need to return until the next day. However, with the adoption of OSNs which promoted more public participation and interaction, these employees were now working all the time including during weekends and holidays, responding to public complaints and enquiries. That could vary between government organisations and the volume and importance of the public services these organisations provided. Nevertheless, organisational culture had changed and employees were now working hard and increasing their work efficiency because more



accountability existed through the public watching and evaluating the organisations' services. In addition, with the popularity of OSNs among the public, there were daily public discussions evaluating government organisations and openly criticising bad services. In recent years e-government solutions, such as OSNs, have created a trend towards public participation and collaboration. This has promoted more transparency and increased accountability (Bertot et al., 2010a), a development reflected in participants' statements about a new culture emerging at both organisations following the adoption of OSNs.

Changes in organisational culture were also visible when monitoring the organisation's OSN accounts such as Twitter. Participants in case study one mentioned that more followers were registering every day and participating on the organisation's Twitter account, be it to complain, make enquires or interact with other posts. Participation was not limited to the public – many employees contributed to the organisation's OSNs. Participants in both case studies believed that OSNs encouraged more employees to use OSNs to see how the public evaluated their work and to improve the services their departments provided. This behaviour – seeking to learn and use OSNs – included older employees, particularly in case study one which had many older employees who, according to participants, wanted to learn to use OSNs to be seen as employees who kept up with new technology and adapted to changes in organisational culture and environment.

The artefacts values in both case studies were based on traditional Islamic and Omani values and on the organisation's culture. However, both cultures were characterised by participants in both case studies as flexible and open to change. For example, national culture had changed as a result of OSN use, with many women using OSNs to participate and interact with government organisations on issues related to public services. This had given both genders the chance to evaluate government services, a role that was traditionally reserved for men.

#### **4.6.7.2 Espoused Values, Norms and Knowledge**

Values espoused on organisational culture are related to the work environment and can develop from culture and social contexts (Dose, 1997; Rokeach, 1973). The value of respect is highly important within Omani national culture when communicating with people. Social values such as respect are considered important in organisational culture, particularly when dealing with the public. Further, respect is considered one of the espoused values that must be implemented when interacting with the public through OSNs. Participants in both case studies stressed that it was

important to show respect to the public when interacting with them even if the public used strong language in their criticisms and interactions. According to Hogan and Coote (2014), values such as respect are important and can guide specific norms or behaviour. Non-implementation might trigger negative behaviour from the employee or the public which can damage an organisation's image and reflect a negative organisational culture. Hence, participants who interacted with the public through OSNs in both case studies had to possess certain important attributes such as patience and writing skills. Thus, organisations in both case studies appointed employees to supervise OSNs who possessed the skills necessary to ensure interactions with the public were carried out respectfully.

Employees are motivated when they feel appreciated by their managers and by citizens (Hogan & Coote, 2014) and participants in case study one stated that since the adoption of OSNs they had received more appreciative comments from their managers and members of the public, which motivated them to increase their work efficiency. Increased public appreciation of the organisation's services helped develop positive organisational culture in relation to the use of OSNs and brought employees at all levels closer together. Further, participants mentioned that the use of OSNs increased their work performance and brought them closer to management. On the other hand, participants in case study two argued that because of their management's support and encouragement they had achieved a high level of public interaction and received appreciation from both the public and their management for their hard work. According to scholars, values can shape employees' behaviour and encourage efficient performance (Hogan & Coote, 2014; Homburg & Pflesser, 2000). In addition, organisation leaders and how they function or behave influences an organisation's environment and behaviours (Schein, 2009).

Participants in case study one stated that OSNs created better communication and developed new processes to cater for increased public participation and collaboration. Public interaction through OSNs exerted social pressure on the organisations; as a result, a new culture emerged in which employees needed to know how to manage information and which processes and guidance to follow in order to increase their response times to public enquiries, improve teamwork and processes because information was now more visible than before. This was also mentioned by participants in case study two but with less emphasis on team work as this value was considered by all participants to be an essential element in the organisation's culture and teamwork was already practiced in employees' work.

Organisational culture had undergone change since the adoption of OSNs. With more public interaction and collaboration, many values such as respect, appreciation and teamwork were implemented to cater for public demand for effective communication and improved services, in order to avoid public criticism and improve the organisations' public image. With the adoption of OSNs, various changes were noticed by the participants in their organisation's structure or the values and norms in the work environment. Therefore, it is important that some changes exist on the three layers of Schein's model so that the organisational culture can be changed (Vroom & Von Solms, 2004). This was apparent in both case studies although changes in each layer varied between and depended upon the existing organisational culture.

#### **4.6.7.3 Basic Assumptions and Beliefs**

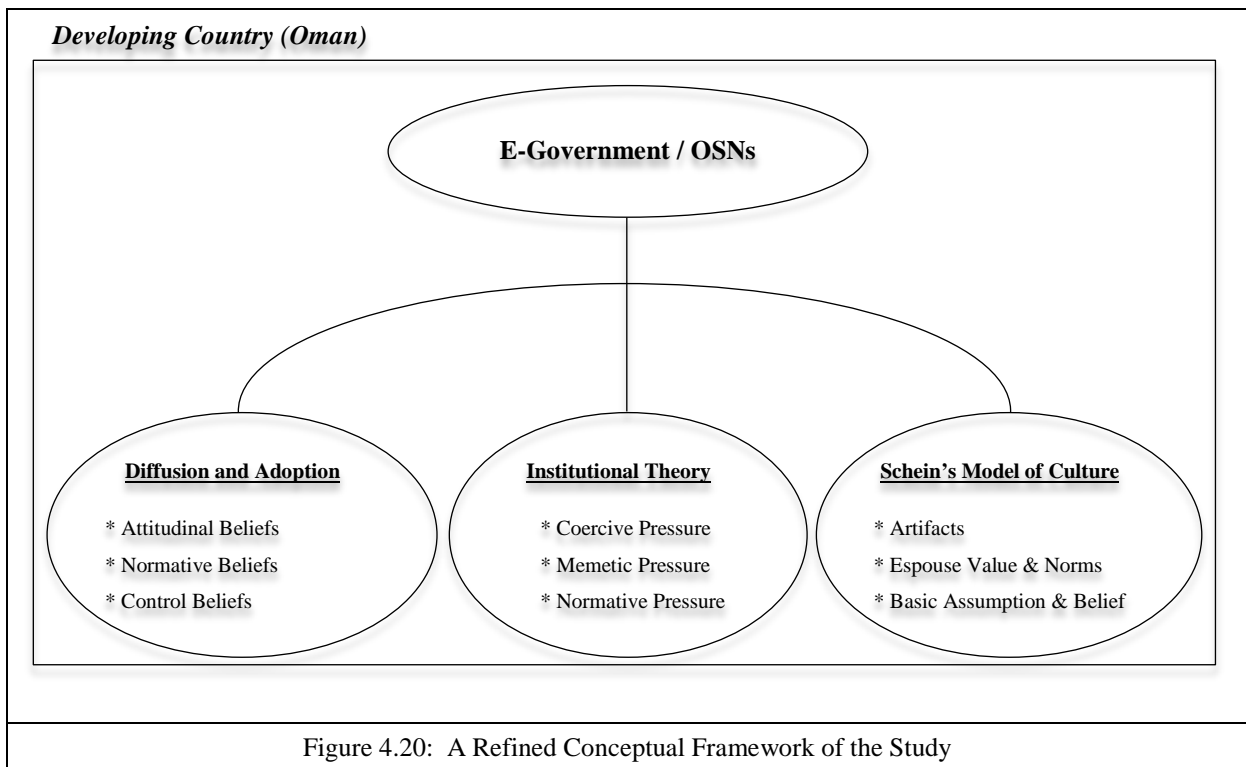
Assumptions and beliefs that are hidden and largely unconscious and that occur at employee level are not visible except to the employees of the organisation (Schein, 2009; Vroom & Von Solms, 2004). Similarly, traditional ways of working can be hidden and only be visible at employee level.

Participants in case study one mentioned that the organisation had employees who adhered to their ways of working and were resistant to the adoption of e-government solutions such as OSNs. Changing the behaviour and beliefs of individual employees is hard (Beautement & Sasse, 2009); however, the increased popularity of OSNs was reflected in employees' beliefs as members of the society and forced them to accept OSNs as a communication element of their daily work activities. Further, participants believed that many older employees adopted OSNs to show their positive perception of the use of technology, whether as a government employee or as a member of the public, because they did not want to be seen as traditional employees who were out of date or who couldn't adapt to new technologies. On the other hand, participants in case study two described their organisation's employees as young and educated. This was also observed by the researcher during observations and suggested that employees' acceptance of the newly adopted technologies was generally positive and that resistance was very low.

Driven by the benefits which OSNs provide in the context of participation, collaboration and information transparency, participants stated that since the adoption of OSNs traditional work processes had changed. The public demanded fast responses and more information when interacting with government organisations; as a result, organisation employees were adopting more open, fast and efficient behaviours when dealing with public issues. Further, decision-making

processes had also been improved and the quality of services offered was much better. These changes were a reflection of changes in organisational and national culture as a result of the public response to OSNs, which had become an essential element of their lives. Participants in both case studies related the changes in organisational processes to the adoption of OSNs in order to improve and speed up information flow between concerned departments, and to OSN supervisors avoiding public criticism and accountability. These changes in employee behaviour were considered important in changing the overall organisational culture.

Based on the pilot phase findings and discussions, an updated conceptual framework can be drawn and is shown in Figure 4.20. It reflects how this study will proceed and how the main data collection will be framed.



## 4.7 Summary

To conclude, this chapter shed light on the context of this research and described the processes and findings of the pilot study which was important for validating research instruments (observation and interview questions) and could be seen as a feasibility study conducted in readiness for the final study. Further the analysis of the pilot study was also discussed using the

conceptual lenses of adoption, institution and culture. The next chapter provides details of the final study conducted for this research.

## **Chapter 5 : Final Study Analysis and Findings**

### **5. Introduction**

The previous chapter presented the findings obtained from the two case studies used in the pilot phase. To ascertain whether the research findings of the pilot study are evident in different organisations and at diverse stages of dissemination, a final phase was pursued that is detailed and explored in this chapter.

### **5.1 Final Phase Study**

#### ***5.1.1 Selection of Main Case Studies***

The main case studies for this final phase were selected using a similar method to the pilot case studies. The reasoning was provided in Chapter 3, section 3.7.3. As explained earlier, the selection process identified public organisations that officially use/used OSNs and provided public services. It was important to examine organisations that provided services to the public in order to research the interaction that would take place between both citizens and other government organisations. A third criterion was the length of time of OSN use. Since OSN use by government entities is a fairly new phenomenon in Oman, it was important to select organisations that had established OSN in order to examine their experiences and gather meaningful data.

The two public sector organisations fitting the selection criteria and agreeing to take part in the final study were MM and the PACP. Both organisations provided services to the public and had been using OSNs for more than five years. However, MM was more of a local government organisation, overseeing the capital, Muscat. Muscat has the largest population of any city in Oman – more than 1,488,000 people (NCSI, 2017) – and was used in this study because of the variety of public services it provided as well as being considered one of the first government organisations in Oman to adopt OSNs. The use of these case studies provided a unique opportunity to help explain, describe and understand the use of OSNs in public sector organisations in a developing country, which is the main objective of this study.

### 5.1.2 Case Study 1 (C1) Profile: Muscat Municipality

MM is an organisation responsible for delivering an array of services to the public within the capital and other adjacent areas. It was one of the first public organisations in Oman to adopt OSNs (Twitter, Facebook and YouTube) and invest in advancing its online services. MM's interactive website (<http://www.mm.gov.om>) makes it possible for the public to request and/or perform a number of services saving a lot of time and effort. Appendix XII provides a picture of MM's main premises.

When MM first launched its OSN accounts (Twitter, Facebook and YouTube) in 2011, its intention was primarily to disseminate its news and receive public suggestions. A year later, OSNs were also being used to receive low- and medium-priority public complaints. High-priority complaints were to be raised through phone calls to a call centre. Urgent complaints were reported to the call centre by phone at any time since the call centre operated 24/7 and could coordinate with any department to address issues quickly. An example of the use of Twitter in MM is provided in Figure 5.1 below.

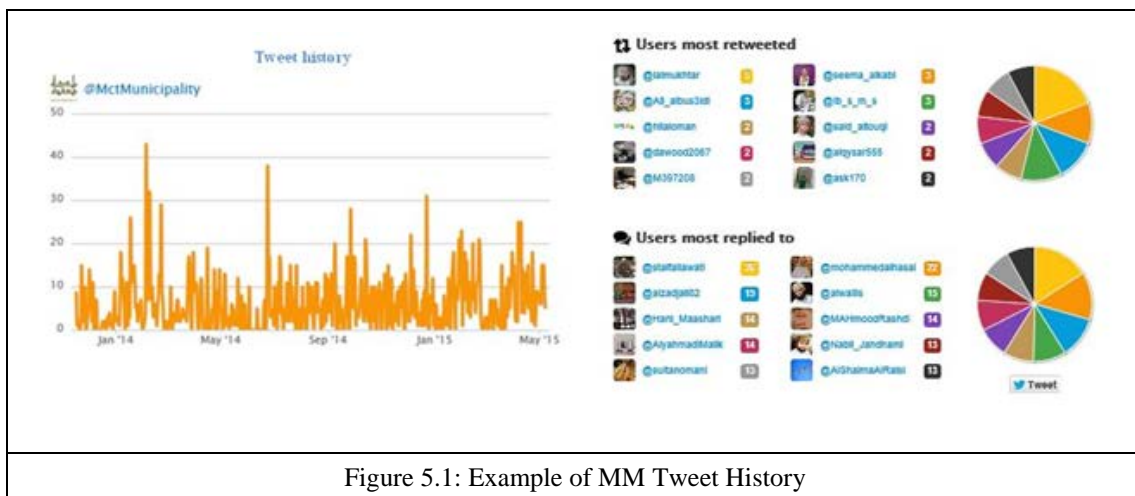


Figure 5.1: Example of MM Tweet History

### 5.1.3 Case Study 2 (C2) Profile: Public Authority for Consumer Protection

The PACP was established in 2011 and is responsible for enforcing the regulations and legislative measures needed to enforce the public prerogatives by ensuring price stability and educating consumers to identify and resist misleading advertising. It is also responsible for dealing with relevant public complaints, seeks to resolve them and maintains a constant watch on commercial practices and the movement of goods and services. Furthermore, the authority seeks to protect and

reinforce consumer rights, ensures the availability of basic commodities, encourages competition and combats fraudulent monopolies and other practices harmful to the national economy (Oman, 2014; Oman, 2016). Appendix XII provides a picture of PACP premises.

PACP has an interactive website ([www.pacp.gov.om](http://www.pacp.gov.om)) that allows public interaction with the organisation at any time. Similarly, the launch of OSN accounts (Twitter, Facebook and YouTube) was implemented in 2012 with, for example, the Twitter account, @pacp\_oman, launched in July 2012 (Figure 5.2).



Figure 5.2: PACP Twitter Account Page

Although PACP has launched various OSN accounts since its establishment, Twitter is considered by many employees to be the number one account used by the public to interact with the organisation because of its popularity among Omanis compared to other OSN tools. This was confirmed by the increased number of followers of the organisation’s Twitter account. Table 5.1 provides some statistics for that account.

Table 5.1: PACP Twitter Information Summary

<b>Twitter joining date</b>	<b>July, 2012</b>
<b>Number of followers</b>	<b>439 k</b>
<b>Total tweets since launching</b>	<b>19.4 k</b>



### 5.1.4 Preparations for Conducting the Case Studies

After careful consideration of e-government/OSN usage, accessibility and other factors (for more details refer to Chapter 3, section 3.7.2), the potential case study organisations were contacted by the researcher in order to seek their agreement to participate in this study. It was thought that this study of OSNs in e-government is one of the first in the Sultanate. Further, there was a challenge with the researcher having to convince third parties to observe internal work processes and obtain consent to interview employees at different levels, which could have exposed negative practices or weaknesses within the organisation. This was the most difficult step to overcome, but it was overcome by being clear and transparent about the purpose of the study and ensuring the confidentiality of participants. The researcher also had to explain the benefits of this research to the organisation. To ensure that all individuals involved collaborated fully, it was critical that top management agree to participate. It was also vital to get high-level permission in order to have full access.

### 5.1.5 Sample

The sampling method for this phase was snowball, non-random sampling. To obtain the participants, the snowball sampling approach was used once again. Once participants were identified and informed of the research purpose, individual permission was sought (also known as informed consent). Once consent for participation was obtained, participants were provided with details and the processes involved in participation. For this phase, participants were categorised into three levels based on the organisation's hierarchy and their organisational position. Data was collected using observations and in-depth face-to-face interviews. The sample for each was as follows:

**Observations:** the sample comprised nine employees from case study one (MM) and ten from case study two (PACP). They were distributed across three staff levels: high or senior, middle and low. A summary of observed participants is shown in Table 5.2.

Table 5.2: Observation Sample Population

Age Group	High-level Staff		Middle-level Staff		Low-level Staff	
	MM (C1)	PACP (C2)	MM (C1)	PACP (C2)	MM (C1)	PACP (C2)
18–20	-	-	-	-	-	-
21–30	-	-	1	-	2	4
31–40	1	1	-	3	1	-

Age Group	High-level Staff		Middle-level Staff		Low-level Staff	
41–50	2	2	2	-	-	-
50 >	-	-	-	-	-	-

**Interviews:** the interview sample comprised 12 employees from case study one (MM) and 13 from case two (PACP). They came from three different staff levels: high, middle and low, with mixed gender, educational background and age group. The demographic details of these participants are summarised in Table 5.3 bellow.

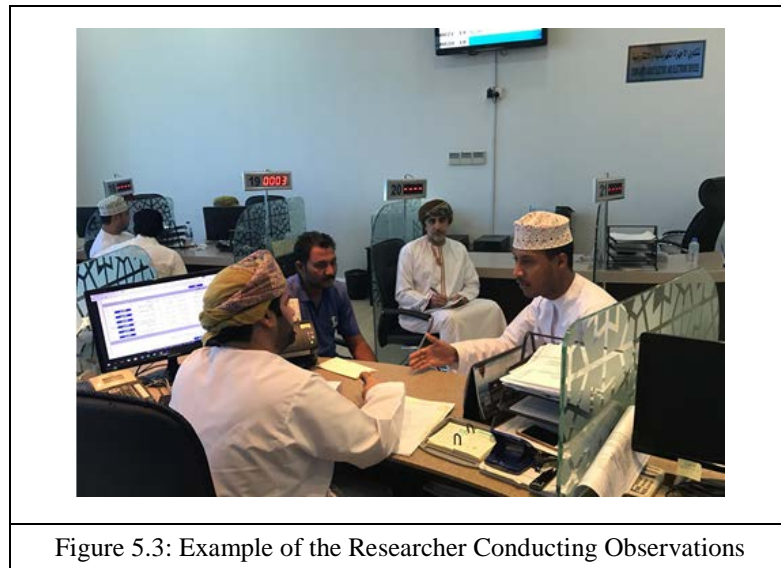
Table 5.3: Interview Sample Population

Participants Code	Organisation Level	Education Level		Gender		Age Group	
		MM (C1)	PACP (C2)	MM (C1)	PACP (C2)	MM (C1)	PACP (C2)
C1/C2-HLS1	High-level	Post Graduate	Post Graduate	Male	Female	41–50	41–50
C1/C2-HLS2	High-level	Post Graduate	Post Graduate	Male	Male	41–50	41–50
C1/C2-HLS3	High-level	Post Graduate	Post Graduate	Male	Male	51–60	51–60
C1/C2-HLS4	High-level	Post Graduate	Bachelor	Female	Male	51–60	41–50
C2-HLS5	High-level	-	Bachelor	-	Male	-	51–60
C1/C2-MLS1	Middle-level	Post Graduate	Post Graduate	Male	Male	41–50	31–40
C1/C2-MLS2	Middle-level	Bachelor	Bachelor	Male	Male	41–50	31–40
C1/C2-MLS3	Middle-level	Bachelor	Bachelor	Male	Male	41–50	31–40
C1/C2-MLS4	Middle-level	Bachelor	Bachelor	Male	Male	41–50	41–50
C1/C2-LLS1	Low-level	Bachelor	Higher Diploma	Female	Female	31–40	21–30
C1/C2-LLS1	Low-level	Bachelor	General Diploma	Male	Female	31–40	21–30
C1/C2-LLS1	Low-level	Bachelor	General Diploma	Female	Female	31–40	21–30
C1/C2-LLS1	Low-level	Bachelor	General Diploma	Female	Female	31–40	21–30

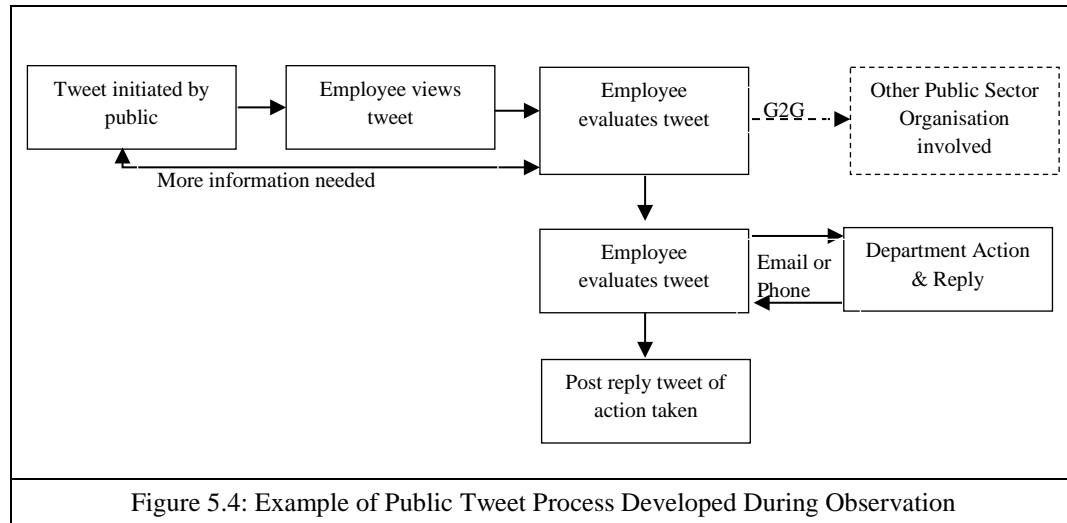
## 5.2 Data Collection

Observations of participants were conducted by the researcher during the months of August and September 2016. They took place in the natural work environment in both organisations. Participants were briefed by the researcher about the observation process. The researcher had to agree with their managers about the timing and processes involved in the observation, understand the schedule of the employees and note their breaks and other obligations. The observations took place in different departments in each organisation. The researcher observed employees working in different days and times. To provide an example of the observation process, Figure 5.3 is provided where it can be seen that the researcher is observing an employee explaining to a member of the public the procedures that will be pursued by the organisation when addressing their complaint. The researcher (observer), sitting at the back of the picture, is carefully listening to the

conversation, without interfering, and writing notes that were shared later with the employee for clarification and/or further explanations.



By observing public sector employees working and interacting in their offices, the researcher was able to develop a better and deeper understanding of their working environment and social culture. The researcher was able to observe the processes used to communicate and accomplish OSN tasks between employees and the general public, with their colleagues in their own departments, with employees from other departments and with employees from other government organisations, thus enhancing his knowledge of each organisation's working culture. As an example, the researcher could compare interactions with the concerned department and actions taken in response to urgent and non-urgent complaints. For instance, when a water pipe burst it was identified as an urgent fault that needed to be rectified quickly to maintain water supply to the residence. This was compared to a broken street-light bulb which did not require urgent action. An example of the public tweet process developed during observation in case study one is provided in Figure 5.4. This process began with a public tweet that was then viewed and evaluated by the OSN employee. If this complaint/request fell within this organisation's responsibilities, the employees would send a copy of the tweet (as a snapshot) in an email attachment through the organisation's internal email to the concerned department for their action and reply. Once the employee received the reply from the concerned department, he/she would post this reply on OSNs. On the other hand, if the tweet affected another government organisation, the employee would refer to the other organisation in a tweet and inform the initiator (citizen) of his action.



To collect the data, interviews were held, which were semi-structured and contained open-ended questions. An example of an interview script is provided in Appendix XIII. The interviews took place between August and December 2016 and were conducted solely by the researcher. To understand the meaning of the answers, the researcher probed with follow-up questions asking for additional information and more explanation of the discussed issue (Magthwi, 2015). The questions were used only as guidelines. Prior to commencing the study, participants were briefed about the research study's purpose and assured of anonymity. They were told that the information they provided would be used for research purposes only. Interviews took place at the organisations' premises and lasted between one and two hours. Most interviewees felt at ease and were unguarded when providing replies, although some expressed reservations at first. However, as familiarity grew, the replies became much more open and honest.

### 5.3 Case Study 1 – Muscat Municipality

#### 5.3.1 Data Findings

The following sections will explain the main observations and interview findings from case study one.

#### 5.3.2 Attitudinal Belief Structures

ABS consist of three constructs: RA, complexity and compatibility. Fishbein and Ajzen (1975), Ajzen (1991) and Davis (1989) related the use of these constructs to identifying and explaining respondents' perceptions of whether the use of technology is favourable or unfavourable. The current study examines the use of OSNs in government organisations in order to establish its

benefits and compare them to the use of more traditional communication methods. Hence, establishing whether respondents believed in the use of OSNs in their work was favourable. The following section will discuss the three constructs that make up ABS, which comprise RA, complexity and compatibility.

### **5.3.2.1 Relative Advantage (RA)**

RA refers to “the degree to which using innovation provides benefits which supersede those of its precursor” (Taylor & Todd, 1995a: 141). For this study, RA will refer to the degree to which using OSNs in government organisations provides benefits in the context of G2C relations compared to the use of traditional methods such as telephone calls or visiting the organisation in person. Below is a categorisation of such benefits based on the data gathered in case study one.

#### ***5.3.2.1.1 Easier, Low Cost and Effective Communication***

Effective communication with the public was considered by MM to be one of the main factors in enhancing its public image. Interaction with the public resulted in an understanding and appreciation of the services provided by the organisation, for example fixing street lights. In this study, the interviewees found that the use of OSNs assisted their organisation in establishing effective communication channels with the public. The interviews revealed two main advantages over the previous traditional communication channels (for example, phone calls): the ability to instantly broadcast information and provide immediate, large-scale public feedback.

OSNs allowed for the instant broadcast of the organisations’ news and information about public services which before had been publicised in booklets available in a limited number of locations. One high-level manager explained: “*I see it as an effective tool to communicate with the public*” (C1-HLSS1) because “*it instantly reaches many people once we broadcast a message*” (C1-HLS2). Similarly, middle-level staff acknowledged that OSNs were an instant communication tool: “*If [members of the public] have enquiries such as how to apply for a service, or issues related to public services then a lot of them use SM like Twitter because it is fast as it offers rapid reply and they can interact instantly ... now it is a matter of just tweeting a request or a complaint and it is there instantly*” (C1-MLS1). This swiftness in communication with a government institution was a major feature of the use of OSNs: “*The use and communication with the government through SM is fast, instant and easy; similarly the responses [the public] is receiving [from the organisation] when they complain or request service is fast and instant*” (C1-LLSL3).

Other communication benefits from the use of OSNs were that it provided economical and effective means to seek public feedback on different issues and that it was a tool with which to conduct large-scale public assessments of services. A high-level employee stated that “*We do interact with the public to get their opinion or seek their feedback about services especially that now with the use of SM this can be accomplished very quickly and without cost implications*” (C1-HLS3). This opinion was shared by middle- and low-level staff who shed light on the benefit of OSNs when exchanging information and views on public services. For example, a middle manager stated that, “*SM is becoming part of our daily communication tools and it is an effective tool to exchange information between the public and the government or seek public views on our services and how to improve them*” (C1-MLS3). The importance of OSNs as a low-cost communication tool which allowed the organisation to share its views with the public was also stated by C1-LLS2, who believed that, “*everyone realised that, to communicate effectively with the public, you have to use SM to listen to their views and explain your own view*”.

In addition, since OSNs is a web-based service, it “is an on-the-fly software creation through the use of loosely coupled, reusable software components” (Fensel & Bussler, 2002: 114). In other words it is off-the-shelf software, hence, an organisation does not have to purchase software. This means savings are tangible and intangible and that costs for training and education are reduced. This implies that the services of an organisation can be completely decentralised and distributed over the internet and accessed by a wide variety of communication devices. Therefore, an organisation does not have to endure a complex, slow and often expensive software integration, but can instead focus on increasing the value of these services and other critical tasks. As a high-level manager stated: “*With the use of SM our services can be accomplished very quickly and without cost implications*” (C1-HLS3). In turn, this suggests additional cost savings in terms of the reusable, coupled software components and expensive integration. Effectiveness occurs in terms of saving time, as explained earlier, and the work practices are reengineered so that any issues can be addressed by the responsible person in a timely fashion. For example, in this study high-level staff could now be contacted using OSNs such as WhatsApp, regardless of time and location, when there was a need to address a public matter. This meant that there were better processes in place, thanks to automation efforts and improved and expedited services provided by the government. Such savings could and should have led to an increase in government income.

### 5.3.2.1.2 *Increased Interaction*

All participants agreed that OSNs has provided continuous two-way communication channels that had boosted the organisation's interaction with the public. Important benefits were gained as a result. It was observed that services were offered at higher speeds, they were better quality and that public feedback helped improve the quality of the organisation's work. In addition, both parties (the organisation and citizens) gained more knowledge which resulted in a better understanding of the organisation's work processes. This was found to help improve the organisation's public image.

High-level staff reported that public interaction had provided the organisation with instant and valuable feedback, as explained by C1-HLS2: *"We interact with the public to get their opinions and to seek their feedback on public service issues especially that now with the use of SM this can be accomplished very quickly and without cost implications"*. High-level staff suggested that this was important for the organisation in order to have effective interaction with the public and to be transparent when communicating with them through OSNs, and that the organisation should provide more explanation and information to the public to correct wrong or misleading information (increased transparency is discussed in the next section).

Staff at the middle level revealed that the increase in public interaction had made their work more effective: *"We are communicating more with them and we have more interaction from them; this communication is proven to be very effective"* (C1-MLS2). Comparing the level of public interaction prior to adopting OSNs, (C1-MLS4) reflected: *"You know before the adoption of SM by the organisation, there was little or no communication between the public and the municipality. Many citizens were not able to reach the concerned employees in the organisation when they needed them, but now they can reach anyone in the organisation at any time."* The public now had tools that allowed them to interact with the organisation and make their voice heard. *"People can write and criticise any organisation and include proof in the form of pictures or video."* Participants were aware of the extent to which OSNs could affect their organisation. *"Before, if someone talks, only a few people could hear him/her,"* but with *"SM it is different. One talk and thousands or hundreds of thousands will hear him/her"* (C1-MLS1).

The interviews showed that some employees were happy with the current level of interaction with the public: *"We are very happy with the level of interaction ... we are receiving more interaction*

*every day*” (C1-LLS4). This interaction provided the organisation with public feedback, suggestions and evaluation of the organisation’s services, which helped to improve public services. However, there was a sense of understanding among other employees that more interaction was needed: *“We can't say we are not happy at current level ... but we need to increase this interaction”* (C1-LLS3).

Among employees, the public was considered partners who received and benefited from the organisation’s services and contributed and helped in developing those services. Public interaction provided the employees with more understanding of the public’s abilities and knowledge, which helped employees, when interacting with them, to show more patience and provide more understanding of knowledge differences: *“Since we are interacting with the public using SM, we are dealing with people who have variation of knowledge and culture ... so some of them understand what we tell them or when we explain to them, however there is a percentage of them no matter what you do they refuse to understand and will not change their idea or belief and their old idea or the image they have about our services will not change”* (C1-LLS1).

#### **5.3.2.1.3 Increased Organisational Transparency**

Participants at all levels believed that increased public interaction, organisational transparency and accountability were three of the most valued benefits of adopting OSNs. They had helped MM gain the public’s understanding, trust and appreciation.

Higher-level managers believed that because the public’s level of education and knowledge had increased government organisations were required to raise their transparency level because the public would not accept vague or limited information when it came to public services. This was explained by one of the high-level participants (C1-HLS3), who believed that the organisation was becoming more transparent as a result of the increase in public interaction: *“Information transparency now is much higher than before, and it is increasing every day because the public’s awareness and knowledge is also increasing; this forces the organisation to be more transparent.”*

Considering the public as partners who shared mutual interests and directly benefited from services provided by the organisation encouraged the organisation to be more transparent, as stated by a middle-level staff member: *“[Since the adoption of OSNs] there is more transparency, there is nothing to hide. We need them as much as they need us ... so in that case we have to be transparent, we are really open ... there is nothing to hide”* (C1-MLS3).



Similarly, low-level staff believed that there had been an increase in the organisation's level of transparency since the adoption of OSNs, because of the public demand for more information. *"When we have started SM our level of transparency was much lower than now and we have increased that and I think will do in the years to come ... the public demand and ask for more information and we will provide them with that"* (C1-LLS1).

Despite the fact that interviewees revealed that more transparency had been implemented by the organisation since the adoption of OSNs, many employees believed that the organisation needed to provide more information. For example, a high-level employee stated that although transparency now existed more was needed: *"I think a level of transparency exists between the organisation and the public, but still more transparency can be achieved"* (C1-HLS3). A similar view was held by another low-level staff member who explained precisely and pointed out why the organisation was hesitant to provide more transparency: *"I think we need to be more transparent with them ... provide them with more information ... I feel the organisation still has some fear when it comes to providing more information ... there is no definition of what level of information you can provide ... but I can say that the public accept the level of information we provide them and sometime demand more information"* (C1-LLS1).

#### **5.3.2.1.4 Increased Efficiency, Effectiveness and Accountability**

Another benefit that resulted from the adoption of OSNs was the increase in work effectiveness and efficiency. Effectiveness and efficiency are vital for the success of any organisation. The findings of this study indicated that the use of OSNs had helped increase employees' work performance (effectiveness) and improve the time taken (efficiency) to address public complaints or issues.

According to a high-level participant, the fact that OSNs were an open platform for discussion between the public and the organisation provided higher-level managers with the chance to evaluate their employees' performance based on public feedback and evaluation of the organisation's services. As explained by one high-level interviewee: *"As a high official, SM makes us feel we are constantly monitored by the public, and that our higher officials and the public evaluate our work"* (C1-HLS1). This evaluation and openness of discussion could also have exposed any low performance or ineffectiveness by employees to their managers, as explained by another high-level participant: *"Today everyone knows that bad performance or ineffective work"*

*is out in the open and it can reach managers or higher officials so quickly and instantly through SM, this is now a belief among all employees within this organisation” (C1-HLS1).*

OSNs had promoted more efficiency and effectiveness within the organisation. *“You know, as a manager I follow the SM account of our organisation and all the time I am monitoring it to see if our employees address issues or complaints very quickly, and if they don't then I call their supervisors directory to urge them to do so” (C1-MLS2).* Knowing that the use of OSNs allowed their performance and work to be monitored and evaluated by their immediate managers and the public, low-level employees worked hard to improve their performance: *“With SM, our work performance is in the open and apparent to all. We are being evaluated by both the public and our managers ... all employees are trying to improve their tasks and job because everyone is watching unlike before [before the use of SM]” (C1-LLS2).*

The element of efficiency in carrying out tasks was considered more important for the organisation following the adoption of OSNs, and time taken was one of the main factors when interacting or posting messages. Employees at all levels revealed that more attention was paid to public complaints on OSNs to ensure that they were addressed very quickly, to avoid negative public reactions that could harm the organisation's reputation or image.

High-level staff stressed the importance of response time when addressing public complaints: *“Today I think faster response and action is not a choice anymore ... the public will not accept delay or slow responses especially those complaints that are simple and easy to rectify” (C1-HLS1).* This was confirmed by another high-level staff member who believed that the use of OSNs had forced employees to be more efficient when addressing public complaints, to avoid any public escalation of criticism of the organisation because of delays: *“Also the response time has encouraged public interaction on SM ... When the person tweets that he has raised his comments or complaints three or four hours ago then the municipality is put under pressure to respond” (C1-HLS3).*

Middle-level staff argued that the response time was now more important compared to before the adoption of OSNs. *“You can compare the response time between complaints that come through phone calls or through Twitter ... I think you will be surprised ... I think there is no comparison between the two” (C1-MLS1).* Efficiency or doing things right was considered by the employees at this level essential to avoid public criticism on the one hand, and on the other to please their line

managers: *“The response time is extremely fast. Everyone is trying to finish his job in no time. An employee has to please his manager and the manager has to please his general manager and so on; added to this we can't afford to wait or delay our response because the public will not accept that and will launch stronger criticism on the organisation and this will affect its image”* (C1-MLS1). Many employees were working hard and fast to accomplish their tasks to try to please their direct managers who are monitoring OSNs and evaluating the employees' response times, as explained by C1-MLS3: *“Our staff need to improve their work and need to show our managers that we are doing the job right and we are doing it fast.”*

When examining work efficiency, ordinary employees shared the opinions of higher and middle managers. They believed that following the adoption of OSNs in the organisation many higher-level managers were monitoring their work and evaluating their actions, and in many cases they were called and encouraged to address public complaints and reply to enquiries without any delay. According to C1-LSL2, improved efficiency was not only saving time when carrying out tasks, but had also led to the better use of current resources: *“[OSNs] have speeded the work timing and created efficient work. They have saved us a lot of time and our resources are now more utilised.”*

As described earlier, the increase in public interaction helped employees to begin working collaboratively to provide a better service (improved performance). For example, a high-level manager explained how the use of OSNs allowed better and faster communication between the various departments, which resulted in not wasting time and effort determining the department that should deal with a particular issue: *“Social media plays an important role for our organisation: to exchange our information with other departments, to carry out our work, especially when we need to communicate or send information or pictures to our field supervisors or field inspectors to carry out their work and this saves us a lot of time and money”* (C1-HLS3). In addition, accountability was ensured once transparency and performance were ensured. High-level management was aware that its employees were accountable to citizens in a more transparent manner: *“They are monitored and evaluated by the public and this creates a better working culture and improves many public services”* (C1-HLS3).

### **5.3.2.2 Complexity**

Complexity or simplicity in using an innovation is an important factor to consider when adopting it. Complexity is defined by Rogers and Shoemaker (1971) as “the degree to which an innovation

is perceived as relatively difficult to understand and use” (Thompson et al., 1991: 128). For the purpose of this study, complexity/simplicity is defined as “the degree to which OSNs is perceived by employee to be difficult or easy to understand, learn and use”. Participants of varying backgrounds in the current study agreed that OSNs were simple and easy to use. Findings pertaining to complexity will be detailed in the coming two sections.

#### **5.3.2.2.1 Ease of Use**

The ease-of-use factor was a complexity factor operationalised as how the employees perceived the use of OSNs in the organisation. When participants were asked to explain their views on the use of OSNs, they all agreed that they were easy and simple to use. High-level staff perceived OSN usage as easy and not requiring a lot of effort or time to learn and use. They stressed that because of its simplicity, SM had gained a lot of popularity among all people regardless of their education or age. One high-level participant explained that, *“It is absolutely very easy ... that is why it is widely used all over the world regardless of gender or age or education”* (C1-HLS3). This view was shared by middle managers, who believed that because of the popularity of smart phones among Omanis OSNs were easily and widely used by people from all walks of life in society. Middle-level staff associated understanding and use of smart phones with the knowledge that people needed to be able to use OSNs: *“I think in Oman, probably 95% of the people use smart phones and WhatsApp and because of this other SM tools are easy to use and most of these people have experience with different tools because they find them easy to use”* (C1-MLS1).

Low-level staff also found the use of OSNs easy and did not have to make a big effort to learn about them. In fact, they related the popularity of OSNs in Oman to their ease of use. Other employees at this level explained that some of their colleagues had a perception that the use of OSNs was difficult, but following their use of them and with the help of their colleagues, they found out it was actually simple and easy to use and much easier than they had previously thought. Furthermore, it was believed among some low-level staff that the ease of use was related to the knowledge of the person. Employees who had IT knowledge learnt and understood OSN features more quickly than employees who didn't have that knowledge. But overall, they all agreed that OSNs were easy to learn and use: *“It depends on the person. If the user is familiar with technology or IT, it will be very easy for him/her; but for other people some might find it easy and others might face some difficulty, yet the majority find it easy to use”* (C1-LLS4).

#### 5.3.2.2.2 *Effort, Experience of Use and Education*

When asked about the efforts needed to learn to use OSNs, all participants stated that it required little effort to be able to use the tools with confidence. For example, a high-level participant explained that today's lifestyle encouraged all individuals to use OSNs in their daily life, to communicate with their social networks (friends and family) as well as to enlighten themselves about local news and other information that interested them. Because of these needs, everyone was encouraged to learn and use OSNs and that was why it was becoming easier to learn and use. Similarly, when middle-level staff were asked about their experience of using OSNs, they mentioned that it was straight forward and required little effort from their side. For example, one middle manager stressed that once you were familiar with the language (interface language) of the OSNs, then it was easy to learn: *"[OSNs] are not hard, nowadays everything is almost simple, once you know how to use your own mobile, in fact it is very simple to learn, it depends on the language you want to use; other than that it is very easy"* (C1-MLS4). Some low-level employees mentioned that personal interest determined the level of difficulty that might be faced when using OSNs; however, most of them agreed that it required little effort to be able to use OSNs and understand their features. One ordinary employee explained that he *"thinks even ordinary people with little education are able to use SM very quickly and with little effort ... it is all about interest ... I think its simplicity is what making it popular. Also, society's lifestyle has changed ... nowadays almost all are using smart phones and that helped a lot to increase the use of SM"* (C1-LLS2).

Experience of use and education level was also discussed with the participants to evaluate if they had an effect on the adoption of OSNs. The participants agreed that both experience of use and education levels were not barriers for users to be able to use OSNs. Some high-level staff mentioned that they knew many people with a low level of education who had become very familiar with using OSN tools. In fact, they mentioned cases where people with little education or with no prior experience of OSN use had shown more interest and became heavy users and mastered the OSNs. For example, a high-level employee explained that neither education level nor experience of use was relevant for new users of OSNs: *"It is very easy to learn even without prior experience. We can see that, among the people who are using it here in Oman, for example we have the educated one, non-educated, old, young, so I see this as a sign for how easy it is"* (C1-HLS2). This opinion was held by all participants.

In addition, some low-level staff stressed that personal interest when using these tools helped increase the passion for using OSNs: *“Also it does not require high education level or high knowledge ... I think even ordinary people with little education are able to use SM very quickly and with little effort ... it is all about interest”* (C1-LLS1). To other employees at this level, an individual who had IT experience or knowledge was considered to have an advantage that helped them pay more attention to the many features of OSNs and to focus more on important issues such as security and privacy when exchanging their personal information.

Complexity was not observed, by the majority of participants at the three employee levels, to exist when using OSNs. In fact, the opposite was true. They all considered simplicity and ease of use to be among the main features that encouraged them to use OSNs.

### **5.3.2.3 Compatibility**

The participants were asked about the importance of using OSNs for the organisation and how it fitted with their work, in order to determine its compatibility with their work and the organisation’s objectives. The majority of employees, as observed by the researcher, valued the use of smart phones and OSNs to carry out their work (current need) which could be argued to fit with their existing values, previous experience and required skills.

In order to determine the compatibility of OSNs for employees’ work and the organisation’s objectives, participants were asked to explain how OSNs fitted with their work, as well as how their employees perceived OSNs. The illustrative factor of functionality was operationalised as the compatibility of adoptive needs, and included current ICT trends and mobility use. The participants at the three staff levels perceived the use of OSNs to be compatible with their tasks and with the organisation’s vision and objective to provide public services and help improve those services.

High-level participants believed the use of OSNs fitted with the organisation’s aims and objective to use new technology that was effective in terms of cost and efficiency in communicating with the public. High-level staff believed OSN use was important and must be adopted by all government organisations to cater for society’s needs. They also believed that public organisations should keep up with society’s technology trends to be able to reach a wider audience, especially as the number of people using OSNs was increasing on a daily basis. As one high-level manager articulated: *“Social media is compatible with our work, it’s widely used by all society and allows us*

*to instantly reach them, and that helps us evaluate our services through public feedback” (C1-HLS2).*

When asked to discuss OSN compatibility with their work, middle-level staff mentioned a similar view and stated that OSNs were becoming part of their daily work tasks and that they helped them provide better and faster public services. In fact, they mentioned that they were compatible with today’s lifestyles and work culture, as one middle-level staff explained: *“Society’s lifestyle has changed and everyone is using SM. It is becoming part of our daily activities and it is compatible with our work ... it is a very cost-effective tool that has become part of our work and is considered part of our daily work” (C1-MLS3).* Middle-level staff believed that OSNs were highly compatible with their work, not only in carrying out the daily tasks assigned to them, but also as an external tool to evaluate their work by the public which helped them understand and improve their services.

Low-level participants agreed that the use of OSNs was compatible with their work and the organisation’s objectives. This compatibility was seen as part of the OSN work culture that allowed the employees to interactively communicate with the public and review public complaints in order to solve them, as a low-level staff explained: *“Social media is becoming part of our work and is compatible with our daily work ... we do depend on social media nowadays more than before and the work culture has been adopted and changed to the use of social media and to view it as essential part of our daily work and I think it will become even more and more essential to what we do and how we serve the public” (C1-LLS1).* It was believed by low-level staff that the use of OSNs fitted the majority of their daily tasks, particularly those tasks that were directly related to public services. *“SM is part of our work culture and is compatible with our work nowadays ... it is part of our work today and will be compatible with our future tasks and fits the organisation’s objectives to deliver high-quality public services and work hard to improve them” (C1-LLS3).* Many departments were receiving OSN reports that they analysed and benefited from in rectifying problems and finding any indication of faults, which helped them avoid problems and complaints. The information from OSNs was used by service departments for planning and recovery more than before, which increased their dependency on these tools.

Functionality could also be seen with the use of mobile technology, particularly smart phones or devices which had provided more flexibility to those who wanted to communicate with government agencies or access its services. The increased popularity of smart phones also helped

OSNs to gain more ground among Omanis and facilitated their use as an effective communication tool, as explained earlier. This trend also fitted with the use of OSNs as an important citizen-to-government communication tool. A high-level said: *“It makes the picture clearer to us ... earlier maybe some people or some of our audience were able to reach our channels to raise their complaints ... but now everyone can raise their complaints ... any person”* (C1-HLS1).

Middle- and low-level employees shared these views and beliefs regarding OSNs and smart phones as being compatible devices for today lifestyle. The fact that more people possessed smart devices allowed the establishment of open, easier and effective communication, not only with their social networks but also with government organisations, as a middle manager explained: *“Smart phones and the availability of networks are the main reasons for the popularity of social media; most people are using social media on their smart phones and few of them use their laptops ... it is easy to communicate with smart phones ... it is becoming the trend”* (C1-MLS1). Smart phones and OSNs were perceived to fit with the organisation’s objectives and the tasks of many departments; for example, a middle manager explained how they could now make surprise visits to restaurants and food shops and take instant photos with the cameras on their smart phones which were sent immediately to their departments in the main building for further actions or instructions: *“I think it has helped us a lot ... not only SM but also smart phones, now our inspectors can go inside any restaurant or kitchen and take photos using their smart phones when they conduct a surprise visit ... before we needed to take a camera and people see us and the surprise element is gone ... our inspectors can take photos and send them through SM to the concerned department for immediate action”* (C1-MLS1). This utilisation of both the smart phone technology and SM applications fitted effectively with the organisation’s objectives and helped employees accomplished their tasks more effectively. Low-level staff mentioned that Omani lifestyles had changed and smart phones and OSNs had become an integral element of them, which implied that the use of smart phones and OSNs fitted perfectly with what people were using as communication tools. *“The lifestyle has changed ... nowadays almost all are using smart phones and that encourages the use of SM. Also, the culture has been modified to adopt this new technology. I mean smart phones and SM. I think in Oman probably 95% of the people are using smart phones and one or more OSN tools for their communication”* (C1-LLS1). In fact, participants believed that all organisations should adopt OSNs to be part of its objective to communicate with the public:



*“It is becoming part of our life ... you know, now we have no choice, you know, except to use it, especially for us as public officers” (C1-HLS2).*

From the observations and interviews it was learnt that existing values and skills within the three staff levels were compatible with the use of OSNs, current IT needs, existing technology trends and the work lifestyle. With the use of smart phones, many existing experiences and skills were available to the majority of the employees. Therefore, the use of OSNs, as mentioned earlier, was perceived by all participants to be simple and easy, which was compatible with their existing work lifestyles.

### ***5.3.3 Normative Belief Structures***

The normative belief structure, or subjective norms, is used to identify and explain the influence of reference individuals' or groups' approval or disapproval of the performance of a given behaviour (Ajzen, 1991; Macredie & Mijinyawa, 2011; Taylor & Todd, 1995a). Fishbein and Ajzen (1975: 302) define subjective norms as “the person’s perception that most people who are important to him think he should or should not perform the behaviour in question”. Similarly, Ajzen (1991: 188) defines it as “the perceived social pressure to perform or not perform the behaviour”. To understand the normative belief structure in the context of the current study, details about the case with regard to this belief structure are explained in the following sections.

#### **5.3.3.1 Social Network Encouragement**

The belief factor of social network encouragement relates to the influence on employees of their close social network (peer influence) in adopting OSNs. In this study, Normative peer influence can be defined as “the degree to which peers exert influence on the behaviour, attitudes, beliefs, and actions of an individual” (Bristol & Mangleburg, 2005: 81).

Case study one findings indicated that friends and family had the most influence on employees' normative belief systems and their decision to use OSNs, as suggested by all participants at the three managerial levels. Work colleagues were also reported to have influenced other employees to use OSNs (it is worth mentioning that colleagues were referred to as friends). Table 5.4 summarises participants' peer influences in the use of OSNs.

Table 5.4: MM Participant Peer Influences

Organisation Level	Friends	Family Member	Work Colleagues	Trends & Lifestyle
High-level staff	✓			
High-level staff				✓
High-level staff	✓			
High-level staff		✓		
Middle-level staff	✓			
Middle-level staff			✓	
Middle-level staff	✓	✓		
Low-level staff			✓	
Low-level staff	✓			
Low-level staff			✓	
Low-level staff		✓		
Low-level staff		✓		

High-level staff reported friends and family members to have played a big role in their decision to use OSNs. Since they belonged to an older age group (51–60), it was understandable that their knowledge of technology was limited. Therefore, their decision to use OSNs was influenced by the younger generation in their families who were more tech-oriented: *“My nieces started using SM and they pushed us all to use it”* (C1-HLS1). This is an example of social changes in Omani society. The new generation, more oriented to technology and its new applications, played an important role in influencing and supporting the older generation to use technology. *“I think it is the trend that is here in the society ... you know almost everyone, particularly the young generation, are using SM tools especially WhatsApp and so you are forced because of that and because you are a member of this society to start using these apps”* (C1-HLS3).

Similarly, middle-level staff cited their friends and family as influencers in their decision to adopt OSNs. *“SM is very popular, and I think the social network that one mixes with, like friends and family, plays a big role in one’s use of SM”* (C1-MLS2). Middle-level staff admitted that the younger generation played an important role in their decision to adopt OSNs: *“My kids use SM all the time and they made me use it”* (C1-MLS2). Although some mentioned their friends and colleagues to be their peer influences, colleagues were also considered as friends whom they spent more time with during and after work.

The picture is slightly different with younger and low-level employees who said that their friends played a role in their decision to use OSNs. It was perceived by participants at this level that

lifestyle in today's society involved more technology use, particularly OSNs. *"It is also related to lifestyle in which SM plays a central role in our daily life now ... so when you are growing with this lifestyle and you see that your friends and family and those around you are using SM all the time ... so you have to use it and even we have to use multiple SM accounts we have to use Twitter, Facebook, Snap chat, Instagram and others"* (C1-LLS1).

### 5.3.3.2 Image

Image is defined as "the degree to which use of an innovation is perceived to enhance one's image or status in one's social system" (Moore & Benbasat, 1991: 195). The current study revealed that promoting individual image and the ability to keep up with the trend of using OSNs in Omani society was considered important for case study one's participants.

High-level participants believed their use of OSNs promoted their personal image. *"SM is becoming a very essential part of our lives and I don't think a person like me or in a similar position can live without such media"* (C1-HLS2). With this in mind, these employees believed that by using OSNs they could market themselves or their views to the public or to their followers on SM, whether as higher-level government employees or as members of society, in order to gain their trust and avoid criticism. *"Many people have used it also to market their views and their images and some have used it to promote their ideas and beliefs to others"* (C1-HLS3). Employees at this level perceived OSNs to be a necessary tool and said that they were driven to use OSNs because it was a trend in Omani society *"With time it became essential for all individuals to use SM to communicate and interact with others"* (C1-HLS3).

Similar findings were reported by middle-level staff. They believed that the adoption of OSNs was important for their personal image and admitted that some employees and higher-level officials utilised OSNs to improve their self-image in the eyes of the public: *"Officials sometimes need to improve their image"* (C1-MLS1), which in turn would improve the organisation's image. *"They are really working on this and they need to reflect their image to the other ... that is why it is important to them to know very well how to use SM"* (C1-MLS4). Some individuals even utilised OSNs to draw new and improved images for themselves, for example, during local elections such as those working for the Majlis AlShura (parliament) and municipal committee. Employees believed that this trend to use SM in Omani society had encouraged them to adopt OSNs because

it was important for their image and status, as government employees, to learn and understand new technologies.

Low-level staff stressed that OSNs represented individuals regardless of their jobs and stated that many people used OSNs to market themselves to the public and gain more followers on online platforms:

*Society today looks at an individual who does not use SM as abnormal ... to them following news and keeping up to date with what is going on around them is very important ... this information is circulated through SM tools like WhatsApp ... that is why individuals must use SM and if they don't then their personal image defiantly will be effected and will be considered as not educated or not following today's trend ... they will look at them as not belonging to the same society.”*  
(Participant C1-LLS2).

Another participant said, “Yes, it is so important for my image because imagine not using social media ... you would have difficulty starting any discussion with others” (C1-LLS3).

### **5.3.4 Behaviour Control Belief Structures**

Control belief structure refers to both externally based resource constraints – facilitating conditions related to factors such as time, money and resources – and to internally based concepts of self-efficacy related to individuals’ abilities (Ajzen, 1991; Macredie & Mijinyawa, 2011; Taylor & Todd, 1995a). The perceived behaviour control structure, facilitating conditions and self-efficacy will be explained in the next sections.

#### **5.3.4.1 Confidence, Motivation and Support**

Self-efficacy or self-confidence is the belief that “one knows how to do something and has the ability to make things happen” (Ferguson, 1995 cited in De Martino et al. (2013)). When asked about their confidence and ability to carry out their work more effectively when using OSNs, employees at this organisation confirmed that the use of OSNs helped them increase their confidence and ability to carry out their duties and communicate socially, because “*they are getting the right information in the right time to interact in the proper way with the public*” (C1-HLS1). This confidence stemmed from the fact that OSNs had provided them with many opportunities to obtain information quickly and to increase their knowledge in all areas of interest. Employees recognised OSNs as an influential tool for increasing their confidence: “*SM is very influential. Also, it makes it possible for any individual to build his/her confidence by using SM*”

(C1-HLS1). In fact, participants suggested that individuals who didn't use OSNs were seen as less confident and might feel isolated, explained one high-level employee: *"Now people who don't use OSNs feel unconfident and might be left aside or ignored by those who use them and might be looked or viewed as isolated people"* (C1-HLS3). This perception might be related to the increasing popularity of OSNs among Omanis.

High-level staff explained that the adoption of OSNs by the organisation allowed them the opportunity to understand and apply clear processes when conducting their work. For example, processes were clearly defined and implemented openly and equally, based on the organisations' regulations. Further, they could now receive accurate or correct information at the right time, such as when the public sent information, it would be instantly received and this would increase employees' confidence since it helped them provide public services or address public concerns. The effective use of OSNs in the organisation was perceived by high-level staff to be related to fast and instant public communication and interaction. Therefore, ensuring fast responses and replies from the organisation in order to receive fast and instant public feedback, increased staff confidence when addressing their tasks and providing public services. As explained by one high-level employee: *"The confidence increases on the service side ... because we are getting the right information"* (C1-HLS1).

High-level encouragement and continuous support for employees' OSN adoption helped middle- and low-level staff to gain more confidence when using the technology, as explained by a higher-level manager: *"I personally support the use of SM and we understand the benefits gained from its use and will continue to support that"* (C1-HLS2). In the same way, this vision and support was also stated by another higher-level manager: *"We do encourage the utilisation of OSNs. We help provide training for our employees, and help in other related issues ... there is no problem from the management side"* (C1-HLS1). Management support came in other forms besides training and emotional support; for example, some higher-level managers participated in real-time interaction with the public and followed the organisation's OSN accounts as well as interacting directly with the employees who supervised the OSN accounts. *"We participate and get involved with SM, for example, because of SM my personal Facebook account and my Twitter account are public and any one can send me anything as the director general in the organisation ... I do interact and reply instantly to public posts"* (C1-HLS2). Realising the importance of OSNs, higher-level managers also supported those employees who supervised OSN accounts with the training and skills needed to

assist them to carry out their work with more confidence, whether in using and understanding the technical skills or other skills, such as how to interact and address the public when writing or replying to their posts. This was explained by C1-HLS1 in more detail: *“We have a specific team that handles SM and they were trained on all this. I mean how to interact and how to deal with even the news, how to deal with it from the beginning ... or how to write messages and how to handle the interaction with the public ... what are the proper messages to be published to the audience ... how to reach the audience, how to make the audience interact with them and how to reply as an official organisation and so on.”*

When asked about OSN benefits in the context of ability and self-efficacy, middle-level staff confirmed they had increased their self-confidence and work efficiency: *“We are more confident and address issues more accurately especially with the information we are getting from the public”* (C1-MLS1). Furthermore, OSNs had helped build their ability, through public interaction and feedback, to better understand public needs, which resulted in better public services: *“Knowing how to use SM is very important for the employee's confidence ... knowing how to get information and follow the official OSN accounts and review the feedback and the comments raised by the public is important for employees and play important role in increasing their confidence and knowledge and helps them focus more on their work and tasks”* (C1-MSL2).

The use of OSNs promoted ties between middle and higher management in the organisation and this helped these employees gain more confidence to carry out their tasks effectively: *“[Since the adoption of OSNs] I think our relations with our managers and general managers promoted better understanding and closeness, as well as with the general public became closer. We felt this step has encouraged us to work harder and provided us with more confidence in what we do”* (C1-MLS3). Management support was another benefit that was promoted through the use of OSNs as perceived by participants at this level. To these employees encouragement from top management and providing the necessary training were signs of support for using OSNs, and this helped them gain the confidence to carry out the work more effectively, as explained by C1-MLS2: *“[Higher-level managers] do encourage the use of SM; if they didn't then we will not be in the situation that we are in now ... the top managements has seen the big benefits that we are receiving for the use of SM and that is why they encourage us by providing the needed training and by following the organisation's OSN accounts ... for example our chairmen himself is following the SM accounts.”* The fact that the organisation adopted OSN use as a strategy was perceived by middle managers

to reflect higher-level managers' belief and support of this technology. Some middle managers believed that this was behind the implementation of the strategy: *"In fact, if [higher management] did not believe in SM we would not have the call centre and SM apps today ... our management believed that we have to use SM and we have to be close to the public and see what they want and listen to their suggestions and views"* (C1-MLS1). Furthermore, higher-level managers clearly instructed their immediate managers to interact with the public through OSNs without any delay and encouraged them to address public enquiries or complaints very quickly: *"[Higher-level managers] know who is doing what work, which was not there before the use of SM ... they told us to follow the OSN accounts and to be on the move and to solve any complaint very quickly without waiting for the complaint to come to us ... this shows that our manager is really encouraging the use of SM"* (C1-MLS3). *"our employees now are receiving complaints that is raised through SM directly with name from their supervisor and the managers are now know these fields employees by their name and they have seen their work and sometime ask for certain employees to carry out complicated tasks ... before we did not have that closeness and link with our manager"* (C1-MLS3).

Similarly, low-level participants discussed their ability and confidence in relation to the use of OSNs in the organisation, and highlighted the positive impact they had on their ability and confidence. End-users perceived OSNs to have increased their confidence, particularly that of employees who most utilised OSNs to perform their tasks, such as road engineers or food inspectors, as explained by C1-LLS2: *"[OSNs] are very important for building employees' confidence, especially for those employees who are involved or benefit more from SM, for example road engineers or food inspectors ... they are receiving accurate information that helps them carry out their tasks more effectively, saves them a lot of time, and efforts as well as helps them increase their productivity"*. Furthermore, OSNs provided some low-level staff with more understanding and information of the organisation's work processes and procedures. This knowledge could be acquired, for example; when they discussed how to address public complaints and enquiries with colleagues from departments responsible for providing these services. Low-level employees asserted that such an understanding could also be gained by following the organisation's OSN accounts and by monitoring online conversations, which involved providing detailed information from the organisation to the public or vice versa, particularly with more information transparency being applied by the organisation, as explained earlier. One participant said: *"It is important to use SM for*

*our confidence and abilities, because as I said before to know the processes and procedures of work, to have discussions with other staff and to read public interactions and their complaints from social media” (C1-LLS3).*

When it came to management support, employees at the low levels expressed their satisfaction and appreciation of the support they had received from higher-level managers regarding OSNs. This support was expressed in different ways, such as verbal support and encouragement, which was valued by many employees. Further, support could also be in the form of advice and guidance given to employees when interacting with the public through OSNs. For example, this could be the use of certain Arabic words that expressed understanding and respect or avoiding argumentative words, as explained by C1-LLS2: *“Yes they do support us all the time and encourage us to interact with public all the time with respect, and understand the public views and they tell us not to engage with them in any confrontation or argument,”* Other low-level staff related management support for OSN use to changes in working culture since its adoption: Some managers had seen the benefits that came with the use of OSNs and had tried to promote their departments’ use of them to compete with other departments, explained C1-LLS2: *“The organisation’s work culture has change 100% since the adoption of OSNs: higher management support the use of OSNs and they like to use it to promote their departments and broadcast their activities or news and if we are late they don't like it.”* To another participant, there were some higher-level managers who didn’t show support for the use of OSNs, for fear of public criticism of their department when providing services that did not satisfy members of the public: *“There are a few managers who do not encourage the use of SM because they are afraid of public criticism and they get a lot of that” (C1-LLS4).* Encouragement and motivation for the use of OSNs, as stated by another end-user, sometimes took the form of bottom-up action, as explained by C1-LLS2, a low-level participant:

*You know what happens is that when a manager finds that their employees have SM accounts, they immediately go and open a personal SM account because they want to follow what their employees are doing and what the public is saying about the organisation and in particular about their departments!*

#### **5.3.4.2 Knowledge and Mobility Infrastructure**

Facilitating conditions reflect the availability of the resources needed to perform a certain behaviour. Examples of these resources are time, money and other specialised factors (Taylor &



Todd, 1995b). For the purposes of this study, facilitating conditions will be defined as “the degree to which an individual believes that an organisational and technical infrastructure exists to support the use of [OSNs]” (Venkatesh et al., 2003: 453). The current study involved understanding how to use different technical equipment, developing employees’ knowledge and the existence of infrastructures considered important to enable the organisation’s employees to perform their tasks, particularly when using OSNs.

As observed by the researcher, the organisation’s offices were equipped with the technical and office equipment needed for the successful use of OSNs. For example, higher and middle managers’ offices were equipped with designated computers, printers, photocopiers and telephones, while the offices of low-level staff had computers and shared printers and photocopiers. Other employees such as field engineers and inspectors, who worked in the field, were given smart mobile phones or smart devices to facilitate their fieldwork, and their offices were equipped with computers and shared printers in addition to other office materials and equipment such as telephones. Knowing how to use the provided equipment was important for employees to work successfully, particularly with more emphasis from higher officials, and the Omani government in general, on e-government and the move towards a paperless work environment.

The researcher had opportunities to observe some of the staff using their computer and smart devices at work. It was observed that most employees were confident when using computers and smart devices. However, a few older employees, when asked if they knew how to use a computer, revealed that their job and tasks did not require a computer but that they knew how to use one, although this was not possible to prove. Some older employees were observed to have limited capabilities and it took them longer when interacting with their smart phones. In comparison, young employees displayed more confidence. In fact, it was observed that it took them little time to use the technology and they displayed an easy and smooth process when interacting with their smart phones compared to some older staff members. It was found that some higher-level managers possessed technical knowledge and a good understanding of the benefits of computers and smart phones; others valued and encouraged the use of new technologies such as OSNs to carry out the organisation’s work effectively, as explained by C1-HLS2: *“These technologies are changing the working culture whether the time to accomplish tasks, or the way we do our work, organisations are now utilising technologies, for example, email we send and receive our*

*communication through it, or through other tools like OSNs, so that we can be reached anywhere and at any time of the day*". High-level managers' knowledge and understanding of the adoption of new technologies such as OSNs was important for the organisation's strategic vision and in line with the e-government vision set out by the Omani government. It helped speed up implementation of that vision. Similarly, middle- and low-level staff believed that possessing knowledge about using technology in general and the knowledge to use OSNs in particular helped them adopt and use this technology quickly. Furthermore, they believed that this knowledge would become old with time and would have to be updated constantly because of the rapid changes in the field.

Participants agreed that OSN adoption would not have been accomplished without having an allocated budget, which, in the case of OSNs, was not difficult to bring about due to its relatively low cost. Although the cost of acquiring OSN applications was virtually non-existent, there were other costs and other factors that had to be borne in mind, including the infrastructure (the space for an OSN officer and trainer), employees' training if needed, the cost of smart devices, policies for using OSNs, the cost of mobile data usage, the availability of the knowledge needed to set up and manage OSNs, and the availability of the facilitating infrastructure, particularly the extent of mobile smart device use and the penetration of the mobile network infrastructure in Oman.

High-level participants considered the availability of mobile infrastructure, free OSN software and the low cost of internet connection had all played an important role and encouraged the adoption of OSNs. The popularity of smart phones had, in the opinion of high-level managers, encouraged many governments around the world, including the Omani government, to adopt and use OSNs to communicate with their own people. C1-HLS3, a high-level participant, stated that MM was one of the first government organisations in Oman to adopt OSNs because of the *"popularity of smart phones and the widespread of mobile networks which encouraged Muscat Municipality to create their own service apps tailored for smart phones users to communicate with the public at all times"*. Middle-level staff also stressed this point, with regard to the availability of the necessary infrastructure, as explained by C1-MLS3: *"OSNs are giving us the features to interact with the public regardless of our locations; with the use of smart phones we can reach the public all the time and vice versa."* Low-level staff shared that view, highlighting the flexibility and mobility that mobile phones provided which enabled effective communication on social and formal levels. A well-established mobile infrastructure and the popularity of smart devices encouraged government organisations to adopt OSNs, especially with the availability of free OSN software, as explained by

a low-level staff member: *“The internet is becoming cheaper and the widespread coverage of mobile networks are among the reasons why people like it”* (C1-LSL1). Furthermore, this had increased the public demand for more services and communication with government organisations.

### **5.3.5 Isomorphic Pressures**

DiMaggio and Powell (2000) identified three isomorphic type of pressure: coercive, mimetic and normative. The following sections discuss these isomorphic pressures in the context of OSN adoption.

#### **5.3.5.1 Coercive Pressure**

Authority bodies help encourage coercive pressure (Teo et al., 2003). In the case of Oman, the ITA did just that (this was discussed earlier in section 4.3.5.1 of Chapter 4). By developing an e-government policy the ITA regulated what government organisations needed to implement as part of the Oman e-government strategy (Appendix X). For example, the development of the e-government plan, which consisted of six short- and long-terms stages, set a timeline that had to be followed by all organisations to achieve e-government goals. While this plan regulated and encouraged all government organisations to develop their own e-government solutions, it also rewarded those organisations that achieved faster implementation of the plan with grants and prizes. This coercive pressure was considered important by participants in the achievement of the ultimate e-government solution, which focused on public interaction, collaboration and achieving a high level of transparency. As one of the participants stated: *“You know ITA is the authority here in Oman, so as an organisation we must adopt the regulations and follow their e-government plan in order to achieve more public participation”* (C1-HLS2). Participants believed that regulatory bodies also encouraged the adoption of the latest technology, such as OSNs, for communication with the public, and one middle-level staff member explained that many courses and workshops were conducted for government organisations that explained the importance of regulations and procedures when adopting OSNs. *“We had many workshops that explained what we needed to know in term of regulations, procedures”* (C1-MLS1). The regulatory body continued to monitor government organisations after their adoption of OSNs, tried to increase the knowledge of staff members supervising OSN use and listened to their feedback and comments. *“Because ITA is the authority here in Oman, they also created social media groups from all government organisations to discuss daily issues. That means the high authorities want everyone to use SM because they*

follow all social media sections in all government sectors” (C1-LLS3). Thus, the regulator’s scrutiny and inspection of organisations’ use of OSNs forced organisations to behave cautiously, which in turn encouraged them to use OSNs effectively. In fact, government organisations that were considered active and at the forefront of using e-government solutions were used to conduct many ITA surveys that measured e-government solutions and public satisfaction. Figure 5.5 below provides an example of public awareness and usage of government e-services in certain government organisations (ROP, Ministry of Man power, Ministry of Commerce, MM and Ministry of Health) and shows that awareness of e-government solutions ranged from 93% to 51% among these organisations.

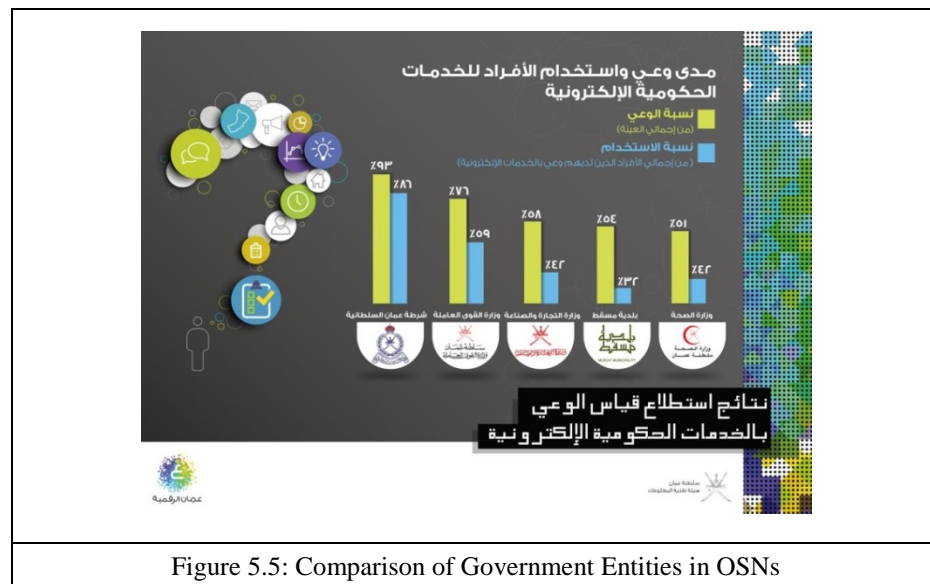


Figure 5.5: Comparison of Government Entities in OSNs

Higher management also encouraged coercive pressure by boosting the adoption of OSNs. When higher-level managers wanted their organisation to be one of the top government organisations in implementing e-government solutions, they worked hard and inspired other employees to achieve this. For example, they could force the concerned department, the IT department, to adopt the latest technologies before other organisations did so. One middle-level employee explained that, “*to be among leading organisations means we need to adopt technology faster than others; that is important for higher managements*” (C1-MLS4). Participants believed this pressure continued even after the OSN use began, with more higher-level managers seeing the benefits but also being more accountable. Participants stated that following the use of OSNs they were required by their top management to reply to public posts and complaints as fast as they could. To high-level managers, the pressure on the organisation to improve the quality and speed of the services had

increased, and with more public awareness and understanding they expected this to continue, as explained by high-level employee C1-HLS3: *“As a high official SM makes us feel we are monitored by the public and the public also can evaluate our work openly ... there are reports that go to the director general of the municipality every month about our work and a details analysis of SM activities ... so generally speaking any comments or bad work will reach top management and we work in an open environment since the adoption of SM, the public can evaluate and see our work”*. To that participant, the pressure from higher-level managers existed before the adoption of OSNs and increased after they were adopted. This pressure stemmed from the authority of those managers and their legitimate responsibilities, and helped place the organisation among the top e-government implementers.

### 5.3.5.2 Mimetic Pressure

DiMaggio and Powell (2000) posit that mimetic pressure occurs when an organisation tends to model itself after a similar organisation in its field, perceiving that organisation to be more legitimate or successful. Participants considered their organisation to be among the top government organisations in adopting new technologies and e-government solutions. Therefore, mimetic pressure was not perceived to be very strong when adopting new technologies such as OSNs. However, there were signs of mimetic pressure in the organisation’s attempts to copy the technical solutions of other leading organisations in the same field, in regional and global environments. For example, it was stated by participants that the organisation was benchmarked by the public with other successful regional municipalities such as Dubai municipality; hence, it tried to copy the successful experience of Dubai in implementing e-government solutions such as OSNs, as explained by high-level participant: *“When you are compared to another successful municipality in the region then people expect you to be like them if not better”* (C1-HLS1). The pressure on the organisation to adopt new technologies had increased because of the public’s increased knowledge and access to regional information, which provided statistics and successful technology-adoption stories. Further, the public were exposed to other experiences when living next to a country that was considered by them to be a leading model in implementing e-government solutions that promoted more public participation and collaboration. On the other hand, the use of the internet along with the popularity of smart phone usage and cheaper internet costs helped increased public knowledge, as explained by one participant: *“Omanis now are educate;, the level of education is higher, they travel, see other environments, other countries. As mentioned earlier,*

*media and internet services that become cheap are daily in public real life; they access more information which increased their knowledge in all areas” (C1-LLS3). Participants perceived low internet costs and mobility had helped increase public knowledge and awareness which in turn forced government organisations to adopt the latest technology to help promote public interaction and participation.*

### **5.3.5.3 Normative Pressure**

All participants in case study one agreed that normative (public) pressure had played a vital role in accelerating the adoption of OSNs by government entities in Oman. The widespread use of OSNs among the public turned that use into a social trend that many people adopted for their daily communication. As a result, government organisations were forced to utilise OSNs as the main tool for their communication with the public. As one participant explained: *“The trend now is that SM is very popular, and everyone is using it to communicate with each other and with government organisations, whether in the public sector or private sector. So I think the new communication tool is going to be SM for so long because of its popularity and fast and effective way, any government organisation has the option to adopt SM today but tomorrow that option will not be there, and they will be forced to do that soon or later” (C1-MLS2). Participants believed that organisations that did not use OSNs would be obliged to take that route very soon. High-level staff stated that, due to the increased use of OSNs among Omanis, the organisation was forced to adopt OSNs in order to communicate with them: “The organisation was forced to adopt SM in order to reach and communicate with a big sector of young people who represent a big sector of the Omani society [ ... ] also this sector of people who are using SM is increasing every day and not only limited to the young Omani but also now many Omani has joined the use of SM regardless of their age, education and gender” (C1-HSL2). OSN use was perceived by participants to be a trend because they were commonly used by the public in their daily communications, regardless of their education, age or gender, and as a result the use of these tools became a public demand that government organisations were forced to fulfil in order to communicate with people interactively. Participants in this case study believed that public pressure, once the organisation adopted OSNs, changed to demand the use of OSNs more effectively. This pressure shifted to being a demand for effective utilisation of OSNs particularly to improve public services and increase public participation. For example, a high-level employee explained that public pressure had preceded the*

adoption of OSNs and it was expected that most government organisations would have a presence on OSNs. In fact, the public was now exerting pressure (through OSNs) on government organisations to improve their services, as explained by C1-HLS3: *“Organisations now have to act quickly and respond fast ... they are put under public pressure and this helps improve government work and services at the end.”* With the increase in the public use of OSNs, more interaction with public organisations was taking place and there was more discussion of public services and affairs; hence, more pressure was put on public organisations to adopt OSNs. A high-level employee explained that, *“With OSNs, information is accessible and open to all, things are exposed to the public eye and more pressure is put on the organisation. The public will not keep their mouths shut and just watch. They will raise issues and talk about them until an action is taken”* (C1-HLS1). It was apparent that normative pressures were not exerted only for the adoption of OSNs but also, through public interaction, for better public services once OSNs were adopted. As discussed earlier, the use of OSNs increased public awareness and knowledge of government organisations’ roles and services. This increase in public awareness was perceived by some high-level employees in case study one to have created pressure on government organisations to carry out their work effectively and efficiently.

Middle-level staff acknowledged that the public were exerting more pressure on them through the constant posting of complaints until issues were resolved. They acknowledged that this pressure had helped improve public services and accelerated the resolution of many issues, which took longer before the adoption of OSNs, as explained by C1-MLS1: *“It has improved work compared to the time before we adopted SM. For example, the response time is much shorter, everyone is trying to finish his/her tasks in no time ... we can't afford to wait or delay our response because the public will not accept that and will launch stronger criticism on the organisation”*. This pressure, they believed, had helped increase employees’ understanding of their roles and encouraged them to work more effectively: *“People depend on us and we can't afford to let them down or to decrease our services. We always try to improve the services we offer to them”* (C1-MLS2). On the other hand, this pressure also aided the identification of limitations on resources and gave public service departments a chance to examine their current capacity to provide public services: *“Sometimes, in some departments, it creates a problem because of the limited resources ... SM will bring out these limitations”* (C1-MLS3). Identifying such limitations was considered

by middle-level staff to be an important benefit, which could be used along with public feedback to assist in discussions with higher management about the organisation's needs.

As discussed earlier, the adoption of OSNs provided an open platform for discussion between the public and public organisations through the posting of complaints publicly (sometimes with audio-visual evidence) and this put pressure on these organisations (especially service-providing organisations) to resolve issues in question and improve their services to avoid future online criticism. A middle-level staff member explained that, "*[OSNs] have created pressure on us as management to try and solve complaints as fast as we can because any delay will affect the organisation negatively and this will affect us as managers and as service providers. It also puts another pressure on us to prevent negative things from happening because we don't want the public to take a video or a picture of an incident happening, we need to prevent faults from happening and avoid providing bad services*" (C1-MLS1). The employees are now working hard not only to rectify incidents but also to prevent them from happening by improving their maintenance procedures and plans.

Low-level staff shared these views, confirming that the adoption of OSNs put all employees under pressure from the public. The low-level employees tried to solve complaints raised through OSNs as fast as they could despite resource limitations, as the public would not accept delays or excuses, explained C1-LLS4: "*Many officials sometime complain they don't have enough resources to solve the complaints they are receiving through SM, but despite this we have to address such complaints seriously and quickly because at the end the public will not keep quiet*". Employees at this level believed that the pressure was felt more by middle and higher management: "*[Managers] are affected by public pressure more because when members of the public call to complain, they threaten to broadcast the issue online together with pictures*" (C1-LLS3). This pressure forced some managers to use other OSN tools such as WhatsApp to create a working group to which they added middle-level staff or supervisors responsible for public services from the concerned departments. Public complaints were captured and sent to this group so that action was taken quickly, as explained by a low-level staff member: "*Yes OSNs has [created pressure] ... and because of this pressure I know that some managers in those public service departments have created a WhatsApp group among themselves and they immediately send any complaints that come through SM into this group in order to make sure they address complaints quickly. This is done because of the pressure they are facing from the public*" (C1-LLS1). Similarly, low-level staff



believed that the public were now more educated and aware and had the knowledge to discuss and provide evidence of poor services. *“Yes there is pressure because the public is now different; education and knowledge are higher when you compare it with the past, so high management will take action very fast”* C1-LLS3.

Nonetheless, participants believed that public pressure also had a negative aspect because the public did not show any consideration for the organisation’s internal constraints, such as shortage of resources and financial issues. *“It is a negative pressure because in this organisation resources are limited, and they can't reply or address the huge volume of the complaints that is received through OSNs. The same people will just keep posting on SM until their complaints are resolved this will exert pressure on the organisation management ... the public don't care about the internal issues of the organisation”* (C1-LLS4). However, on the whole, this normative pressure was considered to be positive by participants in this case study. A high-level employee explained that with the use of OSNs the organisation’s services and the employees’ work were monitored and evaluated by the public as well as by higher management. As the public were able to evaluate services and post their feedback publicly on OSNs, their online posts were monitored by the organisation’s higher management, as explained by C1-HLS3: *“Yes there is pressure but I would say it is a positive pressure, because as a senior official SM makes us feel we are monitored by the public as they evaluate our work publicly.”* Another participant added: *“I consider it a positive pressure; it is just exchanging ideas with people, exchanging opinions and personally I love it ... I like it so much ... you know in the past if we have a project or if we want to introduce this project to the public we used to have too many meetings, time-consuming gatherings ... you know having to organise a meeting for days and nights and invitation cards and so on, now you just put on air (SM) and get feedback immediately whether this feedback is in line with your study or not ... at the end you are getting information and suggestions and feedback and it is free of charge”* (C1-HLS2). Perceiving public pressure as positive had helped create a new work culture that considered the public as partners, whose ideas, feedback and evaluation were taken into consideration.

### **5.3.6 Culture Perspective**

As mentioned in the literature review chapter, it is imperative to understand the cultural aspects when adopting a new technology in any society. In fact, Al Omoush et al. (2012) suggest that empirical work is required before the introduction of new technology to specify the “key traits in

understanding the use of that medium” (p. 2388). However, OSNs are considered to have no boundaries and help link different people not only in the same countries but across the world (Ngai et al., 2015). Through the lens of Schein’s model more specifically, the three culture layers and OSNs will be explained. The following section will provide more details.

### 5.3.6.1 Artefacts (Layer 1)

Participants in case study one believed that the modern lifestyle in Oman necessitated the use of applications for a variety of purposes: to communicate socially and for entertainment or work. High-level staff believed that OSNs were very important in today’s world, as explained by C1-HLS3: *“I think SM is very important and today it might be acceptable for someone not to use SM, but I think in a few years that will not be acceptable.”* This meant that individuals (including employees) would be forced to adopt new technologies as an indispensable part of modern living. Another high-level manager believed that adopting OSNs had introduced changes in society and provided individuals with the chance and tools to be more active socially. *“I don't call it different culture. It is a modified culture where people are becoming more open, people are becoming more transparent, people are becoming more active in terms of getting information or expressing their opinions and sharing them directly with the officials ... before you know probably in some part of the community people felt it was not worth it ... they felt shy or unhappy to go and complain”* (C1-HLS2).

The trendiness and popularity of using OSNs among people was perceived to have modified the way Omanis communicated: *“The society is accepting it as part of their lifestyle – women, children and even older people are using SM. So in a few years, I don't think you will see a lot of people not using SM”* (C1-LLS3). Low-level staff explained that their use of OSNs was driven by the current lifestyle in Oman in which OSNs were seen as central and an interesting communication tool, explained one participant: *“Now the traditional way to communicate with the government has stopped. If you see the statistics of how many calls or how many tweets or how many WhatsApp messages, now all the society communicates through social media, because it's fast, because also the nature of daily life is fast, everyone is busy with other work, the use of social media or internet services is high in Oman now”* (C1-LLS3). Other staff directly associated the changes in today’s culture with the use of OSNs by Omanis. For example visiting family and friends decreased in regularity and had been substituted by online communication. *“The lifestyle has changed because*

*of SM. For example we are not visiting our family and friends like before and we have substituted that with virtual communication using SM, with audio or video and I think this is not good ... physically we not moving like before and this affects our health” (C1-LLS1).* Although OSNs provided individuals with easy and fast communication with the government, it was stated by participants that some members of the public (usually older individuals) still preferred going to the organisation and meeting employees when they needed a service: *“They are old and although they are using SM, they believe in the traditional method of writing a letter and they demand to meet up with top management” (C1-LLS1).*

Being an open communication platform meant that OSNs had provided individuals with equal opportunities to communicate publicly with the government, which had been difficult before. Participants mentioned the importance of OSNs in providing equal opportunities to all individuals when interacting with government organisations. For example, high-level participants said that both genders were given an equal opportunity when interacting with the organisation, which had not been the case before the use of OSNs because of cultural barriers. A high-level manager explained: *“It has changed and provided them with an equal opportunity to complain and interact with our organisation without any cultural barriers” (C1-HLS1).* A similar finding was reported among participants at middle and low levels, as the use of OSNs in government organisations had provided equal access to all sectors of Omani society, regardless of age, gender, educational level, social and economic status or geographical location. This was explained by a low-level employee: *“Anyone can access our services using our official OSNs and website” (C1-LLS2).* Thus, all individuals could now interact and post their feedback and/or complaints or request services using OSNs. Participants at all levels stressed the importance of openness and the freedom to communicate with the organisation for all members of Omani society, which was provided through the adoption and use of OSNs. Participants believed this social trend (OSN adoption) had changed an Omani culture that previously saw a dominant male rule when dealing with government organisations and now saw more equal opportunities for both genders. Women were more confident and many families accepted the changes to tradition which came with the new technology. In other words, the use of OSNs had removed some cultural barriers when communicating with the government, such as the need to visit the organisation in person. Women could now do that and could, with the use of smart phones and OSNs or other e-services, communicate and interact with any organisation, request services or post complaints and feedback

from anywhere, as explained by a high-level interviewee: *“Women now complain without any worry about cultural constraints ... because they can complain regardless of time and place constraints ... there is no need to physically come to the organisation”* (C1-HLS1). Both genders were given the same opportunities to communicate with government organisations through OSNs. Further, it was perceived that both females and males were now interacting through OSNs equally, and that provided good feedback, suggestions and opinions to the organisation regarding public services, as explained by C1-HLS2: *“I find they interact equally ... there is nothing to distinguish female from male interaction, both are interacting very much and all the time.”*

Organisation employees were also adopting this lifestyle as members of the society, and by doing so were changing the organisation’s culture. Explained one participant: *“We are part of this society and when we go to our daily life ... with friends and family members we are dealing with them and sharing many issues using SM like WhatsApp ... so the society is encouraging us to use SM. It is becoming an essential part of our daily life whether for work or pleasure or social reasons”* (C1-LLS1). The link between OSN adoption and the organisation’s culture was discussed with the participants at the three levels. Participants agreed that the use of OSNs had made current working culture more effective and efficient and that it was now characterised by active public interaction. This culture was also encouraged by new employees who were considered heavy users of OSNs and who were seen by other employees as promoters of this culture, as explained by C1-LLS1: *“The new employees are all talking about SM, it became part of their lifestyle and their work culture, and they moved this culture to the organisation. We are not dealing with paper as much as before, technology is implemented in our work so [old employees] are forced to adopt to the new way of work ... so old employees needed to change their image to become part of the new work culture that demanded understanding and using of technology including SM.”* Many employees now used OSNs at work and were doing so because they did not want to be seen as old employees who could not cope or adapt to the technology in their work and social network, since OSNs were gaining popularity and considered trendy in Omani society.

Encouraging the use of OSN culture was visible in the organisation’s offices, which was noted by the researcher during both observations and interviews. The organisation also used posters and symbols promoting OSNs as an important communication tools with the public. For example, links to the organisation’s OSN accounts were printed on many applications and the organisation’s

portal showed symbols of OSN tools (Twitter, Facebook, etc.). Figure 5.6 provides an example of this.

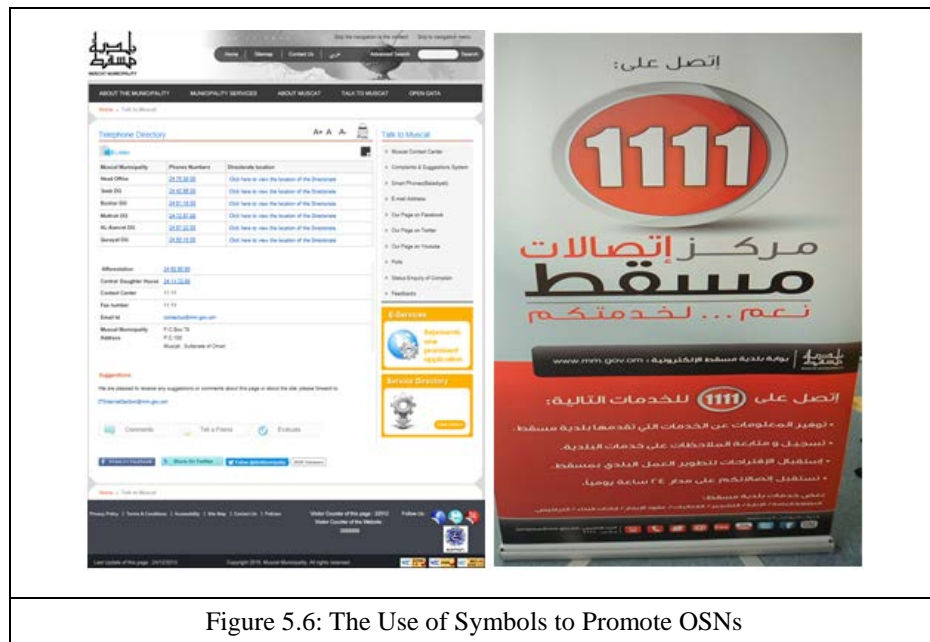


Figure 5.6: The Use of Symbols to Promote OSNs

Organisational culture was promoting the use of OSNs and that was visible to the public. For example, the organisation's news, social activities and employee work recognitions are now broadcast through OSNs more than before. Further, many service and public participation surveys were conducted through OSNs. Explained C1-HLS3, a high-level participant: *“You know, in 24 hours, for example, you can receive more than 200 comments and replies. Before, these tasks used to take a very long and we will need to make a survey and this survey is participated by certain people, only, say, educated people, but with SM you are dealing with many people so I would say this way is more random and more accurate.”*

### 5.3.6.2 Espoused Values, Norms and Knowledge (Layer 2)

It is suggested that cultural and social context helps develop values, norms and knowledge (Dose, 1997). Espoused values and norms within the environment help the employees to improve their work (Hogan & Coote, 2014). Public social expectation as a result of OSN adoption demands that government organisations provide better services and fast action.

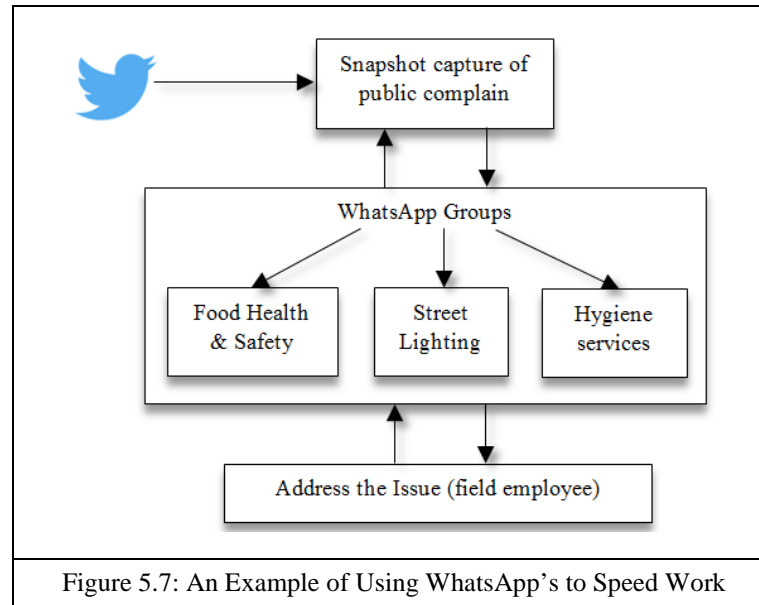
Being monitored by the public, participants at the three levels revealed that employees in the organisation felt more responsible and that the traditional working culture, which was based on doing tasks in a more relaxed pace, had changed to be a more effective one based on responsibility

and accountability in accomplishing tasks quickly and efficiently. Furthermore, the use of OSNs made the organisation work in a more efficient and cost-effective way because the management was receiving more information about the quality and pace of work from the public – something that was not there before: *“Today, [with OSNs], everyone knows that bad performance or ineffective work will be exposed to the public, and it can reach managers or higher officials so quickly and instantly through SM. This is now a belief among employees within this organisation. SM has created a new culture that helped improve government traditional work culture”* (C1-HLS3). Participants perceived the use of OSNs to increase employees’ responsibilities and accountabilities for their work. The public could now play the role of external inspector to the organisation’s services and work. *“SM created strict implementation of regulations and any exception to do something to any one well not be accepted by the public, and it will be open to them so I think all officials are avoiding any such exception”* (C1-HLS3).

Employees’ recognition and public appreciation of the organisation’s services were values that had developed more since the adoption of OSNs. Participants revealed that more recognition of their work had been expressed by their immediate manager and the public, which improved teamwork and internal communications. These values helped develop the organisation’s culture, promoting better services and increasing public participation. For example, a middle-level staff member explained how their relationship with their manager had improved since the adoption of OSNs: *“[Managers] know who is doing what work, which was not there before the use of SM, not only that the public now know which department is doing or responsible for that job ... I think our relationships with our manager and general manager as well as with the general public became closer and we felt this. This encourages us to work hard and provides us with more confidence in what we do ... you know sometime employees need only appreciation and acknowledgment to improve their tasks and work, and we have that now because of SM”* (C1-MLS3). As indicated by this participant, this behaviour was perceived to be directly related to the adoption of OSNs. It had become an important aspect of the organisation’s culture. Appreciation helped encourage employees to improve their performance, enjoy their work and create a better work environment, explained a middle manager: *“My employees are enjoying their work and are very happy when they receive appreciation from the public and are proud of what they do. This happened because of SM adoption. Our employees are now receiving complaints that is raised through SM directly addressed to them, with name from their supervisor, and the managers now know these field*

*employees by their name and they have seen their work and sometimes ask for certain employees to carry out complicated tasks ... before we did not have that closeness and links with our manager” (C1-MLS1).* This clearly showed that employee recognition and appreciation of what they did was had not been apparent in the organisation’s culture or at least was not widely expressed among employees, but with the use of OSNs it became more evident to the employees.

Participants mentioned the development of new processes or improvements in existing procedures in the work environment as a result of OSN adoption, in order to enhance their work and improve internal communication with their fellow employees. For example, one participant stated that, since the adoption of OSNs, information processes were escalated to them very quickly, which helped them to carry out their fieldwork very fast which had not been the case before: *“Yes it has changed work processes, although this is not official, but we are following new processes to communicate with field employees. We have adopted new processes to communicate faster and save time with field employees and they are very happy with this. Many issues are solved in the same day because of this. [Field employees] can evaluate the situation much faster now” (C1-LLS1).* Such processes included the use of WhatsApp to create working groups to exchange information received through OSNs regarding public complaints, such as complaint details, pictures, locations and even video clips, in order to evaluate and address these complaints quickly. Many WhatsApp groups were created by employees and included colleagues from concerned fields or tasks. Such processes needed to ensure fast responses to public complaints. This was explained by a participant: *“The process works like this: when a complaint is received by SM I take a snapshot of it and send it into the WhatsApp group ... I have more than one group; for example one group for health, other group for food safety and so on ... so once I identify the right group I want to send the complaint snapshot to, I just put it into that group and send it” (C1-LLS2).* This process is illustrated in Figure 5.7. The employee’s behaviour was becoming part of the organisation’s culture and revealed a direct influence of OSN adoption as well as a sense of employee responsibility for improving organisation services and encouraging more public participation.



It was noted by the researcher during observation and interview phases that organisation values were visible to those who visited organisation premises. For instance, many employees at high and middle staff level discussed public feedback and complaints submitted through OSNs openly and asked their employees to respond to them as fast as they could. Furthermore, management encouraged the updating of the public with information, to show more transparency.

### 5.3.6.3 Basic Assumptions and Beliefs (Layer 3)

Employees' beliefs are basic, tacit assumptions that are hidden and largely unconscious, and mostly occur at employee level (Hogan & Coote, 2014; Vroom & Von Solms, 2004). Participants were asked to explain their views and how they perceived the use of technologies in general and OSNs in particular in their organisation. The majority of participants perceived ICT as important and said that it helped improve their work performance and increased public participation. For example, at the high level, participants were enthusiastic about the use of new technologies in the organisation and felt they helped improve their work performance, as explained by C1-HLS1: *"Indeed [technologies] are very important for our work, we are interacting, we are getting paid or doing payment online. I mean it is a life now, you are proceeding in your life from the beginning up to the end utilising all these services regardless SM or services ... e-services and so on, so it is a must need for our work."*

It was essential for the organisation that top management revealed their beliefs and positive attitudes towards adopting technologies in order to spread this culture among other employees and



encourage older employees to adapt similar beliefs and behaviour. In fact, OSNs had already altered employees' beliefs and behaviour: *"They have modified the culture, modified it in terms of people becoming more open, becoming more transparent, becoming more active in term of getting the information or getting the opinions and sending them directly to the officials"* (C1-HLS2). This modification occurred quickly despite the short time since the adoption of OSNs in 2011, because of the trendiness and increased use of these tools among government employees and Omani society. This change was explained by C1-MLS3, a middle-level employee, who stated that more than 90% of employees in his department were now using OSNs in their work. *"Actually, 2-3 years back, we had only two or three employees who used SM at that time but if you compare it today to the number of employees in this department who use SM I could say more than 90% of our employees are using SM."* The researcher observed that the employees in this department were indeed confidently interacting with their computers and smart phones and that this department had employees with different age groups and both genders. It had a total of 35 employees – 11 females and 24 males. Employees' beliefs had changed among all employees, young and old, although young employees were able to adapt faster than older employees, who were under more pressure to show that they were employees who could adapt to technology change. Explained C1-LLS1, a low-level participant: *"We are not dealing with paper as much as before; technology is implemented in our work. Old employees are forced to adapt to the new ways of work ... so old employees needed to change their image to become part of the new work culture that demands understanding and using of technologies including SM. For these old employees it was important to change their image as an 'old employee' and also to prove that they were adapting to the new technology and therefore no one could take their managerial or supervision job because they could cope with technologies."* It was apparent that older employees needed to change their beliefs and behaviour to cope with these changes, not only for the sake of work, but also to protect their managerial positions because they felt threatened by younger employees who were considered better users of new technologies.

Figure 5.8 provides an example of top officials demonstrating their support for the adoption of technologies to enhance work and encourage public participation. In this picture the CEO of MM launches new e-government services to enhance public participation and shows his support as a user of these applications to encourage both government employees and the public to use them.



Figure 5.8: Top Official Showing their support for the Use of OSNs

Employees' attitudes towards OSNs had changed from showing signs of rejection and resistance to more positive signs of its importance in their work. These changes were related to many elements, such as understanding the benefits, high- and middle-management encouragement, and the development of clear guidance and processes, as explained by C1-LLS1: *“Even for our staff ... it is as new channel when it was implemented. They started in the beginning by rejecting to use it because nobody knows about SM as well as it was not clear what are the benefits that is needed to be accomplish by using SM, lack of planning and clear guidance also helped increase such resistance.”* With the encouragement and support of higher management, employees at the low level started to change their behaviour and attitudes towards the use of OSNs, which in turn influenced the change in organisation culture. *“Yes organisation culture has changed 100%, higher management likes the use of SM and they support it and they like to use it to promote their departments and broadcast their activities or news, and if we are late in posting this information they don't like it”* (C1-LLS2). Hence, it was seen as important, which was demonstrated in the employees' behaviours. Employees at the three levels altered their behaviour to accommodate the use of technical solutions such as OSNs.

Despite changes in employee beliefs and some government organisational culture towards new technologies, some participants warned that some organisations were hesitant about carrying out their tasks. Such hesitation could be related to attitudes towards public criticism and negative feedback, explained C1-HLS3, a high-level employee:

*It also created some hesitation in other agencies to carry out their tasks. They are afraid of public criticism and public feedback. Some organisations take too long to make a decision and will wait until the legal view is given to them and this makes their decision take too long ... again they are afraid of public criticism and negative feedback and are willing to wait until their decision is backed by the legal view. The law is implemented by its exact word and this could create a problem [ ... ] the organisation will make sure that any decision is based on legal, backed-up view even if it means the decision will take very long.*

## 5.4 Case Study 2 – The Public Authority for Consumer Protection (PACP)

As mentioned earlier, in order to arrive at a deeper understanding of the issue under study, 13 participants were interviewed in case study two. They were categorised into three work levels: high, middle and low. A summary of participants' demographics is provided in Table 5.5.

Table PACP (C2) Interview Sample :5.5Population

Research Participants	Organisation Level	Education Level	Gender	Age Group
C2-HLS1	High-level	Post Graduate	Female	41–50
C2-HLS2	High-level	Post Graduate	Male	41–50
C2-HLS3	High-level	Post Graduate	Male	51–60
C2-HLS4	High-level	Post Graduate	Male	41–50
C2-HLS5	High-level	Bachelor	Male	51–60
C2-MLS1	Middle-level	Post Graduate	Male	31–40
C2-MLS2	Middle-level	Bachelor	Male	31–40
C2-MLS3	Middle-level	Bachelor	Male	31–40
C2-MLS4	Middle-level	Bachelor	Male	41–50
C2-LLS1	Low-level	Higher Diploma	Female	21–30
C2-LLS2	Low-level	General Diploma	Female	21–30
C2-LLS3	Low-level	General Diploma	Female	21–30
C2-LLS4	Low-level	General Diploma	Female	21–30

### 5.4.1 Data Findings

The following sections will explain the main findings of case study two.

### 5.4.2 Attitudinal Belief Structures

ABS consist of three constructs; RA, complexity and compatibility. These will be discussed in relation to case study two findings in the sections below.

#### 5.4.2.1 Relative Advantage

As mentioned earlier, RA for this study will refer to the degree to which using OSNs in government organisations provides benefits in the context of G2C relations. With this in mind, these benefits will be explained under the following topics.

#### ***5.4.2.1.1 Easier, Low Cost and Effective Communication Channels***

Having easier and effective communication with the public is important for public organisations in order to understand public needs and develop better services. Participants reported two main advantages as a result of using OSNs, namely: instant messaging of information and organisation news, and the ability to reach the public on a large scale.

Participants at all levels stressed that the use of OSNs provided an easier and more effective communication channel with the public, thus allowing them to interactively receive instant feedback and suggestions as well as public evaluation of the organisation's services. Broadcasting important information and organisation news was seen as important by participants when using OSNs. Since the adoption of OSNs, higher-level managers believed that their work had been very effective in reaching a wider sector of the public and enabling the instant receipt of feedback, as explained by C2-HLS3, a high-level manager: *"SM has provided the organisation with an effective communication tool ... SM is effective, we can send our message easily through SM and it can reach a big sector of the public fast."* OSN tools were effective as an instant messaging channel that reached a wide public audience and this allowed the organisation to instantly provide information and receive public feedback, as explained by C2-HLS4: *"SM is very fast to reach and communicate with people ... very fast to send information and very fast to receive feedback and information. Since the adoption of SM our work has been very effective and the communication with the public is also very effective."*

Similar findings were reported by middle-level employees (middle managers). They acknowledged the existence of a trend in society that valued the use of a variety of OSN tools as trendy communication channels both socially and professionally. Middle managers, therefore, believed in the importance of OSNs to facilitate effective and constructive communication with the public. One middle manager explained how, through OSNs, consumers were able to communicate with the organisation regardless of their location.

OSNs had, in effect, revolutionised mass communication and made it possible for virtually anyone with a smart phone and internet connection to access cheap yet good communication channels. *"This is the new trend in today's society and it is the easiest way to communicate with us. Sometimes consumers may be located far away from PACP and they can't reach us, yet they can easily reach us using these tools. The second thing is that saving time is very important. Also, sometimes, people*

*today might be in Oman and tomorrow they are outside Oman and with these tools they can communicate with us regardless of their location” (C2-MLS1). Another participant compared the situation before the adoption of OSNs and after to explain the benefits experienced through such a shift to modern communication channels: “You know, before the establishment of PACP, there was only one channel to communicate with the consumers and when the consumers need to complain they must come to us. But now we have SM tools and our own smart phone apps that can be accessed through smart phones. Also, our chairman has a direct SM and any member of the public can contact him ... because of SM consumers do not need to come to the organisation, he or she is provided with many options to communicate with us at any time and from any place while he is on the move” (C2-MLS4).*

Low-level participants also believed that government organisations needed to adopt OSNs to establish effective communication with the public, as reality showed that people were using OSNs on the move for their daily communication; therefore, this trend had forced government organisations to adopt the same communication tools that the public used. One participant explained: *“I think every government entity should use SM if it wants to communicate with the public because most people today use SM for all their activities, so it is best to use the same communication channels as the public to communicate with them” (C2-LLS3). Another participant explained the importance of this tool when communicating with the public: “SM tools are the main channels that the public use to communicate with us whether to complain or send feedback” (C2-LLS3).*

OSNs are a low-cost communication tool that public organisations could adopt and use. This is because public sector organisations that usually lack extra funds and that are under financial strain are being aligned with the times, so the provision of the internet and its infrastructure are a priority and OSN platforms are included in costs. Therefore, relative to the real costs of implementing a new communication channel, the costs of an OSN are lower. This is an added reason for SM’s popularity with the public which is also one of the reasons for its quick adoption by both private and public organisations. Although many participants at the three staff levels mentioned the low cost of adopting OSNs, one has to consider the relative costs involved, such as costs for training and mobile data costs, the location of the data, the privacy settings and use of the data, which is a current global concern. Although the researcher was not able to obtain definite estimates of training costs for any of the case studies, some participants revealed some local training courses were offered to those who supervised and worked in OSN management departments. This meant that

organisations could benefit from the fast implementation of this technology and focus on the benefits that could be achieved. *“SM tools are free to use so there is saving of cost and fast interaction with the public and obviously increased speed of the work. SM has introduced a new work culture as one of the easiest things to use and one of the most powerful things that they can interact with the community”* (C2-MLS2). Having a quick, easy and largely cost-free tool that allowed the organisation to interact with the public instantly helped enhance work efficiency and effectiveness. The effectiveness manifested itself in the time saved when interacting with the public and when broadcasting information that could reach a wider sector of the population instantly, and when receiving public feedback and suggestions in the same manner. In addition, by adopting OSNs and related technology, the organisation automated many processes and achieved work efficiency by delivering better services to the public, driven by their suggestions and evaluation, saving time and money while maintaining and adopting a new technology that was considered by the public to be trendy and popular.

#### ***5.4.2.1.2 Increased Interaction***

Increased public interaction was considered a primary benefit by all participants. Based on the interviews, it was found that the public interacted and shared feedback with the organisation through OSNs much more, compared to the time before OSN adoption.

High-level participants believed that public interaction had increased with the use of OSNs; they found that OSNs had helped the organisation focus on issues that were not clear to them before. As explained by C2-HLS3: *“Our interaction with [the public] has increased; we have so many followers (on twitter) and the number is increasing all the time. Many questions are asked by them and they have opened our eyes to many issues that we were not aware of.”* According to some participants, public interaction increased because of the instant nature of communication via OSNs. Organisation employees responded quickly to public enquiries and/or complaints. Participants at this level believed that providing the right information quickly had helped them gain public understanding and demonstrated to the public the hard work that this organisation was putting into delivering better services. In fact, interacting and providing the right information to the public had generated a lot of public feedback, which had helped them better understand public needs. Furthermore, it had helped the organisation to clarify rumours that sometimes circulated among people, by providing the correct information, as explained by C2-HLS4: *“We always monitor the*

*public, and if there are rumours that relate to our work, we immediately clear that with real information and we use SM to alert the public about false information. That is why the public always relies on our SM to get the correct information.*” Participants believed that the organisation used OSNs effectively to warn the public about false information and encourage them to only look for information from government organisations and not from other sources, which helped to educate people and increase public awareness.

Increased public interaction provided important information that was used to identify those who violated consumer law and bring them to trial. In fact, some participants valued how OSNs were shaping the relationship between the organisation and the public into a partnership in which the public was considered to be the ‘organisation’s eye’. This had helped employees perform their tasks and duties more effectively, as explained by a high-level participant: *“In fact, some cases started because of information we received from the public over SM ... they send us for example information on products that have passed expiration dates or on shops that violate consumers’ rights ... the public is actually seen as our eyes in the market ... I can say that 50% of our information is received from the public”* (C2-HLS4). Participants believed the public were complementing their work, and their feedback and suggestions were helping employees carry out their duties. *“As a government organisation we have to take this [public interaction] seriously and work on that, because their feedback opens our eyes to things that we may have not considered”* (C2-HLS2).

Similar findings were reported by participants at middle and low levels when discussing public interaction. According to middle-level participants, public interaction was important as it helped employees prioritise tasks according to public feedback. Public feedback had helped the organisation by putting pressure on the government to speed up the approval of important regulations, such as modifications to current consumer regulations and laws in order to meet public demands. *“We have so many examples that shows the reaction and feedback of the community even in changing some policies and laws in the country”* (C2-MLS2). Public interaction and the information gathered helped generate reports and important statistical information for higher management and had been effective in the research carried out by the organisation as well, as explained by C2-MLS2: *“The public is providing good feedback for data analysis and reports for higher management ... SM helps for example our research department when conducting research.”*

The organisation interacted with different sectors of society regardless of gender, age, educational and professional background, and geographical location, and this was considered valuable by participants. *“The importance of SM is that when we discuss public issues, we can get very good feedback from different sectors of the public – men, women, young and old, citizens or residences, workers, experts, highly educated and so on, and these can provide us with valuable information, so the issue will be seen from different angles”* (C2-MLS3).

An OSN feature, such as attaching a picture or a video, had allowed the public to provide accurate information which helped the organisation to respond well to different cases, explained C2-MLS1: *“SM is amazing in providing such information quickly. You know the information is very accurate and you can see this information physically i.e. through a sent video, so we can accurately evaluate the situation [ ... ] you know sometimes we cannot address a case because of a missing serial number that the consumer has failed to provide, but now, you can receive this information instantly on SM.”*

Furthermore, low-level participants’ interviews revealed identical findings when it came to public interaction. Participants mentioned that the use of OSNs promoted and increased interaction for various reasons. For example, fast responses, honest replies and providing the right information were some of the factors that had encouraged more participation from the public, explained C2-LLS2: *“They can see our work from SM and they have many comments and feedback of our work and they interact with us all the time.”* Another participant added: *“We try to be closer to the consumers and provide them with the information they need and to be active and fast with our action.”* According to some participants, the organisation benefited from this interaction and could receive important information and feedback which helped them carry out their daily tasks and better understand public needs and concerns. Furthermore, the organisation also benefited from public interactions, increasing public awareness and engaging the public to evaluate its services. In fact, participants reported that the organisation received valuable public information through that interaction, which was used to develop legal cases against suppliers accused of violating consumer regulations: *“In many cases the public complaints about shops through SM and many times we have actually made some raids on suppliers based on the information we receive from the public through SM”* (C2-LLS3).



Participants explained that public interactions continued to increase on a daily basis and varied from one place to another within Oman. For example, the Muscat area had the highest percentage of interactions compared with the rest of Oman, because of its bigger population.

#### ***5.4.2.1.3 Increased Organisational Transparency***

Participants discussed the level of transparency in the organisation since the adoption and use of OSNs and revealed that in general it had increased. Participants asserted that the level of public interaction with the organisation as well as increased organisational transparency were considered important factors that helped the organisation improve public understanding and win appreciation. Generally, as public education and knowledge increases, public organisations are forced to increase their interaction with the public and promote transparency to meet public demand for more information. This was confirmed in this study by participants at the three levels who said that the adoption of OSNs had increased the number of interactions between the public and public organisations.

Participants at the high level stated that the organisation was established solely to serve the public and protect their rights as consumers. With this in mind, participants believed the organisation had nothing to hide and was providing clear information to serve the public better and to increase its transparency, as explained by C2-HLS4, a high-level participant: *“We have to be transparent. We are working to serve them and to protect their rights as consumers so yes we are very transparent with them.”* Participants believed their duty was to provide the right information to the public, whether in explaining the processes of their complaints or educating them and directing them to contact the right government organisation, explained another participant: *“We are very clear to explain to the public when they complain what is the process to go through with their complaint”* (C2-HLS1).

However, although there were some members of the public who sometimes criticised the organisation, participants considered this to be normal and encouraged those people to speak out: *“Even though we sometimes receive criticism, but for the sake of the people and their rights we tell them transparently and openly what they need to know”* (C2-HLS1). This understanding towards the public was driven by the fact that organisation officials wanted to gain public trust and maintain the organisation’s positive image. For example, some high-level staff mentioned that the public believed in them and in the organisation’s role in protecting their rights. Therefore, the organisation

had to show that it was standing by the public by increasing its transparency level. It was revealed by some high-level participants that, sometimes, employees did not have sufficient information when interacting with the public through OSNs, because of not having the information at hand or because of other issues such as legal barriers. In those cases they might be accused by the public of not being transparent and not providing enough information, as explained by one high-level manager: *“Sometime we lack the information if the information given to us is not enough or sometimes, when we have the consumer asking about certain cases, we can tell them that we don't have enough information or we are in the process of getting it, and not all will accept this. Some understand and others will write about this and will criticise our process, which they have the right to do. But for us that doesn't mean we ignore the issue and keep quiet but the opposite, we are going with our processes and we inform the public of what we have done and keep them updated”* (C2-HLS3).

Likewise, middle and low-level staff believed that the organisation's transparency had increased since the adoption of OSNs. Participants claimed that by using OSNs the level of transparency had risen, firstly to avoid public criticism and secondly to win trust. According to C2-MLS1, *“I think we are being transparent with the public and provide them with the information once we have no legal issues or restrictions that prevent us from doing so.”* It was important, in participants' opinion, for the organisation to be more transparent with the public, not only to gain public trust but to make other stakeholders aware of the organisation's existence and role as a protection authority established to protect consumers, explained C2-MLS3: *“There are many reasons for this transparency. PACP wants to be trusted by the public and the only way to achieve that is by being transparent ... the more transparent we are, the more the public will trust us, by being transparent with the information we broadcast through SM we make others, like suppliers, be afraid of what we can do ... they will be more careful.”* Hence, increased transparency led to more public trust and sent clear messages to those who might violate the consumer law of the punishments they might face. Middle-level staff stressed that the organisation's vision was to listen to the public and suppliers alike, as well as to understand their needs and the market in general; therefore, and in order to achieve this goal, the right information had to be provided to all so that the public knew and understood their rights and suppliers knew that there was a government authority which was serious about implementing the law, regulations regarding consumer rights and violations of those rights.

Despite being transparent in most cases, some participants complained that not all members of the public understood when the information they demanded could not be provided for legal reasons, for example. These people would keep criticising the organisation for not being transparent even if an explanation was provided, explained C2-LLS2, a low-level staff member: *“Yes, of course we tell them all the processes we are taking and the time it might take to get the answer and sometimes they understand, but there are others who don't want to understand.”*

Participants at the three levels believed that public knowledge and understanding had increased and continued to increase because of the new technologies available to them, including OSNs and the internet, and the increased use of smart devices which helped them search for information at any time. This increased knowledge was considered one of the factors that encouraged the organisation to increase its transparency when interacting with people. People nowadays demanded better explanations when it came to the services they were requesting, explained C2-HLS3, a high-level participant: *“We have to work more to increase the level of transparency, because the information actually changes and the thinking of the public and their knowledge has increased and we have to take that in our consideration when it comes to transparency and providing information.”* Participants believed the pace at which the public was gaining knowledge was faster than before, and many participants related that to the increased use of OSNs and smart phones. Participants claimed that increased public knowledge had forced the organisation to provide more information and increased its level of transparency because it was interacting with knowledgeable people who could challenge and argue their case until they were convinced.

#### ***5.4.2.1.4 Increased Efficiency, Effectiveness and Accountability***

Another advantage of OSN adoption was improving work effectiveness and efficiency. Work effectiveness and efficiency were significant for the organisation and helped increase public awareness and evaluation of the organisation's services. The findings confirmed that OSN use had helped increase employees' work performance (effectiveness) and decreased the time it took to address public issues (efficiency).

Participants at the higher management level stated that since the adoption of OSNs work effectiveness had increased and had helped change traditional practices. One participant gave an example of that by explaining that they had stopped printing booklets of information and that OSNs were used instead to deliver the same information. This had meant achieving their goal

faster and at virtually no cost. *“We used to print many booklets and brochures which used to cost us a lot of money, but now we use SM instead and we stopped printing paper-based information. SM saved us time and money and it is very effective. We only use short messages, but their effect is very high”* (C2-HLS1). Participants believed OSNs provided the organisation with an effective way to deliver its messages and news to the public instantly, and to a wider range of audiences, and this had resulted in more public appreciation and interaction. This effectiveness had in turn increased the positive influence of these messages and enhanced public knowledge and awareness: *“We have seen that messages that are sent through SM tools have reached people much faster and had stronger influence on them”* (C2-HLS3). Participants stated that OSNs allowed the public to evaluate the organisation’s services and the performance of employees, particularly the departments that were directly involved with delivering public services. In addition, OSNs allowed higher-level managers to evaluate their employees more closely based on public evaluation and feedback, and draw attention to employees who were working hard but who were not acknowledged or recognised because they were not in the picture, explained one participant: *“[OSNs] provided [higher-level managers] with better evaluation of those employees or managers who are hardworking and have a lot of dedication as a result also our work and success was apparent to the general public and made them follow our SM accounts and appreciate what we are doing for them”* (C2-HLS2). The feeling of being evaluated by the public was considered an important factor in increasing work performance and effectiveness: *“The public can evaluate the work of government officials so it is important for the organisation and its officials to perform well because they know they are being evaluated by the public now”* (C2-HLS3).

High-level staff considered the traditional way of running a government organisation, which involved working and decision-making behind closed doors, was not effective anymore, especially following the adoption of OSNs which enabled people to openly criticise officials, decisions or services. *“Today that has changed; there are others [the public] who contribute to running these organisations”* (C2-HLS3). Furthermore, the public was considered important players in government work and viewed as the new contributors to a modern work culture that demanded better and more effective performance, as one high-level manager explained:

*Today the old idea that existed in some organisations, that nobody knows what we do in our offices, does not exist anymore. With SM this is not acceptable – people will post and discuss government issues, and criticise officials. And they have access to a lot of*

*information. They can go to any official office and if he/she is not there or did not treat them nicely they will photo him or record the conversation and broadcast it on SM, so today it is not a one-man show. The biggest advantage of SM is that the public can criticise any official and can also appreciate the work of any official ... SM is very effective and has contributed very much to changing the government work culture” (C2-HLS1).*

High-level managers supported the adoption and use of OSNs because of the benefits they brought to the work culture.

When discussing work effectiveness and efficiency with participants in middle management, similar findings were revealed. For example, being evaluated by the public encouraged these employees to improve their performance all the time, not only because of public evaluation but because they knew that higher officials and their immediate managers were monitoring OSNs and could evaluate their performance: *“SM has allowed government organisations to be evaluated by the public ... also with the use of SM, managers are monitored by their general manager who is also is monitored by the minister; and the minister is watched by his cabinet” (C2-MLS3).* In fact, the public was helping the organisation by evaluating the performance of employees and the services provided. This evaluation was also done by higher-level managers and the organisation’s officials, of middle managers and low-level staff, through public interaction and feedback as well as through the quality of the services the organisation provided to the public. As a result, employees’ performances continued to improve. Participants believed that the organisation’s employees were now more careful when performing their tasks and tried to be more effective when delivering public services. This sense of responsibility was driven by the fact that OSNs comprised an open platform on which the public could evaluate employees’ performance and criticise any bad performance openly, which might affect the employees negatively: *“Now there is no place for those employees who are lazy ... the public is watching you and evaluating you and if the person is not in the right place or doing the right thing they will write about you and there is no place for you to hide” (C2-MLS3).*

When examining OSNs and work effectiveness, end-user participants shared a similar view to that of higher- and middle-level staff. Some participants believed that the adoption of OSNs by the organisation had developed a better relationship with the public, which resulted in better work performances when addressing public issues and complaints. Other participants considered the increased number of people who followed the organisation’s OSN accounts and their active

interaction, was a sign of increased work effectiveness, reflected in the increase in the number of suggestions and positive feedback being posted by the public. Work efficiency was also mentioned as another benefit of the use of OSNs and high-level managers admitted that their response times had changed compared to the way they previously used to address public complaints and enquiries. The fact that much positive feedback was posted on the organisation's OSN accounts by the public was seen by senior managers as a positive indication of their work efficiency, as one high-level manager explained: "*I think the public is very happy with what we do and how we handle cases quickly and openly*" (C2-HLS1). Another participant added: "*Yes, the response time is much faster now*" (C2-HLS3).

Participants believed that responding to public enquiries and complaints quickly was not a choice anymore if the organisation wanted to gain public trust. In fact, some participants related the quality of their work to how fast they could respond to public enquiries and how fast they could deliver public services even if it meant creating new or amending existing work processes, as explained by C2-MLS2, a middle-level staff member: "*The quality of the service depends on how fast the reaction of the organisation is. If the consumers do not see any fast reaction, they will post bad comments [ ... ] We had to develop new processes and strengthen others so that we can respond faster.*" For example, some of the processes and measures included nominating skilled employees to supervise and manage the organisation's OSN accounts, to avoid delays when addressing public posts and ensure that the required knowledge and skills existed when communicating with the public. This also created a response timetable to address different public complaints and enquiries. Having skilled employees to supervise OSN accounts increased work efficiency and maintained fast response times and fast coordination between the organisation's departments and other government organisations.

When it came to work efficiency, most participants at end-user level believed the response time to address public enquiries and services had been improved. For example, many participants stated that OSNs saved them a lot of time, such as when they needed to broadcast public complaints or related information to field employees or the inspector. In fact, some participants, who worked as field employees, mentioned that receiving information quickly from the public allowed them to address public complaints and deliver public services in no time, which saved them a lot of time and effort.

### 5.4.2.2 Complexity

Interviewees in this case study across the three organisational levels perceived OSNs to be simple and easy to use. Further, an older employee who was less technologically-literate or oriented shared the same view. The following sections will discuss the issue of OSN complexity.

#### 5.4.2.2.1 Ease of Use

When the participants were asked about the ease of use they revealed that they perceived OSNs to be easy and simple to use. For example, participants stated that OSNs gained popularity in Oman and around the world because of their ease of use and the little effort it took for an ordinary person to learn and use SM: *“It is very easy to learn and use by people of all ages”* (C2-HLS2). However, one participant stated that his previous use and knowledge of ICT helped him to use OSNs in no time, and he believed that older people might have some difficulty at the beginning when they wanted to start using the tools. However, he explained that, in today’s world and particularly in Oman, people of different ages were able to use OSNs without difficulty: *“For me it is very easy because I started using them a long time ago. It might be a bit difficult for older people but nowadays it is very easy to learn and know how to use SM for people of all ages”* (C2-HLS4). However, one should be careful not to take such generalisations at face value. Technology can prove to be challenging for some, especially older generations, and they could require more time to become accustomed to using it.

Similar views were expressed by participants in middle management and by low-level staff. Some believed that OSNs’ popularity and common use as the main communication tools to keep in touch with social networks (family and friends) or for personal and communications, increased their popularity. As a result of this popularity and increased use it became simple to use these tools, as one participant explained: *“Right now, SM is becoming the easiest tool to use and it is the best way to communicate with people. It is becoming the most convenient way to communicate with your friends, family and work, so it is very easy to use and requires very little effort to learn and master”* (C2-MLS2). Other participants explained that OSNs became part of the technology that all people were using for their daily activities, whether as communication tools or as tools to seek information to increase their personal knowledge in their topics of interest. Low-level staff shared identical findings and believed OSNs to be easy to use and require little or no effort. However, one participant emphasised that despite OSNs’ ease of use those people who had technical knowledge might have a

better and deeper understanding of the different features of these tools and that such knowledge would help them focus more on privacy and information-protection issues.

#### ***5.4.2.2.2 Effort, Experience of Use and Education***

In general, when the interviewees discussed the required effort, they perceived their experiences and education relevant to the use of OSNs to have little impact on its use. In fact, some participants insisted that an ordinary person would not need to make a great effort to be able to use ordinary or smart phones. Further, it was observed by the researcher during the observation phase that many employees possessed a good knowledge and had good practices when interacting with their phones or smart devices. It was clearly demonstrated by many employees, at different staff levels, that they had confidence in using OSNs, whether on their smart devices or when using their desktops in their offices.

When it came to employee experiences, the majority of participants at all staff levels stated that previous experience was not an important element in the use OSNs. However, some participants believed that previous experience and knowledge of ICT helped them to understand some OSN features, which might not be known to ordinary users, as explained by C2-MLS2, a middle-level staff member: *“If he has ICT experience, this will add some technical aspects from his experience which will help him/her to suggest and add these features to better use and gain more benefits of the use of SM.”* This suggested that employees with ICT experience would have a better understanding than ordinary employees, and that the use of OSNs would provide these individuals with a deeper understanding of OSN tools and features. This was considered a bonus for those employees, who could better manage their personal information, thus paying better attention to privacy when using OSNs.

Similarly, when discussing education level, most of the participants stated that education level could help increase the understanding of OSN tools but that it was not considered essential when using the tools. For example, one participant stated that, *“It does not matter whether you are educated or not. You can see now even children are using SM easily”* (C2-LLS2). This participant suggested that even young children with limited education were able to communicate and use OSN tools easily and that a good level of education was not essential. However, other participants perceived education level to play an important role when the person interacted or engaged with OSN discussions. *“Most people who interact effectively are those who are very well educated and already*



*working and have the confidence of participation”* (C2-HLS1); this implied that with more education and individual knowledge people were better able to engage in public discussion. In the same context, one participant related personal interest, passion for using OSNs and educational background as being significant in trying to use and master OSNs: *“At the end it was my interest and passion and my education major”* (C2-MLS2).

Complexity was not observed when using OSNs by the majority of participants at the three staff levels. On the other hand, OSN simplicity and ease of use, which was seen to be an important element, made these tools very popular in Omani society and enabled ordinary people and children to use them with little effort. Furthermore, individual experiences were considered to help in understanding the tools’ features and thus allowed the individual to pay more attention to other elements such as personal information, privacy and protection.

#### **5.4.2.3 Compatibility**

In order to determine the compatibility of OSNs and link it to the employees’ work and organisation’s objectives, the participants were asked to explain how OSNs fitted with their work, and how they perceived OSNs. The illustrative factor of functionality was operationalised as the compatibility of adoptive needs, to include current ICT trend and mobility use. The participants at the three levels perceived the use of OSNs to be compatible with their tasks and with the organisation’s vision and objectives, and said that adopting OSNs helped provide and improve public services.

High-level participants discussed the compatibility of OSNs and whether they fitted in with the organisation’s work and objectives, and perceived the use of this technology to be in line with what the organisation’s higher officials planned and implemented, as explained by C2-HLS1, a high-level manager: *“The technology was presented from day one and SM is one of the main tools for communicating with the public, and even we have won prizes for our use of SM.”* This suggested that higher officials had a vision that was focused on adopting the latest technology to achieve the organisation’s mission and goals, and that OSNs were one of important technologies to be used when communicating with the public. They were key to the successful completion of employee tasks and the delivery of public services. As one participant stated: *“Most of our work is done by SM and this is the vision of the organisation to use SM as part of our work, to be very effective and use any communication means or tools to serve the public better and that what SM has*

*provided to us*” (C2-HLS3). High-level participants perceived the use of OSNs to be highly compatible with their work since the majority of their tasks were achieved through its use: *“We are using SM more; maybe 80% of our work is done through the use of SM”* (C2-HLS4). This was aligned with the organisation’s technology-adoption strategy which was focused on using the latest technologies to provide public services. Having adopted OSNs, high-level officials encouraged the organisation’s employees to use them regularly to achieve more public interaction: *“Our organisation is working and succeeds based on the right communication with the people and SM is the heart of this communication ... we can't do our job effectively without SM. We have realised that because of the result of our work and our use of SM”* (C2-HLS2). Hence, participants considered OSNs to be highly compatible with their work and they became the primary interactive tool when interacting with the public.

The interviews with middle-level staff revealed identical findings to those of high-level participants regarding OSN compatibility. This was explained by one participant: *“SM is highly compatible with our work, and since we are a newly established organisation and started adopting SM as part of our work culture it is one of the main aspects of our success. Every day we are receiving a lot of suggestions and complaints and we have a department that is dedicated to information and media and SM is the main focus of this”* (C2-MLS4). On the other hand, according to some low-level participants, OSNs had helped them to conduct their work throughout Oman more efficiently and instantly and helped them overcome resource limitations that were an obstacle for the organisation in its attempts to provide services to the public across wider geographical areas. For example, the organisation was able to broadcast awareness programmes, details of consumer rights’ violation cases and interact with the public regarding their complaints and feedback by broadcasting messages instantly. *“We have adopted SM as our main channel of communication with the public and the people were happy because SM is what is being popularly used by them”* (C2-LLS3). Other participants emphasised their dependency on OSNs to increase effectiveness, for example, by saving them time or helping increase public awareness which was considered among the objectives of the organisation.

The use of smart phones along with the use of OSNs fitted well with general societal trends. High-level participants related the popularity of smart phones and the wider mobile network coverage as important elements which had allowed the public to reach the organisation at any time. *“Smart phones made it possible for people to use SM and interact with us regardless of time and place.*

*We have our inspectors who work in the field and we have an app called 'Midan' which is used by our inspectors and is also available to the general public. They can communicate their complaints or comments directly to us. This is sent to our inspectors who work immediately on the matter and sometimes the matter is resolved in less than an hour"* (C2-HLS3). This clearly indicated the compatibility level these employees had reached when using smart phones and smart devices and emphasised the important role these devices, combined with OSNs or other applications, played in their jobs.

Middle-level participants believed that the combination of smart devices and OSNs enabled more interaction between the public and government organisations, which allowed more people to benefit from and evaluate government services. In fact, when comparing the use of OSN communications with the traditional way of communicating, which required visiting the organisation in person, there was no contest, as explained by C2-MLS1: *"Smart phones have helped make such communication possible and faster with little cost compared to the traditional way of communicating with the government where the person needs to drive all the way to the organisation just to submit an application or inquire about something."* The use of smart phones fitted well with the objectives of the organisation. For example, one participant stated that the organisation developed an internal application tailored to smart phones that allowed office employees to deliver information to field employees. OSNs allowed more public information to be forwarded to field employees instantly to help them carry out their tasks while they were on the move. This suggested more compatibility and dependability on smart phones, applications and OSNs when carrying out duties. In fact, the use of OSNs along with smart phones had eased coordination with other government organisations in the development of joint applications that could be used by call centres when interacting with the public. These were needed to more quickly provide responses to public complaints at any time, as explained by one participant: *"Now we have SM tools and our own smart phones apps that can be accessed through smart phones [ ... ] because SM consumers do not need to come to the organisation. They have many options to communicate with us"* (C2-MLS4).

### **5.4.3 Normative Belief Structures**

To understand the normative belief structure more details are given in the following sections.

### 5.4.3.1 Social Network Encouragement

The belief factor of social network encouragement is related to the influence on employees of their close social network (peer influences) when adopting OSNs. In this study, normative peer influence was defined as the degree to which peers exerted influence on the behaviour, attitudes, beliefs and actions of an individual (Bristol & Mangleburg, 2005).

When examining peer influence, participants at the three levels indicated that family and friends were the most influential of their associates when it came to the use of OSNs. This was expected as Omani society is very social and social networks are perceived to be important in society. Other social associates, such as work colleagues, were said to have less influence. Table 5.6 summarises peer influence on the use of OSNs in case study two.

Table 5.5: Case Study 2 (PACP) Participant Peer Influences

Organisation Level	Friends	Family Member	Work Colleagues	Trend & Lifestyle
High-level	✓			
High-level	✓	✓		✓
High-level	✓			
High-level		✓		
Middle-level	✓	✓		
Middle-level			✓	
Middle-level	✓			✓
Middle-level		✓		
Low-level	✓			
Low-level			✓	
Low-level		✓		
Low-level				✓

When asked to explain those who most influenced their use of OSNs, the majority of high-level participants indicated that their friends had significantly influenced them. One participant indicated that beside his friends and family members OSN use was a trend among Omanis which had encouraged people to learn and use these tools *“It is a mix of my friends and my family also as you know the trend is now that all people use SM and that encourages a lot of people to learn to use SM and be part of this trend”* (C2-HLS4). Another participant said that within Omani society people were using OSNs to follow others who were popular and who were very active on OSNs. Today’s lifestyle was centred on this trend which had encouraged more people to have OSN accounts and be part of this trend. Colleagues were also cited by some as peers: *“For me, honestly it is the work*

*environment mostly; our work is linked very much with SM and consumers' enquiries because of my work in consumer protection, so I am close to the public and the public also interact with us more" (C2-HLS1).*

When a similar discussion took place among participants from middle and low levels, the findings were similar. The majority of participants stated that their friends and family members had influenced their use of OSNs. For example, one participant mentioned that spending time with his friends who used OSNs encouraged him to start. *"Basically, it started with my friends who used to ask me why I wasn't on Facebook or Twitter" (C2-MLS3).* Other participants mentioned that friends, family members and work colleagues contributed to their decision to use OSNs. *"I think you can say it was a mix of friends, family and colleagues" (C2-MLS4).* Some low-level participants identified friends and family as having more influence on their decision to use OSNs. Other participants believed that it was their own decision and their passion to try a new technology which was the main reason for their use of OSNs. *"It is myself when I see a new application I try it and if I like it I continue to use it" (C2-LLS1).* One participant mentioned that it was his previous manager, who supervised OSNs, who had played an important role in influencing his decision to use OSNs: *"I will tell you honestly, our previous manager has influenced us to use SM by that time we started to use and we were very happy to use it" (C2-LLS2).*

When it came to peers influence the majority of participants at the three levels perceived friends and family as having the most influence on their decision to use OSNs. Few participants cited trends in Omani society as being responsible for their OSN use. They did not want to be seen as individuals who were not capable of using OSNs. A few participants stated that their work colleagues had played some role in their decision to adopt OSNs.

#### **5.4.3.2 Image**

High-level participants valued the benefits that resulted from the adoption of OSNs by the organisation. Beside the benefits discussed earlier (section 5.2.2.1) many participants perceived the organisation's image to be affected either positively or negatively by the use of OSNs. For example, one participant stated that, although the use of OSNs promoted the organisation's image among the public because of the effective work that had been accomplished, OSNs could also damage that image if the organisation did not maintain its good work or failed to convince the public of its good services. *"SM helps the organisation image a lot because as we said it is one of the*

*benefits of SM and also it can negatively affect this image if for example it is not used in the right way” (C2-HLS4).* This suggested that using OSNs needed to be well planned and executed, through positive interactions with the public that were based on transparency and providing the right information, as explained earlier (section 5.2.2.1.3). According to high-level participants, the organisation succeeded in promoting its image to the public. In fact, some stated that the organisation was leading other government organisations in terms of the number of people who followed and interacted with their OSN accounts, particularly Twitter. In addition, the organisation maintained a positive image not only within Oman but also across the wider Arab world, as explained by one participant: *“SM promoted government organisations and we have the highest number of followers among government organisations in Oman and our public image is very positive ... we have also won some awards in the Gulf Cooperation Council countries’ competition in e-government and social services ... not only that, but we have now followers from different countries in GCC ... if you ask any member of the public about PACP, you will know what image they have for us ... it is a very positive image and SM and our hard work helped create this positive image” (C2-HLS2).*

Both middle and low-level participants shared the view that OSNs has helped create a positive image for the organisation not only within Oman, but also among GCC countries. *“We also have many GCC followers ... some of them from Saudi Arabia who commented that they wish they had a similar authority which can interact with them like we do” (C2-MLS2).* However, participants explained that although they interacted with people from outside Oman, the interaction was limited to providing general information only and did not cover other consumers’ complaints or related issues because of the different consumer regulations implemented in each country.

Participants at end-user level believed that the organisation benefited from the use of OSNs in establishing a positive image among the public. In fact, some participants related the timing of the establishment of the organisation to the increased use of OSNs in Oman, which had provided the organisation’s top officials with a good opportunity to establish a positive image among the public, as explained by one participant: *“The establishment of this organisation came together with the increased popularity of SM in Oman and that helped create a very good image for it within the public because we have adopted SM as our main channels for communication with the public and the public was happy with that” (C2-LLS3).* However, dedication and hard work alongside transparent interactions were among the important elements that some participants insisted the

organisation practiced when using OSNs to effectively develop this positive image and win public support. This view was supported by the organisation's top officials.

Personal image appeared to be a very important benefit when it came to the use of OSNs for many participants, despite the variation in their personal use. For example, some high-level managers indicated that they used OSNs to increase their knowledge and help with their work as well as to improve their personal image among their colleagues and in society. This suggested that OSNs provided many benefits and that it was left to employees to prioritise the benefits that helped them achieve more. For example, one participant did not care about his personal image; instead, increasing his knowledge was considered most important. *"I don't think about my image when I use SM, as I told you I use SM to improve my knowledge and to help the society as much as I can"* (C2-HLS3). Although employees' images were considered important when using OSNs, they were not perceived to be as important as increasing employees knowledge. In fact, some participants stated that increasing their confidence and communication skills was of more importance, as explained by one participant: *"SM helped improve the confidence, you know some people are not confident to speak in public so they feel it is much easier to be in front of their smart phone and share their views or opinion or ideas"* (C2-MLS2).

#### **5.4.4 Behaviour Control Belief Structures**

Perceived behaviour control structures facilitating conditions and self-efficacy, will be explained in the next sections.

##### **5.4.4.1 Confidence, Motivation and Support**

Participants at the high staff level were asked to explain whether the use of OSNs had helped improve their self-efficacy or confidence. Most participants perceived the use of OSNs to have helped them increase their confidence both in their personal life and work environment. For example, a high-level participant explained that one of the goals he set from using the tools was to gain more knowledge and understanding to increase his confidence when carrying out his responsibilities. *"One of my goals when I stated using SM was to increase my confidence and knowledge, as well as to improve my capabilities to fulfil my responsibilities and overall work knowledge"* (C2-HLS3). This suggested that OSNs helped users to improve their knowledge and understanding – not only in general knowledge but also work-related knowledge. OSNs were perceived by other participants to play important roles in building confidence and understanding,

particularly those employees who were in charge or had management responsibilities. For example, the use of OSNs provided deeper knowledge and a wider understanding of public need, which had helped high-level employees to plan and improve the organisation's services and minimise management mistakes. Explained C2-HLS2: "*[OSNs] help increase employees' confidence; also, they help those who are in charge to understand public views and evaluate their feedback and that helps our employees in different departments. Also they allow us to minimise mistakes or bad decisions.*" Participants believed that, when employees developed more understanding of what the public needed, the result was more confidence when decisions were taken to improve the organisation's services.

Participants at middle and low levels agreed that the use of OSNs had increased their confidence and ability to carry out their work. For example, one participant stated that OSNs exposed employees to more information which improved their knowledge and understanding of public needs and provided them with interactive tools to receive public feedback and suggestions regarding the organisation's services. This in turn helped them to develop better understanding; thus more confidence was developed to carry out their tasks. Explained C2-MLS4: "*SM increased their [employees] confidence in what they are doing and it also increased their knowledge and provided them with tools that they use to access not only local information, but also international information and they also can read what the public think of their work and the evaluation of their tasks.*" Other participants mentioned the use of OSNs in helping those employees who were shy or lacked confidence in face-to-face interaction. They were provided with the option to do one-to-one interaction without meeting face-to-face with people, hence their confidence or self-efficacy increased: "*SM helps improve self-confidence. You know some people are not confident to speak in public or face-to-face, so they feel it is much easier to be in front of their smart phones and share their views or opinions or ideas*" (C2-MLS2). This suggested that not only the employees benefited from interactive online discussions, but also the public who were able to express their opinions and provide their views to the organisation, which enhanced public feedback and included those who were not comfortable with face-to-face interaction.

Many low-level participants believed that since they started using OSNs, their self-efficacy had increased when interacting with the public or when delivering the organisation's services. For example, one participant explained that OSN allowed employees to have closer contact with the public, and that through OSN interaction employees gained an understanding of public needs and



a better awareness of their concerns. This understanding and knowledge helped increase employees' confidence, which improved their work and ability to deal with public issues, as explained by one participant *"As an employee, SM helped increase my confidence because you know first of all that you are interacting with the public; understanding their questions and complaints gave us an opportunity to understand the public"* (C2-LLS2). Furthermore, this participant suggested that through more public interaction more understanding was developed by employees about how the organisation's processes, procedures and practices should be linked to those of other government organisations. Hence, more understanding and more confidence was developed to carry out the organisation's work.

Motivation and management support were also discussed by the participants. Participants at all levels stated that they were motivated by the organisation's CEO who believed in implementing technologies to improve the organisation's services and achieve higher public participation. For example, a high-level participant stated that, as a top manager, he encouraged the organisation's employees to use OSNs all the time and approved training for those who needed it. *"We do encourage the use of SM, we provide training for those who need it and our strategy is to use the latest technology to achieve the mission and goals set for the organisation"* (C2-HLS2).

When asked if management motivation and support existed, the majority of participants at middle and low-level stated that higher management provided all kinds of motivation and support to them. One participant explained that the organisation was considered very lucky to have a CEO who believed in adopting new technologies to enhance the work of the employees and achieve the organisation's goals, adding that higher management motivation and support could be seen in messages sent to all employees through the organisation's email, encouraging them to use available technologies including OSNs to carry out their daily tasks. Further support existed in the form of approving the required OSN training courses, explained the participant: *"They encourage the use of SM [ ... ] they always approve training courses for us to use SM, they are investing in the use of technology all the time ... also they are following our SM accounts ... we are lucky to have a chairman who believes in the use of SM and the benefits we can get from it"* (C2-MLS1). Higher management's motivation and continued support for the organisation's employees was highly appreciated by participants when they compared their management's support to that of other government organisations which was seen by some participants to be lacking. Another participant stated: *"I know so many government entities that still do not have SM account because of their top*

*management” (C2-MLS3). Participants perceived the interactive participation of their chairman with the public through OSNs to be motivating, as one participant explained: “Our chairman is involved and he makes sure that we listen to all consumers and he interacts with the public using his personal Twitter account and the public appreciate that very much ... even sometimes if any member of the public suggests something and he feels that this suggestion is good he asks the person to come and sit with our team and if he can't we will send him a member of the team to meet up with him to discuss his suggestion” (C2-MLS4).*

Low-level staff stated that management’s support came in many forms, such as verbal encouragement and close follow-up of their interaction with the public. The management also provided advice on how to communicate and write when interacting with the public, and approved training for those employees who needed it. C2-LLS1 said: *“They are asking us and encouraging us to interact with the public and ask us to give the feedback to them as soon as we receive it. Also training is conducted for those who supervise SM or deal with SM. The management encourages the use of technology in general and SM in particular”*. Generally, participants indicated that their managers were providing the necessarily support and encouragement to use the new technology, particularly OSNs. However, one participant mentioned that at the early stages of OSN adoption some managers did not show their support and enthusiasm, but once they realised the benefits for the organisation more support and encouragement was shown. This suggested that management encouragement was related to the actual use of the technology and the tangible benefits it offered. For example, managers who used OSNs and followed the organisation’s accounts realised their usefulness in increasing public interaction and would therefore provide support and encouragement to the employees, unlike other managers who were not fully engaged with the use of OSNs. C2-LLS2 explained: *“I will be honest, at the beginning they [managers] were against it, but once they had found the benefits and the positive reaction of the public they fully supported us. Our CEO is now fully supportive and in fact he follows the organisation’s SM accounts and sometime will question our reply and asks us why you replied this way and not that way.”*

#### **5.4.4.2 Knowledge and Mobility Infrastructure**

Understanding how to use different technical equipment, developing employees’ knowledge and the existence of infrastructures were considered important in enabling organisation employees to perform their tasks, particularly when using ICT such as OSNs.

When participants discussed the use of OSNs they indicated the availability of the existing mobile infrastructure, the wider network coverage and low cost of the internet and its implementation as being important elements in OSN adoption. Furthermore, participants stated that, in general, government organisations had budget limitations which would be an obstacle if OSN implementation needed a high budget or took longer to implement. In addition, the use of smart phones along with wide mobile network coverage helped increase the popularity of OSN usage in Oman and among government entities, as explained by C2-HLS1, a high-level participant: *“You know with the popularity of smart phones and the availability of mobile data and the wide mobile network coverage while on the move helped increase the use of SM in government and in society.”* According to participants, the convenience of using smart phones and the wider mobile network coverage increased public interaction with the organisation, which resulted in instant information and feedback being provided, regardless of the location of the person who interacted, and allowed employees to carry out their tasks at any time regardless of their location. *“We get information from the public immediately and we can act upon this information instantly no matter where we are or where our inspectors or field employees are because they can access SM from their smart phones, so the response time is faster”* (C2-HLS3).

Similarly, participants at middle and low levels perceived the availability of smart phones and the wider mobile network coverage as important elements which allowed people to communicate with the organisation. Explained C2-MLS1, a middle-level employee: *“I think that mobile network and the company who provide mobile technology made it possible to those people who are far away to communicate with government organisations.”* Participants stressed the fact that OSNs provided the public with instant communication when interacting with the government, and that they saved money and time compared to travelling to visit the organisation to deal with minor issues or enquiries. Organisation employees also benefited from the convenience of using OSNs with smart phones to enhance their work and keep in touch with their department while they were on the move, for example inspectors carrying out field duties.

However, despite many participants' views on how simple and costless it was to implement OSNs in a government organisation, some participants made it clear that government organisations that chose not to adopt OSNs must blame their top management: *“[SM] is very easy to set up and use and most government staff would know how to use SM, so I think at the end it is the top management who can be blamed for not adopting SM”* (C2-MLS3).

### 5.4.5 *Isomorphic Pressure*

The three isomorphic pressures in the context of OSN adoption in this case study will be explained in the following sections.

#### 5.4.5.1 **Coercive Pressure**

According to participants the regulatory body (ITA) was not perceived as a significant driver behind the organisation's adoption of OSNs. In fact, participants believed that their CEO, who held a PhD, was the one who encouraged the adoption of new technologies. According to a middle-level staff member, *"Encouragement came directly from our CEO. We are a newly established entity and that coincided with the popularity of SM among the public. You can say we came at the right time. Also, our CEO believed in adopting SM to communicate with the public"* (C2-MLS3). Higher management participants stressed that OSN adoption was initiated by management more than by the regulator bodies such as ITA, as explained by C2-HLS1: *"The CEO] has a vision since the creation of the authority to deliver messages and interact with the public and all levels of society and to use all means to achieve this. The technology was presented and adopted from day one, and SM is one of the main tools for communicating with the public."*

Participants stated that the ITA did to some extent exert coercive pressure on the organisation because it was a newly established entity that was required to implement the technology; however, the organisation still worked closely with the ITA to achieve the national e-government strategy, explained one participant: *"Actually the ITA did not contribute a lot to the organisation's technical adoption solutions; however, we still work with them to achieve the goals of e-government policy and strategy"* (C2-MLS3). Despite that, some participants did not acknowledge a direct contribution to the adoption of OSNs by the organisation, yet others acknowledged the role of the regulatory body in the implementation of e-government solutions. For example, one middle manager stated that *"You know the government is pushing us to use and adopt this kind of technology ... so we have to communicate with the public using these tools"* (C2-MLS1). However, almost all participants stated that significant coercive pressure stemmed from top management including the CEO rather than a regulatory body such as the ITA. This perception could be valid because of the authority that top management had; however, as a government organisation it was bound by regulatory bodies to provide a working plan for the adoption of the e-government national plan.

#### 5.4.5.2 Mimetic Pressure

When participants were asked to explain the organisation's reasons for adopting OSNs, they cited their top management's vision and belief in adopting the latest technologies to encourage and increase public participation. With this in mind, the top management sought to place citizen participation and engagement at the centre of its strategy. As a result of this vision, given that PACP was a newly established organisation, participants believed this had helped them to adopt the latest technologies and placed the organisation among top government organisations in terms of the implementation of e-government solutions. Explained C2-MLS3, a middle-level staff member: *"In fact, we are considered among the top organisations that adopted SM effectively to interact, participate and provide the highest transparent information with the public among all government's organisations. We have the highest number of followers, highest public interaction. In fact, other government organisations are placing us at the top as a model they want to follow and copy, this is not what we say, but what they say about us even in our meeting with the regulative body."* Mimetic pressure was not clear and could not be identified in this organisation because participants believed the organisation was leading other government organisations in adopting OSNs. In fact, high-level participants stated that other government organisations sought their help in mimicking the organisation's experiences with OSNs, thus creating a model for those organisations. *"To give you an example, many government organisations visited us to explore our experiences in using SM, to get our help to establish similar settings in their organisations"* (C2-HLS2). This claim was verified by another participant who said it applied not only in Oman, but also to other GCC countries: *"We have won the GCC countries' competition in interacting with the community"* (C2-MLS2). Participants stated that many meetings with other organisations, particularly those from other GCC countries took place, sometimes to discuss issues facing government organisations and to exchange ideas in the same field: *"Every year we have a GCC consumer week and through these meetings we discuss and exchange ideas about our work"* (C2-MLS2). Through these meetings mimetic pressure could be exerted whereby one organisation sought to duplicate the experience of another in another country that was perceived to be successful in implementing e-government solutions. However, participants did not clearly identify this, but rather stated that the organisation was one of the top organisations in the GCC region in encouraging community participation and adopting the latest solutions.

### 5.4.5.3 Normative Pressure

Participants identified several reasons for the organisation's adoption of OSNs, among them the popularity of OSNs among Omanis. This popularity encouraged normative pressure on the organisation to adopt OSNs in order to interact with the public. All participants at the three staff levels identified the use of OSNs as a trend that continued to gain popularity among Omani citizens. Explained one middle-level staff: "*[OSNs] is the new trend in today's societies and it is the easiest way to communicate with government, you know sometimes the citizens may be far away from us and they can't reach us, but now they can reach us quickly using SM tools. Second, saving time is very important. Also, they can communicate with us regardless of their location*" (C2-MLS1). Perceiving OSNs as a public trend forced the organisation to adopt them as a communication tool and to use them effectively to interact and increase public participation. Participants believed that adopting OSNs was a clear strategy set by top management since the establishment of the organisation in 2011. Normative pressure was identified by participants as being exerted on all employees at the three levels to carry out their tasks effectively. For example, employees were expected to address public complaints as quickly as possible to avoid public criticism and the criticism of their immediate managers, explained one middle-level participant: "*SM is now pressurising not only the employees, but even managers who know that his/her higher-level manager is also monitoring SM and can question any delay of work ... that is why middle managers work harder and don't want to wait and receive criticism from their higher-level managers. You can say that SM is a dashboard with our management and they can monitor the list of complaints and how many we have solved and what is left and what is bending*" (C2-MLS4). This dashboard was continuously monitored by the organisation's management and the public and this put pressure on these employees to improve public services and increase their work effectiveness.

The continuous increase in OSN use by the public (extent of adoption) produced more public discussion about the organisation's services and public affairs. Hence, more pressure was exerted on the organisation. High-level participants stated that the increased use of OSNs by the public allowed for the open and fast circulation of information and a wide network on which to share it, when discussing and evaluating organisation services. This, in participants view, created more 'headaches' and forced high-level managers to act quickly to address public issues and improve public services. This public pressure was also blamed by high-level participants for making

employees at the three levels work extra hours and during weekends and holidays. *“The problem is that many followers cut and paste the information, and in no time all of Oman knows about it ... this puts pressure on us to react very quickly, and the issue in no time becomes public talk, and that creates more pressure on government officials to react and solve the matter as fast as he/she can and that makes government agencies now work all the time even on holidays and weekends”* (C2-HLS2). As examined earlier, participants felt the pressure and acted quickly to address public issues because they were avoiding public criticism of themselves or of the organisation. However, many participants linked the improvement in organisation services directly to public evaluation and the public pressure of discussion of their affairs on OSNs. In fact, participants believed that adopting OSNs came with a price and that price was absorbing public pressure by improving the organisation services and quickly addressing public affairs.

Low-level participants believed that the pressure was felt more among middle and higher management than among them because it was management’s duty to compile a quick reply to public OSN posts. These replies had to be quick and accurate and contain convincing information that the public accepted; otherwise, more public criticism might follow. This process was explained by an end-user participant: *“We forward the question and enquires that we receive through SM to these higher-level managers to form a reply so the pressure is on their side to answer very quickly and very accurately with what they have to say to convince the public and provide them with the right information”* (C2-LLS2). In fact, any delay in replying to public posts triggered more posts on the same issue, and that could suggest that the organisation was ignoring or neglecting public issues, possibly resulting in more criticism from other members of the public who were monitoring the OSN interaction. As a result, more pressure was exerted on the organisation’s employees to provide fast and convincing information to satisfy the public: *“If one person enquires through SM and after a little time posts again that we did not reply to his/her question because we have to go through the internal processes and take the question to the right person ... so the public puts more pressure on us to provide instant replies”* (C2-LLS3). Furthermore, participants believed that more government officials were now using OSNs and were able to follow organisation accounts, which encouraged them to view public discussions and evaluate their feedback in order to improve organisation services and quickly reply to their enquiries. This was explained by one participant: *“Many officials are now aware of SM and follow what is said on SM and they try to finish the tasks very quickly, that is why many of them are very*

*careful to post and see what the public say about their organisation or the services the organisation offers” (C2-LLS1).*

On the whole, participants in case study two considered this pressure to be positive. This optimistic view helped the organisation to implement a positive working environment that centred on improving public services and listening to public suggestions and feedback. For example, one high-level participant explained the positive side of this pressure: *“That pressure forces all government officials to follow SM and read what the public say about their organisations and try to please the public by improving their services and working harder even on holidays to try to cover mistakes if they exist, and that is good in a way” (C2-HLS2).* Other participants considered such pressure to represent encouragement for government employees to work harder and more effectively to achieve the organisation’s vision, and on the other hand to provide better services to the public: *“I would not look at it as a pressure, but as an encouragement to do better and to achieve the government mission and what we are supposed to do” (C2-HLS3).*

#### **5.4.6 Culture Perspective**

##### **5.4.6.1 Artefacts (Layer 1)**

When participants discussed the effect of adopting new technologies on lifestyle, they admitted that OSNs were an integral part of Omani lifestyle today. They considered them an important element in modern societies and said they were used for many purposes, including social communication, entertainment and facilitating work. This belief among participants was confirmed during the observations when the researcher noted that the majority of employees at the organisation used their smart phones to access OSN tools such as WhatsApp, Twitter and Facebook whenever they had a chance. *“[Employees] all use SM and day by day the culture is changing, and SM is seen as an essential tool” (C2-HLS1).* However, other participants warned that OSNs should not be considered as the main element of lifestyle and that people should manage the time they spent using them. Some added that family and social commitments should be made a priority and that people should not become addicted to OSNs: *“The right way of using SM is by not being on it at all time ... you have to set a time for using SM” (C2-MLS3).* Despite these views, the majority of participants admitted that those who didn’t use OSNs were viewed by many people as being ignorant: *“Those people who don't use SM look like they are out of this world and are viewed by many as ignorant” (C2-MLS2).*



The popularity of using OSNs was perceived to have modified the way Omanis communicated and sought information. They were considered a bridge between current knowledge and needs, and the wider world of information and knowledge, explained C2-LLS3, a low-level staff member: *“When you use SM you feel you are connected to the whole world of information and knowledge”* and *“SM has created a culture of sharing; sharing information with others. I think young people like to share everything they post or read in SM even me when I read something, a post or a picture on SM, the first things I do is to like and share it with others.”* On the other hand, participants perceived OSNs to have increased public knowledge and understanding of government roles and public services because people could access information using their mobile phones. Consequently, employees believed the organisation had adopted a similar culture in its work, particularly when interacting with the public and providing information that satisfied public needs and complemented their understanding, as explained by C2-HLS4, a high-level participant: *“You know, people started to use SM more effectively and that created more knowledge and understanding among them. Public awareness and knowledge is increasing all the time and much faster than ever and we have adopted this culture.”* As stated, the organisation culture had changed to accommodate a public culture based on effective use of technologies such as OSNs to gain knowledge and share information.

Social values and traditional barriers were also mentioned by participants to have changed since the adoption of OSNs. For example, participants mentioned that women were now able to interact with the organisation and raise their complaints or concerns through their smart phones, which helped give them a voice in a male-dominated society. Omanis do not appreciate women visiting government organisations and in most cases this opportunity was associated with men only, although in recent years many women are now working in government organisations. However, participants mentioned that, although many women now use OSNs to communicate with the organisation and other government entities, many of them still used pseudo names on SM. As explained by C2-HLS2, a high-level employee: *“SM gave those women who don't drive or who chose not to come to government's entities a communication tool to interact and communicate. SM has given [women] that flexibility, but I have found that many of them are not using their real names when they communicate with us, when we come to the details and ask them, for example, to send us their personal information privately we find out that they are using nicknames or different names.”* Other participants perceived OSNs to have provided more flexibility for women, which

had allowed them to communicate with the organisation and express their views, while maintaining Omani traditions. As explained by C2-HLS4, a high-level participant: *“I think that one of the good things about SM is flexibility ... our tradition or culture does not appreciate women going to government organisations although many of them do nowadays, but with SM, women can communicate with us without having to leave or come to the organisation ... they can complain and put their feedback or suggestions and at the same time respect tradition and culture ... we are getting more complaints from women than before the adoption of OSNs.”* A female participant admitted that OSNs provided her with the flexibility to communicate with government organisations without having to visit the organisation. She admitted that visiting would have made her “uncomfortable” as she characterised herself as coming from a conservative background. She explained: *“I am a very conservative person and come from a conservative family. I am confined by that and I believe I have to keep my ‘identity’.”* She said that on SM, she did not use her real identity because *“We are in an Arab country and men might not have a good idea about girls who put their photos on their profiles. Some men might use the photo in inappropriate ways, so I don't put my picture up or use my real name. For me it is better not to use my real picture or my real name when I use SM”* (C2-LLS2). Other participants believed that, although in the capital traditions were loosely practiced, outside the capital they were closely followed and women were expected to respect and obey traditions.

The culture of adopting and using new technologies was apparent in the organisation during employee conversations and informal discussions. For example, employees used their smart phones to use OSN tools such as WhatsApp, Twitter and Facebook to access information. Further, these tools were used by employees to read public feedback and evaluations of government services, comments on how to improve those services and to understand public suggestions and discussions. Promoting technologies was also noted on the organisation website ([www.pacp.gov.om](http://www.pacp.gov.om)) which used OSN symbols to promote more public interaction, Figure 5.9 provides an example of artefacts elements used on the organisation’s website to promote technologies and OSNs.

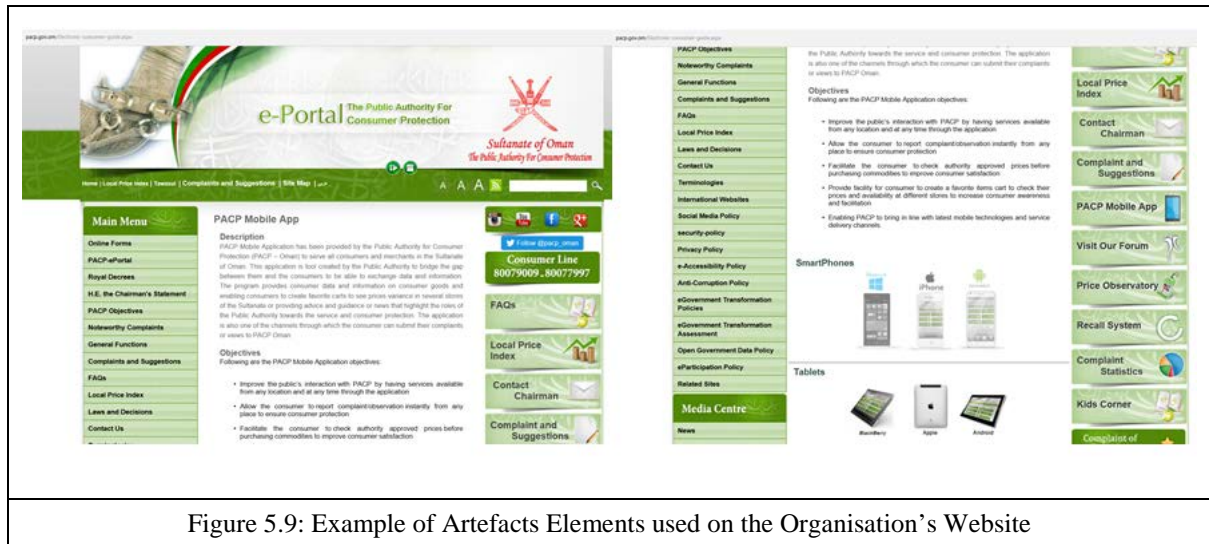


Figure 5.9: Example of Artefacts Elements used on the Organisation's Website

Participants talked about the link between the organisation's work culture and the adoption of OSNs. They admitted that using OSNs had made current working culture more customer-centred and characterised by dynamic, open collaboration or interaction with the public. C2-MLS4, a middle-level employee explained: *"We are a newly established organisation and started adopting SM as part of our work culture ... it is one of the main aspects of our success. Every day we are receiving a lot of public suggestions and complaints and we have a department that is dedicated to information and media, and SM is the main focus of its work. Actually, our working culture has reflected the importance of SM and that is why we adopted more effective culture that focuses on public interaction and participation."*

On the other hand, participants admitted that OSNs also developed a working culture that extended beyond normal working hours particularly for employees who worked in public service department or supervised OSN accounts. In fact, employees believed that their work was not limited to working hours, but guided by public needs and task fulfilment. This view was explained by C2-HLS2, a high-level employee: *"We reply to public tweets or complaints even during holidays or weekends ... we can't delay our responses, so we are working now even during public holidays [ ... ] We have employees who work 24/7 at all times ... also SM provided us with a new culture of work that was not there before and this also met with a very good and dedicated staff who work hard to accomplish the work ... I think you can't find this hard working in many government organisations."* By believing and adopting this culture the organisation's employees rated their hard and effective work as being that of a top government organisation and rated public trust in the organisation as at its highest level. *"They believe in us and in what we do"* (C2-HLS1). The

adoption of OSNs and public interaction encouraged the organisation to develop an OSN-use guidance policy to help employees carry out their tasks and finish them on time. Table 5.7 provides an example and Appendix XIV explains this policy.

Table 5.6: An Example of Guidance Developed for OSNs

Working Area	Scope of Activities	Resolution Time	
		Minimum	Maximum
Level 1 Support	Direct response to question about PACP functions and inquiries such as website URL, regional offices, phone numbers and other repeated questions already answered.	20 Minutes	1 Hour
Level 2 Support	Question requiring legal answers to relevant departments (Complaints Department, Department of Market Monitoring a Regulation and the Legal Department) for answering as well as contacting regional offices about complaints from outside Muscat in order to take appropriate measures.	2 Hours	4 Hours
Level 3 Support	Response to some complaints and inquiries if relevant personnel are not present or if the matter requires field visits; follow-up or case study.	1 Day	4 Days
Level 4 Support	Contact other relevant authorities (such as Ministry of Health, municipality, etc.) for testing a product or checking a service then informing the consumer about the result which may require a few days/weeks for reviewing and concluding.	Few days/weeks (Continue updating the public)	Unlimited (Continue updating the public)

#### 5.4.6.2 Espoused Values, Norms and Knowledge (Layer 2)

Participants emphasised the importance of fast responses to any public enquires or complaints and stressed that the quality of public services depended on the efficiency of replying quickly and effectively. High-level participants considered traditional ways of running government organisations, such as carrying out work behind closed doors, as unacceptable to the public. The existence and adoption of new technologies such as OSNs allowed people to criticise officials, decisions or services. In fact, with the public continuing to gain knowledge and awareness of their rights and services, due to easy access to information through cheap internet and mobile applications, government organisations were forced to change their work culture to match public knowledge and the dominance of instant interaction. Explained a high-level participant: *“Today the old vision that existed in some organisations, that we work and nobody knows what we do, is not accepted anymore ... SM is very effective and has contributed very much to changing government work culture”* (C2-HLS1). As a result, participants in this organisation considered the public to be important players in today’s government work: *“In the past, government organisations were run by the appointed top management, but today others contribute to running these organisations, such as the public”* (C2-HLS3). Employees’ behaviour improved not only in dealing with public issues, but also when coordinating with other government organisations. For

example, when interacting with the public on Twitter, other government organisations could be mentioned in the post so that faster services could be provided. An example is provided in Figure 5.10. Explained C2-LLS1, a low-level participant: *“I think the culture that SM brought changed how we work and communicate whether with the government or with each other, especially among young employees to whom SM is becoming an indispensable part of their daily activity.”*



Figure 5.10: Example of Referencing Other Government Organisations

According to participants, the use of OSNs not only changed their organisation’s culture, but also modified other government-related behaviour so that collaboration was promoted between different organisations, enabled by the transparency facilitated by the use of OSNs. C2-HLS1, a high-level participant explained: *“SM has created more coordination between government organisations. Before the use of SM there was more adherence from each organisation to their authority and wouldn’t accept other organisations to share the authority of some tasks, but with the use of SM and the more transparency more coordination between government organisations exists.”*

It was mentioned by all participants in this case study that officials’ support and belief in the use of new technologies to enhance the work was essential in changing employee behaviour towards the use of these technologies. Furthermore, the public also appreciated the CEO’s behaviour and increased their trust in the organisation and its services. *“Our work and success is apparent to the general public and this made them follow our SM accounts and appreciate what we are doing for them. They appreciate that our CEO interacts with them all the time”* (C2-MLS1). Figure 5.11

below portrays the organisation's CEO, shown on the left side of the picture, meeting with a member of the public to discuss the citizen's tweeted suggestions about how to eliminate the sale by suppliers of duplicate car parts on the Omani market. The citizen tweeted after the meeting that the CEO assured him that he followed all tweets to, from and about the organisation, to personally ensure the quality of services provided.



Figure 5.11: CEO Meeting Member of the Public to Discuss his Suggestion

It was mentioned earlier that this organisation was a newly established entity, formed in 2011, which had a highly educated CEO who held a PhD degree. Participants considered this an essential element in developing organisation culture because the CEO believed that the organisation must focus on adopting and using the latest technologies, along with encouraging teamwork to increase efficiency. In a quick meeting with the CEO he stated that *“I want to use technology to enhance the organisation work, to encourage more public participation and interaction. I believe in this and that is why we work as a team and around the clock even on holidays. Our work culture focuses on adopting new technology to provide high-quality public services.”* Elements such as the use of technology and the environment, that facilitated teamwork, were noted by the researcher during his observation stage. For example, high-level managers could be seen sitting with low-level staff members to discuss different issues or to provide advice to employees carrying out their work. This is shown in Figure 5.12 below where a high-level staff member is sitting behind a low-

level colleague observing and listening to the employee's conversation with members of the public about their complaint. This can be seen as training on the job, as the high-level staff member (possessing more experience) can make suggestions and provide additional advice about/solutions for the discussed issues.



The researcher also noted that employees in this organisation were young and educated, although data could not be obtained for comparison.

#### 5.4.6.3 Basic Assumptions and Beliefs (Layer 3)

Employees' beliefs tend to be large, implicit, invisible and that mostly appear at employee level and considered the least visible (Hogan & Coote, 2014; Vroom & Von Solms, 2004). When participants were asked to explain their views and opinions on the use of new technologies, all supported their adoption. Employee beliefs and behaviour regarding the use of technology was influenced by the beliefs of their high-level managers which in turn helped develop the organisation's culture.

In this organisation, top management beliefs and behaviour clearly encouraged the use of new technologies to enhance the organisation's work, as C2-HLS2, a high-level participant, explained: *"We do encourage the use of new technologies such as SM and provide training for those who need it. Our strategy is very clear: to use the latest technologies to achieve the mission and goals set for the organisation and to encourage public interaction and participation."* Hence, with this clear strategy, employees were influenced to adopt similar beliefs and behaviour towards the use of adopted technologies. Understanding top management beliefs helped employees to develop their own basic assumptions and beliefs about their work culture. Participants explained that in the

case of older established organisations it would be difficult to alter the existing work culture, and changes such as adopting a new technology would face more resistance because employees' assumptions and beliefs were already well formed. C2-MLS3, a middle-level participant explained: *"You know in old established organisations this can be very hard because the organisation culture is already well-established and known to all employees and will take long time to change, also resistance will be visible."* Conversely, newly established organisations with young employees could develop their culture faster and adapt to changes without much resistance, which was the case in this organisation, as explained by the same participant: *"Being a newly established entity all employees and management are young and well educated. In fact, many of the middle- and higher-level managers were recruited or chosen by the CEO and that also helped in implementing his vision and the technical strategy he believed in which has helped develop our work culture"* (C2-MLS3). The fact that high- and middle-level staff were considered highly educated encouraged other employees to agree with the organisation's culture and minimise their resistance when changes, such as ICT adoption, were implemented. Furthermore, having young employees in the organisation of which 47% were female, helps alter Omani tradition and culture and minimise resistance, so allowing women to work and participate in the development of the country.

## **5.5 Cross-Case Analysis and Findings of the Final Study**

The analysis of the within-case element of the two case studies in the above sections helps describe the processes experience by the two case studies. However, a cross-case study analysis is needed to identify similarities and differences between the two case studies, which is limited with only within-case analysis (Myers, 2013). Further, cross-case study can enhance generalisability and deepen the understanding of the research (Miles & Huberman, 1994). An example of cross-case study is provided for the RA of the attitudinal belief structure in Table 5.8 below. However due to the word limitation of this study a cross-case analysis is provided in Appendix XV.



Table 5.7: An Example of Cross-Case Analysis of Final Study

Main Themes		Explanation of Themes	Attitudinal Belief Structure					
			Muscat Municipality (Case Study One)			PACP (Case Study Two)		
			High-level staff	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff
Relative Advantage	Effective communication	OSNs provide instant communication and cover wide sector of audience, low-cost communication.	❖ OSNs have provided the organisation with fast, cheap and instant tool to enhance communication within the organisation and with the public.	❖ Fast OSN communication allowed fast feedback and suggestions, also promoted fast action.		❖ Manager believes OSNs have provided them with fast, instant and continuous communication tool to reach wider sector of the public in wider geographic area instantly.	❖ Middle managers see the effectiveness of OSNs when communicating with the public. Allow better communication with people in remote area.	❖ The organisation uses OSNs for fast communication, to save time and help solve public cases. The public don't have to visit now for normal enquires.
	Increase Public Interaction	OSNs promoted more public and government interactions.	❖ Higher-level managers stated that OSNs promoted discussion with the public regarding public services and increased public interaction, and evaluation of organisation services.	❖ Middle managers perceived the use of OSNs to increase public interaction with the organisation and provide valuable feedback. More appreciation and public satisfaction.	❖ Low-level employees suggest Twitter is reliable and promoted more public interaction than when it use started.	❖ Higher-level manager believed OSNs allowed them to understand the public more and get closer to their needs. Increased public interaction allowed employee to focus on hidden or unclear issues.	❖ Staff at middle level support the use of OSNs for getting them closer to their customer and increasing their understanding. Instant information is received that helps prioritise daily tasks.	❖ Low-level staff list interaction as one of the benefits provided by the use of OSNs. They help carry out daily tasks and save time in rectifying public complaints.
	Promote Transparency	OSNs lead to more information transparency with the public.	❖ Higher-level managers believe OSNs promoted information transparency, but more is needed. Public increased knowledge encourages more information transparency.	❖ Information transparency resulted in simplifying processes and procedures when communicating within organisation and with the public.	❖ The use of Twitter is reliable and promotes transparency when real information is provided, which increase public credibility and trust of the organisation.	❖ Higher-level staff believe that with OSNs more transparency is provided and more understanding has been opened with the public.	❖ Staff at this level believe there is more public knowledge of their rights when it comes to organisation services, reached as a result of OSNs transparency.	❖ Transparency increased with OSNs, the public need to know all information, the organisation implemented high transparency level. Update provided required information to the public.
	Provide Awareness	OSNs has increased Public awareness of organisation roles and services OSNs has increased employee's	❖ Higher-level managers believe more public awareness has been reached since the start of OSN adoption.	❖ Middle managers have seen public awareness increased with the use of OSNs as well as increased public knowledge.	❖ Ordinary employees felt that OSNs helped increase public awareness regarding the organisations services and the	❖ Manager at this level argued that OSNs provide more public awareness. Both employees and public awareness increased with OSNs. Public now know their	❖ Middle manager strongly list increase public awareness as a strong benefit of adopting OSNs. More awareness exists with public about their	❖ Low staff noticed an increase of public awareness since the adoption of OSNs in the organisation.

<i>Attitudinal Belief Structure</i>							
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)		
		High-level staff	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff
	awareness of public needs			limitation of the organisation.	right, employees know what the public needs and what concerns them.	rights as consumers. Instant awareness messages are sent to big sector of the public all over Oman.	
		❖	❖	❖	❖	❖	❖
Increased Efficiency, Effectiveness and Accountability	Work efficiency has increased and public services now addressed quickly, employee's performance enhanced, more responsibility is realised.	OSNs allowed us to evaluate our employee performance, service quality, also we are evaluated by our boss and other government officials evaluate the organisation's work.	Many employees work hard to please their immediate manager and the public. Our higher-level manager evaluates our work and better appraisal is seen.	The work is more appreciated and better relations with the higher-level managers exist. The public encouraged us to work harder and perform better.	OSNs being open discussion platforms allowed evaluation of employees' work, organisation services. OSNs force more efficiency to address complaints and deliver services.	Response time is more valued by employees. Employees now work hard to please manager and officials and public which results in more appreciation and knowledge of employee's performance.	Better utilisation of resources to respond to public needs. More sense of responsibility and accountability.

## 5.6 Final Conceptual Framework

The final conceptual framework provided in Figure 5.13 was amended based on the findings of the final phase of the study. The final conceptual framework was extended to reflect the findings of the final phase and the understanding of the different e-government/OSNs social, organisational and cultural contextual issues surrounding its adoption and the development processes involved in its use. This conceptual framework was built on the findings of the pilot phase but developed further and deeper by using the final phase findings. For example, the pilot findings of OSN adoption and use revealed some benefits of the use of OSNs but did not reveal how these benefits affected the work processes and procedures in the case studies. In addition, it was recognised in the pilot findings that both organisational and cultural aspects had developed through the use of OSNs but that they were not explored in detail, since the pilot phase aimed to test in practice the initial questions. Building on the pilot questions, the final phase questions were further developed in order to yield richer data. Two examples of pilot questions used are provided in Table 5.9, along with the developed questions used in final phase data collection.

Table 5.8: Example of Pilot and Final Phase Data Collection Questions

	Pilot Phase Question	Final Phase Question
Question 1	How do OSNs help the public to interact with your organisation? Can you give examples?	How do you see public interaction through OSNs with your organisation? Can you provide examples? Can you compare the current interaction to the earlier time of OSN adoption?
Question 2	What benefits has the use of OSNs provided to the organisation?	Do you feel the adoption of OSNs by your organisation provided benefits to your organisation and the public? Why do you think that? Can you give examples?

The pilot phase questions helped the researcher to build and develop his initial understanding of the use of OSNs in these organisations and to detect the related aspects of OSN adoption such as organisation changes and cultural aspects. On the other hand, the final phase questions were focused on building a deeper explanation and understanding of OSN use, organisational changes and cultural aspects with respect to the use of OSNs, which was achieved using probing techniques until saturation was reached

The conceptual framework was refined compared to the framework that was developed in Chapter 4 after the pilot study. The factors involved have been discussed in-depth and in more detail to emphasise their influence on the diffusion and adoption of OSNs, the organisational change elements, the influence of coercive and normative pressure on the use of OSNs and the culture

factor elements of artefacts, espoused values and norms, and the assumptions and beliefs of employees that influenced the cultural changes at organisational and social-culture level following the adoption of OSNs in government organisations.

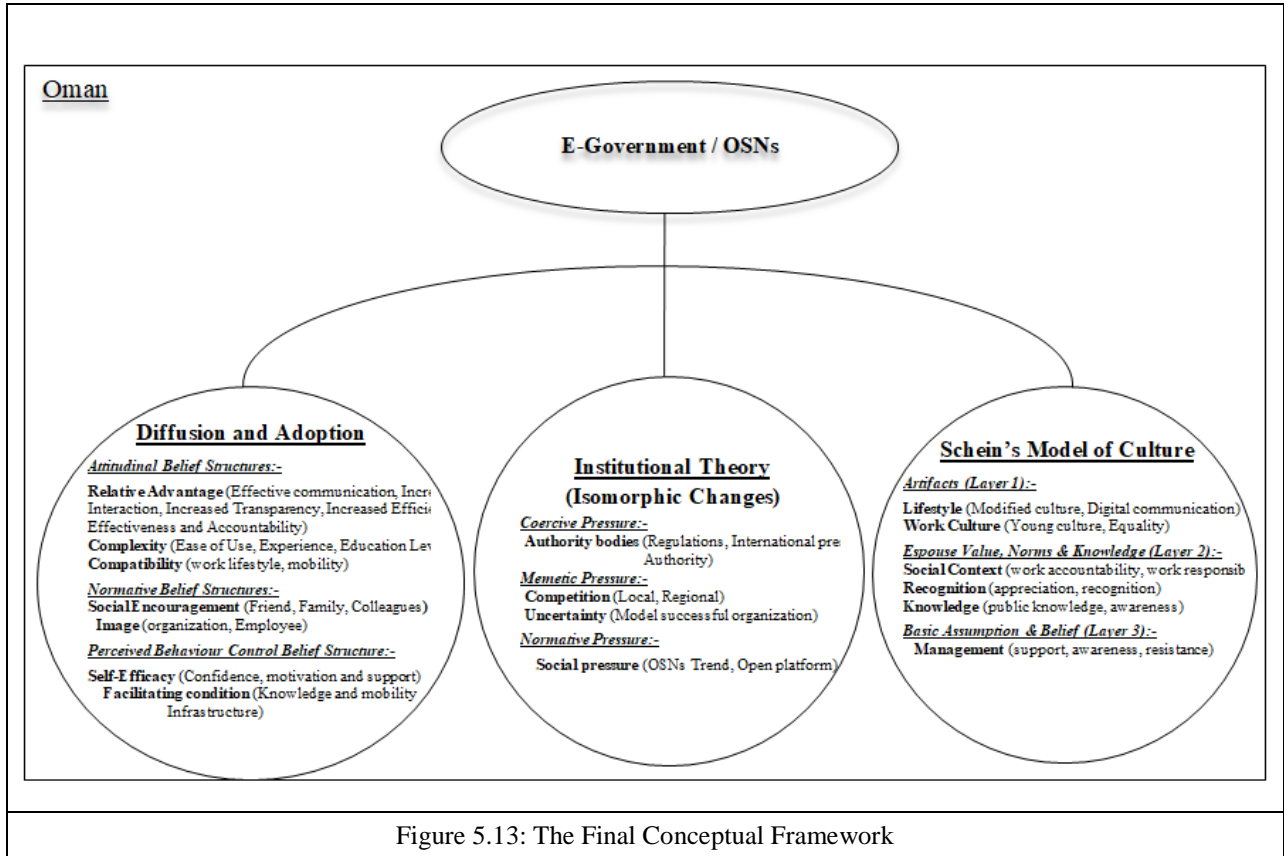


Figure 5.13: The Final Conceptual Framework

## 5.7 Summary

Chapter 5 described the main findings from the final phase of this research study. The two case studies were also described and participants’ details were provided.

The next chapter (Chapter 6) will detail the validation and findings of this research study, and describe and verify the findings and discussion in line with the literature.

## Chapter 6 : Evaluation and Discussion

### 6. Introduction

Having presented the results of a pilot study as well as the final phase, the next step of this study was to ascertain whether this research presented the research analysis of the findings from the two final phase case studies. However, this study also wanted to determine whether this research had made an impact on individuals, which led to consideration of research evaluation issues. A description and identification of the term ‘evaluation’ is offered in this chapter, followed by an evaluation and, finally, a discussion that explains the research gap that this research study aims to fill.

#### 6.1 Background Information

In this study, a total of 81 participants were involved in the pilot and final phases. Of those, 37 were observed and interviewed in the pilot stage and 44 in the final phase. Table 6.1 summarises these details. The interviews were conducted using open-ended questions, with the majority being conducted in Arabic. However, the interviews recorded in Arabic were translated into English to inform the research team.

Table 6.1: Summary of Study Participants

Description	Observation		Interview	
	Case Study One	Case Study Two	Case Study One	Case Study Two
Pilot Phase	9	9	11	8
Final Study Phase	9	10	12	13
Total	37		44	

#### 6.2 Research Evaluation

As explained in Chapter 3, this study followed a qualitative approach to arrive at an understanding of the different e-government/OSN social, organisational and cultural contextual issues surrounding OSN adoption and development processes. Research evaluation is considered vital in establishing rigour and the credibility of findings. It is “the process of determining the merit, worth, value of things, and evaluations are the products of that process” (Scriven, 1991: 1). Research evaluation objectives require different methodological approaches, which are determined by the

used-research approach (Kaplan & Maxwell, 2005). Further, evaluation has various forms that will be discussed in the next section, followed by a description and an explanation of the applied evaluation techniques used.

### **6.2.1 Types of Evaluation**

There are various types of evaluation, with usage being dependent on the object being evaluated and the purpose of the evaluation (Trochim, 2006). For example, there is summative, formative, process, impact and outcome evaluation, with the most distinctive type of evaluation involving drawing distinctions between formative and summative evaluation (Naidu, 2002; Trochim, 2006).

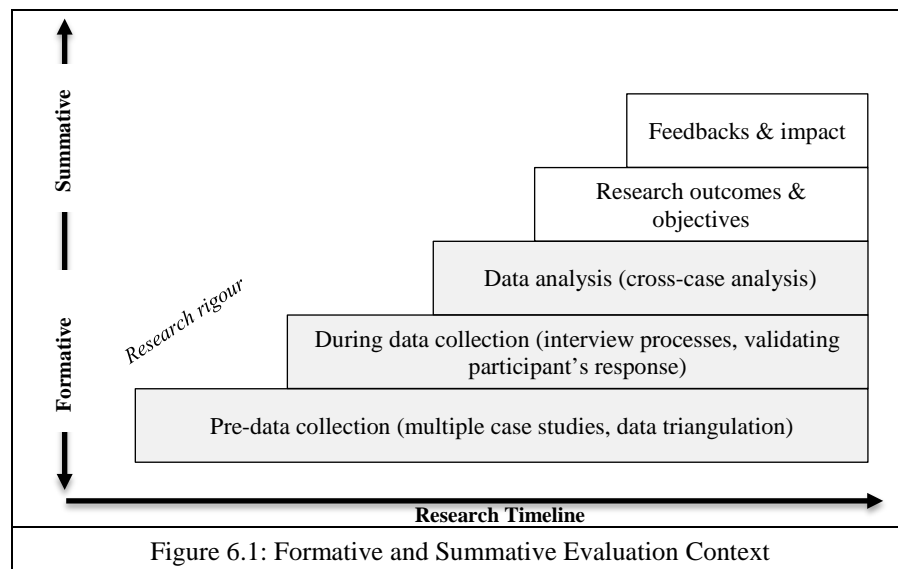
Formative evaluation is considered in studies that involve strengthening or improving the object being evaluated, by examining the delivery of the programme or technology used, the quality of its implementation and the assessment of the organisational context, employees, procedures, inputs and so on. On the other hand, summative evaluation examines the effects or outcomes of some objects or study, and summarises them by describing the outcomes subsequent to delivery of the programme or technology, assessing whether the object can be said to have caused the outcome, determining the overall impact of the causal factor beyond the immediate target outcomes, and estimating the relative costs associated with the object (Trochim, 2006).

In this study, e-government/OSNs were considered a technology-enhanced solution adopted by public sector organisations; therefore, its evaluation included the systematic acquisition and assessment of information that provided useful feedback on its use in public sector organisations (Naidu, 2002; Trochim, 2006), which led to the consideration of both formative and summative evaluations. Formative evaluation involves investigating needs, implementation and process assessment that was achieved in this study using data collection from observations and interviews that required validation of whether OSNs had increased transparency, promoted public participation and introduced changes to the organisation culture, and whether isomorphic pressure on the organisation's staff existed. Summative evaluation (outcome and impact) was used to evaluate OSN use, outcomes and the impact on the organisation and employees, and to examine the impact, effects and outcomes of the use of OSNs on employees' performance, existing processes and procedures, and work culture related to OSN implementation. In essence, summative evaluation was used to describe and validate how the situation (work processes,

procedures, organisation culture and influence of the social context in the organisations) had changed after the data collection phase (Naidu, 2002).

### 6.2.2 Evaluation Processes

To establish research rigour in the findings, validity should be considered prior and after the final data collection (Yin, 2009). Formative evaluation includes prior data collection validity (research reliability, validity and credibility) as well as the data validity process during data collection. Summative evaluation was pursued through the post-data collection and analysis phases that included obtaining the research findings, outcomes and the impact evaluation. The formative and summative evaluation contexts are illustrated in Figure 6.1 below and will be discussed next.



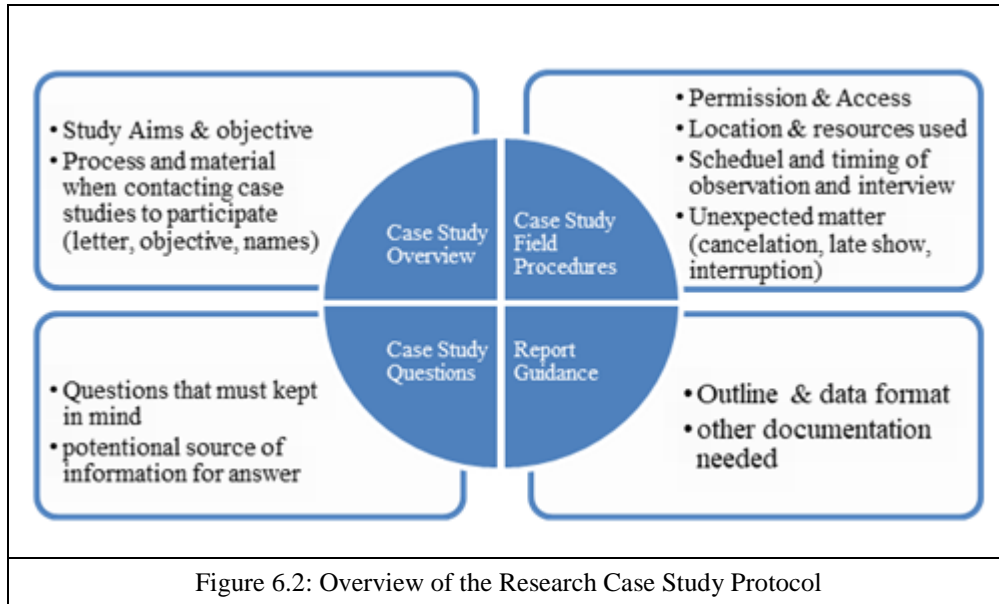
### 6.2.3 Formative Evaluation

Formative validity is the process of forming or producing inferences. For this study's validity, the research sought to determine the extent to which the research had correctly followed acceptable procedures (Mingers & Standing, 2016). This meant that this study determined whether the procedures included research rigour (reliability, validity and credibility) and data collection from the respondents had been undertaken in an appropriate manner.

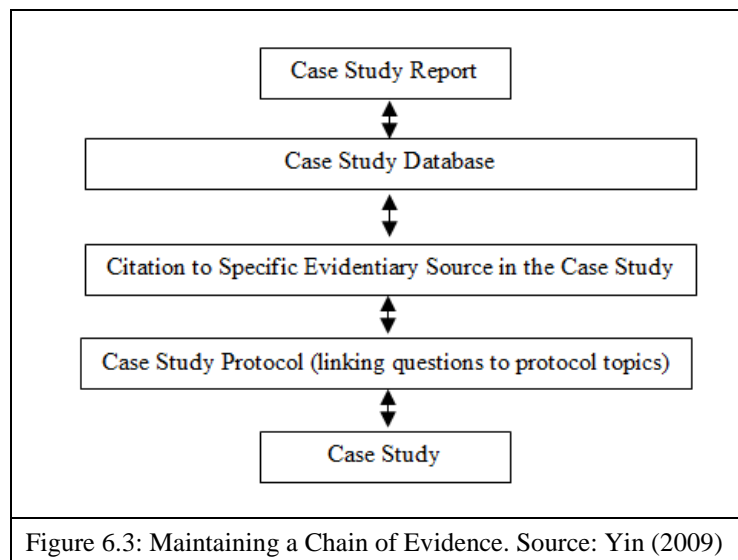
#### 6.2.3.1 Reliability

To minimise the errors and biases of this research to and obtain research reliability, two means suggested by Yin (2009) were pursued, which are: case study protocol and case study database. These means were used to overcome shortcomings during the data collection periods. For the

research case study protocol there are certain matters to be considered, which include, the case study overview, case study field procedures, case study questions and report guidance. These matters are illustrated in Figure 6.2 below.



The second recommendation for increasing reliability is to develop a case study database (Yin, 2009). For this study, the researcher developed a case study database that contained the researcher’s handwritten and typed notes made during observations, interviews and the analysis process. Information reliability was enhanced by maintaining a chain of evidence as suggested by Yin (2009) that was obtained by moving from one part of the case study process to another process, using clear references as shown in Figure 6.3. Finally, the study used sufficient citations from the case studies’ database to link the findings, in order to allow a replication process when collecting the case studies’ data.





### **6.2.3.2 Validity**

As explained in Chapter 3 (section 3.9.2), internal and external validities were used to cover two concerns. Firstly, whether the means of research measurement were accurate, and secondly whether they were actually measuring what they were intended to measure (Winter, 2000). To fulfil the first concern, different steps were followed that included using different components such as interview questions, objectives, methodology, data collection, data analysis and linking them with each other. Each of these components was used according to certain processes and procedures (case study protocol) in order to ensure that the pursued research approaches were achieving their intended objectives as explained in Chapter 3, section 3.9.2.1. By following and explaining the research methodology (Chapter 3), analysis and findings (Chapter 4 and Chapter 5), validation and discussion (Chapter 6), as well as conclusions (Chapter 7) the research ensured that a high level of internal validity was achieved, which could also help other researchers understand this study's processes and benefit from them if undertaking similar studies (Yin, 2009).

The second validation issue is generalisation that can be addressed through analytical generalisation (Yin, 2009). Analytical generalisation in this study was achieved in the following ways: multiple case studies were used that applied within-case and across-case analysis with the research findings being reviewed in light of the relevant existing literature; the development of a research framework. When generalising, the evidence from multiple case studies is perceived to be compelling and robust (Yin, 2009). For this study, internal and external validity were achieved using multiple case studies and implementing the case study protocol that ensured that not only one, but several perspectives were obtained, preventing any bias in this study.

### **6.2.3.3 Credibility**

For research credibility, several methodological strategies have been suggested among which is triangulation (Driessen et al., 2005; Guba & Lincoln, 1985; Kaplan & Maxwell, 2005; Yin, 2009). As explained in more details in Chapter 3, section 3.9.3, this research used various triangulation methods to achieve research credibility. For instance, this study used data triangulation that combines the evidence gathered from multiple data collection methods such as observations, reference to archival documents and interviews. This practice was followed after it was found that to ensure research credibility such a type of triangulation is a common practice in many qualitative research studies (Creswell & Miller, 2000; Myers, 2013; Silverman, 2011; Stake, 2010; Yin, 2009). Further, the strength of case study data collection in qualitative research is an opportunity

to use many different resources of evidence; therefore, the “finding or conclusion is likely to be more convincing and accurate” (Yin, 2009: 116). In this study observations and interviews of participants using OSNs were used in both case studies, providing richer data and a deeper understanding of institutional culture and the processes of change within the three staff levels. Further, if any questions arose in the researcher’s mind, reference to archival documents and general, informal chats clarified matters.

Triangulation was also used in this study by involving more than one evaluator, observer or investigator (investigator triangulation) (Yin, 2009). This was fulfilled by the advisory team that consisted of two academics who guided the researcher and continually provided advice. Similarly, the researcher participated and presented his research in several workshops held at the University of Hertfordshire and in international conferences that provided him with external evaluators’ and audience feedback. This assisted in building the research findings and ensured that various opinions were provided rather than relying solely on one stakeholder – for example, the academics. Other types of triangulation used in this study included theoretical and methodological triangulations that are explained as follows. Theoretical triangulation involves the use of multiple theories, multiple lenses and questions to lend more support – or contradict – the findings (Thurmond, 2001). On the other hand, methodological triangulation entails the use of multiple methods to study a phenomenon (Decrop, 1999; Yin, 2009).

For theoretical triangulation several theories in the adoption and diffusion area; for example DOI, TAM, DTRB, TRA and other related institutional and culture theories were consulted in order to form the researcher’s understanding of the adoption and diffusion of the adopted technology (OSNs) in public sector organisations. The methodological triangulation involved the use of multiple methods including the use of participant observation, interviews and archival records in order to draw similar conclusions and ensure validity of the research findings. Triangulation was discussed in more details in Chapter 3, section 3.9.3.

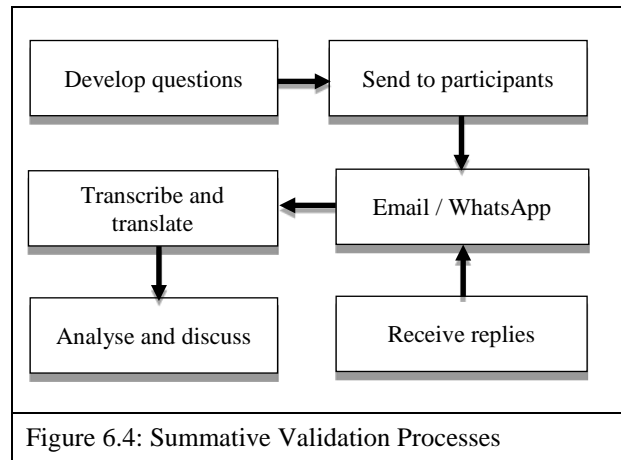
#### **6.2.3.4 Respondent Validation**

As mentioned in chapters 4 and 5, 44 participants were interviewed for both the pilot and final data collection phases. Formative evaluation was used following interviews in order to validate the participants’ responses. Following each interview, the researcher attempted to transcribe each script in Arabic, to confirm and ensure that true and accurate observations and interpretations had been made. Due to time constraints, the majority of the interviews were transcribed into English

after the researcher's return to the UK. In such instances, the interviews were validated using email exchanges between the researcher and the participants. This validation was important to give the participants the opportunity to verify their answers and clear any ambiguity that might occur during the transcription and typing of the interview. Allowing the participants to provide feedback gave them the chance to omit or add any information that they thought would enhance their answers or to correct and amend the answers when information was missed or misinterpreted by the researcher. Although this procedure was time-consuming and requires additional effort it has provided the researcher with an in-depth understanding and allowed the development of a trust-based relationship that proved to be valuable for the later stages of the summative evaluation.

#### ***6.2.4 Summative Evaluation***

Summative validation was applied following the analysis of the main data study findings in order to obtain any further participants feedback on the main topics of this study. Twenty-five participants were contacted for replies to the three main research questions, based on the main analysis and findings of the study. The questions aimed at exploring participants' feedback, behaviour and the impact of the research interview, as well as any researcher-influence on their attitudes and/or behaviours towards OSNs. The questions were sent to the participants by email and messages sent via WhatsApp requesting them to check their emails (in case some had changed their email addresses for any reason). The participants were asked to provide their answers by email or, if they preferred, to send voice messages using WhatsApp. WhatsApp was used in order to ensure user acknowledgment and participation as well as to provide the participants with an option to increase the chances of their participation again. The use of WhatsApp was welcomed by many participants and allowed them to rectify ambiguity and provide their views regardless of time and location in a private manner, given that WhatsApp is encrypted. Further, WhatsApp allowed the researcher to use the instant messaging option to remind participants of replies and to invite and encourage participation. The process that was followed is explained in Figure 6.4 below.



Following the receipt of participants' replies to the email, whether written or in a voice note, the researcher set out to analyse these responses. Of the 25 participants who were contacted, only ten replied despite the researcher's continuous efforts to encourage them to respond. This is a drawback of trying to collect data through long-distance communication. Analysis of the received replies reflected two main issues. Firstly, all participants agreed that the interviews they had with the researcher had enlightened them further on the role played by OSNs in general and in government organisations in particular. The questions and exchanges that took place made them reflect on their own experiences with OSNs. An example is an end-user who admitted that after the interview she changed her pseudonym on OSN accounts and used her real name instead. The participant explained *"Following the interview I sat down and asked myself why can't I use my real name on my Twitter account. So I deleted my old account and created a new Twitter account with my name and my picture. Now I can participate and interact in many discussions whether related to my work or my interest. My behaviour has changed because I felt it is the right thing as long as I respect the Omani culture and my family."* This change in attitude is important for the employee's basic assumption and belief (layer two of Schein's culture model) in order to change organisational culture as a result of OSN implementation which was discussed in detail in Chapter 5 of this research.

Some participants stated that the interview had also prompted a dialogue in their departments about the importance and use of OSNs in their organisation. For example, a mid-level staff member who worked in case study two and who had moved to another organisation since the interview explained: *"You have changed my attitude to better understand that if we work with OSNs it should not be as hobby or enjoyment but rather should be based on strategies and written policies so that we utilise OSNs professionally and not for the sake of using it without clear goals. Since our*

*interview I have moved to a different organisation as head of OSNs section, and the first thing I started was to develop an OSNs policy with future strategy and defined goals to be achieved from the use of OSNs.”*

Respondents reported increases in public followers to their organisation’s OSN accounts. They also reported a change in their personal attitudes towards their professional use of OSNs. All of them said the interview and discussion that took place with the researcher made them consider the use of an OSNs in their workplace in a positive light that reflected well on their interaction with the public: *“You have influenced my perception of OSNs as now I follow more government organisation accounts and compare their accounts to ours in order to improve our interaction with the public.”*

The second issue that the respondents highlighted was that since the interviews, there was more support within higher management for the use of OSNs at work that, in their opinion, reflected an increase in the level of importance attached to such tools for government work. A middle-level staff participant from case study two (PACP) said that *“as far as the organisation’s attitude since the interview, we have noticed an increase in top management support and close follow-up to whatever interaction we have with the public. They urge us by sending us messages using WhatsApp group or by calling us directly to respond to public enquiries quickly and with all the information we can in order to eliminate rumours and false information.”* These changes of attitude and behaviour towards the use of OSNs were verified by a high-level participant in a follow-up interview at case study one (MM), who stated that in his organisation the minister appointed many young and highly educated employees as managers, reflecting changes in the organisation’s culture in favour of more use of technologies.

*All high-level employees that were in power at that time of our interview [2015] have been removed and new young educated employees have been appointed in their place. These new appointments reflect how the minister [minister in case study one] of the organisation wants the work to be carried out. For example, the new appointed manager in the media department is young, but most importantly is a strong supporter of the use of OSNs, so the first thing he did was to recruit an OSN guru to manage OSN accounts. The newly appointed person was asked to provide an overview of what would OSNs be like and how to make it more effective in providing and improving e-services to the public. (Participant C2-HLS2).*

This attitude is another reflection of the organisational culture changes in government organisations that was revealed earlier in Chapter 5.

Having explored the replies, feedback, attitudes of those participating in the verification and validation process, and the impact of using OSNs based on the research findings and results in both case studies, the following conclusions can be drawn:

(i) It was evident that OSNs had an important role to play in increasing public participation and interaction in both pilot and final case studies, as indicated by the increase in number of followers and the increased number of citizens who participated and interacted with both organisations' OSN accounts. It can be established that organisations had an increase in transparency and rapid replies to public complaints, which were instrumental in increasing public interaction and led to an appreciation of the services provided. Although both case studies demonstrated increases in public participation and interaction, case study two had a much larger number of followers and more tweets since they first adopted OSNs. Table 6.2 summarises case study one and case study two Twitter data.

Table 6.2: Comparison of Twitter Data Between Case Study 1 and 2

	<b>Case Study One (MM)</b>	<b>Case Study Two (PACP)</b>
Established	September 2011	August 2012
Total follower	366 k	436 k
Total tweets	18.5	19.4

(ii) It is apparent that institutional and cultural changes were more evident in case study one (MM) compared to case study two (PACP). This is due to the fact that case study one is a much older organisation (established in 1939 and given its current name in 1988), and since the “founders often create an organisational culture” (Bass & Avolio, 1993: 114), such cultural aspects are more evident in case study one than the newly established organisation in case study two (established in 2011). This resulted from the organisation's culture created by its highly educated, techno-savvy, technology-driven leadership. As a result, this culture is being implemented at the organisation's top level which is leading to adoption of OSNs by other employees who are a largely young and educated workforce. Comparatively, in case study one (MM) institutional changes to accept new technologies such as OSNs and to modify the existing organisational culture needed more time to be accepted by older employees at the three staff levels. The fact that “to accomplish the needed changes in an organisation's culture, it is essential for top administration to articulate the change that is required” (Bass & Avolio, 1993: 115), and that would not happen without some resistance

among top and middle staff. However, adopting OSNs as perceived by many participants in case study one was due to social pressure and the trend of using OSNs in Omani society, which helped ease employee resistance.

(iii) In terms of the institutional theory, isomorphic pressure was felt by participants in both case studies. However, in case study one, coercive pressure was perceived to be greater compared to case study two as indicated by many participants. On the other hand, normative pressure was considered by participants to be a more significant factor in the implementation of OSNs in the early stages and continued to be exerted by citizens on both case studies. But this time it was pressure to use OSNs more effectively and efficiently, to improve public service quality or improve efficiency when addressing public complaints and concerns.

The previous discussion highlighted the research evaluation and validation processes for qualitative research in general and for this study in particular. The next section is the discussion section will identify similarities and differences in the research findings compared to other studies examining e-government/OSN diffusion and adoption, organisational changes and culture.

### **6.3 Discussion**

Before going further into the discussion sections, it is appropriate to remind the reader of the main questions in this research in order to demonstrate whether the findings have provided answers to these questions. The research main questions were “Does the use of online social networks in government organisations increase transparency and promote participation and collaboration with the public? How? Why?” The following sections discuss the answer to these questions.

#### ***6.3.1 E-government/OSNs Diffusion and Adoption***

##### **6.3.1.1 Attitudinal Belief**

Attitudinal belief is used to explain RA, complexity and compatibility of a participant’s perception of e-government and OSNs, and whether the use of OSNs is favourable or unfavourable in government organisations (Ajzen, 1991; Ajzen & Fishbein, 1977; Macredie & Mijinyawa, 2011).

When examining RA and considering the benefits that e-government and OSN usage provides, participants’ responses included benefits such as effective communication, fast/instant responses, transparency, increased public participation and collaboration. Other benefits included an increase in employees and public awareness, knowledge of government services and processes as well as

improved work efficiency, effectiveness and accountability. However, despite participants at the three levels (high, middle and low) agreeing about such benefits, they viewed some benefits through different lenses depending on their managerial level. For example, high- and middle-level staff were more concerned with minimising public criticism by addressing public complaints posted on OSNs faster than those received through traditional means such as phone calls. Public interaction with received feedback was reported by participants to have increased. These interactions were considered important benefits of OSNs that helped increase public awareness and knowledge of organisation services and processes, which directly helped decrease public criticism.

Participants in both case studies admitted that public interaction allowed them to increase their work efficiency by utilising the information they received from the public when addressing public issues. Such information might include pictures or video clips which allowed employees, particularly those working in the field, to carry out their tasks in a way that saved operational costs and time.

On the other hand, information transparency had increased, and government organisations were providing the public with the information they needed and/or sought. However, a number of participants believed that transparency could be improved even more, to match the public's increased awareness, demands and knowledge. Nevertheless, there were concerns and questions about where the line could be drawn on what information to share with the public.

Participants in this study believed that their organisations had witnessed great benefits as a result of adopting OSNs, in terms of work efficiency and effectiveness. Transparency had increased employees' accountability in front of the organisation and the public and interaction and public collaboration had helped to address issues at a much faster pace and manner.

RA has been assessed in different studies on the same topic in the Arab world. For example in Jordan (Abu-Shanab, 2014; Alomari, 2014), Saudi Arabia (Alateyah et al., 2013), the UAE (Al-Zaabi et al., 2012) and Oman (Al-Busaidy & Weerakkody, 2011; Al Salmi & Hasnan, 2016). These studies share similarities in terms of validating the significance of RA factors with respect to the adoption and use of e-government services in the Arab world, and share similar findings to the current study. This study differs from these studies, however, in that it is a qualitative interpretive study that deeply investigates the adoption and use of e-government, particularly OSNs, which are



a relatively new e-government service that governments in the region started to adopt following the 'Arab spring', in particular "to overcome many of monumental barriers for re-inventing public service in the Arab world" (Mourtada et al., 2014: 3). Furthermore, "the impact of RA on the adoption of IT in general and e-government in particular has not been examined as a theme in studies utilising qualitative methods" (Alomari et al., 2014: 135), particularly in the Arab region where a dearth of literature is common.

Complexity and ease of use were examined in the context of the current study. The easiness and simplicity that characterises the use of OSNs means they have gained in popularity among people of all ages and walks of life. Complexity has been examined in many studies of e-government and OSN adoption and use. These studies viewed complexity as an important factor when adopting e-government and OSNs (Al-Hujran et al., 2015; Alomari et al., 2014; Alraja et al., 2016; Mergel, 2014), which can lead to failure of e-government projects (Hawari & Heeks, 2010). The findings of this study were specifically supported by a Mergel (2014) study which stated that in the case of OSNs the degree of ease of use was very high among all users, which is identical to what participants at the three levels reported in both case studies in this research.

Compatibility was also examined in the context of this study and a high level of compatibility was found between the use of OSNs and the organisation's work. Participants said the use of OSNs was compatible with their work and fitted well with e-government services that sought to encourage public participation and interaction. Compatibility was perceived in different ways by staff at different levels. High- and middle-level staff viewed OSN compatibility mostly as a tool that provided them with public feedback and service evaluation, which helped them evaluate, plan and improve as decision-makers. Low-level staff, on the other hand, identified several areas in which OSNs fitted with their tasks. For example, field employees (Figure 6.1) stated that OSNs allowed them to carry out their daily tasks efficiently and accurately by using the information, pictures or video clips they received from the public. In Figure 6.1 the field employee is addressing a citizen's complaint, received through Twitter, about an unlicensed seller. This led to the inspection of the location and confiscation of the items.



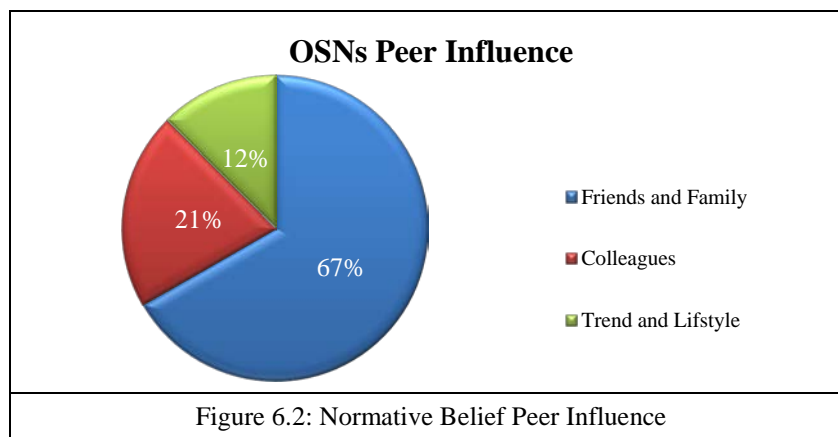
Mobility and instant messaging capabilities targeting a wider audience were the two functions of OSNs perceived by participants to fit with their tasks. In fact, the recent development of mobile technologies, alongside OSNs, allowed employees to carry out their tasks regardless of time and location (Zhang & Jasimuddin, 2015), which is what this study found.

Several studies identify compatibility as an important factor when adopting e-government and OSNs (Al-Wahaibi et al., 2015; Carter & Bélanger, 2005; Chan et al., 2011; Rabaai, 2015). However, these studies focus on identifying compatibility factors solely on the success or failure of e-government adoption. This study, however, was an interpretive study that sought to explore and examine in depth the adoption and use of OSNs in the provision of e-government services and how they fitted with employees' work. The use of OSNs was considered compatible with the organisations not only to facilitate the use of technology, but also as an essential tool for employees when carrying out their daily tasks. Further, although compatibility level varied according to employees' tasks, it still represented an important source of information and a communication tool for all employees. However, field employees in particular, who were usually on the move, depended more on OSNs to interact with their departments and the public in order to exchange information. This information might include identifying the location of the complaints or acquiring further information for clarification. Such information was considered important and helped them carry out their tasks more efficiently. Therefore, by being instantly connected to their departments and the public, they were able to acquire the necessary information and increased their work effectiveness (through fast communication and accurate information) and efficiency (able to carry out their tasks quickly).

### 6.3.1.2 Normative Beliefs

Normative beliefs or subjective norms are used to identify and explain the influence of reference individuals' or groups' approval or disapproval of performing a given behaviour (Ajzen, 1991; Macredie & Mijnyawa, 2011; Taylor & Todd, 1995b).

The findings of the current study confirmed previous studies' findings on the role friends and family members play in the adoption and use of OSN tools (Al-Shafi & Weerakkody, 2010; Rabaai et al., 2017). In this study, 67% of participants in both organisations indicated that their friends and family members played significantly influenced their normative beliefs in deciding to adopt OSNs. Figure 6.2 summarises participants' normative beliefs peer influence.



Further, this study focuses on a conservative developing country where the social environment plays an important part in influencing what people do (Al-Azri, 2013). This finding in such a context is, therefore, not surprising.

Enhancing self-image was found to be one of the benefits many participants believed to result from OSN adoption. For most participants, OSNs was a tool to increase their knowledge and understanding of work-related issues. The findings revealed OSNs were considered more important for higher-level officials, reflecting a positive image of themselves as their image could be directly linked to the organisation they represented. Hence, if their personal image was positively viewed by people, then a positive image of the organisation would be developed and vice versa.

The findings also revealed that an organisation's active use of OSNs was reflected in how positively it was received by the public. Yet, this was conditioned by the degree to which this use

and interaction reflected and addressed public concerns. These findings are in line with previous studies (Carter & Belanger, 2004a; Shareef et al., 2011)

### **6.3.1.3 Perceived Behaviour Control Beliefs**

Perceived behaviour control beliefs help explore factors controlling the use of e-government and OSNs. They include participants' self-efficacy, confidence, motivation and the support they receive. This study revealed the effect OSNs played in increasing participants' self-efficacy, confidence and motivation at work. It also demonstrated the effects of facilitating conditions in the adoption and use of e-government and OSNs. Similar studies exist in the literature that recognise these two elements as important factors in the adoption of e-government or OSNs. These include Shareef et al. (2011) in Canada, Chan et al. (2011) in Hong Kong, Rana et al. (2017) in India. This was also confirmed in some of the e-government adoption studies in the Gulf region. For example, in Oman (Al-Busaidy and Weerakkody (2010) and Sarrayrih and Sriram (2015), in UAE (Al-Zaabi et al., 2012), in Qatar (Al-Shafi & Weerakkody, 2010) and (Alshehri et al., 2012). However, these studies focus on the landline infrastructure that e-government utilised for their connectivity, while this study sheds light on mobile infrastructure, which is considered essential for the use of OSNs alongside the use of smart devices. Oman leads the Arab region with around 90% of total users accessing SM through mobile devices (Salem, 2017).

### **6.3.2 E-government/OSNs and Institutional Theory**

As discussed earlier in the findings, institutional theory was used to explain the isomorphic changes that were identified through three types of pressure: coercive, mimetic and normative. Through these three types of pressure, the organisations in the two case studies faced pressure to conform to the shared values of resources, goals, public trust and legitimacy, to enable them to compete as top government organisations and use OSNs effectively to promote their services and increase public participation. The evidence indicated that the three types of institutional influences (coercive pressure, mimetic pressure and normative pressure) contributed to the influence of OSN adoption and use in this study. Further, when these institutional influences were examined, as a whole and evaluated as a set of factors, their influence on the adoption and use of OSNs yielded higher influences. Similar findings were reported by Teo et al. (2003) who examined the adoption of an inter-organisational system.

### 6.3.2.1 Coercive Pressure

This study considers coercive pressure an important element in the adoption of e-government solutions and was recognised by the regulatory body in Oman to have helped develop e-government solutions and public participation. As a result, both case studies were recognised and awarded some local and regional prizes, as indicated earlier, for their fast implementation of e-government solutions.

Indirect coercive pressure can be identified as being exercised by international organisations such as the United Nations Public Administration Network (UNPAN) which conducts international surveys to evaluate countries' e-government readiness. Governments in developing countries are encouraged by indirect pressure from the UN to conform to world standards in implementing e-government, and are forced to improve their infrastructure, public participation and information transparency as part of e-government enhancement (Al-Mamari et al., 2014). Therefore, regulatory bodies in each country (e.g. ITA in Oman) are under pressure to improve their e-government elements in order to improve their UN evaluation which reflects a country's initiatives and commitment to e-government. This can also mean exerting pressure on government organisations to adopt and implement new solutions in e-government such as OSNs, to enhance public participation and increase information transparency.

Coercive pressure was also recognised in the literature to be an important factor in the adoption of ICT innovation. DiMaggio and Powell (2000) recognised coercive pressure in the form of a direct government mandate and in this study the ITA e-government transformation plan was a direct government mandate that all government entities had to follow. Teo et al. (2003) acknowledge that organisations' decision-makers tend to comply with their dependent organisation (regulatory body), policies and practice because their performance is subject to evaluation by these bodies. In this study, the organisations in both case studies were concerned about the evaluation of their services by both local government bodies (ITA) in implementing e-government solutions and in the social context (the public) in promoting participation and interaction.

### 6.3.2.2 Mimetic Pressure

According to DiMaggio and Powell (2000) uncertainty encouraged mimetic pressure. Uncertainty was not recognised by participants in either case study to be a strong factor in their adoption of e-government solutions. In fact, both case studies placed themselves among top government entities in adopting e-government and OSNs, and that was why mimetic pressure could not be significantly

identified. The study revealed that other government organisations sought to model both case studies' e-government and OSN experiences in their environments because they perceived both case studies to be successful e-government models. Therefore, both case studies received many visits from other government organisations, asking them to share their OSN adoption experiences and provide help in adopting and setting up OSN sections. Further, in case study one (MM) the study found mimetic pressure was more visible and occurred at regional rather than local level because of public comparison of other successful models in the same field at regional level. On the other hand, participants in case study two (PACP) revealed that other regional organisations enquired about their OSN implementation and successful implementation experiences (to mimic them) when dealing with public matter. In fact, as explained earlier in the findings, the organisation was regionally recognised by winning leading GCC prizes as one of the top government organisations in the region for encouraging community participation and adapting the latest technologies.

Mimetic pressure was discussed in literature that examines technology adoption and use. It was recognised by Teo et al. (2003) as an institutional influence in the adoption of IT and as competitive pressure by Chwelos et al. (2001). In this study both case studies placed themselves among top government entities in adopting new e-government and OSNs solutions, which is why mimetic pressure could not be significantly identified.

On the other hand, Zheng et al. (2013) revealed that mimetic pressure was not a significant influence in China's e-government adoption but could indirectly influence another force (coercive) in e-government adoption, which was not the case in this study.

### **6.3.2.3 Normative Pressure**

The third type of isomorphic change discussed in this study is normative pressure. As explained in the findings, participants in both case studies identified normative pressure as being exerted on the organisation to adopt and use OSNs. In fact, almost all participants highlighted the increased use of OSNs by the public, which they called a 'trend' and which was forcing government organisations to adopt OSNs in order to communicate with people using the same tool they used to communicate with their social networks. The study revealed that over time and, once organisations started to use the tools, public pressure escalated from pressure to adopt OSNs to pressure to use them more effectively. Similar findings were reported by Zorn et al. (2011) in a study that examined the adoption of ICT in non-profit organisations in New Zealand, in which

normative force (pressure) was found to be stronger once the innovation was adopted. Further, as discussed in the findings, the use of OSNs increased public awareness and knowledge of the organisation's roles and services, thereby allowing people to challenge any information the organisation posted and leading to a more transparent input.

Based on current study results, it appears that normative pressure was exerted on employees at all three levels. This pressure enhanced their work, particularly when interacting through OSNs which led to faster response times and a higher level of transparency when addressing public complaints. Increased use of OSNs by the public (extent of adoption) led to more public discussion and evaluation of organisation services and public affairs. That meant that more pressure was being exerted on the organisation's senior staff to be more efficient and provide better quality services, to avoid public criticism. According to middle- and low-level participants, normative pressure was exerted and felt more at the high-level because that was where responsibility for decision-making and developing policies lay. Participants in both case studies insisted that many top officials in their organisations were now using their own OSNs to follow their organisations' OSN accounts and view public discussion, and to participate interactively in discussions and evaluate feedbacks. This was in order to improve organisation services and gain public trust. This finding was also reported by a Zheng et al. (2013) study which examined non-profit organisations' ICT adoption and stated that, "In public administration organisations, the top management teams are largely affected by normative pressures from the norms of adoption that emerge in the environment" (p. 231).

Among the three types of isomorphic pressure, the study findings indicated normative pressure to be the strongest influence on the adoption and effective use of OSNs. This finding was revealed by a Teo et al. (2003) study which showed that, "Among the social indicators, normative pressures exhibit the strongest influence on organisational predisposition towards [innovation]" (p. 39). In addition, public demand (normative pressure) was found to be a major driver for SM adoption by government organisations (Sharif et al., 2015; Zheng et al., 2013).

### ***6.3.3 E-Government/OSNs and Culture***

As mentioned in Chapter 2, many studies exist that identify culture and highlight its importance in relation to the adoption of IS/IT. Further, when considering developing countries, which this study does, matters associated with ICT innovation such as socio-organisational changes, cultural and

social forces behind innovations need to be assessed (Hill et al., 1998; Irani et al., 2007; Irani et al., 2008; Srite & Karahanna, 2006). Culture was examined in Chapter 5 through the lens of Schein's model and a discussion of this will be provided through the following culture layers.

### 6.3.3.1 Artefacts (Layer 1)

The focus of both case study organisations was to promote OSN adoption through their websites, social news and functions. OSN symbols were extensively used in many forms to promote OSNs and were visible to those visiting the organisations' websites. Figure 5.1 provides an example. Further, participants mentioned that they now interacted with people who used OSNs at any time of the day, which was apparent to anyone visiting the organisations' OSN accounts. In addition, participants in both case studies said they were forced to work longer hours and when on holiday because of increased public interaction. This had created new, visible artefacts among employees. However, and despite this behaviour, many of them perceived this as a positive sign of new belief and a change in culture among employees and the public regarding the benefits that OSNs could provide when it came to changing government work culture and public–government interaction.

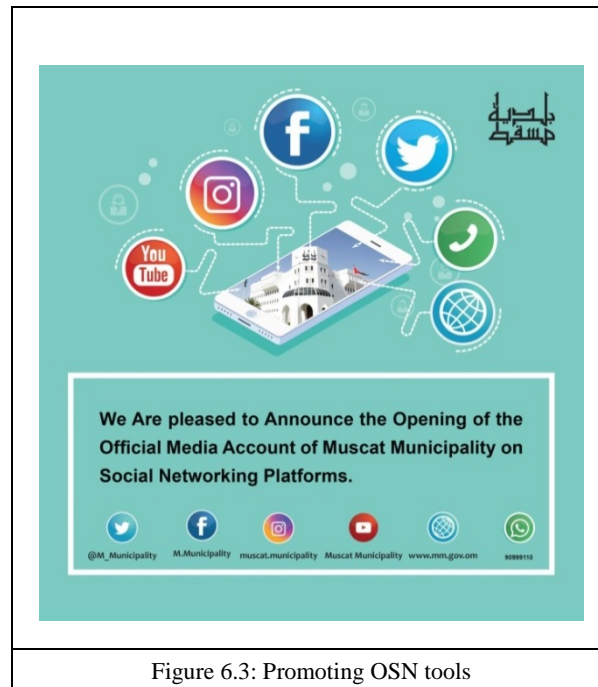


Figure 6.3: Promoting OSN tools

### 6.3.3.2 Espoused Values and Norms

It was suggested that cultural and social contexts help develop values, norms and knowledge as well as helping employees to improve their work (Dose, 1997; Hogan & Coote, 2014). As



explained in the findings, participants developed a sense of responsibility and accountability towards their work as a result of OSN use. Public expectation of better government services as a result of increased OSN usage, participation and interaction with government organisations had increased. OSNs had promoted more open public discussion and evaluation of government services which generated more feedback about the quality of public services. These changes in employee values and norms helped promote a work culture that focused on openness, transparency and responsibility in both case studies, driven by a public that played the role of external inspector of the organisations' services and employees' work. Therefore, many participants indicated their joy and satisfaction when members of public posted their appreciation of better services or quick responses to their complaints. Such behaviour became part of the organisations' culture regarding the use of OSNs.

The change in organisation values and norms to a more responsible belief in the work environment was extended to other government organisations, which modified their work culture. This also introduced a more collaborative behaviour to government organisation interactions because of increased transparency facilitated by the use of OSNs. It was clear, in both case studies, that organisation culture was encouraged by management support and its vision to adopt new technology and utilise e-government and OSNs. However, as highlighted in the cross-case analysis in the findings chapter, management support was more noteworthy in case study two than case study one. This was related, as mentioned before, to the relative newness of case study two and the high level of education of its management and employees. In fact, those elements helped in establishing the organisation's culture and promoting the adoption and use of OSNs. Similar findings have been reported elsewhere concerning the importance of education levels and IT, and e-government adoption (Alshehri & Drew, 2010; Hill et al., 1998; Zhao et al., 2012).

### **6.3.3.3 Basic Assumption and Beliefs**

As explained in Chapter 2, employee beliefs, which are considered the least visible, tend to be large, implicit, unconscious and appear only at employee level (Hogan & Coote, 2014; Vroom & Von Solms, 2004). These beliefs are influenced by senior and middle management and a social context that helps develop or change attitudes regarding the use of technology. The research findings revealed that in case study one employees' beliefs were diverse despite their views on the importance of OSNs in their work. This difference was noticed among employees who worked in the field, such as food inspectors and employees who worked in departments that were less

involved with public services. Field employees had heavily adopted OSNs as the main tool to carry out their daily tasks and consequently had a more positive approach that focused on efficient and effective work when dealing with public matters. On the other hand, employees who dealt less with public services were more relaxed about adopting OSNs as part of their work. However, both believed and encouraged the use of OSNs and perceived their use to be changing the organisation's culture. OSNs were considered to be important element of their work environment. This variation was also identified in the findings when participants reported some resistance among organisation employees who preferred their old work practices and took longer to change their attitudes and behaviour in terms of adapting to the use of OSNs.

The case was different in case study two, as per the research findings, where all employees perceived OSNs as important tools for facilitating their work environment regardless of their link to public service departments. Further, the findings showed no signs of resistance among employees towards the use of OSNs.

This behaviour encouraged the development of an organisation culture that viewed technologies as the way to promote public participation and improve work efficiency in the future.

Many studies emphasise the importance of culture on technology adoption in IT/IS, but a smaller number focus on e-government/OSNs. Further, culture has been highlighted in several studies of developing countries that focus on diffusion of e-government. Such studies include Baker et al. (2011), Olasina and Mutula (2015) and Twati (2014). Furthermore, the Arab world is considered by many to have a number of complex societies in which culture and social systems can play an important role in ICT adoption and resistance (Baker et al., 2011; Hill et al., 1998; Straub et al., 2003) However, with the use of the internet and more recently OSNs, it has encouraged people (employees) to change their culture, beliefs and communication patterns (Al Omoush et al., 2012). This acceptance of new technology has helped change the work culture in organisations. The research findings indicated changes in organisation culture through changes in the three layers, as explained in the findings chapter. But changes in the two case studies emerged from a different starting point. Similar findings have been reported in various studies, such as Baker et al. (2011) in Saudi Arabia, Al-Hujran et al. (2015) in Jordon, and Al Omoush et al. (2012) in several Arab countries. The study also revealed a cultural emphasis on values (for example, management support, appreciation, respect) and assumptions or artefacts when developing organisation culture, which could be linked to the Arab culture and social system when it came to ICT adoption (Hill et

al., 1998; Parker & Bradley, 2000; Straub et al., 2003). However, this was not the case in some studies such as Howard (1998) and Parker and Bradley (2000) which placed more emphasis on values rather than assumptions or artefacts when it came to organisation culture.

## **6.4 Research Implications**

This research is expected to have implications for academia, policymakers and the e-government/OSNs industry which are discussed next.

### ***6.4.1 Research Implications for Academia***

E-government solutions such as OSNs are still evolving in many developing countries. Among the Arab countries, Gulf region countries are most advanced in terms of e-government implementation (Salem, 2017; UNPAN, 2014). This research examined the use of OSNs in government organisations in a developing country with respect to diffusion and adoption theories, institutional theory and culture. The study, therefore, has implications for theory development with respect to institutional changes and the influence of culture in the adoption and diffusion of e-government solutions. Academia can benefit from the developed conceptual model which can be applied by scholars to similar contexts in which culture and social factors play a central role in society.

### ***6.4.2 Research Implications for Policymakers***

This study identified important issues related to e-government, OSN adoption, institutional change and social and organisation culture, which could have implications for policymakers in public sector organisations. It provides an understanding of the wide range of issues surrounding the adoption of new technologies which, if used by policymakers, will assist them in realising their institutions' aims. Policymakers can benefit from various factors that help increase public participation and understand public needs. It is also important for policymakers to benefit from the study findings in terms of how to develop their OSN policies, think more about citizens and involve them in decision-making, particularly when public services are discussed. The study also provides an understanding of factors that encourage the adoption of e-government solutions such as OSNs and how to encourage citizens to communicate effectively with government organisations. Further, it focuses on the importance of organisational culture and social influence and sheds light on how these factors should be considered and addressed to modify organisations and employees' behaviour with regard to new innovations. The study provides policymakers with another

dimension of knowledge and understanding to consider when e-government solutions are adopted. In addition to providing a better understanding of the use of OSNs by government organisations in developing countries, it helps bridge the knowledge gaps in the available research and provides practical proposals to the Omani government and other governments in similar developing countries that could aid their successful adoption of effective e-government applications, particularly OSN tools.

### ***6.4.3 Research Implications for OSN Industries***

The use of e-government/OSNs in public sector organisations highlights the importance of mobile infrastructure and smart devices to enable citizens and employees to interact with government organisations. This study provides internet service providers and industrial organisations with a knowledge and understanding of the implementation of OSN use in the Omani workplace to enhance service provision in remote areas of Oman. Improving internet coverage should enhance citizen participation in remote areas by providing them with the opportunity to interact with various government organisations by using their smart devices. This will enable them to benefit from e-government/OSN implementation and e-services and aid employees in carrying out their work by using cost-effective tools and OSNs via smart phones. In addition, it also provides a good opportunity for the development and diffusion of e-government solutions and will be useful to OSNs providers interested in working in Oman or similar contexts by providing them with valuable information about the successful application of OSNs in government agencies, which they can use to improve current applications and/or provide new services or features.

## **6.5 Summary**

This chapter discussed the findings of the research and reflected on the theoretical validation based on qualitative criteria. The chapter also shed light on the similarities and differences between the research findings in the three examined areas (adoption, institutional and culture), with respect to research in the current literature. The research implications for academia, policymakers and the OSN industry were also discussed.

The next Chapter (Chapter 7), which is the final chapter of this study, will provide the final summary of the entire thesis, research conclusions, contributions, limitations and suggestions about the way forward (future research).

## Chapter 7 : Summary and Conclusion

### 7. Introduction

Having evaluated the research study's findings and provided the discussion to this study and the implications, the next step is to draw this study to a close, which is the purpose of this chapter. In this final chapter, the summary and conclusions of the entire thesis will be presented as well as a discussion of the limitations and challenges faced during the duration of the study. Finally, the implications and contributions as well as the recommendations and future directions are provided.

#### 7.1 Summary of Chapters

To familiarise readers, **Chapter one** began by introducing the research study's purpose, by providing background information on the context of this study and an overview of the various issues surrounding the adoption of e-government and ONS applications. In this section there was emphasis on developing countries, specifically those of the Arabian Gulf, as the context of this study is Oman. The chapter also identified the research problem and the researcher's motivation for pursuing this study, which centres on OSN use in a developing country's public sector. The main aims and objectives of the study were then stated along with the research questions, research importance and the scope of this study. To familiarise readers with this study, an overview of the research approach and justifications for its use were provided. The chapter ended with an overview of the thesis structure and summary of the chapter. In conclusion, chapter one contained a brief background to OSNs, definitions, and identified the research aim and questions guiding this research. To familiarise the reader of the research, a brief explanation of the research methodology and scope were provided. The chapter provided an introduction that allowed the reader to be familiar with what this research was focusing on and how the rest of the chapter was formed.

To pursue this study, a theoretical aspect was needed and that was provided in **Chapter 2**. This chapter provided a theoretical review of the various themes forming the basis of the theoretical foundation of this study. It offered the reader definitions of key terms and principles such as e-government, OSNs and Web 2.0. The chapter then reviewed related theories and research on e-government adoption and diffusion, institution (institutional theory, stakeholder theory, agency theory) and culture (Hofstede's theory, Schein's theory). This chapter and the literature review

were fundamental to equipping the researcher with the knowledge, understanding and skills needed to develop the theoretical and conceptual framework for this study and the methodology to pursue in order to achieve the study's objectives and ascertain the study's research questions. In the conclusion to Chapter 2, the conceptual framework for exploring and understanding the use of e-government/OSNs in public sector organisations in Oman was described. This involved exploring the effects of OSN adoption and diffusion, institutional changes and culture in light of available literature.

To apply the theoretical aspects, a research methodology was needed and that was provided by **Chapter 3**. This chapter offered a description of the philosophical assumptions of the research, its design and approaches, and explained the research procedures and the reasons for their use. An overview of the research approaches was provided and the validation of the use of the qualitative approach, which was perceived to be more appropriate than the quantitative research approach, was stated. Further, the research techniques were also introduced and explained, and a justification for pursuing a specific data collection technique was provided. This led to the selection of the interview as the main technique for data collection along with the use of additional methods of observation. Data analysis approaches were discussed together with the rationale for the use of the case study method. To conclude, Chapter 3 explained and justified the use of the qualitative approach, multiple case studies, and interviews and observations as the data collection strategy, which would lead to the use of the ground theory data analysis approach used in the research design and in the findings and analysis of the pilot and the final phases.

To determine whether the theory could be applied in real life, a pilot was conducted. **Chapter 4** discussed and explained the pilot study findings and analysis. The pilot study was considered an essential part of this research. According to Yin (2009) a pilot case study can help the researcher refine data collection plans with respect to the content as well as the procedures to be followed. The researcher benefited from this phase in developing the research design and built his understanding of public sector culture, to better prepare for the final data collection phase. The pilot consisted of two stages: the first involved the observation of 18 participants and the second included interviews of 19 participants. The findings of the pilot study helped the researcher to develop better questions and gain more knowledge about conducting interviews and analysis. Furthermore, the findings helped refine the conceptual model primarily developed in Chapter 2. To conclude, Chapter 4 covered the pilot phase of this study which was an important and beneficial

part of this research, providing a valuable insight into the literature reviews. It allowed the researcher to gain experience in data collection methods and data analysis processes as well as helping to refine the initial conceptual framework for representing the pilot research findings.

Having completed the pilot phase, the next step involved a larger study, which was the final phase, described in **Chapter 5**. Chapter five provided and discussed the main research findings. Multiple case studies were used for the collection of data, consisting of the observation of a total of 19 participants and interviews of 25 participants from both case studies. The discussion of those research findings included within-case analysis and cross-case analysis, depicting the similarities and differences between the two cases and the reasons for them. A revised conceptual framework was then provided based on the discussed research findings. To summarise, Chapter 5 provided the final findings of this research through the analysis of within-case and cross-case data. The findings explained the importance of OSN use in government organisations for increasing information transparency and promoting citizen participation and collaboration. It also explained organisational changes brought about by coercive and normative pressure with respect to OSN use. OSNs Cultural influence at organisational and national level was also examined through the use of Schein's model. These findings led to the development of the final conceptual framework of this study.

To evaluate the impact of this study and discuss the findings in light of the literature, **Chapter 6** was provided. Chapter six discussed the research validation and presented the evaluation processes used in this research. This allowed for the generalisability of the findings and ensured the research findings were applicable in practice. This was followed by a discussion of the research findings in light of the available research, noting areas that this study supported or contradicted. This was in terms of other studies found from the wide literature review on similar issues and was followed by discussions of the research implications. In conclusion, Chapter 6 discussed the research validation and evaluation processes and measured the study validity and its outcomes with respect to the formative and summative evaluation processes used in this research. Further, the discussion section provided a comparison between the research findings and existing, related studies in e-government/OSN implementation, organisational changes and changes in culture that allowed this study to take place.

## 7.2 A Conclusion to the Research Study

The aim of this research was to explore and understand the use of OSNs in public sector organisations in a developing country, namely Oman. To achieve the research aims and to provide both theoretical and practical insights into the implementation and use of e-government/OSNs and related institutional and cultural aspects, several Omani public sector organisations were used as case studies.

From the study it was concluded that the adoption and use of e-government/OSNs is not only about the use of technology, but involves institutional, behavioural, social and cultural aspects. Gaining knowledge of these areas led to an exploration and examination of these aspects, particularly OSN adoption and diffusion, institutional theory and cultural changes, and provided real-life evidence of how important these aspects are in the success (or failure) of e-government initiatives. There are many gaps in the research of e-government generally and within the GCC. This is true of research on OSNs, due to its novelty and its rapidly changing place within society and organisations alike (Boyd & Ellison, 2010; Mergel, 2013a). This is where this study should be beneficial as it will bridge gaps in the literature and provide a new, real-life perspective for the use of e-government/OSNs in developing countries' public sector organisations. This study has also developed a framework that is based on the current literature and the interpretive findings from the pilot and final case studies, to offer evidence and narrow the gap between e-government/OSNs use, institutional and cultural theories and practical practices.

The study explored in depth the use of OSNs in government organisations and how OSNs have impacted such organisations. This study showed that OSN adoption has helped government organisations achieve their tasks and has improved employees' work at all organisational levels, as the levels of responsibility and accountability have increased noticeably since the use of OSNs began. This was because the employees felt that they faced continuous public monitoring and evaluation. High levels of transparency and work efficiency were also direct results of the application of OSNs, as organisation services were delivered rapidly due to the nature of the instant and accurate information acquired by using OSNs.

Similarly, the study explored the cultural issues surrounding the adoption and use of OSNs in government organisations at both national and organisational levels. At national level, it is clear that OSN adoption is a trend in society that has led to cheaper, more efficient and effective



communication channels which have proved important in social contexts. Omanis from all walks of life have adopted OSN tools in their daily communications and they have become an indispensable element of their lives. This trend in society was reflected in the organisational culture when adopting government-provided OSN tools. The traditional work culture that was prevalent in such organisations was transforming as the organisations increased interaction with citizens, employees worked longer working hours, and transparency, accountability and efficiency increased.

Additionally, the study identified institutional changes within government organisations that stemmed from various institutional pressures (forces). These forces were coercive, mimetic and normative and varied between organisations. However, from our research, it was found that normative pressure was most significant in this study's context as the diverse case study organisations were considered to be leading entities in the adoption and use of OSNs in Oman.

The interpretive approach which this study used along with data triangulation (interviews and observation) helped provide depth and richness to the study. Further, the use of in-depth interviews as the research data collection technique was considered important for this type of research in Oman because it allowed face-to-face contact that was important for this interpretive study, particularly with the majority of participants being involved in a research study for the first time. Therefore, the use of qualitative research was also important to allow for a deeper understanding and probing of this phenomenon.

### **7.3 Reflections of this Research Study**

Reflection is an important element in the process of learning and in building knowledge and expertise. The following points summarise my personal reflections on my current research journey:

- I completed my MSc studies back in 2000 which meant that I had been distant from academic studies for more than 14 years. Going back to academic research was not an easy task. However, I was determined to make it work. Being a mature student with a purpose, various work experiences and skills helped ease this challenge.
- The initial expectation of gaining professional knowledge and enhancing research abilities and processes was fulfilled through this journey. As a researcher, my knowledge of ethics,

methodological philosophies, analytical issues and academic writing have improved very much through the use of the university's learning centre resources, academic courses, participation in workshops, interaction with my supervisors and colleagues, conference attendance and through the practical process of embarking on the PhD journey.

- As a researcher I now look at issues with wider and deeper lenses that consider the importance of research and its findings in investigating and practically developing empirical views and recommendations.

Reflecting on diffusion, institutionalism and culture we notice other important themes.

- There should be an emphasis on the culture of a study, which in this case was the Omani context. By exploring this issue, we learnt of the changes in working practices as well as an awareness of OSN-related matters. Therefore, we needed to pay more attention to how culture can be incorporated when planning to introduce or adopt a technology (innovation) in government, particularly e-government solutions.
- All the findings of the study confirmed the benefits of using OSNs from the point of view of participants, who represented the government institutions and at the same time reflected on their roles as citizens. This was noticed by the researcher during the interviews when participants provided their views in terms of being a public sector worker as well as a citizen; thus a merging of views in terms of citizens and workers was apparent.
- The findings demonstrated that workers are confused about the types of content that can and should be posted on OSNs; this was more so in cases when interaction with members of the public occurred. Clarification is all about the limits of transparency with respect to posting content, and the responsibilities of citizens versus the government. At this juncture, suggestions were made about the formation of a policy that defines the boundaries for a citizen and a public sector worker. As a result, the government is currently attempting to provide a policy that defines and explains the rules and regulations about the content and responsibilities of citizens and workers in an OSN environment.
- The finding revealed that OSNs had altered Oman's government work culture and its social culture and certain traditional practices. As explained in the finding, OSNs provided women with an equal opportunity and a forum to interact with government organisations.

This change is important for Oman as it provides government organisations with input from both genders, which is important for quality assurance and improving public services.

- This study is also important for developing countries and highlights the important roles social and cultural contexts play in the success or failure of new-technology adoption. In addition, OSNs are considered easy to use by different types of people (ordinary, educated and non-educated, different genders, young and old) and continue to gain popularity in developing countries as an indispensable communication medium (UNPAN, 2014). Therefore, governments in developing countries are encouraged to see OSNs as a practical and quickly implemented technology to communicate and interact with their citizens, particularly in contexts where limited budget and broadband infrastructure prevail.

## 7.4 Research Challenges

The challenges faced when researching a topic such as this fall into three categories:

1. **Availability of research and literature:** research in the area of OSN adoption in government organisations in developing countries and the effects of such use is a relatively new area of research. Both the novelty, scarcity of relevant research and fast-changing nature of this field posits challenges to researchers. This study focuses on the use of OSNs within the scope of G2C, which is new to Oman. This has meant that relevant literature, particularly on OSN use and its culture in developing countries is scarce. Further, this research was conducted in a developing country where statistics, studies and essential information on the use of OSNs were not readily available, which led this study's researcher to consider conducting a qualitative study. This required immense efforts from the researcher as networks, contacts and convincing individuals to partake in this study were major issues of consideration.
2. **Obtaining access to data:** unobstructed access to government organisations was fundamental for such research. Without such permission, no amount of effort would have been fruitful. Understandably, organisations, whether private or public can be apprehensive about allowing a stranger and outsider to enter their physical space and research their daily work activities. Therefore, from this study, the researcher learnt that it is no easy feat to seek and obtain permission for conducting research in organisations for two main reasons:

the fear of exposure to outsiders, and identifying reasons for organisations to participate in a research study. The researcher had to overcome both factors. This was done by contacting individuals at the senior management level in each organisation and being very transparent and clear by explaining and presenting the purpose of the research and the research methods of the study as well as indicating the benefits of the study for the organisation.

3. **Gaining the trust of participants:** being a stranger and an outsider is a difficult position for a researcher to be in. This is particularly true at the start of a project. However, making several visits and the support of the senior management led to the participants slowly trusting the researcher. From this study, a very important lesson was that gaining the participants' trust is fundamental. This was achieved by clarifying the purpose of the study and emphasising its confidentiality, which involved using interpersonal and communication skills. Being an Omani and sharing a similar language and cultural background was also important for developing the trusting relationship between the researcher and the different participants.

Other challenges were mainly related to convenience and included distance. Since the researcher was based in the UK while researching the Omani case studies meant extra pressure and costs for the researcher. Use of the participants' first language for interviews also led to tedious and time-consuming processes as the researcher had to ensure that the research tools and transcripts were translated from Arabic to English. Other challenges involved interviews that could be cancelled at the last minute despite prior arrangements with the participants and reminders of the scheduled meetings being sent. The reasons for such cancellations varied, especially as higher and middle managers had many responsibilities; but overall, all the participants collaborated and accommodated the researcher's request to meet at a time convenient to both parties.

## **7.5 Research Limitations and Future Directions**

This study focused on two public sector organisations considered 'pioneering' in the area of OSN use in Oman. This could be due to the nature of their work which involved providing direct services to the public. Future research could examine different types of Omani public organisations that may not have direct links with the public, as well as the use of OSNs in private organisations. This study has focused on OSN adoption from the point of view of employees, but future research could

benefit and be extended by including other stakeholders such as the public and other government organisations.

This study also used the qualitative approach and case study technique as it was believed that these were the best ways to fulfil the exploratory nature of this study. Future researchers could experiment with other research approaches and methods, such as conducting a longitudinal study or having comparative studies and action research.

E-government is a relatively new and fast-moving topic particularly with the introduction of OSNs by many governments in developing countries. There are many areas of e-government/OSNs that still need to be studied. Future research should, therefore, further develop the understanding and knowledge related to these fields beyond the scope of this research.

- The development of the research framework was based on a government organisation in Oman as a case study. Therefore, this framework should be validated in a different context to extend its generalisability and contribution.
- This research focused on adoption, institutional and culture in the context of G2C (government-to-citizen) which is an organisation context. Therefore, future research can investigate the following issues: factors influencing the adoption of e-government/OSNs of G2B (government-to-business), and G2G (government-to-government) and G2E (government-to-employees).

An important context is also exploring citizen perception of e-government/OSN services. This is an important area to investigate in order to explore citizen perceptions and culture with respect to the implementation of OSNs by government organisations.

## **7.6 Research Contributions**

This research attempts to make a contribution by bridging the existing gap in knowledge and understanding in the area of e-government implementation and institutional and cultural changes, and particularly the use of OSNs, which is a relatively new phenomenon in developing country public sector organisations.

### ***7.6.1 Contribution to Theory***

It is expected that this research will contribute to theory by interpreting the existing literature on ICT and IS in order to consolidate studies on e-government/OSNs diffusion and adoption,

institutional changes and culture in social and organisational contexts. Understanding organisational changes and cultural contexts with respect to e-government/OSN use through the lens of institutional and culture theory within public sector organisations in developing countries is expected to enhance understanding of this field. This is achieved by using the qualitative research approach that provides a richer and deeper understanding of the phenomenon under research and the development of the research framework by applying three lenses to examine e-government/OSN use by government organisations.

### ***7.6.2 Contribution to Policymaking and Practice***

This study can contribute to policymaking in Oman and similar contexts by providing an understanding of a wide range of issues surrounding the adoption of new technologies that can assist policymakers in formulating policies that will enable the achievement of their institutions' aims. It also contributes to industry by enhancing OSN providers' knowledge, especially for those interested in providing OSNs in developing countries, by providing an understanding that can assist them in providing OSN services tailored to those specific contexts.

## **7.7 Research Recommendations**

This research is based on a developing country, Oman, and particularly public sector e-government/OSNs development. There are lessons that can be provided, and they recommended as follows:

1. This research explored the use of e-government/OSNs and focused on adoption, institutional and organisational culture within organisational contexts. These three factors need to be considered when new technology is implemented in order to increase a project's acceptance and reduce employee resistance. This is more so in a well-established government organisation where culture is deeply established and longer-serving employees' beliefs might vary.
2. The majority of participants indicated a lack of policy and clear guidance prior to the implementation of OSNs. This suggests that there is a need for a national OSNs policy in order to avoid the trial-and-error practice that most government organisations undertake when implementing OSNs. This is particularly true in cases where organisations know that there is a low cost of implementation along with an available internet-based infrastructure that makes them take a riskier approach to the development of a new system. Developing a policy for the

adoption and use of OSNs in government organisations, according to government officials, is in the later stage of development and awaiting approved by the Omani cabinet.

3. With the popularity of using OSNs among Omani individuals increasing on a daily basis, government organisations are no longer the only players in the market when developing policies and taking decisions, particularly with respect to public services. It is essential for government organisations to increase public participation, as one of the main stockholders, and to attend to citizens' opinions and concerns in order to avoid public criticism and improve public services. Therefore, citizen involvement in some decisions that relate to public services is essential.

Other factors that need to be addressed in e-government/OSNs research are ethical issues when attending to matters such as OSNs privacy and security. Privacy and security must be examined in order to develop a policy or guidelines for citizens and government employees using OSNs and to increase public awareness about posting personal data on OSNs. In this research some participants emphasised that some citizens sent their personal information openly due to their ignorance of security and privacy issues. Although public awareness and knowledge of OSN security and privacy is increasing, more investigation of issues affiliated with security is required so that trust in e-government products and services using OSNs can increase.

## **7.8 Summary**

This chapter drew the research study to a close by initially summarising each of the chapters. This was followed by the reflections of the researcher on this research journey, followed by research challenges, limitations and future directions. This chapter also offered some recommendations as well as the research contributions to theory, policymakers and practice.

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## Appendices

### Appendix I – Review of some E-government/OSNs Research in the Arabian Gulf

Author/ Year	Research Context	Research Topics	Summery/Conclusion
Fadi Salem, Racha Mourtada, Sarah Shaer 2014	focuses on the role SM is playing in public service design and delivery through citizen engagement in the Arab region.	Citizen Engagement and Public Services in the Arab World: The Potential of Social Media	The survey administered for this issue measures public attitudes and perceptions towards the adoption of SM by Arab governments for the purpose of public service delivery. Respondents were asked about their usage of government SM pages, their perceptions of benefits and risks involve in using SM for service delivery, perceptions towards possible improvements in government's use of SM, and government and civic SM practices.
B. Al-Jenaibi 2011	Exploring the current status of SM uses by the public in UAE and highlighted the challenges faced by the public in adopting OSM.	The Use Of SM in The United Arab Emirates: An initial Study	Study found that UAE's publics are using mostly Facebook, Twitter and YouTube. It shows that UAE/s are generally skilled and aware of the potential ethical and practical limitation of SM.
AlAnazi, J. M., & Chatfield, A. (2012).	Use of e-government/OSNs in the Middle East.	Sharing government-owned data with the public: a cross-country analysis of open data practice in the Middle East	The study examined the maturity level in open data implementation across the governments in the Middle East. The findings showed big variation between Middle East countries in the open data implementation concepts.
Al-Wahaibi, H. A., Al-Mukhaini, E. M., Al-Badi, A. H., & Ali, S. (2015)	The adoption of OSNs in government organisations in Oman.	A case study of the employment of social media in government agencies in Oman	The study examined several government organisation websites and social media usage by these organisations. The result showed 50% of government organisations not utilising the technology at all and use traditional methods to provide their services to the public.
Moaman Al-Busaidy & Vishanth Weerakkody 2011	Assessing E-Government implementatio, Uses and Obstacles in Oman.	E-government services in Oman: An employee's perspective	This research focuses on evaluating e-government services from citizen prospective, result show that generally the public are satisfied with this services and expressed confidence and trust in using government's e-services.
Moaman Al-Busaidy & Vishanth Weerakkody 2009	E-Government Uses in Public Organisations in Oman.	The E-Government Implementation Directions In Oman: A	The research revealed that among others, top management support, integration and IT staff skills and capabilities are the most important factors that facilitate e-government initiatives in the Omani public sector.

<b>Author/ Year</b>	<b>Research Context</b>	<b>Research Topics</b>	<b>Summery/Conclusion</b>
		Preliminary Investigation	
Salam Abdulla & Asharaf Khalil 2009	The potential of using online social media in the Arab world with a look at its use in Western world.	Web 2.0 and E-Governments: An Exploration of potentials & realities in the Arab World	This study shed light on current e-government sites condition and evaluates citizen engagement and collaboration with the government. The study found no evident of such collaboration despite proves those citizens are using web tools for various reasons.
Espinosa, A., & Al-Maimani, A. S. (2009)	Develop systemic approaches to diagnose and design a Knowledge Management strategy for the Public Sector in Oman.	A holistic approach to e-Government: ongoing research in Oman	This is an ongoing study explore public sector organisation to develop for supporting an e-government program, based on generic systemic and cybernetic principles.. The suggested framework also provides a basis for future empirical studies on the relationship between e-government strategies and organisational and Knowledge Management effectiveness.

## Appendix II – Review of Institutional Theories Studies

SN	Adopted Model	Papers	Findings
1	<b>Institutional Theory</b> Scott (2001), DiMaggio and Powell (1991))	Ashaye and Irani (2014)	Explore the e-government Implementation, Benefits, Risks and Barriers. The study explored and described the state of e-government in developing country (Nigeria) and highlighted the important factors for a e-government successful implementation.
		Luna-Reyes and Gil-García (2011)	Explore an e-Government “e-Mexico” program, particularly to examine the strategy to create web-based content portals for citizens in the areas of education, health, economy, and government.
		Kim et al. (2009)	Investigate how e-government prototype system evolved to become a used national system for anti-corruption system for the Korean national government. The study revealed that regulatory dimension was the most effective factor when implementing IS system, and a strong leadership is considered crucial to the success of its implementation.
		Silva and Figueroa (2002)	Explore the forces that influence the adoption of ICT in Chile. Developed ways in which the framework can be applied by planners and decision-makers in the formulation and evaluation of national ICTs policies.
2	<b>Stakeholder Theory</b> Freeman (1984)	Kamal et al. (2011)	Explore and analyse the role of stakeholders during the technology-adoption process in United Kingdom local government authority. Study various stakeholders category involved in the adoption processes.
		Sæbø (2011)	Examined e-participation initiative and services in Norway. Study revealed that a key factor that influences success of e-Participation initiatives was high saliency, and that salient stakeholder varies and changed over the life of a project.
		Zhang et al. (2005)	Explore the diverging and converging expectations of various stakeholders when initiating e-government projects. Revealed Local government stakeholders were considerably less optimistic in achieving goals, and more concerned about a variety of organisational, technological, and financial barriers.
		Scholl (2002)	Examine public sector managerial decision-making regarding major e-government initiatives. It revealed and demonstrated that a unified stakeholder theory does not exist, and the insights from stakeholder theory can be applied in part to public sector settings particularly to e-government.
3	<b>Agency Theory</b> Eisenhardt (1988)	Guillamón et al. (2016)	Construct a synthetic indicator to measure Facebook use in Italian and Spanish local governments. findings showed level of e-participation, population’s size, citizens’ income level and level of indebtedness impacted Facebook users in both local governments.
		Bahli and Rivard (2003)	Developed framework for conceptualisation and measurement of the risk and IT outsourcing. Study identified the risk dimensions and the interrelationships between them for assessing IT outsourcing risks.
		Reichelstein (1992)	Examine government contracts to predict and observe compensation and avoids the problem of overpayment in Germany. Study find difficult to trace specific instances where results and insights obtained from agency models have affected actual management practice.

### Appendix III – Review of Cultural Theories Studies

SN	Adopted Theory	Papers	Research Topic	Findings
1	<b>Hofstede's Cultural Dimensions</b> Hofstede (1991)	Zhao, F., Shen, K. N., & Collier, A. (2014).	Effects of national culture on e-government diffusion- A global study of 55 countries.	The study used Hofstede's model to examine how national culture effects e-government diffusion. The findings showed culture factors have an effect on e-government diffusion in various ways.
		Pimpa (2012)	Organisational culture in the Thai public sector.	Applied Hofstede theory to explore culture on Thai management style in the public sector. Study revealed younger Thai generations are more individualistic and adapted to organisational change and Western management concepts.
		Aldulaimi and Sailan (2012)	The national values impact on organisational change in public organisations in Qatar.	Used Hofstede cultural dimensions to investigate the influence of national cultural values to explore the public sector employees' readiness to change and consequently on commitment to change. The study revealed that national culture dimensions, uncertainty avoidance, individualism versus collectivism, and long-term orientation have significance relationship with affective commitment to change.
		Khalil (2011)	e-Government readiness: Does national culture matter.	that explore e-government readiness and national culture and found many values in the national culture such as gender, institution, collectivism, uncertainty avoidance, and performance influence directly or indirectly e-government readiness.
		Erumban, A. A., & De Jong, S. B. (2006).	Cross-country differences in ICT adoption: A consequence of Culture?	Examined the role of cultural factors using Hofstede Framework in several countries, the result suggested a strong relation exists between identified cultural factors and ICT adoption.
2	<b>Schein's Management Theory</b>	Lalonde and Adler (2015)	Information asymmetry in process consultation: An empirical research on leader-client/consultant relationship in healthcare organisations.	An empirical study used Schein's model to explore situation of strategic change in order to conform to governmental reforms in the healthcare sector in public organisation in Canada. The study concluded that the relationship between leaders/clients and consultants varies from one stage to another throughout the consultation process.
		Hogan and Coote (2014)	Organisational culture, innovation, and performance: A test of Schein's model.	Used Schein model to explore layered of organisational culture in low firms. The finding showed cultural layered particularly norms, artefacts, and

SN	Adopted Theory	Papers	Research Topic	Findings
				behaviour to facilitate the effect of values that support innovation on measures of the organisation's performance.
		Lopez-Nicolas and Meroño-Cerdán (2009)	The impact of organisational culture on the use of ICT for knowledge management.	Explore and analysed the influence of diverse organisational culture on the use of ICT for strategic knowledge management. The study concluded that ICT use was impacted by various organisational cultures such as clan and adhocracy cultures.
3	<b>Trompenaars model of culture</b>	Ali, M., Weerakkody, V., & El-Haddadeh, R. (2009).	The impact of national culture on e-government implementation: A comparison case study.	Used a developed model that was based on Trompenaars and other culture theorist to explore the influence of national culture on e-government implementation. The authors conducted a comparative case study in the UK as a developed country and Sri Lanka as a developing country. The research findings highlight the potential influence of cultural differences on e-government implementation.
		Walbeek, M. M., & Vlotman, W. F. (2003).	Institutional strengthening in Egyptian development aid projects.	The study applied Trompenaars' model and other model of culture to explore their effects on management. The findings showed that short-term consultancies may only be effective for idea generation, and not as instruments for implementing change management. Also managerial capacity building found to be a long-term activity with gradual change, particularly in government settings. The study recognise of organisation culture in light of trans-national cultural typologies.
4	<b>Schwartz's theory of Basic Human Values (TBHV)</b>	Almalki, O. (2014). A.	framework for e-government success from the user's perspective (PhD Thesis).	The study applied Schwartz's TBHV to explore and understand e-government portal success by developing an e-government success framework from a user's perspective. Study results of the exploratory study helped to identify the potential success factors of e-government systems in Saudi Arabia.
		Abu Nadi (2013)	Influence of Culture on e-Government Acceptance in Saudi Arabia (PhD Thesis).	Test Saudi Cultural factors in the adoption of e-government (e-transaction) to understand citizen actual requirement. The findings allowed the researcher to develop an implementation strategy that suggested to be used as guidelines for Saudi

SN	Adopted Theory	Papers	Research Topic	Findings
		Bagchi, K., & Kirs, P. (2009).	The impact of Schwartz's cultural value types on ICT use: A multi-national individual-level analysis.	<p>government to increase citizen's e-government adoption.</p> <p>The study examined the roles of Schwartz's cultural value types in ICT use (PC and the Internet) at an individual level in 49 nations. The findings showed remarkable similarities and differences in results across developed and developing nations. For example, for ICT use, impacts of some cultural values differ and some are same. The study found that impacts of demographics are somewhat similar across developing and developed nations.</p>

## Appendix IV – The Interview Guides (English Version)

*Dear Sir/Madam,*

*You are kindly requested to take part in an interview that is being led by **Ali Salim AlBulushi**, a PhD candidate at the **University of Hertfordshire**, under the supervision of Dr Jyoti Choudrie, Professor of Information Systems, Business School, The University of Hertfordshire, United Kingdom.*

*The aim of this research is to "explore and understand the use of online social network (OSNs) in public organisation in a developing country, in this case, Oman."*

*The interview consists of a number of questions that should take approximately 45 minutes to complete. This research complies with the Ethics protocols at the University of Hertfordshire. Any data provided will be treated with total confidence and personal details will remain anonymous. You should also be aware that participation is absolutely voluntary, you may omit any question that you do not wish to answer, you have the right in not participating and you may also withdraw at any time. The obtained data will be kept with the researcher and will be destroyed after completion of this research.*

*If you have any questions about this study, please contact:-*

*The researcher **Ali Salim AlBulushi**: [a.al-bulushi@herts.ac.uk](mailto:a.al-bulushi@herts.ac.uk) or*

*His supervisor, **Professor Jyoti Choudrie**, [j.choudrie@herts.ac.uk](mailto:j.choudrie@herts.ac.uk)*

*Thank you in anticipation for your cooperation.*



**Part one – Background Information**

PQ1. Gender:  male  female

PQ2. Age. ... ..

PQ3. Educational Level:

Less than GED  GED  Higher diploma  
 Bachelors  post graduate studies (Master’s/PhD)

PQ4. Academic major: . . . . .

PQ5. Field of work experience: . . . . .

PQ6. Current job/task: . . . . .

**Part two – Personal usage of online social network**

POSNSQ7. Do you use Social network in your personal life?

Yes  No

If the answer is yes (1), since when? . . . . . :

... ..

(2)which OSNs do you prefer to use:

Facebook  Twitter  WhatsApp  Instagram  
 YouTube  Others (specify). . . . .

POSNSQ8. Generally, what is your average daily usage of social network (in hours) ... .. :

... ..

POSNSQ9. Why do you use social networks?

Entertainment  Search for information  socializing with other  
 Connect with friends and family  News updates  Self-development  
 Getting involved in discussions  making a difference  
 Career and professional development  keeping up with friends and the community  
 Other: . . . . .

COMADPQ10. How would you rate the usage of social network? (Explain)

Easy and clear  Hard at the beginning  
 Needs a long time to learn  I need more time to be able to use it

SIADPQ11. Who –if any- influenced your decision to use online social network? Can you put them in order of their influence level?

A family member  Friends  Colleagues

**Part three – online social network usage in work environment**

ADPQ1. What are the online social networks tools used in your organisation?

Facebook                       Twitter                       YouTube  
 Other ... ..

ADPQ2. How often do you use them?

Daily                       weekly                       monthly

ADPQ3. What is your point of view regarding the adoption of SM in the workplace and in your organisation in particular?

ADPQ4. What were the measures or preparations taken by your organisation before adopting the use of online social network?

New recruitments (specialized in SN)                       Change in work processes  
 Adopt specific training                      other ... ..  
 ... ..

COMPQ5. How useful is the use of online social networks in your work environment?

Speed up work                       Effectiveness                       Ease of work  
 Helpful in work                       Time-saving  
 Keep you with organisation news & activities  
 To follow public interaction, input and opinion about services

COMPQ6. Are there any negative effects/ implications when using social networking tools in work?

Pre-training needs                       No privacy                       not secure  
 Waste work time (time-consuming)  
 Other ... ..  
 ...

FCQ7. Do you think you possess favourable resources (Internet speed, devices) to use social networking tools easily? Can you give examples?

FCQ8. Do you think you have the knowledge required to use online social network? Explain?

PEQ9. How does OSN tools are used to get or receive government services?

PEQ10. Are OSN tools are used effectively? How? Explain?

PEQ11. Can the use of OSNs help deliver the organisation services? How is that? Can you compare that before the adoption of OSNs?

PEQ12. Do you feel the adoption of OSNs by your organisation provided benefits to the public? Why do you think that? Explain? Can you give example?

**Part four – Institutional Changes**

- ADPITQ1. From your point of view, what are the reasons why your organisation adopted online social network?
- ADPITQ2. What was the role of ITA in the adoption of OSNs? How did they help/or not help?
- ADPITQ3. How do you see public interaction through OSNs with the organisation? Can you provide example? Can you compare current interaction to the early time of OSNs adoption?
- ADPITQ4. What was the role of higher management? Did they support OSNs? How? Why? Can you give example?
- ADPITQ5. Does the management have a role in encouraging the use of online social network? How? Can you provide example?
- ADPITQ6. Does the top management in your organisation have clear vision and strategy towards the implementation of new technology? Can you give example?
- ADPITQ7. In your opinion what are the barriers -if any- that faced the adoption of OSNs? Can you give examples?

**Part five – Culture Changes**

- CLTRQ1. Do you think the use of OSNs created a new culture for government public communication? What is the effect of this culture on gender and their interaction with government organisation? Can you give example?
- CLTRQ2. Do you think that changes have occurred in the processes/procedures used as a result of adopting online social network?  
- (Complaints, suggestion, follow-up, services) Can you give examples?
- CLTRQ3. What are the positive elements that the use of OSNs provided for as a result of public interaction with the organisation compare to the time before the adoption of OSNs?
- CLTRQ4. In your view does the organisation work culture changed with the use of OSNs compare to the time before it was used? Can you explained and give example?
- CLTRQ5. In your view did the public (or other) influence the use of OSNs in government organisation? How? Why?
- CLTRQ6. In your view does the use of OSNs by the organisation help improved work performance? Explain with an example!
- CLTRQ7. Did the use of OSNs change the way you use to work, for example number of days and hours spend at work? Can you give example?

## Appendix IV – The Interview Guides (Arabic Version)

الاخوة والاخوات الكرام

تحية طيبة وبعد،

يرجى التكرم -مشكورين- في المشاركة لاجراء مقابلة لبحث الدكتوراه الذي يقوم به الفاضل علي بن سالم البلوشي للحصول على درجة الدكتوراه من جامعة هرتفوردشر وذلك باشراف مباشر من البروفيسوره جيوتي شاوندي استاذة نظم معلومات بالجامعة المذكورة.

يهدف البحث لتقييم استخدام الجهات الحكومية بالسلطنة لوسائل التواصل الاجتماعي ومدى الاستفادة منها في تقديم الخدمات الالكترونية للجمهور وقياس مشاركة وتفاعل الجمهور في استخدامها للتواصل مع المؤسسات الحكومية.

نود التنويه بأن المشاركة طوعية وفي حال موافقتكم على المشاركة واجراء هذه المقابلة ستتألف المقابلة على عدد من الاسئلة في عدة محاور ولن يتعدى وقت المقابلة 45 دقيقة. نود التأكيد أن هذا البحث يمثل للقواعد الاخلاقية لجامعة هرتفوردشر ، وعليه سيتم التعامل مع المعلومات التي تقدمها بكامل الثقة والخصوصية ولن يتم الإفصاح عن هوية كل من أدلى بأي تفاصيل شخصية. ايضاً بإمكانكم ترك أي سؤال لا ترغبون بالإجابة عليه. كما أن لكم الحق في الامتناع عن الاجابة عن اي سؤال لا ترونه مناسباً ويمكنكم الانسحاب وانهاء المقابلة في أي وقت ان رغبتم في ذلك. ستبقى المعلومات التي سيتم الحصول عليها بحوزة الباحث والجامعة سيتم التخلص منها بعد إتمام البحث .

إذا كان لديكم اية استفسارات حول هذه الدراسة او مايتعلق بها فيمكنكم التواصل مع الباحث على عنوان البريد الالكتروني التالي ([a.al-bulushi@herts.ac.uk](mailto:a.al-bulushi@herts.ac.uk))، أو مع المشرف البروفوسوره جيوتي شاوندي على عنوان البريد الالكتروني ([j.choudrie@herts.ac.uk](mailto:j.choudrie@herts.ac.uk)).

شكراً لكم على تعاونكم

الجزء الأول – معلومات شخصية

PQ1. ماهي المجموعة العمرية التي تنتمي اليه:

20-18 سنة  30-21 سنة  40-31 سنة  50-41 سنة  أكثر 51 سنة

PQ2. الجنس:  ذكر  انثى

PQ3. أعلى مستوى تعليمي وصلت له:

دون الثانوية العامة  ثانوية عامة  دبلوم عالي

بكالوريوس  دراسات عليا(ماجستير/دكتوراه)

PQ4. ماهو تخصصك؟ .. ... ..

PQ5. مجال العمل؟ .. ... ..

PQ6. المنصب الحالي؟ .. ... ..

الجزء الثاني – الاستخدام الشخصي للأدوات التواصل الاجتماعي

POSNsQ7. هل تستخدم أدوات التواصل الإجتماعي؟  نعم  لا

في حالة الاجابة بنعم ماهي: الفيسبوك التويتر لينك إن اخرى (يرجى التحديد) .. ... ..

POSNsQ8. مامدى استخدامك لادوات التواصل الاجتماعي:

يومي  اسبوعي  شهري

POSNsQ9. ماهي الدولفع وراء استخدامك لادوات التواصل الاجتماعي؟

ترفيه  البحث عن معلومات  التواصل مع الاخرين  التواصل مع الاصدقاء والاهل

البحث عن الاخبار  تطوير القدرات  المشاركة في المناقشات

تطوير التخصص والمعلومات  لتواصل ومجارات الاهل والاصدقاء

POSNsQ10. ماهو تقييمك لاستخدام ادوات التواصل الاجتماعي بشكل عام؟

سهلة وواضحة  صعبة في بداية استخدامها  تحتاج لوقت طويل لتعلم استخدامها

احتاج لوقت طويل لتعلمها

SIADPQ11. من هم الاشخاص -ان وجدوا- الذين لهم تثير على سلوكك والذين يدفعون بك لتعلم ادوات التواصل الاجتماعي؟

فرد من العائلة  الاصدقاء  الزملاء

**الجزء الثالث – استخدام ادوات التواصل الاجتماعي في بيئة العمل**

ADPQ1. ماهي ادوات التواصل الاجتماعي المستخدمة في العمل؟

Facebook  Twitter  YouTube  أخرى

ADPQ2. مامدى استخدامك لادوات التواصل الاجتماعي:

يومي  اسبوعي  شهري

ADPQ3. ماهي وجهة نظرك حول استخدام ادوات التواصل الاجتماعي في المؤسسات الحكومية وفي مؤسستك تحديداً؟

ADPQ4. ماهي المعايير او الاستعدادات التي قامت بها المؤسسة التي تعمل فيها قبل استخدام ادوات التواصل الاجتماعي؟

توظيف مختصين في استخدام ادوات التواصل الاجتماعي  تقديم برنامج تدريبي محدد   
تعديل او استحداث اجراءات  اخرى

COMPQ5. ماهو تقييمك لمدى الاستفادة من استخدام ادوات التواصل الاجتماعي في المؤسسة التي تعمل فيها؟

تسريع وتيرة العمل - فاعلية في العمل  تسهيل العمل  تساعد في انجاز العمل

توفير الوقت  تجعلك مطلع على اخبار المؤسسة وانشطتها

لمتابعة تفاعل المواطنين مع المؤسسة ومعرفة ارائهم وتقييمهم للخدمات التي تقدمها المؤسسة

COMPQ6. هل تعتقد ان هناك تأثير سلبي او نتائج غير ايجابية عند استخدام ادوات التواصل الاجتماعي في المؤسسة؟

الاحتياج التدريبي  لا توجد خصوصية  انعدام الامان

اهدار وقت العمل  أخرى

.....

EEQ7. عندما بدأت في استخدام الخدمات الالكترونية (ادوات التواصل الاجتماعي) هل وجدت استخدامها سهلاً ام واجهتك صعوبة في استخدامها؟ إن كانت واجهت صعوبة كيف تمكنت من التغلب عليها؟ هل اصبحت ملماً باستخدامها أم أنك بحاجة إلى مزيد من التدريب؟

EEQ8. هل تعتقد بانك تمتلك المصادر والادوات التي تساعدك على استخدام ادوات التواصل الاجتماعي بسهولة؟ هل يمكنك اعطاء امثلة؟

EEQ9. هل تعتقد بانك تمتلك المعرفة المطلوبة التي تساعدك على استخدام ادوات التواصل الاجتماعي بسهولة؟ هل يمكنك توضيح ذلك؟

PEQ10. كيف تستخدم ادوات التواصل الاجتماعي للحصول على أو تقديم خدمات المؤسسة التي تعمل فيها؟ هل يمكنك مقارنة تقديم هذه الخدمات قبل استخدام ادوات التواصل الاجتماعي؟

PEQ11. هل يتم استخدام ادوات التواصل الاجتماعي بفاعلية؟ كيف يتم ذلك؟ هل يمكنك اعطاء امثلة؟

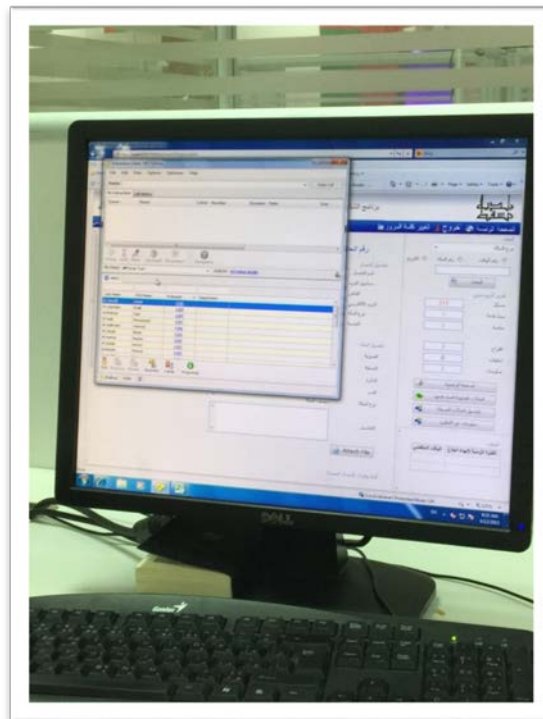
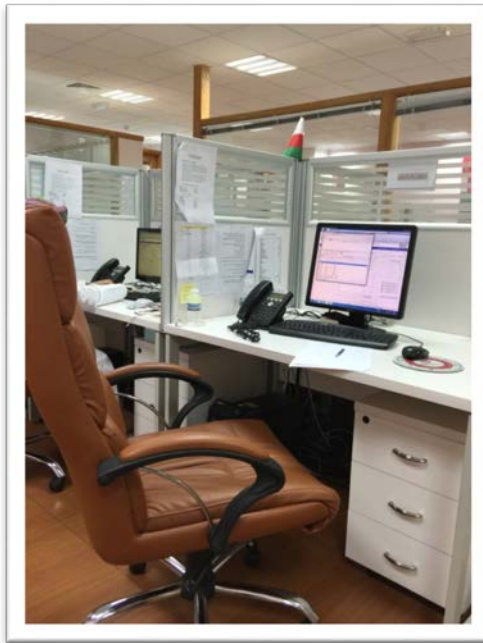
الجزء الرابع – التغييرات المؤسسية

- ADPITQ1. من وجهة نظرك ماهي الاسباب التي جعلت المؤسسة التي تعمل بها تستخدم ادوات التواصل الاجتماعي؟
- ADPITQ2. هل هناك دور قامت به هيئة تقنية المعلومات في اقتناء المؤسسة التي تعمل بها لادوات التواصل الاجتماعي؟ هل يمكنك ان تصف هذا الدور سواء ساهم في تشجيع الاستخدام ام لا؟
- ADPITQ3. ماهو تقييمك لمستوى تفاعل الجمهور مع مؤسستك من خلال ادوات التواصل الاجتماعي؟ هل يمكنك اعطاء امثلة؟ هل يمكنك مقارنة هذه التفاعل قبل وبعد استخدام ادوات التواصل الاجتماعي في المؤسسة؟
- ADPITQ4. ماهو الدور الذي قامت به الادارة العليا في استخدام ادوات التواصل الاجتماعي في المؤسسة؟ كيف تم ذلك؟ ولماذا؟ هل تستطيع التوضيح باعطاء امثلة على هذا الدور؟
- ADPITQ5. هل كان للادارة العليا دور في تشجيع استخدام ادوات التواصل الاجتماعي في المؤسسة؟ هل يمكنك شرح هذا الدور مع اعطاء امثلة؟
- ADPITQ6. هل تعتقد ان الادارة العليا في المؤسسة التي تعمل بها تمتلك رؤية وخطة مستقبلية واضحة لاقتناء ادوات التواصل الاجتماعي؟ لماذا تعتقد ذلك؟
- ADPITQ7. من وجهة نظرك ماهي المعوقات -ان وجدت- التي واجهت المؤسسة عند البدء في استخدام ادوات التواصل الاجتماعي؟ هل يمكنك اعطاء امثلة؟

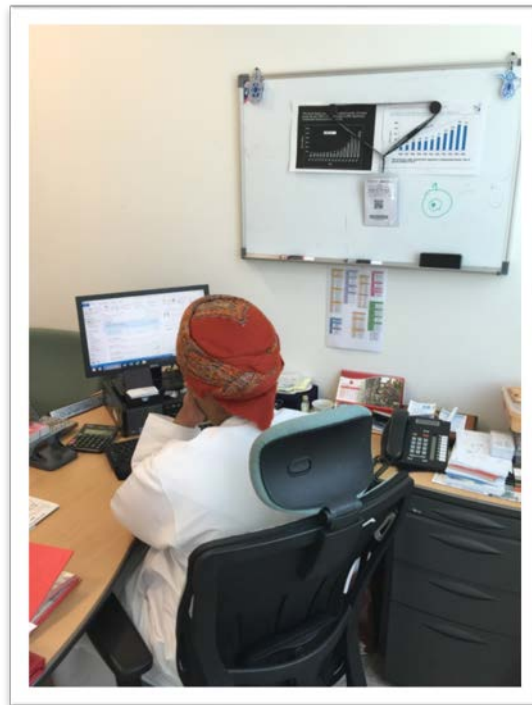
الجزء الخامس – التغييرات الثقافية

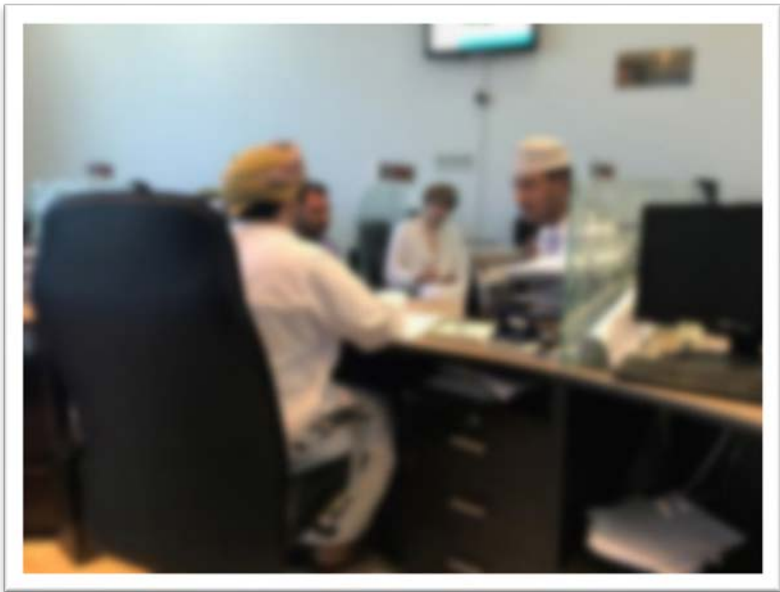
- CLTRQ1. هل تعتقد بان استخدام ادوات التواصل الاجتماعي قد اوجدت ثقافة جديدة للتواصل بين الحكومة والفراد المجتمع؟ ماهو تأثير هذه الثقافة على تواصل الافراد (ذكور واناث) مع المؤسسات الحكومية؟ هل يمكنك اعطاء أمثلة؟
- CLTRQ2. هل تعتقد أن هناك تغيير او تغييرات طرأت على اجراءات العمل المستخدمة نتيجة لاستخدام قنوات التواصل الاجتماعي؟ هل يمكنك اعطاء امثلة؟
- CLTRQ3. ماهي الايجابيات التي اوجدتها ادوات التواصل الاجتماعي للمواطن/المواطنة للتواصل مع المؤسسات الحكومية مقاومة بتواصلهما قبل استخدام هذه الادوات؟
- CLTRQ4. من وجهة نظرك هل ثقافة الاداء الحكومي افضل بعد استخدام ادوات التواصل الاجتماعي مقارنة بقبل ذلك؟ هل يمكنك التوضيح بشكل اوسع؟
- CLTRQ5. من وجهة نظرك هل هناك دور للمواطنين او غيرهم للتاثير على استخدام ادوات التواصل الاجتماعي؟ كيف ذلك؟ ولماذا؟ هل تستطيع اعطاء أمثلة؟
- CLTRQ6. من وجهة نظرك هل استخدام ادوات التواصل الاجتماعي في مؤسستك ساعد في تحديث وتطوير كفاءة العمل؟ هل يمكنك التوضيح باعطاء امثلة؟
- CLTRQ7. هل استخدام ادوات التواصل الاجتماعي ساهم في تغيير طريقة عملك على سبيل المثال عدد ايام العمل، عدد ساعات العمل، وتيرة العمل؟ هل يمكنك اعطاء امثلة على ذلك؟

### Appendix V – Example of Observation Pictures









## Appendix VI – Pilot Case Study One (MM) Permission Letter to Conduct Study



Sultanate of Oman  
 Muscat Municipality  
 Information Systems

سلطنة عُمان  
 بلدية مسقط  
 نظم المعلومات

**No.:** 331/2015  
**Date:** 23/ February/ 2015

**To:** University of Hertfordshire  
 Ethic Committee

**Ref:** Mr. Ali Salim Albulushi

**Sub: Approval to Conduct a Research in "Muscat Municipality"**

Based on the request of **Mr. Ali Salim Albulushi**, we are pleased to inform you that we welcome the above PhD student to conduct his research in our organization "Muscat Municipality (MM)" in Oman.

  
**RASHID HOMOOD KHALFAN AL RIYAMI**  
 Acting Director of Technical Support



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 ص.ب: 79 مسقط - الرمز البريدي: 100 - سلطنة عُمان  
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 هاتف: +968 24753356 فاكس: +968 24753375 تليكس: 3340 بلدية اوان  
[www.mm.gov.om](http://www.mm.gov.om)

## Appendix VII – Pilot Case Study Two (Ithraa) Permission Letter to Conduct Study



18 February 2015  
Ref: Ithraa/DGRS/ 263

To: **University of Hertfordshire  
Ethic Committee**

Ref: **Mr. Ali Salim Al Balushi**

Dear Sir / Madam

Re: PhD research

We are pleased to inform you that we welcome the above PhD student to conduct his research in our organization “the Public Authority for Investment Promotion and Export Development (Ithraa)” in The Sultanate of Oman.

We look forward to meet Mr. Ali Al Balushi at Ithraa in the earliest.

Yours Faithfully

Azzan Qassim Al Busaidi  
Director General of Research & E-Services



الهيئة العامة لترويج الاستثمار وتنمية الصادرات  
ص. ب. 25، الوادي الكبير 117، سلطنة عمان. هاتف: +968 24 62 33 00، فاكس: +968 24 62 33 35  
The Public Authority for Investment Promotion & Export Development  
PO Box 25, Wadi Kabir 117, Sultanate of Oman. Tel: +968 24 62 33 00, Fax: +968 24 62 33 35

[www.ithraa.om](http://www.ithraa.om)

## Appendix VIII – Ethics Committee Approval

University of  
Hertfordshire



UNIVERSITY OF HERTFORDSHIRE  
SOCIAL SCIENCES, ARTS AND HUMANITIES

### ETHICS APPROVAL NOTIFICATION

TO Ali Salim Albulushi  
CC Prof. Jyoti Choudrie  
FROM Dr T Parke, Social Sciences, Arts and Humanities ECDA Chairman  
DATE 25 March 2015

---

Protocol number: cBUS/PG/UH/00813

Title of study: Understand and Explain the Use of Online Social Networks in Public Organisations: The Case of Oman

Your application for ethical approval has been accepted and approved with the following conditions by the ECDA for your school.

#### Approval Conditions:

Approved conditional on the supervisor seeing and vetting the questionnaire and the interview schedule.

This approval is valid:

From: 25 March 2015

To: 30 September 2018

#### Please note:

Your application has been conditionally approved. You must ensure that you comply with the conditions noted above as you undertake your research.

Failure to comply with the conditions will be considered a breach of protocol and may result in disciplinary action which could include academic penalties. Additional documentation requested as a condition of this approval protocol may be submitted via your supervisor to the Ethics Clerks as it becomes available. All documentation relating to this study, including the information/documents noted in the conditions above, must be available for your supervisor at the time of submitting your work so that they are able to confirm that you have complied with this protocol.

## Appendix IX – Main Case Study One (PACP) Permission Letter to Conduct Study



## Appendix X – Sample of NVivo Coded Interview

This Interview is with -----( ... .. )Higher-level manager 4----- on the 4th of October

His age is 37 has a bachelor degree in MBA started working in 2015 (11 years), his current title is director of complain department

Q. Do you use SM for personal purpose?

A. Yes of course, i am using Twitter Facebook, YouTube and WhatsApp and i love to use Twitter

Q. On average how many hours do you use SM per day?

A. I use SM on average of 6 hours and most of this time is after working hours

Q. What is your view of the use of SM in term of ease of use and complexity?

A. For me it is very easy because i started using them long time ago, it might be a bit difficult for older people but nowadays it is very easy to learn and know how to use SM among all age of people

Q. Who influence you to use SM- if any?

A. It is a mix of my friends and my family also as you know the trend is now that all people use SM and that encourage a lot of people to learn how to use SM and be part of this trend

Q. Do you feel the use of SM help improve personal image?

A. For myself i would say yes ... it improve my image also it helped me to learn and understand what is going on around me in the world ... basically SM is a good tool that allow the increase of knowledge and many other things ... SM is making the world like a small village so what is happening around you, you can know it instantly and at the moment it is happening ... it [SM] also help increase the self-confidence when you are aware of things around you and your knowledge is increased that improve the confidence ... also when you participate with people in discussion and expressing your opinion and view people can know the level of knowledge you have and that is good also

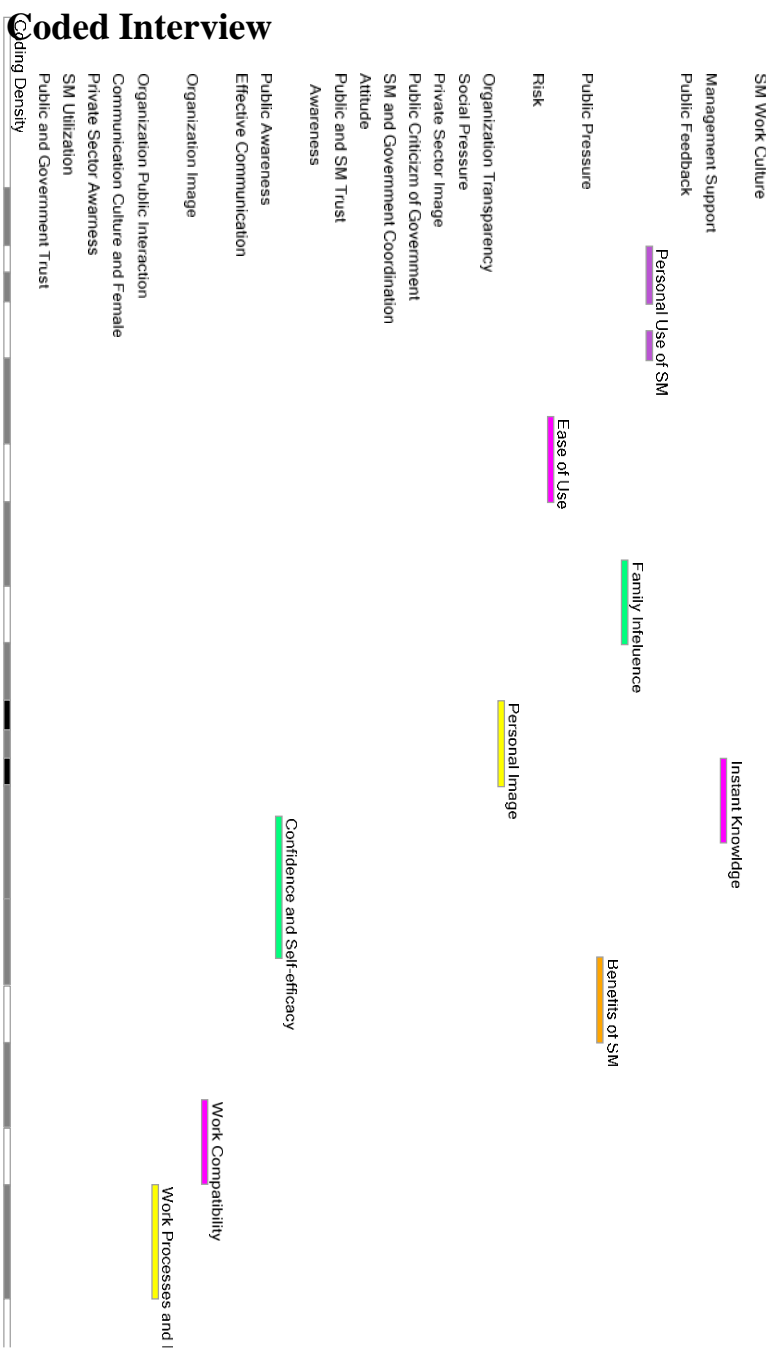
Also depend on the use of people; you know some people waste their time when using SM for nothing other than games and entertainment but other benefit from SM a lot ... so we have to be careful of what we want to gain from SM

Q. Does the organisation use SM?

A. Yes we are using SM more than or if i can say may be 80% of our work is done through the use of SM ... People are using it to communicate with us and raise their complaints and their feedback

Q. So in this regard do you follow the organisation SM accounts?

A. No not myself i don't follow the organisation SM account, but we have a dedicated department that manage the use of SM, and a concerned department we are engaged directly with SM to answer or reply to any complaints that related to the work we do through the information department



Q. So you actually don't follow the organisation SM account?

A. No in our organisation the procedures and the processes is that the information department who follow and manage the SM accounts is responsible for organising the complaints and sending each department the complaints that relate to its work and demand to get the reply from each concern department within 24 hours so that they can post or reply to the public ... so we are not directly involve with the management of SM accounts

Q. What is your view and opinion in the adoption and use of SM in government organisations?

A. I think it is very important for all government organisation to use SM today because now many people need to move to the latest technology so of course with this peoples are looking for ways to improve their day-to-day activities and how to deal with different parties ... also governments they have to do the same and they must go use and adopt SM as i said it is a new technology and that also is the trend and of the public and we must go with that trend in order to establish an effective communication between the government organisations and the public ... even though we are still using other communication methods but SM is very fast and very easy to use

Q. In you opinion what are the benefits that the organisation is getting with the use and adoption of SM?

A. As i said SM is very fast to reach and communicate with people ... very fast to send information and very fast to receive feedback and information, also SM let us know what is happening in the public and what is their views and opinions about our organisation and our services ... it also save us a lot of time ... for us since the adoption of SM our work has been very effective and the communication with the public is also very effective

Q. In this regard do you see or view SM to be compatible with the organisation work?

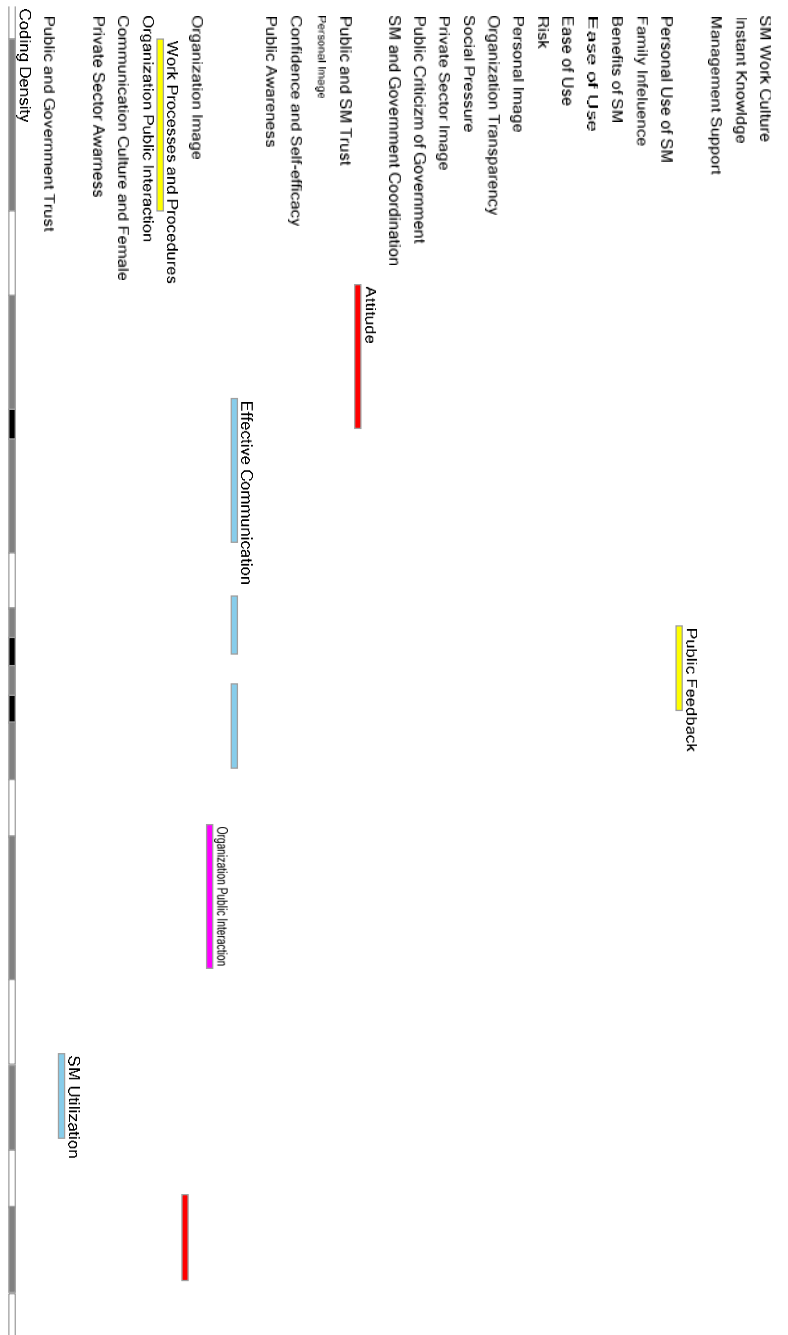
A. Yes of course as you know PACP is only 6 years since it was established and that we have adopted SM immediately as part of our communication with the public and it is very important and today SM is considered the main communication tool and the highest compare to other communication methods like phone or tv or newspaper, so yes SM is very compatible with our daily work

Q. Why do you think that SM is becoming the main communication tools for communication?

A. I think because of the popularity of SM and the trend of using it among the public and the world ... also all government organisations today are also adopting SM for their communication because they have seen the benefits and success of it

Q. Do you think that the use of SM help the organisation image?

A. Yes of course SM help the organisation image a lot because as we said it is one of the benefits of SM and also it can negatively affect this image if for example it is not used in the right way





Q. You have mentioned that you have adopted the use of SM 5 to 6 years ago; today do you think the public trust the organisation and trust communicating with the organisation using SM?

A. They have to trust us but we have also if you talk in Oman depend on the people if they trust SM or no but the people they think it is protected and save

Q. You have said the people have to trust you ... Why they have?

A. the public trust us because we are going and using new technology ... you know SM is considered new in Oman ... so we have to trust the use of it and also it is gaining so much ground and popularity among people and i think they trust it otherwise they will not use it

Q. As i heard from so many people ... the PACP is trusted among them ... why do you think that?

A. One of the many reasons why they trust us is that we communicate with the public all the time and we inform them of our work and tasks as well as let them know the organisation news and activities ... we have addressed their complaints and their suggestions we became their protective against bad or un-honest traders, also we are very fast and we respond to their complaints or their comments very quickly ... for example the big complain we answer or solve within days of working time ... also we are not only fast but we try to solve their complaints here ... what i mean is solving the complain without going to taking the complain to the court or public prosecution which might take very long and we are not talking about 3 or 6 months it might take year to solve ... and that is why the public trust us and appreciate what we do for them ... we communicate with the public directly and openly and fast

Q. In this regard do you think that the organisation is transparent when it comes to communication with the public?

A. Of course we have to be very transparent with the public ... why we are not ... we are working as a government organisation and we have to be transparent and we are working to serve them and to protect their rights as a consumers so yes we are very transparent with them

Q. This is a general question, what is the disadvantage of using SM in the organisation?

A. I think in our organisation, we have seen many people who criticise the organisation for delay in solving their complain but these peoples they don't know the procedures and processes that we have to follow as well as they don't know the low we have to follow and obey ... you know some processes take very long ... this depend on the case or the complain itself

Q. Do you think that the use of SM help the organisation increase the public awareness?

A. Yes it does ... we are now trying to increase the public knowledge all the time not only with Twitter but other SM tools like Instagram and YouTube and it is working very well

Q. Since the implementation of SM, do you think that SM helps in the area of corruption and favourism?



A. I don't know about this ... actually may be it help their ... the public is directly communicating with our chairman if they want to ask about their complaints ... or complain that our response is slow they can do that

Q. Do you think because your chairman and top officials in the organisation are following the organisation SM accounts that add pressure on you as lower manager to do your work better and faster?

A. No no no not like that we don't have pressure because of SM usage ... but we also have internally dedicated people who manage SM and follow us to see if we provide our reply to any public complaints and if we are late or not ... so we don't feel pressure at all, this how we work

Q. What about other government organisations ... do you think that the use of SM has created pressure on the higher managements to improve their work and public services?

A. Actually as i read and see most of the organisation feel that pressure through SM and they are under public pressure to improve public services and improve their response time to public complaints

Q. Let me rephrase the previous question i asked you about corruption and favourism ... Do you think that the use of SM helped the organisation to implement the low more and help also find any loophole in current low to improve it?

A. I think yes ... for example for those who make services to the public has improved some of their low because of public interaction and feedback on SM ... also the public you know SM help many of them to understand the low and gain knowledge of their rights as a consumers ... by the use of SM they are now searching for low asking about certain clues in the low and want to learn and understand all the time

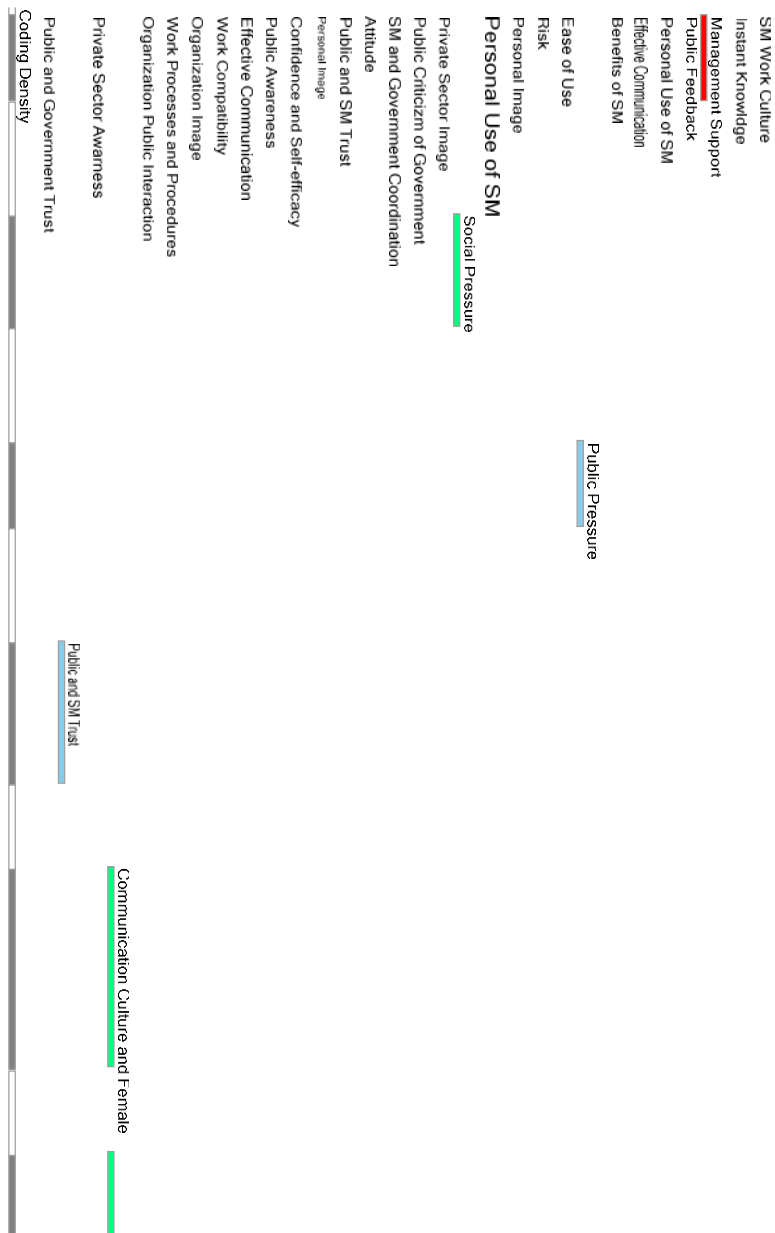
Q. Do you think that SM has brought new culture and help women to communicate with government organisation without having to come to the organisation physically?

A. this is a good question ... i think that one of the good things about SM is that flexibility ... our tradition or culture does not appreciate women going to government organisation although many of them do that ... but today with SM women can communicate with us without having to leave or come to the organisation ... they can complain and put their feedbacks or suggestions and in the same time respect tradition and culture aspects ... we are getting a lot of complaints that we are receiving from women which was not their before because of the culture

Q. Do you think that women are happy to exchange their personal information or phone number when communicating with SM?

A. Yes many of them [Females] do give their personal information but also a few of them chose to give their husband or brother phone number and they send us this information in private for example in Twitter

Q. Do you think those who communicate with you using SM private mean they use their real name?





A. Yes they have this pressure because of SM and they don't want their image to be destroyed ... so they ensure many complaints are solved with the consumers before they come to us ... they don't want the public to have bad image about their products because this mean the public will not buy their product and they will lose the business

Q. The interaction with the public though SM ... Does the public provide you with information that is considered important to running the organisation tasks?

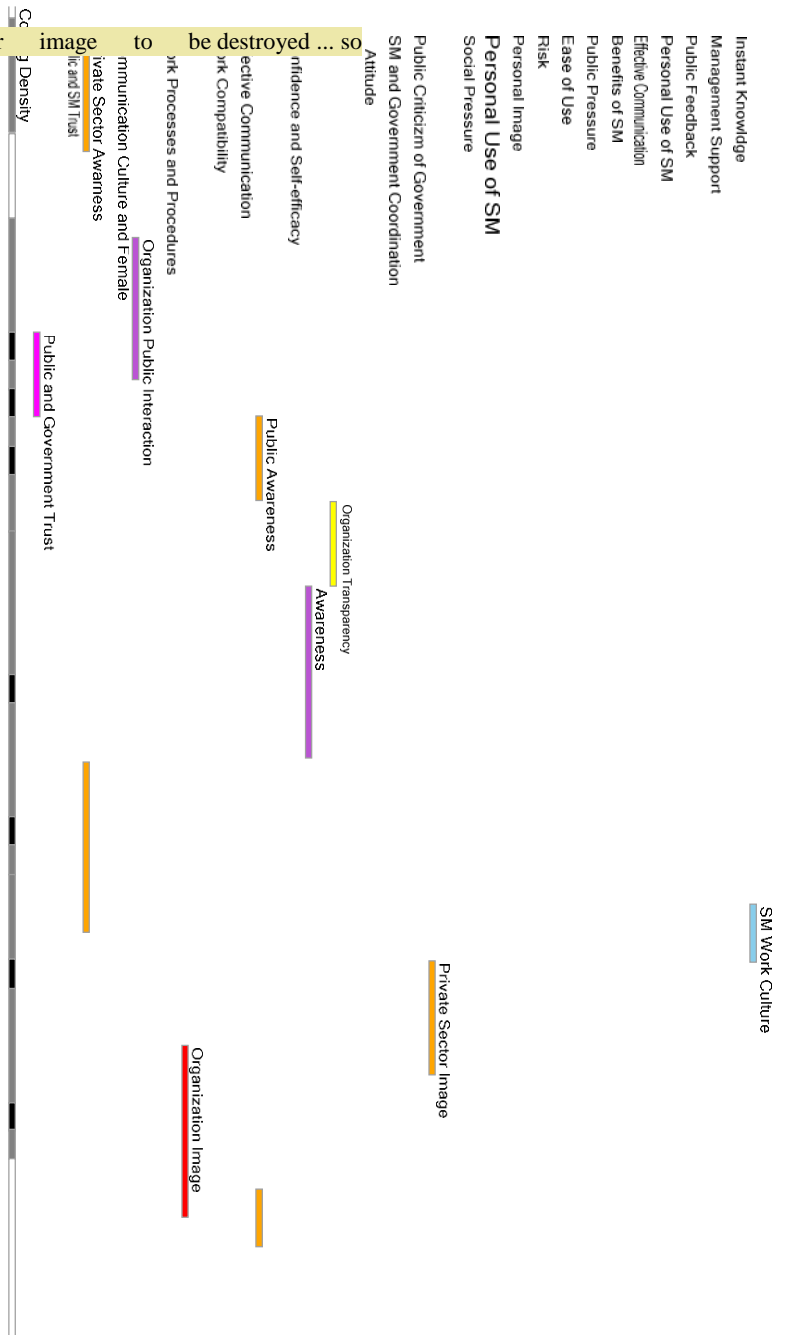
A. Yes of course ... in fact some cases is triggered or started because of the information we are receiving from the public over SM ... they send us for example information on product expiration date or on shop that violate the consumers right or other information regarding prices ... the public is actually is seen as our eye on the market ... i can say that 50% of our information is received from the public ... because we are working as one hand with the public and we can't move forward without them and that is why they trust us ... also it is because of the public culture ... they have now more culture and more awareness and more knowledge of their rights and they know that we are helping them

and that is why we have strong coordination and partnership with the public... also for these reason that is why the public trust us and to be honest SM is what to give the credit for achieving this trust and this coordination  
Before the establishment of this organisation we were a small directorate in ministry of commerce and we did not have a lot of positive response from many suppliers and the consumer did not have any knowledge as well as the low was not strong and not helping the consumers ... but once this organisation established and many issues has been improved including new low and the use of SM has help us to increase both public and private awareness..

you know now many information we publish on SM about products or recall of certain car the suppliers are helping us and in fact some suppliers they approach us and ask for our help to do recall of their products or their car ... i have a list of numbers of company who approach my department and ask me that before any consumers complain to you ask his or her to come to me first and we will solve any complain and this list of suppliers is also increasing ... and many suppliers are now opened an office for customer services that was not there even in the big company.

You know people started to use SM more effectively and that created more knowledge among consumers and suppliers are also monitoring this and they are afraid of SM and what it can do to harm them or destroy their image in the eye of the public and also can make the public reject their products ... Honestly i am surprise what SM can do and what effect it can have on suppliers if the consumers are not happy so as i said earlier SM is an open environment where all consumers can express their opinion and views on a product or on a public services more open than before and this can either promote organisations or company or it can also demote the same organisation or company ... the image can be changed positively or negatively easily and very fast ... also the public awareness and their knowledge increasing all the time and much faster than ever

-----Interview ended-----



## Appendix XI – E-Government Transformation Plan

### e-Government Transformation Policies

The adoption of the Digital Oman Strategy in March 2003 was one of the steps towards achieving the vision of His Majesty Sultan Qaboos bin Said, may God protect him, to transform the Sultanate of Oman into a knowledge-based economy. The strategy describes the key aspects of developing the Sultanate of Oman into a digital society and the implementation of e-Government.

In his address to Oman Council in November 2008, His Majesty stressed: *“We have always emphasised the importance of learning and knowledge and we have always been open to the adoption of new developments in this field. Information and communication technology have now become the main elements that move forward the development process in this third millennium; therefore, we have accorded our attention to finding a national strategy to develop the skills and abilities of citizens in this domain with the aim of further developing e-Government services. We are closely following the important steps that we have made in this regard. We call upon on all government institutions to speedily enhance their performance, and to facilitate their services, by applying digital technology in order to usher the Sultanate into the constantly evolving spheres for applying knowledge”.*

The Cabinet of Ministers has also stressed repeatedly on the importance of e-Government transformation. In its meeting No. 8/2012 dated on February 28, 2012, the Cabinet focused on the evaluation of the ministries and government entities’ ability to provide services electronically and enabling them to start implementing the e-Government Transformation Plan.

Based on these strategic directions to achieve e-Government, the Information Technology Authority (ITA) has developed the e-Government Transformation Plan and the corresponding set of e-Government Transformation Policies that the Cabinet of Ministers has approved in June 2012. All government entities shall comply with the e-Government Transformation Policies as they implement the various stages and targets defined in the e-Government Transformation Plan.

The e-Government Transformation Policies cover four (4) areas as described below.

#### **First: Government Information and Data**

- The government entities shall avoid information or data duplication and redundancy. In coordination with other government entities, ITA shall seek integration of information and data through specialized agency responsible for keeping the information and data by major data type and classification. The specialized agency or agencies shall ensure non-repetition, non-duplication and no conflict of information or data from multiple sources, and to have a backup copy of all information and data.
- The government entities shall manage databases and its data, provide access to shared data electronically to the other beneficiary government entities to enable the integration of data

among government entities, and facilitate the delivery of government services electronically.

- Each government entity shall rely on the electronically available information and data of relevant authorities, and reduce the information and data provided in the eForms and other modes of government services, and not to request information or data from the applicants of e-Government services, except in rare cases when such information is required in order to deliver the service to the users.

### **Second: Government Services**

Each government entity within six months from the issue date of these policies shall:

- List all services, including the pre-requisites or conditions to obtain these services; and to transform related manual forms into electronic forms.
- Document business processes related to each service.
- Reengineer business processes (identified above) with the aim to implement quality e-Services, and to continuously improve these business processes so as to meet the ever-increasing demands of the public.

### **Third: Government eTransactions**

- The government entities shall adopt ICT applications in the performance of all its internal services and processes.
- The government entities shall use email and electronic means of communication in their work.
- The government entities shall develop a detailed plan for the transformation into e-Government and begin its implementation within six months from the issue date of this decision.
- The government entities shall appoint an internal committee within six months from the issue date of this decision to be responsible for all the government e-services in their entity. The committee shall be headed by the head of that entity, with the membership of the heads of each department concerned with the e-Government, the head of IT Department, Administrative Development Department and the head of the Customer Services Department. The main task of the committee is to supervise and review the implementation of the e-Government Transformation Plan of its entity, as well as coordinating with ITA.
- In the implementation of IT projects and e-Government, the government entities shall comply with the Oman e-Government Architecture Framework (OeGAF), which was developed by ITA in cooperation with other government entities.

### **Fourth: Indicators and Measurement**

- The government entities shall fill in the assessment form to measure the progress made towards e-Government transformation annually according to the indicators set by ITA. These indicators shall be included in the annual report of the entity, and copies shall be sent to ITA which shall annually supervise the preparation and implementation of the assessment.
- ITA shall submit a general annual report to the Cabinet that shows the transformation

progress of each government entity into e-Government according to the above mentioned indicators.

- ITA shall issue all the important instructions to the government entities according to the e-Government Transformation Policies, and in conformity with the relevant regulations.

**Appendix XII - Case Study One (MM) Main Premises**





## Case Study Two (PACP) Main Premises



## Appendix XIII – Example of Interview Script

This is an optional interview and all information will be kept in a secure environment and will be accessed for research purposes and will be accessed by the researcher (my Self) and my supervisor, we will not refer to you by name or by any indication that the reader of the research will be able to identify you ... so if all this is OK with then we can proceed with this interview ... you may choose not to answer any questions or stop the interview at any time if you wish to do so ...

Q. Do you use SM?

A. Yes of course it is becoming part of our life; I am using Twitter Facebook, Snapshot and WhatsApp.

Q. Generally speaking how many hours you spend using these tools per day?

A. between 1-2 hours I am very busy with meeting and site visit and receiving customers from the public regarding their municipality issues.

Q. What is your view on the difficulties or ease of use of these SM tools?

A. No no it is very easy absolutely ... that is why it is widely spread all over the world and with no different you know among people either in term of gender or age or because of its easiness to deal with in the first place ... the second it is widespread here in Oman and the third because of its speed you know it goes out rapidly and I can call it very efficient in you know delivering the messages you wants whether bad or good messages but at the end it is easy and very convenient.

Q. Do you think the use of SM is very important for personal images and for self-confidence and self-efficacy of the person?

A. Yes of course it is becoming part of our life ... you know now we have no choice you know except to use it , especially for us as a public officer , you know we have to deal with the media in term of we receive observations and complaints or even sometime i want to reach out to the public for certain project for certain idea for certain opinion for certain things so i think SM is becoming very effective part of our life and I don't think person like me or in similar place can live without such media.

Q. You have touch in this issues but i am still going to ask you in case you have more things to see ... what your view in the adoption of SM in government agencies especially the service oriented one?

A. it is very good but it should be guided, you just you know can't keep it open ... of course it has to be guided through professional staff ... why i am saying this because you know sometime you know such SM because it has no any sort of protection or any sort of confidence sometime any sort of secrecy that is the dangerous of it ... you know it can just spread out any rumours and bad news any bad things and you know the public might just capture it and get it ... recently you know some people started taken photocopy of government documents and spread it all over the SM, that is really very bad you know these such documents supposed to be protected and supposed to be you know belong to the entities or government that it belong to ... so you know there is very positive side to it and i think the government should concentrate on it and use it and at the same time of course they should be some sort of protection.

Q. When you say protection are you referring for example to have a regulations or a law to improve some existing regulation or law?

A. Exactly ... exactly, some sort of regulation some sort of laws that you know for example prohibiting dealing with some type of media ... and at the same time you should have some limitations on the laws ... you just can't just go and keep the door open for I do agree some regulation some law some limitations should be imposed

Q. When you say limitation can you give me an example?

A. limitations for example you just you know if you have a visitor for example on a project ... we have a lot of projects and sometime because the public are not aware of the delay in this projects somebody may just take a photo or a picture of the side and you may will say well you know something wrong with this project or some delay is happening with this project or unfinished items in that project without going back to the concern person or the engineer in the sight and start spreading it out that you know such bridge or road is not efficient or it is not sufficient for such area ... but because he is not aware of the full story of that project then people start questioning the person who is in charged why ... why ... why but if we limit such news in the project itself and the completion time and the delay and why it was delay because of some financial or engineering issues or some technical reasons ... that is what I mean by some limitations of the use ... but I insist that the good use of SM what I think is good for the public and good for community in general

Q. This lead me to another question and i know that Muscat Municipality has implemented SM among the first government organisation in the country ... and i am sure you have gone through the time of early adoption until today ... in your view what are the benefits that Muscat Municipality has gained from the use of SM?

A. i think a lot of gain we received so far by implementing SM first of all you know it reaches many people in the same time the other things that we started to get some feedback from the public of course some of them are good and some are bad and we analyse this feedback , we have a team at the call centre that analyse these information or opinion that we receive also it reaches all sort of

you know community member young old lady gents and probably you know most importantly it reaches any time of the day, they don't have to wait for ads or have to wait for news time to watch an add from the municipality, ones we publish it and it has been air immediately you will receive the feedback, i think there are many good or advantages that we have received so far and I think SM created to stay there to help us you know in the right direction.

Q. This led to another questions that i have in my mind ... you know that you have mentioned that SM is opened it is there 24 hours it can reach so many people with information also you can get so many complaints at any time , day night holiday any time , and also these complaints are seen by also a big sector of the public ... in your view does that created a pressure on you as a manager or higher official in this organisation or other government in term of to try to be more effective or created a new culture of work?

A. i think that depends on the officials himself some probably consider it as you know a pressure, and some consider it you know as a good way or a positive pressure, it is just exchanging ideas with people, exchanging opinions and personally I love it ... I like it so much ... you know we used in the past if we have any project or if we want to introduce to the public we have too many meetings , time-consuming gathering you know having to organise meeting for days and night and invitation card and so on, now you just put in the air (SM) and get feedback immediately whether these feedbacks are in line with your study or not ... and if it not of course you don't consider it but at the end you are getting information and suggestions and feedbacks and it is free of charged.

Q. This lead me to one thing that came with the adoption social media ... do you feel that government and especially your organisation here are providing enough information there are transparent with the public when it comes to their queries or complaints ... do you think that transparency is happening and there with the use of SM?

A. yes I think so to some extent ... i think there some transparency there i think when we are dealing with ... because you know they are building actually a credibility with the public, if I think the public sees you as just trying to hide some information or you are not being transparent and you are not serious enough with them ... I think they will not keep quite so i think by being transparent especially in the service that Muscat Municipality provide ... I think there is no secrecy that we should keep , i think it is the opposite we should be open transparent and let the people just give us feedback, yes there are sometime we make mistakes sometime we have limitations in term of our resources sometime I think once the public know these things they understand more as well as it take the pressure from us ... i mean once the public awareness is increased because public work and service is not mainly done by one government entity it is actually a combination of officials efforts being put by many government agencies Muscat Municipality, ministry of housing, ministry of environment, ministry if transportation or know other ICT providers so all of these things should be combined into one public service ... if I you know being frank transparent and open with the public ... I did my part and let see you know paving the road or building a bridge somewhere and we could not build some were else because of source limitation od because some let say shortage of study and these things and i think once the public is aware of that they will not try to find an expel nation from their own ... they will understand more and they will help you with some idea instead of we well tell Mr Ibrahim instead of building the bridge in this area and you say there is a limitation of resources we will ask you just to pave a normal road and in the future once you have you know sufficient funds you can build it ... and you know you will be fine because there are some people who will say we need a bridge because we can't cross when we have rain ... so you know when you get feedbacks from them positive feedback when they think that this project is sufficient for them you can go ahead and you know

Q. When it comes to serving people and obviously in the municipality for example some department focus in environment and other in food safety ... did these special departments benefited from the information that the public provide especially when they complain about something ... nowadays they can send you a photo or video clips ... did these departments or fields employees benefited from such information also the public can send the exact location?

A. A lot we have benefited a lot actually and as i mentioned before it is becoming part of our daily life as a social media now you know we receive you know a lot of information complaints opinions even through my personal Mobil and the concerned department and plus the call centre also of course they tell us for example some violation in term of hygiene in some restaurants or cafeteria or probably you know let say traffic jam in some area and we need Muscat Municipality to act quickly in term of providing you know traffic light or some sort of things that ease this traffic jam in some area.

Q. This probably related to what you have said earlier ... that SM improve the image of organisation in the public and this image could be negative if the municipality does not provide the enough information or the other way?

A. No it could be both you know as i mentioned before you know if you run and detect negative things immediately and try to explain it to the public of course i think this is why when i mentioned to you sometime you know i spend 1 to 2 hours only dealing with the SM because you know sometimes you feel some people start attaching official for no reasons and sometime they just create story but as I told you of course if you keep answering every bad things you will put yourself in terrible, just be transparent be open be you know efferent with people and try you know to do your best and i think that is the good thing the good side of SM ... bad things of course many of things and I don't want to talk about them because that depends on the person somebody of for some reasons attack some officials or some organisation and you know this things is guided for some reasons or another.

Q. Do you think SM help your organisation in identifying or implementing regulation more strongly than before and identifying some whole in current regulations which allow some development to these regulations?

A. I think the SM is opened our mined in both sides no one yes we put some extra regulations to try to close some loop holes at the same time introduce some easy measures you know for example some people might suggests or put opinions why don't you put some service online ... today I was in a meeting with the food inspections department and just showed some information they have received from the call centre which I call it one of the social media source, and we were discussing these things and why we don't put it online instead of people you know coming from different areas from different part of Muscat areas so it does help and in both

side making things easy for the public and in the same time also trying to close some gap in our regulation.

Q. Do you think SM has help reduce favouritism as well as fighting corruption because of these openness and transparency of information?

A. It is participated because of SM you know my Facebook account or my Twitter account just any one can send me anything as ... it is open and any one can send me ... so i think yes indeed it is very effective and in curbing you know such bad activities , favouritism or corruption and yes it does and it is very effective ... because we take things very seriously but we just face one problem that we don't know the person who is sending this information especially if it's through group of WhatsApp and you just you find out some time of the day that some people talking about a department that it has been delaying or just treating some people differently or not using the queue system, of course we take things very seriously regardless of the person who complaints or raise it.

Q. OK ... this culture what known as the new culture of SM ... do you think that this culture opened a new way or dimension to women to communicate and participate more with these services oriented government organisations with the flexibility that SM and the use of smart phone might provide?

A. Of course i think not only that of course the point you have raised allowed women that flexibility but also not only good for part of the gender but also it is good for all of the public now i think in some department we have registration online and putting request and instead of using their car finding parking taking hours driving and finding parking so yes i think it should be or it assist female to carry out their duties more efficiently more freely and more cost-effective and it actually help preserve the culture.

Q. Since nowadays there are a lot of people interacting with the organisation official SM account and people as you said rely but there is a lot roomer's for example Muscat Municipality did that or did not do that so people nowadays rely on information that is coming from the officials account to fight for example roomers and to get information from the official right sources ... do you think SM helps in this matter?

A. Yes it does help a lot as i told you if it has been implemented and taking carefully and you know some professional who are dealing with such matter ... yes the negativity of some group and some people tis is in every community , this is something normal ... but you take the majority what the majority of people saying about a project or a service that we are providing and of course a negative attitude and a negative opinions are there and i do considered them sometime healthy because you can't just you know have a one-way ticket in a project or services at least you should have feedbacks both positive or negative.

Q. Do you think people are now participating in SM because they trust SM they trust the government and they trust that they exchange their private information?

A. I think trust should be there ... but as we mentioned before when we were listing why people are using SM, it just widespread and easy to use and it is always everywhere so it is not necessarily anything you get from SM can be trusted, I don't think especially if it is not coming from official account,

(this was my question so when it is coming from official account then it is trusted so when the public is dealing with the government account then trust is there)

A. That is right ... but for example last week some people forged you know something from the authority of meteorologists about forecast of upcoming rain ... and you know some time you can't know if it is an official let see response or not ... i think people usually wait for official response from concerned department and as you know people sometime use Photoshop to forged such information but at the end you know people can tell if this is from an official or just put up by hackers or other people.

Q. With the use of SM do you think the coordination with other government organisations has increased than before as i understand from your call centre people when they get complaints and they know that it is not belong to them they just use mentioned for example in Twitter to alert other organisation ... do you feel that cooperation with other government organisation is faster and helping to increase public awareness about who is role is what?

A. Yes of course as I am having my own account with the SM and other government officials they do have their own account, and they can tell whether this opinion or this clarification or suggestion related to Muscat municipality or to the region municipality because for example if there is any suggestion about the road or hygiene in Barka of course the other people in other regional ministry they know that it belong to them so it helps me as much as it helped them as well, and you know that make them and you know we do exchange information for example Barka municipality noticed something that some fast food restaurants has being closed for such reasons it is immediately take my action without being told ... but because of the region municipality or Dofar municipality have taken certain action I also send my people to supermarket if such an item has been observed to have health implication.

Q. In your view do you think SM nowadays is compatible of the municipality work?

A. To some extent yes, but as you know there is no an official entities that manage SM, SM is open and it can create chaos and create disorder and that is the only problem with SM ... of course there regulation now, some new roles and low that regulate for example sending picture of ladies or taken picture without permission but still you know it become unregulated in term of use, the timing and you know the quality and quantity.

Q. In term of the resources ... first of all as i heard that the complaints that are coming through SM has increased dramatically compare to other mean ... so with these numbers of complaints we have agreed that these complaints come regardless of the time

and day, they come at night during holiday and so on. Do you think because of this complaints that the organisations resources has been utilised more than before especially not only you as a higher official monitor the work and tasks of the service department but also other government officials are also monitoring each other?

A. Yes I think more and more efficiently yes ... because now you know more cost-effective and I want to give you one example, in the past when it rain we have you know drainage system and before we use to send all of our team to the field to inspect ... but nowadays you just after the rain immediately we get messages you know we have some blockage in area 1 or 2 or 3 and that is it and we just go and tackle the problem there instead of searching for all of the area, of course it is becoming cost-effective for us and save us time and money.

Q. Do you think that the use of SM has some effect on the lifestyle and the culture of the Omani people ... as you know the Omani culture is very conservative and with the use of SM especially among young and new graduate ... do you think this created new culture among them?

A. I don't call it different culture it is modified culture, a modified culture in term of people are becoming more open, people are becoming more transparent, people are becoming more active in term of getting the information or getting the opinions and sending it directly to the officials before you know probably in some part of the community they feel it is not worth it ... they feel shy or they feel threaten to go and complain because you know the name ... but now I think i don't think it is changing the culture ... yes there is some modification, but if i think if we take it for the good news of the community ... I think it should be directed to that direction i think ... as I said there is some bad things ... and there is some bad attitude and i think that is normal with any technology ... but we should take the good things from implementing or using the SM.

Q. Because you are one of the higher-level managers in the organisation ... do you think the higher managements support the use of SM in the government and especially in this organisation?

A. Yes personally I do support the use of SM and we do understand the benefits that we have seen from its use and will continue to support that.

Finally i would like to thank you and lastly if I needed to clarify some of your answers can i contact you for that

A. Yes, please feel free to contact me by phone or email and i will be very happy to be of any assistance to you

-----Interview ended-----

## Appendix XIV – PACP OSNs Work Procedure Guidance



# Public Authority for Consumer Protection

## Social Media Policy

### Version 1.0 Prepared by

Lamya Al Mahrouqi  
Riwada Al Balushi  
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Idrees Shah

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## 1) INTRODUCTION ABOUT AUTHORITY

Establishment of the Public Authority for consumer Protection comes as a major turning point in the history of Omani development looking forward to become a distinguished international experience and, at the same time, shining as the first financially and administratively autonomous government authority at Arab World level which is a status that lays on all of us a great responsibility to present this Omani experience in its peak.

**Royal Decree No. 26/2011**

### Establishing the Public Authority for Consumer Protection (PACP)

#### Royal Decree No. 26/2011 Establishing the Public Authority for Consumer Protection.

We, Qaboos Bin Said, Sultan of Oman

After perusal of the Basic Law of the State, promulgated by the Royal Decree No. 101/96, and The Public Authorities and Organisations" Law, promulgated by the Royal Decree No.116/91, and in pursuance of the public interest

Have decreed as follows:

Article One: A public authority named "the Public Authority for Consumer Protection" shall be established. It shall have legal personality and enjoy financial and administrative autonomous.

Article Two: Dr. Said Bin Khamis Al-Kaabi shall be appointed chairman of this Authority in the special grade.

Article Three: A Royal Decree on the law of the Authority shall be issued subsequently.

Article Four: This Decree shall be published in the Official Gazette and shall take effect as from the date of its publication.

Issued on : 24 Rabe'i Awal 1432 H., corresponding to: 28 February, 2011.

#### Royal Decree No. 53/2011, Promulgating the Law of the Public Authority for Consumer Protection.

We, Qaboos Bin Said, Sultan of Oman

After Perusal of the Basic Law of the State promulgated by The Royal Decree No.101/96, and The law of Public Authorities and Organisations, promulgated by the Royal Decree No. 116/91, and The Consumer Protection Law, promulgated by the Royal Decree No. 81/2002, and The Royal Decree No. 26/2011, Establishing the Public Authority for Consumer Protection, and In pursuance of the public interest,

Have decreed as follows:

Article One: The Public Authority for Consumer Protection shall be attached to the Council of Ministers subject to the enclosed Law.

Article Two: The Chairman of the Authority shall Issue the regulations and decisions necessary for the implementation of the provisions of the enclosed Law. And until such regulations and decisions are issued, the laws and regulations in force in



connection with the units of the Administrative Apparatus of the State shall apply to what is not provided for in the enclosed Law to the extent that does not contradict its provisions.

Article Three: All the functions, appropriations and assets belonging to the Consumer Protection Department and its divisions in the governorates and regions shall devolve from the Ministry of Commerce and Industry to the Authority. Also, all the employees of the Department shall be transferred to the Authority with their same grades.

Article Four: Whatever conflicts with or contradicts the enclosed Law and its provisions shall be repealed.

Article Five: This Decree shall be published in the Official Gazette and shall take effect as from the date of its publication.

Issued on: 2 Jumada 1, 1432 H. , Corresponding to: 6 April, 2011

## 2) Objectives of the Authority

The objectives of the Authority as follow

1. To work for consumer protection from price fluctuations.
2. To monitor market prices of goods and services and curb their rise.
3. To guarantee consumer freedom of choice, equality, fair treatment, honesty and credibility.
4. To develop consumer general awareness and use proper scientific means to spread it on accurate and balanced bases in the society as a whole.
5. To find prompt solutions to consumer complaints.
6. To fight counterfeiting, swindling and monopoly.
7. To encourage establishment and support consumer protection societies.

To this end, the Authority shall:

1. Take appropriate measures to stabilize markets
2. Make consumer aware of misleading advertisements and the role of the Authority in fighting them
3. Receive complaints from consumers and consumer societies, investigate them and find appropriate solutions.
4. Continuously follow-up commercial activities, monitor movement of goods and services and make sure of availability of basic goods.
5. Encourage fair competition, combat forfeiting and the monopoly harmful to the national economy.
6. Design action plans for the enhancement and protection of consumer rights.
7. Study the proposals and recommendations received in connection with consumer rights.
8. Make researches and studies on consumer protection.
9. Recommend suitable rules and regulations for market organisation.
10. Work for the implementation of consumer protection laws and regulations.
11. Represent the Sultanate in regional and international conferences meetings related to its functions.

## 3) Social Media Policy

### 3.1 Policy statement

- 3.1.1) This policy is intended to help staff make appropriate decisions about the use of social media such as blogs, wikis, social networking websites, forums, message boards, or comments on web-articles, such as Twitter, Facebook, YouTube and Sabla Oman.
- 3.1.2) This policy outlines the standards we require staff to observe when using social media, the circumstances in which we will monitor your use of social media and the action we will take in respect of breaches of this policy.
- 3.1.3) This policy does not form part of any contract of employment and it may be amended at any time.

### 3.2 Who is covered by the policy?

- 3.2.1) This policy covers all individuals working at all levels and grades, including senior managers, officers, directors, employees, consultants, contractors, trainees and volunteers (collectively referred to as staff in this policy).

### 3.3 The scope of the policy

- 3.3.1) All staff are expected to comply with this policy at all times to protect the privacy, confidentiality, and interests of PACP and our services, employees and consumers.

### 3.4 Responsibility for implementation of the policy

- 3.4.1) The [Director of Media department] has overall responsibility for the effective operation of this policy.
- 3.4.2) The [Head of electronic Media Section] is responsible for monitoring and reviewing the operation of this policy and making recommendations for changes to minimise risks to our operations.
- 3.4.3) All staff are responsible for their own compliance with this policy and for ensuring that it is consistently applied. All staff should ensure that they take the time to read and understand it. Any breach of this policy should be reported to [Director of Media Department].
- 3.4.4) Questions regarding the content or application of this policy should be directed to [Principal Media Department].

### 3.5 Using social media sites in our name

- 3.5.1) Only the [Media Specialist & Head of Electronic Media Section] are permitted to post material on a social media website in our name and on our behalf. Any breach of this restriction will amount to gross misconduct.

### 3.6 Rules for use of social media

Whenever you are permitted to use social media in accordance with this policy, you must adhere to the following general rules:

- 3.6.1) Do not upload, post, forward or post a link to any abusive, obscene, discriminatory, harassing, derogatory or defamatory content.
- 3.6.2) Any member of staff who feels that they have been harassed or bullied, or are offended by material posted or uploaded by a colleague onto a social media website should inform [Director Human Resource Department]
- 3.6.3) Never disclose commercially sensitive, anti-competitive, private or confidential information. If you are unsure whether the information you wish to share falls within one of these categories, you should discuss this with [Director Media Department]
- 3.6.4) Do not upload, post or forward any content belonging to a third party unless you have that third party's consent.
- 3.6.5) It is acceptable to quote a small excerpt from an article, particularly for the purposes of commenting on it or criticising it. However, if you think an excerpt is too big, it probably is. Quote accurately, include references and when in doubt, link, don't copy.
- 3.6.6) Before you include a link to a third party website, check that any terms and conditions of that website permit you to link to it. All links must be done so that it is clear to the user that they have moved to the third party's website.
- 3.6.7) When making use of any social media platform, you must read and comply with its terms of use.
- 3.6.8) Do not post, upload, forward or post a link to chain mail, junk mail, cartoons, jokes or gossip.

- 3.6.9) Be honest and open, but be mindful of the impact your contribution might make to people's perceptions of us as an organisation. If you make a mistake in a contribution, be prompt in admitting and correcting it.
- 3.6.10) You are personally responsible for content you publish into social media tools – be aware that what you publish will be public for many years.
- 3.6.11) Don't escalate heated discussions, try to be conciliatory, respectful and quote facts to lower the temperature and correct misrepresentations. Never contribute to a discussion if you are angry or upset, return to it later when you can contribute in a calm and rational manner.
- 3.6.12) If you feel even slightly uneasy about something you are about to publish, then you shouldn't do it. If in doubt, always discuss it with relevant department Director first.
- 3.6.13) Don't discuss colleagues, consumers or suppliers without their prior approval. 3.6.14) Always consider others' privacy and avoid discussing topics that may be inflammatory e.g. politics and religion.
- 3.6.15) Avoid publishing your contact details where they can be accessed and used widely by people you did not intend to see them, and never publish anyone else's contact details.
- 3.6.16) Before your first contribution on any social media site, observe the activity on the site for a while before launching in yourself to get a feel for the style of contributions, the nature of the content and any „unwritten“ rules that other contributors might follow.
- 3.6.17) Activity on social media websites during office hours should complement and/or support your role and should be used in moderation.
- 3.6.18) If you notice any content posted on social media about us (whether complementary or critical) please report it to [Director Media Department]

### 3.7 Monitoring use of social media websites

- 3.7.1) Staff should be aware that any use of social media websites (whether or not accessed for work purposes) may be monitored and, where breaches of this policy are found, action may be taken under our HR Disciplinary Committee.
- 3.7.2) We reserve the right to restrict or prevent access to certain social media websites if we consider personal use to be excessive. Monitoring is only carried out to the extent permitted or as required by law and as necessary and justifiable for business purposes.
- 3.7.3) Misuse of social media websites can, in certain circumstances, constitute a criminal offence or otherwise give rise to legal liability against you and us. It may also cause embarrassment to us and to our consumers/suppliers.
- 3.7.4) In particular uploading, posting forwarding or posting a link to any of the following types of material on a social media website, whether in a professional or personal capacity, will amount to gross misconduct (this list is not exhaustive):
  - 3.7.4.1) Pornographic material (that is, writing, pictures, films and video clips of a sexually explicit or arousing nature);
  - 3.7.4.2) a false and defamatory statement about any person or organisation; 3.7.4.3) Material which is offensive, obscene, criminal discriminatory, derogatory or may cause embarrassment to us, our consumers or our staff;
  - 3.7.4.4) Confidential information about us or any of our staff or suppliers (which you do not have express authority to disseminate);
  - 3.7.4.5) any other statement which is likely to create any liability (whether criminal or civil, and whether for you or us); or
  - 3.7.4.6) Material in breach of copyright or other intellectual property rights, or which invades the privacy of any person.

- Any such action will be addressed under the HR Disciplinary Action and is likely to result in summary dismissal.
- 3.7.5) If you notice any use of social media by other members of staff in breach of this policy please report it to [Director of Media department].

### 3.8 Monitoring and review of this policy

The Director Media Department will be responsible for reviewing this policy weekly to ensure that it meets legal requirements and reflects best practice.

## Implementation of the policy in Social Media Platforms

PACP media team is governed by social media policy which has been formulated by keeping authority objective & its function in place and at the same time realising the dynamic culture and changing demand of consumers.

PACP Media Department shall

- a) Provides followers with support and basic professional services through creative activities in order to contribute to the development of electronic media.
- b) Endeavour to establish social media sites and high-level, professional, and institutional YouTube services.
- c) Aims at constructing suitable environment for application of electronic services and technical programs (Facebook, Twitter, YouTube and Sablat Oman Forum.)
- d) Upgrade work qualitatively and quantitatively, provide electronic services as fast and easy as possible, and keep abreast of modern technological developments in the community of informatics.
- e) Construct solid platform for social media sites where it can improve and shall rely on the services and high reach of information for the years to come.
- f) Introduce PACP news, and newspapers' articles interested in consumer affairs to the website daily as well as updating them according to rules and standards set out to ensure optimum quality of work and performance.
- g) Focus on monitoring social media sites, electronic services relating to the site, entering of electronic editorial issues, monitoring of interactive services such as consumers' responses and inquiries, follow-up of their remarks and providing them with solutions and legal measures required to solve the problems.
- h) Implement systems, programs and applications required to manage social media sites as per approved measures and schedules.
- i) Study of all complaints and suggestions and use them as means of improvement in our services and for consumers' education and awareness.

List of social media platforms PACP is currently managing.

- 1) Facebook
- 2) Twitter
- 3) YouTube
- 4) Sablat Oman

The following sections will describe policy related to each social media platform.

## 4.1) FACEBOOK

Following tasks should be carried out to maintain PACP Facebook page.

- 4.1.1) Publish PACP news at the site in order to keep consumers constantly informed about latest developments.
- 4.1.2) Exhibit PACP findings and arrests in order to keep consumers aware of harmful items so that they may avoid them in future.
- 4.1.3) Publish articles of interest to consumers and dealing with their affairs.
- 4.1.4) Ask questions in statistical form in order to know the extent of awareness among consumers about purchases
- 4.1.5) Conduct surveys and provide sufficient time for the consumers to participate with relevant responses.
- 4.1.6) Give consumers chance to ask questions, submit inquiries and suggestions and make complaints.
- 4.1.7) Let consumers feel confident to ask questions and communicate directly through the Facebook by showing interest in their views, inquiries and complaints as well as submitting them to relevant concern, then answering immediately.
- 4.1.8) Provide high level of transparency and communicate objectively to resolve issues.
- 4.1.9) Prepare awareness bulletins in order to enhance consumers' knowledge.
- 4.1.10) Publishing of relevant YouTube videos for Consumer Awareness.
- 4.1.11) Publishing information about awareness sessions and orientation visits performed by PACP.
- 4.1.12) Providing information about Consumers' rights and obligations as specified by the law.
- 4.1.13) Refraining consumers from mentioning retailers name in the public in case of any issue/fine.
- 4.1.14) Preparing YouTube videos for merchants about their responsibilities regarding consumer rights and

- publishing it through Facebook
- 4.1.15) Provide flexibility for the consumers to interact privately with the agent through Facebook private messaging.
- 4.1.16) Ensure that Facebook page should follow PACP branding guidelines.

## 4.2) TWITTER

- 4.2.1) Entering PACP news and publishing PACP research and findings in the page in order to keep consumers informed about developments and harmful commodities so that they may avoid them as well as entering articles dealing with consumers' affairs by entering their links.
- 4.2.2) Conduct surveys and provide sufficient time for the consumers to participate with relevant responses.
- 4.2.3) Give consumers chance to ask questions, submit inquiries and suggestions and make complaints.
- 4.2.4) Let consumers feel confident to ask questions and communicate constantly with the Face Book by showing interest in their views, inquiries and complaints as well as submitting them to relevant authorities, then answering immediately.
- 4.2.5) Provide high level of transparency and communicate objectively to resolve issues. 4.2.6) Prepare awareness bulletins in order to enhance consumers' knowledge.
- 4.2.7) Publishing of relevant YouTube videos for Consumer Awareness.
- 4.2.8) Publishing information about awareness sessions and orientation visits performed by PACP. 4.2.9) Providing information about Consumers' rights and obligations as specified by the law.
- 4.2.10) Refraining consumers from mentioning retailers name in the public in case of any issue/fine.
- 4.2.11) Preparing YouTube videos for merchants about their responsibilities regarding consumer rights and publishing it through Facebook
- 4.2.12) Provide flexibility for the consumers to interact privately with the agent through private messaging.
- 4.2.13) Ensure that Twitter page should follow PACP branding guidelines.

## 4.3) SABLAT OMAN FORUM

- 4.3.1) Entering PACP news and publishing PACP research and findings in the page in order to keep consumers informed about developments and harmful commodities so that they may avoid them as well as entering articles dealing with consumers' affairs by entering their links.
- 4.3.2) Give consumers chance to ask questions, submit inquiries and suggestions and make complaints.
- 4.3.3) Let consumers feel confident to ask questions and communicate constantly with the page by showing interest in their views, inquiries and complaints as well as submitting them to relevant authorities, then answering immediately.
- 4.3.4) Provide high level of transparency and communicate objectively to resolve issues.
- 4.3.5) Refraining consumers from mentioning retailers name in the public in case of any issue/fine. 4.3.6) Observing consumer's privacy while publishing their questions.
- 4.3.7) Provide flexibility for the consumers to interact privately with the agent through private messaging.

## 4.4) YouTube

- 4.4.1) Publishing of relevant YouTube videos for Consumer Awareness.
- 4.4.2) Preparing YouTube videos for merchants about their responsibilities regarding consumer rights and publishing it through Facebook
- 4.4.3) Educating consumers about their rights and duties.

## 5) RESPONSE MECHANISM

- a) Continuous follow-up on each social media site for new consumer inquiries or complaints.
- b) Direct response to inquiries relating to PACP such as phone numbers, regional offices locations and other repeated questions already answered.
- c) Submission of inquiries and questions to relevant personnel in order to provide relevant answers.
- d) Receive answers, reformulate them, and submit them to the relevant social media site.
- e) Reviewing Consumers views and suggestion and considering it to improve our services

<b>Working Area</b>	<b>SCOPE of ACTIVITIES</b>
Level 1 Support	Direct response to question about PACP functions and inquiries such as website URL, regional offices, phone numbers, other repeated questions already answered.
Level 2 Support	Question requiring legal answers to relevant departments (Complaints Department, Department of Market Monitoring an regulation, and the Legal Department) for answering as well as contacting regional offices for complaints from outside Muscat in order to take appropriate measures.
Level 3 Support	Response to some complaints and inquiries if relevant personnel are not present or if the matter required field visits, follow-up, or case study.
Level 4 Support	Contact other relevant authorities (such as Ministry of Health, Municipality etc., ) for testing a product or checking a service then informing the consumer about the result which may require a few days/weeks for reviewing and concluding.

## 6) Resolution Time

<b>LEVELS</b>	<b>RESOLUTION TIME</b>	
	<b>MIN.</b>	<b>MAX.</b>
Level 1	20 Minutes	1 Hour
Level 2	2 Hours	4 Hours
Level 3	1 Day	4 Days
Level 4	Continuous contact with relevant authorities such as Ministry of Health, Municipality etc. for testing a product or checking a service then informing the consumer about the result which may require a few days/weeks for reviewing and concluding. (unlimited number of days)	

### Appendix XV – Main Study Cross-Case Analysis

<i>Cross-Case Analysis: Attitudinal Belief Structure</i>								
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)			
		High-level	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff	
Relative Advantage	Effective communication	OSNs provide instant communication and cover wide sector of audience, low-cost communication	OSNs has provide the organisation with fast, cheap and instant tool to enhance communicate within the organisation and with the public	Fast OSNs communication allowed fast feedback and suggestions, also promote fast action		Manager believes OSNs has provided them with fast, instant and continues communication tool to reach wider sector of the public in wider geographic area instantly	Middle managers highly seen the effectiveness of OSNs when communicating with the public. Allowed better communication with people in remote area	The organisation uses OSNs for fast communication, save us time and help solve public cases. The public don't have to come now for normal enquires
	Increase public Interaction	OSNs promoted more public and government interactions	Higher-level managers stated that OSNs promoted discussion with the public regarding public government's services and increased public interaction, and evaluation of organisation' services.	Middle managers perceived the use of OSNs to increased public interaction with the organisation and provided valuable feedback. More appreciation and public satisfaction.	Low-level employees suggest Twitter is reliable and promoted more public interaction than when it stated.	Higher-level manager believed OSNs allowed them to understand the public more and get closer to their needs. Increased public interaction allowed employee to focus on hidden or not clear issues.	Staff at middle level support the use of OSNs for getting them closer to their customer and increase their understanding. Instant information is received that help prioritise daily tasks.	Low staff list interaction as one of the benefits that is provided with the use of OSNs. It help carry daily tasks, save time to rectify public complaints.
	Promote Transparency	OSNs leads to more information transparency with the public.	Higher-level managers believe OSNs promoted information transparency, but more is needed. Public increased knowledge encourage more information transparency.	Information transparency resulted in simplifying processes and procedures when communicating within organisation and with the public.	The use of Twitter is reliable and promoted transparency when real information is provided which increase public credibility and trust of the organisation.	Higher staff believe that with OSNs more transparency is provided and more understanding has been opened with the public.	Staff at this level believe more public knowledge about their right when it comes to organisation services reached as a result of OSNs transparency.	Transparency increased with OSNs, the public need to know all information, the organisation implemented high transparency level. Update provide needed information to the public.

<i>Cross-Case Analysis: Attitudinal Belief Structure</i>								
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)			
		High-level	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff	
Provide Awareness	OSNs has increased Public awareness of organisation roles and services OSNs has increased employee's awareness of public needs	Higher-level managers believe more public awareness has been reached since the start of OSNs adoption.	Middle managers has seen public awareness increased with the use of OSNs as well as increased public knowledge.	Ordinary employees felt that OSNs helped increase public awareness regarding the organisations services and the limitation of the organisation.	Manager at this level argued that OSNs provide more public awareness. Both employees and public awareness increased with OSNs. Public now know their right, employees know what the public needs and what concerned them.	Middle manager strongly list increase public awareness as a strong benefit of adopting OSNs. More awareness exists with public about their rights as consumers. Instant awareness messages are sent to big sector of the public all over Oman.	Low staff noticed an increase of public awareness since the adoption of OSNs in the organisation.	
		❖	❖	❖	❖	❖	❖	
Increased Efficiency, Effectiveness and accountability	Work efficiency has increased and public services now addressed quickly, employee's performance enhanced, more responsibility is realised	OSNs allowed us to evaluate our employee performance, service quality, also we are evaluated by our boss and other government officials evaluate the organisation work	Many employees work hard to please their immediate manager and the public. Our higher-level manager evaluate our work and better appraisal is seen	the work is more appreciated and better relation with the higher-level managers exist. The public encouraged us to work harder and perform better	OSNs being open discussion platform allowed evaluation of employees work, organisation services. OSNs force more efficiency to address complaints and deliver services	Response time is more valued by employees. Employees now work hard to please manager and officials and public that result in more appreciation and knowledge of employees performance	Better utilisation of resources to respond to public needs. More sense of responsibility and accountability	
		❖	❖	❖	❖	❖	❖	
Complexity	Ease of Use	OSNs is simple and easy to use, education level and effort do not play critical aspect in the use	OSNs is very popular among Omani because it is very easy to use. Education level is not important. Normal people can use it in no time.	Easy to use and learn, require little effort to understand. Young children can use it immediately that is how easy it is.	Very easy to use, simple and take no time to learn.	Easy and simple to use any one can use it even children.	Easy and simple to use it does not need long time with practice you can master its use.	Easy and simple to use not time needed to learn. Now even ordinary people and children are able to use it with no time.
	Effort, Experience of	The effort needed to use OSNs, and measure of experience of use	Experience of use and education level is irrelevant in the use. Very little effort is	No effort needed, experience of ICT and education not needed but can provide more	Previous experience in ICT helps provide deeper knowledge of OSNs. Little effort needed, and	Little effort might be needed with some, but younger people can use immediately. Education and years of experience	Little effort only needed, education level and previous experience are not	Effort is needed but very little, education level and experiences can help increase the knowledge of OSNs



<i>Cross-Case Analysis: Attitudinal Belief Structure</i>							
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)		
		High-level	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff
Use and education	and education level in the use of OSNs	needed to be able to use OSNs.	knowledge of the OSNs feature.	education is not significant in the use particularly with multi-language support.	might help but not needed.	significant in the use of OSNs.	features it is a bonus to master the use of OSNs.
		❖	❖	❖	❖	❖	❖
Compatibility	The degree to which OSNs can fit with the employees' work	It is compatible with staff work particularly those who work in public service department and interact with public all the time. Cost-effective and help speed the organisation work. OSNs with smart phone are needed to carry our work in general	Very compatible with staff lifestyle and staff work culture. Highly compatible to carry daily tasks and evaluate the organisation services. With smart phone and OSNs our work performance increased we depend on them and they fit our work culture	Low-level staff significantly perceived OSNs and smart phone to fit with their work particularly those who work on the fields and those who work in public service department	The use of OSNs is in line with the organisation strategy to adopt technologies to enhance work. OSNs highly compatible with this level staff since their work done using OSNs and smart phone. Smart phone is used to carry the work of most the majority of employees	OSNs and smart phone helped middle employees to carry their work across big geographical area of Oman. It fits with most employees work particularly fields employees	OSNs along with smart phone highly compatible with low-level staff particularly those who work on the fields and on continues move like inspectors. Allowed more interaction and information exchanged between employee and his department to verify and carry daily tasks

The normative belief structures are RA, complexity and compatibility. All participants in the two case study perceived the use of OSNs to have increased public interaction, information transparency and provided effective communication tools for the employee's' to communicate with the public or when employees communicate within the organisation to carry their tasks. These also resulted in effective and efficient work environment in both case studies. However, case study one started earlier to adopt OSNs and had to build the benefits slowly with existing resistance to this adoption. While case study two had better plan and from the beginning they have a lot of public interaction and they anticipated the increase public participation and interaction.

Complexity or ease of use in both case studies was concluded by all participants to be easy, simple and does not require a lot of efforts, also education level and ICT experience were found irrelevant in the use of OSNs. It was found that the use of OSNs is

compatible with the employees work in both case studies. However, participants who work in the fields like (inspectors) have expressed significantly the compatibility of OSNs and smart phone to their daily tasks, and benefited from the information they receive through public interaction and the facility that OSNs provide them when communicating with their departments to exchange information.

<i>Cross-Case Analysis: Normative Belief Structure</i>							
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)		
		High-level	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff
Subjective Norms	Social Network Encouragement	❖	❖	❖	❖	❖	❖
		The network or peer that employee socialise with and their influence on the employee to adopt and use OSNs	The majority of staff perceived their friends and family member to have influence their use of OSNs.	Most of the employees admitted their friends and family members have influenced their use of OSNs	Most staff revealed their friends and family member influence their use of OSNs, with few staff also point to their colleagues as influencer for the use of OSNs.	Most staff find their friends to have influence their use of OSNs, a few pointed to their family member as influencer for their use of OSNs.	Trend and Lifestyle are seen by some to have influence their use of OSNs, with some pointed to work colleagues and friends.
Image	Image	❖	❖	❖	❖	❖	❖
		The degree to what employees' consider the use of OSNs to enhance their image and that of the organisation	Employee at this level believe the use of OSNs help improve their image as high-level which also help improve the organisation image, but revealed their personal image is not essential.	Staff believed that OSNs is important for personal image. Some admitted that their colleagues and some higher official are using OSNs to improve their personal image. Other use OSNs to draw a new image for themselves	Staff at this level believed that OSNs is a representation of individual s regardless of their jobs and stated that many use OSNs to market their image to gain more followers.	Also staff believe that high-level image is a reflection of the organisation can bad personal image can damage the organisation image and vice versa. They believe that use of OSNs should be planned in a way that it should not damage the organisation image.	Staff at this level perceived OSNs to help improve their image and also the organisation image. Some believed OSNs helped improve their image among colleagues and society, yet they believe that organisation image is more important than their personal image.

Normative belief structure or subjective norms and image have found to influence employees to adopt and use OSNs. It was concluded by participant's in both case studies that peer influence was significant particularly friends and family members while other peer like

colleagues and lifestyle have less influence. The adoption of OSNs perceived important for some participants to improve or create their personal image particularly among low-level staff, while other high-level participants believed their image can reflect negatively or positively on the image of the organisation. However, many employees at the two case studies revealed that improving the organisation image is far more important than marketing their own image.

<i>Cross-Case Analysis: Behaviour Control Belief Structure</i>							
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)		
		High-level	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff
Self-efficacy	Confidence, Motivation and Support  Personal ability or confidence that employee has to be able to use OSNs successfully in his work environment to carry his tasks	❖	❖	❖	❖	❖	❖
		Staff showed more confidence since the adoption of OSNs; they recognise OSNs as influential tools to gain more confidence. With OSNs clear processes and guidance were implemented and that made employee self-efficacy high and allowed them to carry their tasks with clear understanding procedures hence increased their confidence. Staff at this level expressed more motivation and support from their higher officials and they also showed more support to their employee to use OSNs.	Most staff at this level perceived OSNs to have increased their self-efficacy with more public interaction that allowed them to understand the need and feedback of the public which result in higher ability to provide services. Some employees admitted receiving higher-level manager support in term of training and help when needed. They also expressed their support for lower level staff and their encouragement to use and increase public interaction through OSNs.	Most staff perceived OSNs to increase their confidence in carrying their daily tasks particularly fields' employees who believe OSNs improve their work culture and allowed them to carry their tasks fast because of the information they receive while they are on the field. The majority of employees admitted having the support they need from their middle and higher-level manager in the form of advices and training on the use of OSNs. One employees admitted no support were provide to him.	Most participants at this level perceived the use of OSNs to have helped them increase their confidence both in their personal life and work environment. By using OSNs staff at this level admitted increased in their knowledge and understanding of their work and handling public interaction and public needs which in turn increased their confidence in carrying their daily tasks. All high-level expressed strong support for the use of OSNs to their employees as a strategy of the organisation in the form of training, advices and encouragement.	Majority of staff acknowledge more confidence exist with the use of OSNs because of public appreciation of their work. Staff admitted that some employees are not good in face-to-face interaction but with OSNs they handle public interaction effectively and that increased their self-efficacy. All staff admitted getting a lot of support from higher management to use OSNs in their work. They also showed strong support to their lower employee to effectively use OSNs to carry their tasks and improve public services.	Staff admitted that since the use of OSNs their confidence has increased particularly when handling public interaction which allowed them better understanding of public need and improve how to serve them. All employees admitted receiving all kind of support from their managers to use OSNs effectively such as training, buying equipment (smart phone). In many occasion they were called by high-level official to appreciate their interaction and handling of public complaints on OSNs. Continues advice is also provided to the employee by high-level.
Facilitating	Knowledge and Mobility Infrastructure  Employee believe that the availability of the needed	❖	❖	❖	❖	❖	❖
		Staff at this level believed that their offices are equipped with equipment and infrastructure that allowed them to use their internal	Staff who needs smart phone and equipment to use OSNs admitted they have them and are able to use them whether when they are in their offices or on	Employees at this level are happy with the equipment the organisation provide to them and are able to carry their tasks using OSNs whether when	Employees at this level believe equipment like smart phone, computer, and smart devices are available to all employees who use	Availability of needed infrastructure and smart devices to employees in the organisation are provided. Employees at this level believed	All employees believed that the organisation provided all equipment they needed to handle OSNs interaction and conduct their work whether when at office

<i>Cross-Case Analysis: Behaviour Control Belief Structure</i>							
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)		
		High-level	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff
	infrastructure and equipment allow the employee to use OSNs in their office and when they are on the field to carry their work	computer/system/internet/smart phone to use OSNs and needed application to carry their work. Most offices are observed to have the needed equipment and infrastructure to use OSNs. High-level admitted having the knowledge to use these equipment without problem.	the move. Smart phone is provided for staff who supervises OSNs account all the time.	they are in the office or when they are in the field.	OSNs or field employees (inspector) who work on the move. Also admitted all facilities and infrastructure in the organisation are available to all employees to carry their work smoothly. High-level showed high knowledge and understanding when handling needed equipment to use OSNs to carry their work. All staff follows organisation OSN accounts.	that they use OSNs to carry their work effectively and the organisation provided all what they need.	or when they are in the fields. Staff at this level expressed their confidence and knowledge to carry their work and use OSNs all the time. Staff who supervise OSNs are provided with smart devices and allowance for their internet use.

The behaviour control belief structure (self-efficacy and facilitating conditions) were also examined between the two case studies. It was concluded that OSNs increased employee’s confidence by understanding public needs and the internal processes and procedure of the organisation. Staff in both case studies concluded that OSNs allowed them to build their knowledge and sense of responsibility towards their work, and with more knowledge and clear process their self-efficacy has increased and their work performance also improved.

The availability of infrastructure and the needed equipment like smart phone, computer ... etc. that both case studies provide for their employee help the employee to facilitate OSNs to run their duties regardless of time and location particularly for fields employees. Further, the wide mobile network coverage allowed employee to interact with the public or their regional offices fast and instant with little cost.

<i>Cross-Case Analysis: Isomorphic Pressure</i>							
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)		
		High-level	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff
<b>Coercive Pressure</b>	Pressure that is exerted on the organisation from other organisation which force them to adopt and implement e-government solution like OSNs	❖	❖	❖	❖	❖	❖
		Acknowledge the role of ITA (regulative body) to implement e-government transformation plan. Most participants admitted the existence of this pressure. Revealed facing pressure by placing the organisation among top e-government implementer and maintain that. More pressure is now exerted to make OSNs more effective.	Revealed that many training and workshops were conducted by regulatory body to encourage e-government and OSNs implementation. More pressure is now exerted by higher officials to effectively use OSNs to increase public participation and interaction.	Staff admitted more involvement with other government employees with the supervision of ITA to discuss issues facing e-government /OSNs implementation.	Staff at this level believed that regulative body did not exert pressure on them to implement e-government/OSNs but rather their CEO and top officials encouraged them to adopt OSNs. Participants stated that organisation new establishment helped them to implement latest mature technologies like OSNs to interact with the public which what their CEO wanted from day one.	Participants at this level believed that CEO has to work in accordance to ITA e-government transformation plan, but stressed his vision was the main key to implement e-government and OSNs solutions in the organisation.	
<b>Memetic Pressure</b>	The pressure that the organisation receives from successful organisation who adopted e-government /OSNs in government, and they try to copy their experience or model. Exist because of uncertainty and limitation	❖	❖	❖	❖	❖	❖
		Staff at this level feels more pressure from regional successful organisations and try to copy their effective e-government/OSNs solutions. More visit and workshop are coordinate within Oman or abroad to visit and explore other successful experience of model organisation like Dubai municipality	Participants at this level believe the pressure is on them to maintain their e-government/OSNs use, to be among top government organisation. Also revealed that many government's organisations want to implement and copy similar OSNs environment to the one in this organisation.	❖	Employees at this level concluded that the organisation did not copy other organisation technical solutions. In fact, participant stated that other organisation came for their help to mimic their OSNs experience and solution even from GCC organisation. However, other explained that exchanged visit to GCC organisation that work in the same field has happened to exchange views and ideas.	Staff at this level did not identify memetic pressure to adopt OSNs, in fact most of them related the new establishment of the organisation alongside the maturity of OSNs place them among top government organisation in OSNs use, also relating their CEO and top management vision to adopt new technologies to help place them on top of government organisation in the use	

<i>Cross-Case Analysis: Isomorphic Pressure</i>							
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)		
		High-level	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff
				X		of e-government and OSNs solution.	X
		❖	❖	❖	❖	❖	❖
<b>Normative Pressure</b>	Encouraged by professionalisation or by looking at other recognised government organisation in implementing e-government and OSNs solution	Staff at this level revealed that public pressure is now exists more on the organisation to use OSNs effectively when communicating with them interactively.	Revealed that OSNs use (trend) among the public created pressure to all government's organisations to adopt and use OSNs to communicate with the public. Some employee believes organisation will not have choice and will be forced to use OSNs as the main communication tool with the public because they demand that.	Staff revealed that more public pressure is now exerted on them to provide better services and more information by effectively using OSNs to interact with the public all the time. Staff who supervises OSNs account admitted implementing WhatsApp group to enhance fast response to public complaints and speed internal processes to provide information to reply to public.	Participant at this level perceived adoption of OSNs came with price to absorb public pressure by improving the use of OSNs effectively and improving public services and respond to public enquiries/complaints quickly. They relate increased social pressure to the increased knowledge of the public on issues related to them in government's organisations. Majority of staff consider social pressure to be positive and help improve public participation.	Staff at this level identified normative pressure to be exerted by public on all employees to carry their tasks effectively. With more public discussions on open platform (OSNs) more pressure exerted on the organisation to listen to them and encourage more public participation.	Participants at this level believed normative (social) pressure is exerted more on higher and middle level as they are more responsible for decision-making. They also believe social pressure encourage more effort to effectively utilise OSNs and other technologies to enhance public participation and improve the organisation services.

Participants at case study one revealed more pressure exerted on them by regulative body (ITA) to implement e-government and OSNs according to government plans. On the other hand participants in case study denied significant pressure exerted by regulative body, but indicated the pressure came from the CEO and top officials in the organisation to adopt and use OSNs effectively. Both participants in case studies believe that mimetic pressure is very weak because both organisations placed among top government's organisation in the adoption and use of OSNs. IN fact, some participants from both case studies indicated other government entities sought their help and advice to mimic their successful adoption of OSNs. According to participants, normative pressure, in both case studies, encouraged

by social pressure and public demand to effectively improve the adoption of OSNs through increasing public interactions and increasing the level of information transparency when dealing with public matters.



<i>Cross-Case Analysis: Culture</i>							
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)		
		High-level	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff
Artefacts	Identify general norms and values that are visible to people from outside the organisation of the use of OSNs and encouraging adoption and use culture in the organisation	❖	❖	❖	❖	❖	❖
		Can be observed through visiting the organisation web sites which clearly indicate the use of OSNs symbols to promote the use of OSNs to interact with the organisation, also visible in booklet and forms that people use to request service or enquiries or promote organisation. Public culture was also changed to adopt OSNs in their daily activities including communicating with government's organisation, a culture that is also adopted by these organisations. Participants concluded that OSNs is used to promote organisation news, social activities and recognition.	Staff indicated the use of OSNs symbol to promote OSNs to the public. Also staff who supervises OSNs can be seen replying to public post almost at any time of the day and the week regardless of their location and time.	Participants at this level particularly OSNs supervisors and fields employees indicated the use of OSNs to interact with public participation regardless of their location or time. Also promoting and encouraging people to use OSNs for faster and effective services which are a culture that is now adopted by the majority of public who continue to increase their use of OSNs. Participant's believed public trendiness and use of OSNs provided equal opportunity to gender to interact with the organisation.	High-level participants indicated the organisation utilised OSNs as organisation work culture from fist days of use. They concluded that the CEO and his assistance developed this culture when the organisation was established. This culture as indicated by all participants at this level as a reflection of public lifestyle and trendiness of the use of OSNs in the society which coincide with the time this organisation established and that made implementing OSNs/ICT culture as the organisation work culture. Promoting ISN symbole was also observed by the researcher during his visit to the organisation to conduct observation and interview.	Staff at this level concluded that OSNs/ICT culture was not questionable to implement in the organisation as a working culture because all employees particularly the CEO and his assistance set the use of ICT/OSNs as strong strategy for the organisation to adopt. All participants' believed OSNs/ICT culture is visible to anyone who visits the organisation building or visit its web site. This was confirmed by the researcher during both observation and interviews time in which all employees that were encountered perceived the use of OSNs as normal practice in their work environment.	Similar indication by staff at this level was shown about OSNs culture among all employees. Many participants indicated that all employees are young and educated because of the recruitment that came with the establishment of the organisation (2011), hence all of them believed in the use of ICT/OSNs to provide the organisation services and interact with the public. Participants believed developing ICT/OSNs culture was easier (because of newly established organisation) compare to other government organisation that might face some resistance from its employees to alter existing work culture.
		❖	❖	❖	❖	❖	❖
		High-level participants indicated their support and encouragement for the use of OSNs through Training, fast responses by reengineering of	Staff at this level perceived the values of their manager appreciation, public a Appreciation and team work which developed as a result of the	Participants at this level indicated faster escalation of information flow because of new processes were a direct result of OSNs adoption. They	High-level participants indicated their strong support to all employees to use OSNs and other implemented technology in the organisation. They believe in effective	Staff at this level concluded they are implementing open, technology use, and transparent information culture when running their daily work. All participants did not show	Employees at this level concluded it is the organisation culture that focuses on the use of OSNs and other technologies to run their daily work. In fact all participants

<i>Cross-Case Analysis: Culture</i>							
Main Themes	Explanation of Themes	Muscat Municipality (Case Study One)			PACP (Case Study Two)		
		High-level	Middle-level staff	Low-level staff	High-level	Middle-level staff	Low-level staff
<b>Esponse values, Norms and Knowledge</b>	Identify Organisation's strategies, goals and plan when developing the OSNs and related technologies culture	some processes and stimulate employees to use OSNs. Also promoting team work to respond to public complaints quickly. Being monitored by the public through the use of open platform (OSNs) a new work culture of responsibilities and work effectiveness is implemented compare to traditional more relaxing culture.	adoption of OSNs help developed and changed current work culture in the organisation to more effective (fast, accountable, and responsible) culture.	concluded that OSNs created a more responsible work culture that focus on team work and clear process within the organisation departments to reach fast and effective interaction to public participation.	work culture that must use latest technology effectively to deliver the organisation services. All participants indicated this is a strategy that already developed and implemented as the organisation working culture that focus on technology adoption, teamwork, and public participation and information transparency.	or indicated resistance exists among the organisation employees of adopting this culture. In fact it was observed among observed and interviewed staff of this level their enthusiasm and enjoyment when using OSNs and other technical solution to deliver the organisation services.	perceived this culture as normal and promote better and effective work when delivering public services or dealing with their matters. It was observed by the researcher that even after their daily working time finished the majority of employees stayed in their offices for long time carrying their tasks without issues. Teamwork and accountability were apparent among all employees when it comes to work culture.
<b>Basic assumption and Belief</b>	Employees unconscious perception, beliefs and values towards OSNs adoption culture	❖	❖	❖	❖	❖	❖
		High-level expressed their beliefs in the use of OSNs and other technologies to help them increase their performance at work. This is important to spread OSNs adoption work culture by high-level, who some staff believe already developed as a work culture among many employees at all levels. However, some high-level participants indicated there are high-level who still	It was concluded by the participants at this level that OSNs culture already changing how most employee's do their work particularly fields and public services department employees. It was observed also by the researcher how employees at this level adopted OSNs culture to encourage their employees to facilitate the use of OSNs when delivering public	Staff at this level particularly young employee's already adopting OSNs culture, and work to spread this culture among their colleagues, to perform their daily tasks particularly filed employees (inspector) and OSNs supervisors.	Existing values and norms among these high-level participants is built on the use of OSNs and latest technical solutions as a working environment. Therefore, all participants at this level promote OSNs culture as work culture of the organisation and developed it among all employees. No resistance were noticed or reported by the participants to this culture. It is believed	Participants at this level indicated their strong believe on the use of OSNs and adoption of latest technologies as organisation working culture and their beliefs and assumption are built and focused on using this culture to perform their duties. None of the participants indicated signs of resistance among employees in their department on the implementation of this culture. Their beliefs and	Similarly all participants at this level believed in the use of OSNs and other latest technologies as important culture that proved to deliver their work effectively whether within the organisation or when working in the fields (inspectors) or when interacting with public through OSNs. Employees beliefs at this level build around the use of OSNs and technologies as

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		resist culture changes but do not show it in front of other colleagues because of higher official support of the use of OSNs.	services or rectifying their complaints.		that the CEO strongly support the use of OSNs and latest technical solutions to represent the focus of employees beliefs and assumption.	assumption focuses on the use of OSNs and technologies solution culture.	working environment culture which also reflect their assumption.

When examining culture the three layered (artefacts, Espouse values and norms, and employee’s basic beliefs) some similarities exist but also differences appear. For example, similarities in the artefacts in both case studies were reported and observed that promoted the use of OSNs when interacting with the public or promoting the organisation services, news, and functions. Further, public trend of OSNs use and its popularity developed a culture that allowed both gender to participate and interact with government’s organisation (equality provided in a male-dominated society) which was not highly encouraged before the use of OSNs. On the other hand, espouse values (layered 2) and although both case studies promote valuessuch asteamwork and management support there are some differences exist on the level of promoting and showing support for these values. While in case two strong supports for teamwork and the use of OSNs in daily work perceived by employees, the level of support was not expressed by all participants. In fact few participants in case study one reported not receiving encouragement from their immediate managers.

When employees basic assumption and belief were investigated more differences indicated by participants in the two case studies. While some participants reported the existence of technology (OSNs) resistance among some participants, that was not the case among participants in case study two. In fact they all agreed that the organisation’s culture was reflected in all employees’ beliefs and assumption that focus on the use of OSNs as the culture of the work.