

NOTTINGHAM TRENT UNIVERSITY



NOTTINGHAM BUSINESS SCHOOL

DOCTORATE OF BUSINESS ADMINISTRATION

Student Name: Hanan AbdulAziz Al-Kindi

Student Number: N0592998

Supervisor Names: Professor Carley Foster and Dr Guja Armannsdottir

DOCUMENT 5

Thesis

**The effectiveness of internal communications as part of the eGovernment transformation
plan in the Ministry of Information in Oman**

16th November 2019

Table of contents

Chapter 1. Introduction	1
1.1. Oman Context	1
1.2. Ministry of Information's eTransformation Plan	5
1.3. Justification and Significance of the Research.....	7
Chapter 2. Literature Review	14
2.1. Communication.....	14
2.2. Organisational communication	19
2.3. Internal Organisational Communication	21
2.3.1. Communication tools: face-to-face.....	25
2.3.2. Written tools.....	26
2.3.3. Electronic tools	27
2.4. Communication Direction.....	31
2.5. The role of workplace culture in internal communications.....	33
2.6. Impact of Age and gender on organisational culture.....	38
2.7. eGovernment.....	41
2.7.1. Developmental Stages of eGovernment.....	42
2.7.2. Types of eGovernment relationships	43
2.8. Challenges of Applying eGovernment to Internal Communication	46
Chapter 3. Conceptual Framework and Summary	51
Chapter 4. Research Methodology	55
4.1. Introduction	55
4.2. Research Philosophy: Positivism - Interpretivism.....	56
4.3. Case study.....	58
4.4. Qualitative Research	61
4.5. Data Collection.....	61
4.5.1. Interviews.....	62
4.5.2. Interview Questions	64
4.5.3. Interview Sampling.....	66

4.6. Document analysis	69
4.7. Thematic Analysis.....	71
4.8. Reliability and validity	76
4.9. Ethical Considerations	77
Chapter 5. Findings	79
5.1. Factors Influencing Internal Communication Impact	79
5.1.1. Communication Tools.....	81
5.1.2. MOI Organisational Hierarchy	84
5.2. eGovernment Transformation Plan.....	87
5.2.1. Impact of Electronic System.....	87
5.3. Challenges for the Internal Communication System	92
5.3.1. Employee Acceptance of the Electronic System	92
5.4. Improvements in the Workplace.....	96
Chapter 6. Discussion and Conclusion.....	100
References	125
Appendix 1: Ministry of Information eTransformation Plan.....	145
Appendix 2: Consent Form	164
Appendix 3: Interview Questions	167
Appendix 4: Interview Questions (Arabic).....	168
Appendix 5: Interview Questions (English).....	171
Appendix 6 and 7: Extract of Interview – Arabic and English	174
Appendix 8: Extract of Generating Initial Codes	177
Appendix 9: The Award of Best eTransformation Achievement in the Sultanate of Oman in 2018.....	181

List of Figures

Figure 1 <i>The six stages of the eGovernment Transformation Plan (www.oman.om)</i>	4
Figure 2 <i>The Shannon-Weaver Mathematical Model (Shannon and Weaver, 1949, p.11)</i>	16
Figure 3. <i>The process of communication (Berlo, 1960, p.72)</i>	18
Figure 4 <i>Channels of Communication (Collins, 2009, p.417)</i>	28

Figure 5 <i>Researcher’s conceptual framework, based on Berlo’s (1960) SMCR model</i>	52
Figure 6 <i>Ministry of Information hierarchy- MOI Website-2017</i>	60
Figure 7 <i>MOI Portal Website page, featuring the ‘My Office’ icon on the right side of the banner</i>	80
Figure 8 <i>‘My Office’ contents, including the correspondence email system. From the MOI Portal Website.</i>	81

List of Tables

Table 1 <i>Types of communication directions</i>	33
Table 2 <i>Almarabeh and AbuAli’s Framework for Development Stages of eGovernment (2010, pp.30-31)</i>	43
Table 3 <i>Types of eGovernment</i>	45
Table 4 <i>Summary of studied themes</i>	65
Table 5 <i>Respondents’ profiles as MOI employees</i>	69
Table 6 <i>Benefits of documentation analysis (Bowen, 2009)</i>	70
Table 7 <i>Limitation of document analysis (Bowen, 2009)</i>	71
Table 8 <i>Braun and Clarke’s six steps applied to the research (2006, pp.35-36)</i>	75

DEDICATION TO MY BELOVED FATHER SOUL

Acknowledgment

This thesis would not have been completed without the support and guidance from the following people who built and mirrored tremendous hope and love in me.

I am heartily thankful to His Excellency Abdul Aziz Al Rawas, My Mentor for his profound support and faith in me. for all of his advice, which enlighten me on the progress that I have achieved now. This thesis would have been utterly impossible without his consistency encouragement.

My supervisors, **Professor Carley Foster and Dr. Guja Armannsdottir** for their guidance throughout this DBA journey. I would like to thank them for the continuous support and motivation. For keeping me focused even when there were difficult times. For provided me extensive personal and professional guidance and taught me a great deal about methodical research. For their insightful comments that helped me in all the time of research and writing of this Thesis.

My sincere thanks also go to my colleagues from The Ministry of Information, Oman Embassy for their support.

Last but not least, I would like to thank my family: my siblings for supporting me spiritually throughout writing this Thesis. My deepest gratitude goes to my mother Raya Al Hassani, for her love, prayers, and unfaltering care. Special thoughts go to those who kept encouraging and bearing my temper, even in the stormiest moments, my two lovely angles, Lujain and Rayyan, who never gave up waiting to see me make my dreams come true.

Abstract

The Sultanate of Oman's eGovernment Transformation Plan is a national project that aims to fully transform government transactions to ensure a sustainable, well-informed society. More governments around the globe are embracing the phenomenon of the eGovernment Transformation Plan, hoping to reduce costs, enhance services for civilians, and improve impact and productivity in the public sector. The eGovernment Transformation Plan involves an essential shift both within a government and in the relationship between a government and its workers. Since the plan's adoption in 2012, no prior study (to the best of the author's knowledge) has examined the impact of the internal communication system in any Omani government entity. This research analyses qualitative information gathered from interviewing 20 employees of the Ministry of Information (MOI) and reviewing the eGovernment Transformation Plan of the MOI's official statement.

An interpretivist philosophy is employed to deepen the understanding of communication and how interactions influence the organisational culture of the MOI. An analysis of interviews reveals a positive effect, as work in the MOI has become faster and more comfortable, with overall work routines becoming more transparent through the move towards eGovernment. The employees were satisfied by the system in regard to crediting and recognising employee contributions, although face-to-face communication remains an essential tool. Moreover, the electronic system has been affected negatively by the MOI's hierarchical structure, which also impacted employee satisfaction depending on their positions and task. The findings showed that the electronic communication system did not improve the work environment in terms of employee feedback, whether it included performance evaluation feedback or employee operational feedback. Regarding the organisational

culture within the MOI, some senior employees have shown resistance to the electronic system as they fear losing their authority and power in the organisation. However, a gender-based analysis revealed the positive impact of eGovernment on workplace gender relations at the MOI. The results illustrate a general appreciation of women's roles and support in the MOI workplace.

Chapter 1. Introduction

This study examines the impact of the adoption of Electronic Government, or eGovernment, and how this has impacted the internal communication system in Oman's Ministry of Information (MOI). This is the author's fifth document (thesis) for the *Doctorate of Business Administration (DBA)* at Nottingham Trent University. The first section of this chapter provides the comprehensive background of and justification for this study, including an introductory overview of Oman. The second section elaborates the MOI's eGovernment transformation plan, and the third section discusses the study's main objectives and the issues addressed. It also summarises Documents 3 and 4, which the author previously submitted through the DBA programme. These documents have informed the focus of this thesis (Document 5).

1.1. Oman Context

The Sultanate of Oman is an Arab country in the south-eastern corner of the Arabian Peninsula in Asia. It is bordered by the United Arab Emirates to the northwest, Saudi Arabia to the west, and Yemen to the southwest. On 23 July 1970, Oman entered the Renaissance Era; symbolising Oman's rebirth and renewal, this era has endured for 48 years under the leadership of His Majesty Sultan Qaboos bin Said. The ambitious vision of His Majesty, along with the country's economic and social development and its neutral and independent foreign policy, has placed Oman in a very distinctive and exceptional position among Middle Eastern countries. Muscat is at the heart of the nation's political, economic, and administrative developments; the capital is filled with local and international economic, commercial, and tourist activities (Ministry of Information, 2018). Oman has experienced dynamic and progressive growth and development in all major sectors, including infrastructure projects such as modernising the road network linking Muscat to other cities,

landscaping projects, the improvement of public services, and the upgrading of residential and business districts.

In addition to economic developments, Oman is currently experiencing the fastest population growth in its history. In 2018, the country's population was estimated to be 4.83 million with an annual growth rate of 9% (National Centre for Statistics and Information, 2017). Oman is also known for its unique cultural mix that integrates modernity with deep-rooted traditions. Such uniqueness and originality are vividly depicted in the country's architectural landscape, in buildings and roads, and also in its people's physical appearance and behaviour; they are reportedly flexible, friendly, and open to other cultures (Ministry of Information, 2018). The country is also witnessing sustained development in technological infrastructure. Public services, in particular, are undergoing an intensive programme of information technology improvement to enhance service quality, capitalising on the latest international technologies to benefit the Omani people (Ministry of Information, 2018).

EGovernment is an emerging means for governments to communicate with their populations and facilitate internal communications amongst and within government departments (Almarabeh and AbuAli, 2010). Moreover, the information transformation and the governance revolutions have contributed to this move (Heeks,2001). Recognising the importance of eGovernment in the public sector as our world progresses through the Digital Age, the Omani government's broad vision is to support the development of eGovernment services, thus helping the country towards modernisation. Thus, "when E-government is implemented successfully, it will ensure that there is improvement in process within government agencies, efficiency is achieved, and public services are better managed and delivered" (Al-Busaidy and Weerakkody, 2009 P,2)

In this regard, His Majesty stated:

Information technology and communications have now become the main elements that move forward the development process [...]; 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 eGovernment services. We call upon all government institutions to speedily enhance their performance and to facilitate their services, by applying digital technology to usher the Sultanate into the constantly evolving spheres for applying knowledge. (Information Technology Authority [ITA], 2016).

Al-Busaidy and Weerakkody have claimed in their study, that although the project's idea of establishing e-government in the Sultanate of Oman as referred to "e-Oman and Oman Digital", was officially developed in 2003. Despondently, this initiative has taken nearly a decade to launch due to the infrastructure requirement and lack of financial aid, the government failed and no real transformation of e-government took place as planned (2009).

As previously outlined, on 12 June 2012, the Sultanate of Oman's Ministerial Cabinet officially approved the eGovernment Transformation Strategy and made the ITA responsible for ensuring that all public sector entities meet the national targets set by the eTransformation Plan (Al-Mamari et al,2014). In this regard, the ITA aims to transform Oman into a nation that adopts eGovernment by integrating all government entities—ministries, municipalities, public sector councils, authorities, and government-owned companies—to provide faster and more effective public services. It has been recommended that the ITA also produce a simple plan of e-services that can be easily comprehended by users and provide training to government employees to enhance their technical skills (Sriram and Sarrayrih, 2014; Al Salmi et al ,2016).

Generally, converting from the traditional (paper-based) system to a modern electronic system has been successful in other Arab countries. However, to develop a highly successful eGovernment system, it is necessary to implement an inclusive plan with predefined aims, clear vision, and a structured timetable (Almarabeh and AbuAli, 2010). Furthermore, implementing full eTransformation in government transactions will help build a more sustainable and knowledgeable society. The plan seeks to enhance the quality of government services, as well as the methods of providing such services, by enforcing specific regulations, standards, and deadlines; enforcement will enable the ITA to meet the goal of simplifying these services for citizens, businesses, and governmental entities, as mentioned on their website (www.oman.om). The six stages of the Transformation Plan are illustrated in Figure 1.

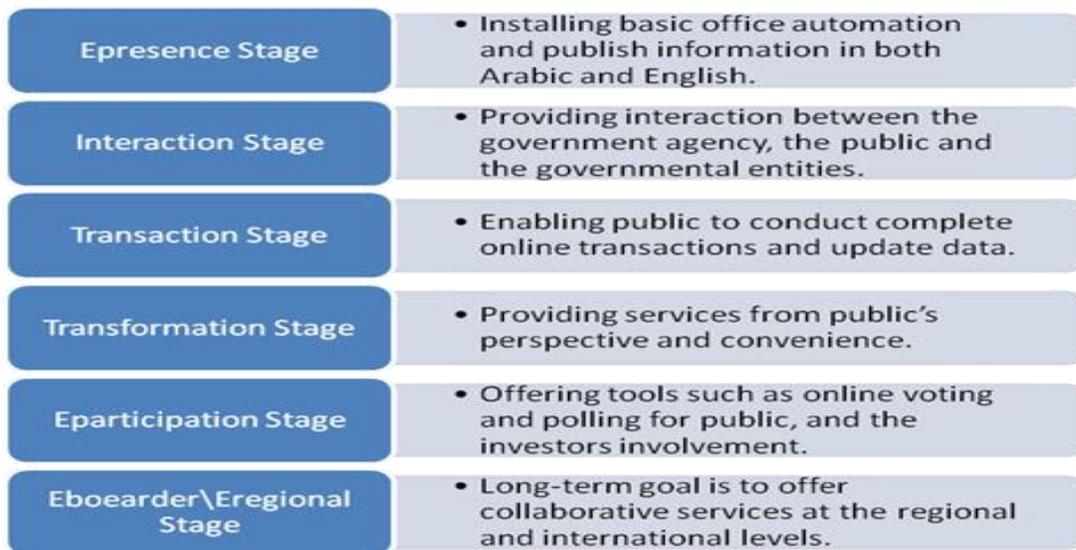


Figure 1 *The six stages of the eGovernment Transformation Plan (www.oman.om).*

The ITA's website explains in detail how such a plan should be implemented, and indicates the specific steps the government must take to achieve its objectives and complete the transformation. It is important to note that the Ministerial Cabinet approved the eGovernment

Transformation Plan by implementing a national plan of digital transformation in the public sector. However, Al-Mamari et al. (2014) revealed that the ITA had not considered the opinions of public and government employees when implementing the new strategies. This led to delays and flaws in the integration of the new implementation strategy. Furthermore, few studies have explored how the implementation process is impacted by major challenges such as the IT system, privacy, mismanagement of information, costs, and cultural aspects. Some of these challenges may also result in delays and cost overruns. According to Al Salmi et al., (2016), although the implementation of the new eGovernment system is slowly progressing, each public-sector entity is creating its own respective electronic services. Indeed, some public-sector entities have already designed their websites to enable the downloading of forms and the submission of online requests.

The next section will introduce the MOI's Official eTransformation Plan Statement.

1.2. Ministry of Information's eTransformation Plan

To implement the eGovernment digital transformation and ensure its goals and visions are achieved, the MOI has formed an internal committee to oversee progress and follow up on the stages of transformation. This section will translate and summarise the MOI's Official eTransformation Plan Statement (for the official eTransformation Plan in Arabic, see Appendix 1).

Published in 2012, the MOI's Official eTransformation Plan Statement

focuses on the basic measures that the Ministry of Information can adopt and the objectives to be achieved. The transformation to eGovernment is a comprehensive shift that takes into account other factors such as institutional development, the commitment of senior management to eGovernment transformation, thus improving government services. This requires the deployment and updating of government services

electronically and the conversion of all forms of paper applications to electronic. All content is to be published in both Arabic and English. (p.6)

[...]

in order to determine the effective use, direction and supervision of information and communication technologies (ICTs) resources and projects specifically for the transformation of eGovernment the Ministry of Information will develop ICTs governance that is not limited to IT. Senior management is involved in prioritising and balancing information technology communications, government functions and projects of the Ministry of Information. (MOI, 2012, p.5)

Moreover, to achieve effective governance, the MOI Steering Committee reviews and approves the most important plans, such as the e-Media Development Plan (concerning Oman's Information Portal), the Quality Management Plan, the Risk Assessment and Crisis Management Plan, and the Change Management and Awareness Plan (MOI, 2012). Challenges mentioned in the eGovernment Transformation Plan include a 'lack of infrastructure, given the transfer of all devices (servers, systems) to the General Authority for Radio and Television, and the transfer of the ministry to the rented building' (MOI, 2012). Furthermore, the ministry has been unable to implement the intensive training programmes concerning technical aspects and electronic media for staff, such as the role of operating systems related to internal communications. This is because of the limited financial resources dedicated to fund the digital transformation in the MOI (MOI, 2012). Whilst the MOI has stated that there has already been challenges with implementation of the eGovernment Transformation Plan, it is acknowledged that these are based on internal reviews which may be subject to bias as there are no other studies, apart from the one presented in this thesis, which consider the impact of the move to eGovernment.

The stated priorities in the MOI eGovernment Transformation Plan Statement include:

- 1. Activation of email for correspondence with users:** This is achieved by establishing email accounts for MOI employees to conduct official correspondence. Each ministry has an internal email system for exchanging documents, and this will be reviewed to ensure compliance with the general scope specified by the plan.
- 2. Purchasing suitable hardware/software:** The ministry currently has a number of computers and printers but must purchase and install additional computer systems and printers to complete the technical structure and replace outdated devices.
- 3. Applying an electronic credit system:** The ministry has implemented an electronic documentation system to improve efficiency, but this will be in accordance with the electronic transformation in the implementation of all transactions between the government and the individual, the government and the private sector, or different government departments, (MOI, 2012).

In summary, Oman is taking significant steps (implementing strategic activities and initiatives) to move the country towards modernisation. The eGovernment policy contributes to this change by attempting to offer better public services for Oman's citizens. Thus, both this policy and the changing Omani economy and society form this study's context.

1.3. Justification and Significance of the Research

EGovernment systems in the public sector have been implemented and have been functioning in different regions worldwide. EGovernment can be described as a nationwide digital strategy that aims to improve the overall quality of services delivered, allowing its citizens to utilise ICTs in different areas (e.g. government, commerce, education/e-learning) (Al-Shehry et al., 2006; Al-Gharbi and Al-Kindi, 2010). For example, 'ICTs can help create a networked structure for service

delivery, interconnectivity, interactivity efficiency and impact, decentralisation, transparency and accountability' (Yildiz, 2007, p.650). The ICTs used in eGovernment are recognised as having tremendous administrative 'potential' by helping to improve governments' efficiency in delivering information and services. Al-Shehry et al., (2006) note that 'the e-government paradigm emphasises internal networking and external collaboration, by putting the full range of services that government agencies offer online for people so that these services can be easily reached'. (Al-Shehry et al., 2006, p.1)

The idea to establish an eGovernment system in Oman was conceived during the early 2000s. Initially, it targeted improving external networking in business worldwide while simultaneously enhancing the internal organisation structure of the public sector by linking government entities in a web circle. However, several years later, Al-Busaidy and Weerakkody (2009) reported that 'Oman eGovernment is still in the initial stage of building eServices for supplying information to the users' (Al-Busaidy and Weerakkody, 2009, p.5). After the first attempts to implement this idea were unsuccessful, the project was relaunched in 2012. To achieve the original goal, the ITA drafted an eGovernment transformation plan, which included directions for completing the transformation.

Furthermore, according to the United Nations Economic and Social Commission for Western Asia, Oman's ICT e-participation policies and missions were rated as 'average' in comparison to Saudi Arabia and 'below average' in comparison to the United Arab Emirates and other Gulf countries (Al-Busaidy and Weerakkody, 2009). Rather than adopting and implementing a full eGovernment policy, public organisations in Oman, and in some Asian and other Middle Eastern countries, are starting an 'eGovernment journey by publishing static information on the Internet and establishing an online presence in the hope of increasing efficiency, impact and organization

performance' (Haque and Pathrannarakul, 2013, p.138). However, making information available online is only one part of an eGovernment strategy; with the growing popularity of ICT among citizens, Omani government entities are now expected to interact through the Internet, mobile devices, and social media to reach the public and improve the professional work environment (ITA, 2016). Yet some issues still inhibit eGovernment implementation, such as inadequate infrastructures, financial budgets, skills, and training plans before and during the adoption (Al-Busaidy and Weerakkody, 2009). As Al-Shehry et al. (2006) observe, the adoption of eGovernment is more than a technological matter; it is affected by many factors, including organisational, human, and socio-cultural, which are vital forces and relate to the structure of government itself and its obligations in society (Al-Shehry et al., 2006; Almarabeh and AbuAli, 2010).

Studies such as, (Al-Gharbi and Al-Kindi ,2010; Khan et al., 2010; Adjei-Bamfo et al.2018), have investigated the adoption and use of internet technologies in eGovernment. However, they have mainly focused on developed countries and explored the adoption of eGovernment in general, rather than making a distinction between internal or external communication and considering how eGovernment might impact upon communications within the organisation. Some studies have focused on eGovernment in the public sector in other Middle Eastern countries, such as Jordan, Qatar, and Saudi Arabia, and some Asian countries, such as Pakistan and Malaysia (Yildiz, 2007; Al-Busaidy and Weerakkody, 2009) but as of yet eGovernment communication research has not considered Oman which has its own distinct context. That said, a small number of older studies (Al-Busaidy and Weerakkody 2009; Al-Azri et al, 2010), have discussed the progress of Oman's eGovernment policies, focusing on its

implementation in general terms, such as significant obstacles and challenges, lack of skills, problems with infrastructure, and lack of implementation plans. However, these studies have not explored the impact of eGovernment and the use of information technology on internal communications in the public sector. This is a gap in knowledge which requires further exploration. Moreover, unlike aforementioned research, this study will examine how an eGovernment strategy influences communications between staff in various departments within a public organisation (the MOI), rather than focusing on the impact eGovernment has on its citizens which has been the focus of other studies (Al-Awadhi and Morris,2009).

Prior studies have concentrated on the utilisation of the numerous types of eGovernment in business sectors (G to B) and in government entities (G to G), but the impact of the new eGovernment system on employees (G to E) has been overlooked; this reflects a wider lack of attention on this area in the academic and industry literature. It is unclear, for example, how technology as part of the eGovernment strategy is impacting how employees communicate within and across departments, and whether internal communications have in fact become more efficient. Thus, by focusing on how employees communicate between different hierarchical levels and the direction of communication, set against the cultural context of an Omani public body undertaking an eGovernment strategy, this study can make an important contribution to this specific aspect.

The internal communications literature presents several theories explaining how communication takes place (from the sender to the receiver), but it does not explore how communication can be changed between employees in a particular work environment and cultural context, which in this case involves an Omani public-sector entity undertaking an eGovernment strategy. The eGovernment model includes improving the work processes in government entities; accordingly, challenges in implementing this technology are likely to include privacy,

infrastructure, and possibly a lack of top management support (Al-Shehry et al., 2006; World Bank, 2003). Therefore, if policymakers and implementers insufficiently consider such issues, they risk failure in the adoption of eGovernment (Al-Shehry et al., 2006; Yildiz, 2007; Al-Busaidy and Weerakkody, 2009). Moreover, Ebrahim and Irani (2005) identify other issues and barriers in the public sector that need to be addressed while adopting eGovernment, such as the shortage of IT skills in the public-sector workforce (Ebrahim and Irani, 2005). The researcher's previous documents (DBA Documents 3 and 4) examined the current internal and external communication systems more generally in Oman's public sector, especially the Omani ministries that were mainly triggered by the Ministry of Education in managing communications relating to a teachers' strike in 2013. It is worth mentioning that external communication denotes to interrelating and reaching to partners outside the organisation (Omilion-Hodges and Baker, 2014). On the other hand, internal communication signifies to all the methods used by the organization to connect with its workers (Cornelissen, 2010). The researcher's earlier documents (DBA Documents 3 and 4) revealed the following key findings.

1. While senior and mid-level employees prefer traditional communication tools, there is an evident transition to modern communication methods.
2. Social media utilisation in the workplace has outlined a generation gap related to experience.
3. The size of an entity's workforce is correlated to the impact of internal communication practices in the workplace. Specifically, an entity with more employees has more challenges in communication than one with fewer employees, in part due to fewer face-to-face meetings.

4. Feedback, transparency, and decision-making are dependent on the extensiveness of the communication network and the organisational culture.

As a senior employee with over 20 years' experience working for the MOI, the current author was already aware of some of the internal communication challenges both within the ministry and across government departments/entities. At an operational level, one persistent issue is the preference for paper-based communication in the workplace, which usually led to delays in responding to upper management's demands or in resolving issues. Furthermore, as revealed in Documents 3 and 4, employees did not appreciate the communication strategy that had been used for internal communication within their ministries. Thus, this qualitative study uses interviews to subsequently explore the impact of the internal electronic communication system as part of the government's move towards adopting eGovernment.

Several scholars have explained that the rise of eGovernment is a significant transformation of the government, involving fundamental alterations in the structure, method, culture, and performance of individuals in the public sector (Ebrahim and Irani, 2005; Al-Shehry et al, 2006; Al-Busaidy and Weerakkody, 2009). This study therefore seeks to expand existing research by exploring the impact of the adoption of eGovernment on the internal communication system in the Ministry of Information. Whilst Oman adopted the eGovernment plan in 2012 and this continues to evolve, as of yet no studies have assessed the impact the plan has had on internal communications.

Thus, this study aims to answer the following research questions.

RQ1. What factors impact internal communications across organisational levels within the MOI and how do they influence internal communications?

RQ2. Drawing upon a critical evaluation of the MOI's eTransformation Plan, how has this impacted upon the internal communication system?

RQ3. How can the insights from this study be used by other Omani ministries adopting the eGovernment Transformation Plan, and what are the implications for their internal communicational systems?

The following section presents the literature associated with this research, which has been used to frame the aims of this study.

Chapter 2. Literature Review

This chapter reviews the literature relevant to the current study. It begins by exploring communication theory and internal organisational communications. The chapter then discusses different types of communication directions and channels before moving on to explain eGovernment in the context of internal communication systems in Oman's public sector. It ends by summarising the current gaps in knowledge and the conceptual framework which guides this study.

2.1. Communication

Communication is defined in different ways; fundamentally, it refers to interactions between two parties that involve exchanging ideas at different levels (Dimpleby and Burton, 1992; Losee, 1999; Littlejohn and Foss, 2010). Littlejohn and Foss (2010) assert that communication is the transfer of information from one person to another and is a way of reaching others by transmitting ideas, feelings, thoughts, facts, and values. Notably, many studies have attempted to explain the meaning of communication in different contexts, as the circumstances and methods used to communicate may vary according to the individual, group, or even virtual level (Sfard, 2008; Comfort, 2007; Castells, 1996).

Communication is a process in which key components, such as information, data, images, and sounds, are exchanged (Luhmann, 1992; Saunders, 1999; Guo and Sanchez, 2005). Individuals cannot interact with one another on a micro-level (individual or small group interactions) or macro-level (large groups of people within a society/community, workplace, etc.) without the process of communication. Losee (1999, p.8) clarifies this point by stating that 'communication occurs if, and only if, information moves from the input to one process to the output from a second process; the latter process being the inverse of the first process'. In other words, the process of

communication can only occur in the presence of particular components/elements, such as a sender who transmits a message that needs to be processed through encoding (input); a channel of communication (e.g. emails, newsletters, reports, etc.); and finally, a receiver who receives the message, comprehends it (analysis), and produces a response (decoding: output) (Losee, 1999, p.8).

In general, effective communication depends on the message's power and the channel through which the signal travels (Kamarudin et al., 2014). Utilising positive channels of communication in the workplace can facilitate interaction between employees; additionally, it may bridge the gap between employees and officials through quick and easy interaction and exchange of important messages, depending on whether the employees' role allows them to share information efficiently with officials in the workplace (Worley and Doolen, 2006; Rho, 2009).

The most common communication model referred to by researchers is the Shannon Weaver Mathematical Model, developed in 1949 by Claude Shannon and Warren Weaver and published in their book entitled *The Mathematical Theory of Communication*. This model was also used hand in hand with technology digitalize and quantifies continuous phenomena through measuring communication of continuous variables like sound, image, and motion (Krippendorff,2009). In Addition, Shannon's Information Theory delivers a strong and measurable model for explaining the fundamental paradigm of Information Warfare (Kopp,2003).

Figure 2 depicts Shannon and Weaver's schematic diagram of a general communication system.

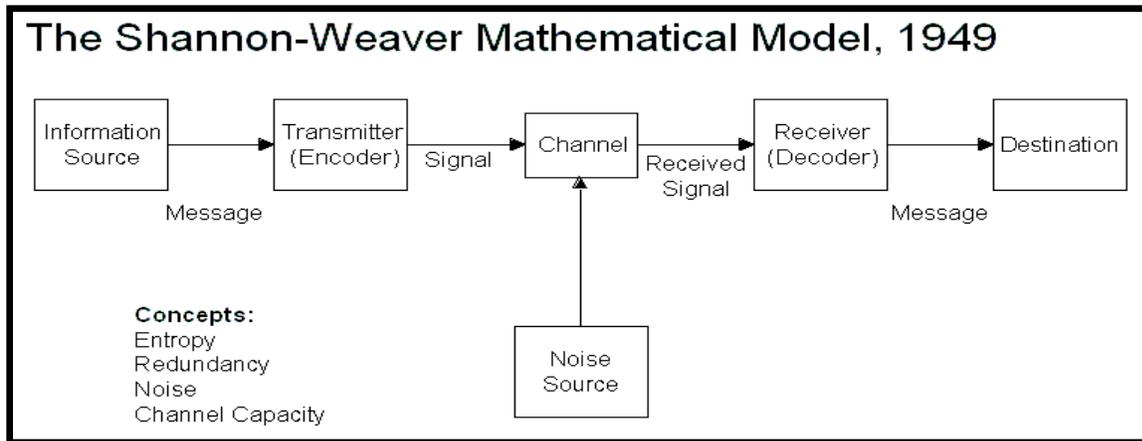


Figure 2 *The Shannon-Weaver Mathematical Model (Shannon and Weaver, 1949, p.11)*

This model focuses on the technical level of how information is transmitted within communication networks. The model comprises several components: the information source (e.g. archives, books, journals, government publications) used to develop/create a particular message; the transmitter (which requires encoding), which then sends the message through channels; channel noise, which can alter the message or signal on route to its destination; and the receiver who obtains the message (or signal), decodes it, and produces a response (final destination). In brief, the sender formulates a message either through words (written or oral) or images. Next, the *sender* alters the message into a *signal* to be sent over a *channel* to the *receiver*. For example, in a face-to-face conversation, the information source is person A's brain, the destination is person B's brain, the transmitter is person A's vocal system, and the receiver is person B's ear (Shannon and Weaver, 1949).

The final component, *noise source*, refers to any undesired additions or distortions to the transmitted signal. This could be considered a challenge or interruption to the exchange that could possibly affect the process's outcome (Shannon and Weaver, 1949). As indicated in the model, most communication researchers refer to the sender and receiver as 'encoder' and 'decoder',

respectively. Encoding is the process by which senders formulate ideas into messages, choosing content and symbols (words, gestures, body language) to convey their meaning (Shachaf, 2008), while '[d]ecoding is the process through which the receiver assigns meaning to the symbols generated by the sender' (Dayton and Henriksen, 2007, p.35).

According to Shannon and Weaver (1949), there are three levels of communication problems: technical, semantic, and impact. The first level, the technical element, refers to how accurately the symbols of communication can be transmitted. It focuses on how the sender and receiver use symbols such as speech, written text, or electronic signals to communicate. The second level, the semantic element, refers to how precisely the transmitted symbols convey the desired meaning. This considers how the message's meaning is interpreted by the receiver compared to the sender's intention. The third level, the impact element, is concerned with how effectively the received meaning affects the conduct of the receiver in the desired way. In essence, impact considers the overall success of the transmission from sender to receiver.

Although the Shannon and Weaver model opened the door for later models to incorporate similar elements, it was subject to much criticism due to its limited focus (Sperber and Wilson 1986; Al-Fedaghi, 2012). Sperber and Wilson (1986), for example, stated that Shannon and Weaver's model was outdated since it concentrated on information flow through a 'medium'. They explained that, in reality, communication is rarely in one direction and that it can be indirect. (Sperber and Wilson, 1986)

Al-Fedaghi (2012) noted three further weaknesses in Shannon and Weaver's model: (1) it is not comparable to how humans communicate; (2) it does not take context into consideration; and (3) it is linear and static (Al-Fedaghi, 2012, p.14) Another model of communication, developed by Berlo (1960), built upon Shannon and Weaver's model by using the same four main components

of communication: the information source, message, channel for delivery, and receiver (abbreviated as ‘SMCR’). These elements are illustrated in Figure 3 (Berlo’s SMCR Model of Communication). His model also highlights the correlation between the source and receiver (Berlo, 1960).

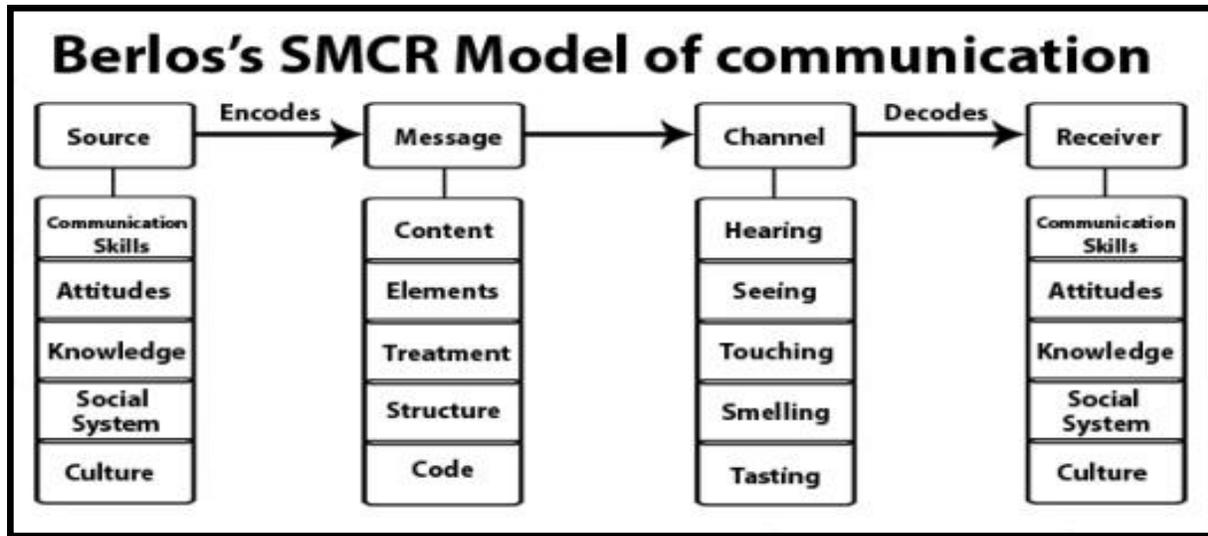


Figure 3. *The process of communication (Berlo, 1960, p.72)*

Berlo’s model attempts to explain human communication in a more complex way by considering how different components, such as the knowledge and attitudes of the receiver and sender, affect the communication process. First, the *source* has ‘ideas, needs, intentions, information, and a purpose for communicating’, which are encoded into a message (Corman et al., 2007, p.4). The message is represented by symbols that depend on the encoder’s/communicator’s motor skills. In other words, the interpretation of the messages/symbols depends on how the sender (speaker, writer, instructor, etc.) presented the message and the elements of communication (mainly the channel used to deliver the message). The message is sent through a channel, or communication medium, to the receiver. The receiver then decodes or ‘retranslates’ the message

symbols with the goal of understanding the information (Berlo, 1960; Corman et al., 2007). Thus, effective communication depends on the clarity of the messages/symbols exchanged between the sender (source) and the receiver. The elements of communication are interconnected, since each element of communication is dependent on the other elements for effective communication to take place.

Overall, Berlo's model suggests that for a message to be effective, the knowledge and skill of both the sender and receiver are relevant (Berlo, 1960; Byron, 2008). It also demonstrates that adherence to a communication procedure or process cannot guarantee the appropriate response between sender and receiver, as contextual factors might cause the process to fail. As Berlo (1960) noted, culture plays a dynamic role in the communication process, influencing both the sender's and receiver's attitudes (Berlo, 1960) (see also Byron, 2008). The process, therefore, requires the engaged parties to invest time and effort in encoding and decoding messages (Shachaf, 2008). Although some communication researchers have criticised Berlo's model for its simplicity and assumption of linearity in the communication process, it has proven useful in explaining communication in numerous studies (Pavitt and Kline Johnson, 2002; Flensburg, 2009; Croft, 2004). Communication researchers have praised the model for, among other features, acknowledging that the sender and receiver's relationship and social context affect the communication process. Both points prove useful for the current study in the MOI.

2.2. Organisational communication

According to Peak and Cohn (1998), an organisation may be defined as 'a consciously coordinated social entity, with a relatively identifiable boundary, that functions on a relatively continuous basis to achieve a common goal or set of goals' (Peak and Cohn, 1998, p.22). Researchers have found that strategic and effective organisational communication can create a dialogue between

individuals and groups both internally and externally. This can increase organisational efficiency and productivity and enhance the image and reputation of the organisation (Forman and Argenti, 2005; Welch and Jackson, 2007). Thus, effective communication is the backbone of productivity in the workplace.

To illustrate, when good communication skills (sending and receiving clear messages) are adopted in the workplace, workers can communicate effectively with one another and tend to hold colleagues accountable, since all workers can clearly understand their duties and responsibilities and are expected to act accordingly (Forman and Argenti, 2005; Welch and Jackson, 2007). Hence, effective communication can increase accountability and productivity in the workplace. However, Leonard et al. argue that communication hypotheses derive from the idea that communication involves various characteristics associated both with their dimensions for diffusing information and with the nature of the information that is exchanged between senders and receivers (Leonard et al., 2009). This does not, however, directly address the issue of impact that Leonard et al. mention. The researchers emphasise that the impact of communication has not been tested as a theory and, hence, is ambiguous and hard to measure; moreover, they claim that communication objectives must include whether the receiver understands the message that the sender intended to send, and also that the message will have an impact in changing the receiver's attitude and performance (Leonard et al., 2009).

External communication refers to interacting with partners and in networks reaching outside the organisation, including engaging with the general public (Omilion-Hodges and Baker, 2014). External communications can be defined as 'processes which link multiple organizations and connect the organization to its environment' (Rho, 2009, p.8). Different types of organisations can be considered external – for example, customers, private corporations, and

government agencies (Rho, 2009). According to Welch and Jackson (2007), the terms ‘internal communication’ and ‘external communication’ cannot be divided and dealt with individually, as both are firmly integrated in the role and performance of institutions (Welch and Jackson, 2007).

Jaradat and Sy (2012) suggest, for example, that organisational communication is ‘necessary for passing information between people working in the same organization, and between their organization and others’ (Jaradat and Sy, 2012, p.122). Despite some researchers arguing that internal and external communications are linked, this study focuses upon internal communications only as previous research has not given this enough attention particularly in a public sector context. The next section will discuss the notion of internal communication from an organisational perspective.

2.3. Internal Organisational Communication

Defined simply, internal communication includes ‘all methods used by the firm to communicate with its employees’ (Cornelissen, 2010, p.189). From a management perspective, Welch and Jackson (2007) explain internal communication as ‘the strategic management of communication and relationships between stakeholders at all levels within an organization’ (Welch and Jackson, 2007, p.182). Moreover, Cutlip et al. (2000) emphasise that the goal of internal communication between employees ‘is to establish and maintain mutually beneficial relationships between an organization and the employees on whom its success or failure depends’ (Cutlip et al., 2000, p.289). Scholars have, therefore, indicated that internal communication is a key component of organisational success (Hayase, 2009; Borca and Baesu, 2014; Yildirim, 2014).

Effective internal communication depends on trust, direct links to managers, and the sharing of sufficient information (Welch and Jackson, 2007; Comfort, 2007; Bennett, 2003; Hall and Mast, 2009). ‘If these components are in place’, Mitrofan and Bulborea state, ‘it is argued that employee

satisfaction will occur'(Mitrofan and Bulborea, 2013, p.512). Where employees feel valued through an effective internal communication system, they are more likely to participate in the organisation's programmes and objectives (Cutlip et al., 2000). Hence, poor internal communication is 'a major concern for organisations since it results in workplace inefficiency' (Welch and Jackson, 2007, p.178). Furthermore, Omilion-Hodges and Baker (2014) note that if senior managers ignore the importance of internal organisational communication, the workplace environment may be negatively affected, with potentially harmful consequences within the organisation. In essence, employees' engagement through an internal communication strategy is essential, so ignoring it could damage the organisation's reputation. For instance, since the work climate influences employees' behaviour at work and employees usually discuss their workplace experiences with outsiders, poor internal communication can negatively impact the organisation's reputation (Omilion-Hodges and Baker, 2014).

A workplace communication system should keep all entity employees regularly informed and aware, both formally and informally, of changes, updates, tasks, and policies through the organisation's communication tools (De Ridder, 2003; Popescu et al., 2014). Within the workplace, colleagues utilize various methods of communication, such as face-to-face conversations, formal meetings, telephone calls, memos, and emails (Worley and Doolen, 2006; Rho, 2009). Moreover, internal communication is affected by several factors regulating information flow, including the organisation's values, culture, and available resources (Jaradat and Sy, 2012). This study uses Berlo's model to analyse the process of internal communication, as the relationship between the sender and receiver can be influenced by the social context (organisational culture and values), which might affect the communication process. With the adoption of eGovernment, factors such as communication skills, social systems, and organisational

culture can all influence the impact of internal communication between employees. The ways in which they do so will be explored in this study.

As previously mentioned, internal organisational communication can be defined by understanding the organisational communication strategy and how messages are created, exchanged, interpreted, and stored through human inter-relationships (Langer, 2014). Thus, the most important factors required to accomplish these communication strategies are 'leadership, strategic planning, communication and coordination, administrative procedure, and public accountability' (Haque and Pathrannarakul, 2013, p.136). Accordingly, public organisations have had to accommodate this paradigm in order to improve the quality of internal communication (Haque and Pathrannarakul, 2013).

Whilst there are benefits to having internal communication systems in place, it is important to ensure that information is exchanged effectively between the sender and receiver, avoiding communication failure that may induce conflicts and rumours (Kamarudin et al., 2014; White et al., 2010). The communication pattern between different organisational levels depends on the structure of the organisation, such as the communication policies system to ensuring understanding of the workforce's specific roles and purposes by the employees in the organisation (Haque and Pathrannarakul, 2013; Qaisar and Khan, 2010). Therefore, satisfying employee-organisation relationships could not only enhance employee productivity but also help protect the organisation's invisible assets such as reputation (Smidts, Pruyn, & van Riel, 2001; Kim & Rhee, 2011). Moreover, clear policies from the leadership that relate to the internal communication system will encourage cooperative, visionary, inspiring, and empowering communication (Hackman & Johnson, 2014). Scholars have recommended that equal internal communication amid to an effective communication that will improve employees' relations considering

organisational culture, structure, management performance, power distribution, and diversity (Grunig and Grunig 2002; Jo & Shim, 2005; Kim & Rhee, 2011; Smidts, Pruyn, & van Riel, 2001). As Keyton, 2017 claimed that an “organizational communication perspective is identifying the communication among organizational members at all levels within and across organizational functions and structures as the processes by which organizing occurs. Communication is not limited to one modality rather, it occurs through verbal, nonverbal, textual, and visual forms (mediated or not)”, (p.507). Thus, organisations utilise many different types of communication channels or tools to facilitate communication between individuals/groups and to sustain employee-to-manager interaction, also, for an easy access to several new communication tools in terms of the eGovernment adoption in the workplace (Mortezaei, 2012; Langer, 2014). Therefore, for large organisations in particular, with more opportunities for miscommunication, ‘structured and explicitly designed forms of communication have been recommended to reduce ambiguity, enhance clarity, and send an unequivocal signal when needed’ (Dayton and Henriksen, 2007, p.34). Various studies concur that internal organisational communication is crucial to building and maintaining positive relationships among employees and that its impact depends on how information is transferred both within the organisation and beyond (Craig, 1999; Guo and Sanchez, 2005; Jaradat and Sy, 2012). This study, helps fill the gap in research on the impact of internal ecommunication system within the MOI’s and contributes to the growing literature on internal relationship management, by identifying the best communication channels for the employees to obtain information from their leaders.

Types of Internal Communication

Various channels are used to communicate, including verbal methods such as conversations, and non-verbal methods such as graphics and body language (Goldhaber, 1993; Byron, 2008).

Communication channels also include both written and non-written forms. The former, such as documents and emails, have organisational importance as a permanent record of employees' communications, and are consequently the main traditional method of formally communicating within organisations (Peak and Cohn, 1998; O'Murchú, 2012). Most organisations utilise all these forms, and according to Mortezaei (2012), integrating effective communication channels in the workplace can improve productivity (Mortezaei, 2012). Based on a review of different studies, the most common communication channels used by organisations are summarised in the following subsections. The adoption of IT in both individualistic and collectivistic societies depends on the differences in the way these societies function and how interdependence is handled in each group (Al-Awadhi and Morris,2009). Therefore, as the use of IT decreases opportunities for face-to-face interaction, the probability of IT adoption in individualistic societies is greater and quicker than in collectivistic societies (Omilion-Hodges and Baker, 2014). Another outcome is that, once face-to-face contact is reduced, the doubt of many people when it comes to adopting e-government is increased. This depend on the society and the extent to which a given society feels about new technology and its needs for security, (Al-Awadhi and Morris,2009; O'Murchú, 2012; Adjei-Bamfo et al.2018). It has been exposed that although it would be easier for many participants to use online services, many preferred to have face-to-face communication with government employees, explaining that the relationship with government should be live and real and that human judgment was essential to comprehend the several views and feelings expressed, (Al-Awadhi and Morris,2009; O'Murchú, 2012; Adjei-Bamfo et al.2018).

2.3.1. Communication tools: face-to-face

Face-to-face internal communication, which incorporates gestures and facial expressions, remains favoured in many organisations for conveying messages between the sender and receiver despite

a general shift towards digital communication technology in the workplace (Berlo, 1960; Goldhaber, 1993). Indeed, earlier DBA documents found that face-to-face communication was still important in the MOI. The media richness theory by Daft & Dengel's (1987), suggests that face-to-face communication has a distinct capability to communicate the types of decisions made by leaders and face-to-face communication is needed to understand written communication as it works best for regular communications. Moreover, leaders spend most of their time communicating through traditional face-to-face and group discussions, despite the existence of the new communication tools. Unlike electronic communication methods, these tools 'do not rob us of the non-verbal component we might experience in face-to face communication' (Goldhaber, 1993, p.6). According to several scholars, face-to-face interaction is preferred by employees because it creates better understanding among colleagues (Daft & lengel & Tervion 1987; Welch and Jackson, 2007; Al-Awadhi and Morris ,2009; Rho, 2009; O'Murchú, 2012). Furthermore, Al-Awadhi and Morris, point out that in Arab Gulf culture, face-to-face contact can add value when dealing with government employees, "explaining that the relationship with government should be live and tangible and that human judgment was necessary to understand the various views and feelings expressed" (p.587,2009).

2.3.2. Written tools

Written forms of communication, such as emails, letters, contracts, memos, and notes, tend to be one-way unless a feedback mechanism is built into the message, which can help to increase understanding among employees and provide opportunities to efficiently receive feedback (Guo and Sanchez, 2005; Lunenburg, 2010; O'Murchú, 2012). Written communication is often favoured as societies tend to place considerable confidence in the written word within complex

organizations (Guo and Sanchez, 2005; Lunenburg, 2010; O'Murchú, 2012). However, despite creating a permanent record, the transmitted message may not be clear to the receiver, which depends on the writer's ability and skills, as suggested in Berlo's model (1960). Besides traditional hand-written correspondence, such as memos and notes, written forms of communication can now be expressed through electronic channels, such as email and text messaging (O'Murchú, 2012).

2.3.3. Electronic tools

The introduction of ICT into organisations has dramatically altered members' working patterns by changing the communication process and how information is exchanged and managed across different employee levels. Most industrialised societies have embraced information and communication technology (ICT) in their governments and some have made considerable progress to scratch the surface in regard to the potential applications of smart workplace technologies. (Baker, 2002; Stahl, 2009; Qaisar and Khan, 2010; Omilion-Hodges and Baker, 2014). As Stahl, asserted that "e-Government is a growth industry whose potential has been recognised by most of the big players in the hardware and software market from IBM to Microsoft. While the end of the dot.com boom seems to have taken the glamour out of information and communication technology (ICT), the fundamental advantages it offers to organisations are still the same", (p.77; 2009). Figure 4 illustrates that formal communication within the workplace follows a chain of command and utilises such channels as memos, emails, reports, conference calls, and presentations. Employees engaging in informal communication are not expected to follow the organisation's chain of command, but they nonetheless use many of the same formal channels alongside other methods, such as instant messaging and face-to-face conversations (Collins, 2009).

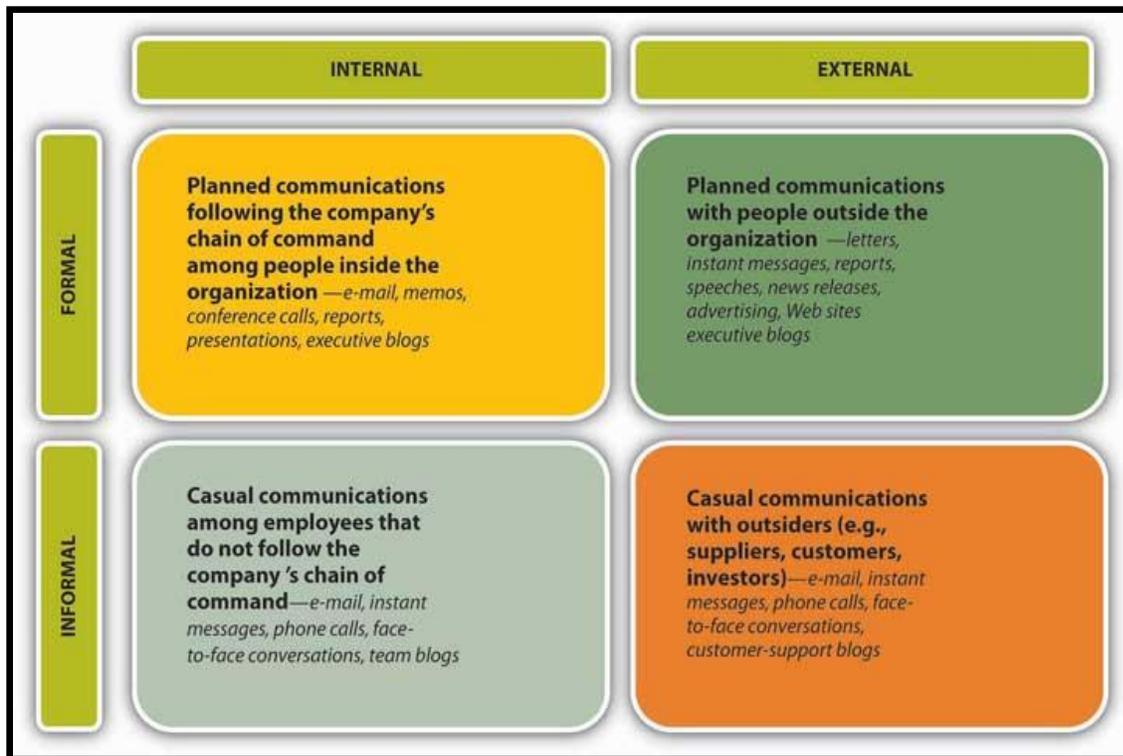


Figure 4 Channels of Communication (Collins, 2009, p.417)

However, Attaran et al, highlighted the importance and the successful implementation of digital or smart workplace technologies as a “collection of all the digital tools in an organization that allow employees to do their jobs. Those tools include intranet, communication tools, email, CRM, ERP, HR system, calendar and other enterprise processes or tools which assist in the general day-to-day functioning of a business (p.5, 2019). It is very vital in this stage of the ecommunication era to introduces the technological revolution we live in and to explore how the world is witnessing a transformation that is inevitably affecting the way we live, interact and work. By what so called The Forth Industrial Revolution1 (4IR) such as Artificial intelligence, Robotics and Automation as Schwab explained in the World Economic Forum, 2016 that interconnectivity is made possible, due to the backbone of communication technology. Schwab asserted that “the communication

industry has revealed new horizons in allowing physical industries via the automation and the communication ability of smart, intelligent robots, along with the advancement of machinery artificial intelligence, which made them decision smart and proactive.” (p.3,2016)

Modern communication tools, for example, increase managers’ ability to monitor the performance of both individuals and teams (Baker, 2002; Qaisar and Khan, 2010; Omilion-Hodges and Bakers, 2014). Similarly, employees have more opportunities to share information, which can encourage teamwork (Qaisar and Khan, 2010). However, in this particular aspect Stahl argues that “the central problem is that the conceptualisation of humans differs fundamentally between the business world and politics. In business people are most importantly consumers whereas in democracy, people are predominantly citizens”, (p.77;2009). Electronic communication can ensure that employees are always accessible, regardless of the location and time constraints, thereby increasing efficiency (Castells, 1996; Qaisar and Khan, 2010; Omilion-Hodges and Baker, 2014). Some scholars suggest that the interpersonal nature of email (personal or business) disturbs its formality. And the higher occurrences of communication via electronic media can improve the communication between colleagues, as interaction becomes easier when they know each other. They, notes also that email, in particular, can increase information sharing and improve productivity by allowing employees to communicate virtually, (Byron ,2008; Peterson et al, 2011). This is in line with Shachaf (2008), who explains that using electronic forms of communication can decrease the amount of miscommunication, especially when communicating across different cultures (Shachaf, 2008). Therefore, by utilising advanced ICT, the communication process can be simplified and modified easily in administrative procedures, as a result, the speed and flow of information between managers and employees, as well as between staff, can be improved (Castells, 1996; Baker, 2002; Qaisar and Khan, 2010; Mortezaei, 2012).

Despite the benefits of using electronic communication methods, caution should be exercised (Gillis, 2006). Mortezaei (2012), for example, notes that using advanced communication technology in an organisation may lead to information overload, which may diminish the quality and type of messages distributed and received (Mortezaei, 2012). Others have also highlighted how being continually online and feeling the need to respond to emails can have a negative impact on staff wellbeing. On the same vein, Al Hajri (2019), has articulated some particular points that are related to this matter, lack of clearly defined roadmap of etransformation, the challenges regarding the integration of people, IT and occupational therapy that are related to the physical, mental, developmental, and emotional illnesses that impact a patient's ability to perform day-to-day tasks due to lack of existing working guides.

In this specific point, based on the CIPD report, it is worth mentioning that the way employees use new technologies can affect the job satisfaction. This is defined by employee engagement. Nevertheless, the CIPD Annual Report 2019 addressed that employees can use the value of new technologies in the workplace to enhance their ability to perform their duties, and to recognise the effect it may have on the quality of their performance. Moreover, the report has mentioned that employees working remotely in regards to time management it affects their mental and health issues by working longer hours due to a lack of delimitation between work and home life, as some employees explained that “spending extended time at a desk with inappropriate seating is causing physical problems, including strained eyes and bad posture. Managers are also worried about people not taking their annual leave” (p.15,2019). The government has a crucial responsibility to play in designing and supporting healthy and productive workplace technology environment. In this regards as Abraham suggested, by providing a mix of formal and informal channels, must be enhanced by framework, structured and unstructured information, and reliable

coverage of information flows needs can also make an information management system ineffective it will important to crate the “passion of work” that will reflect satisfaction and lead employees to be more engaged (Abraham,2012; Attaran et al,2019).

This section has discussed the various ways of communicating internally. The next section explores the direction and flow of internal communication, which is closely linked to degrees of formality and the types of communication tools used in the workplace.

2.4. Communication Direction

Internal workplace communication has traditionally been characterised by the downward movement of information from the top of the organisational hierarchy (Al-Nabhani, 2007; Peak, 2010). This bureaucratic approach to internal communications is thought to directly reflect the power of officials and managers over employees within an organisation (Baker, 2002; Guo and Sanchez, 2005; Aycan et al., 2007; Al-Fahdi and Swailes,2009; Swailes and Al-Fahdi, 2011; Common, 2011). As communication tools have developed, barriers between management and employees have eroded; this engenders a more equal exchange of information between them, which is facilitated by electronic communication (Baker, 2002; Guo and Sanchez, 2005). With the different communication tools and channels available today, employees and managers can now communicate across levels and in many directions (Guo and Sanchez, 2005; Common, 2011).

Table 1 presents an overview of the key literature explaining communication direction and the respective advantages and disadvantages.

Direction	Explanation of advantage/disadvantage
-----------	---------------------------------------

<p>Downward</p>	<ul style="list-style-type: none"> - The most common form: transfers information from the top tier of management down to lower branches of the organisational hierarchy (O’Murchú, 2012). - Lower-level employees have no platform to offer feedback in the form of suggestions, complaints, or ideas that could potentially improve the workplace environment (O’Murchú, 2012).
<p>Upward</p>	<ul style="list-style-type: none"> - Employees are more likely to inform the management of any difficulties in the organisation, giving them the opportunity to analyse and study new suggestions (Lunenburg, 2010). - Issues may be addressed promptly by relaying them (via managers) through the communication path at the administration levels (Lunenburg, 2010).
<p>Horizontal</p>	<ul style="list-style-type: none"> - Employees communicate with one another on an equal basis (Lunenburg, 2010). - The aim is to create better understanding of policies within various departments, thus improving the organisation’s communication system (O’Murchú, 2012). - It might be perceived as an informal channel, whereas vertical communication upholds the regulated procedures for delivering and receiving information internally (Peak, 2010).
<p>Diagonal/ Multi- directional</p>	<ul style="list-style-type: none"> - This approach is more diverse and open, merging various channels to improve the overall role of communication and achieve the organisation’s goals (Guo and Sanchez, 2005; Elving, 2005). - It may also increase understanding among employees and provide feedback

	opportunities, thus enhancing employee involvement (Guo and Sanchez, 2005; Peak, 2010; Lunenburg, 2010).
--	--

Table 1 *Types of communication directions*

Regardless of the direction of internal communication flow, the ultimate goal is to develop and maintain relationships among employees within the workplace to increase the prospects of organisational success (Cutlip et al., 2000; O’Murchú, 2012). However, as noted in Table 1, some communication directions are more likely than others to encourage closer working relationships between all staff members.

2.5. The role of workplace culture in internal communications

This research studies the impact of internal communication with the adoption of eGovernment within the MOI. The researcher adopted Berlo’s model to build the study’s conceptual framework, since ‘culture’ is a key element reported to affect communication between the sender and receiver and it becomes important to distinguish the cultural norms and values of the society as a way of understanding why people may communicate in a certain way (Leonard et al., 2009; Lasswell, 1948). However, there is a gap in the literature concerning how Omani culture impacts internal communications in the workplace, both generally and specifically in relation to the adoption of eGovernment in the public sector.

Organisational culture can be defined as ‘values that represent a manifestation of culture that signify espoused beliefs identifying what is important to a particular culture group’ (Hu et al., 2012, p.624). Similarly, Tsui et al. (2006) explain that ‘organisational culture is a set of core values consensually shared by organisational members’ (Tsui et al., 2006, p.117). Organisational culture is also considered an intricate combination of different values, perceptions, and ways of dealing with situations that are mostly shared by various members of an organisation (Deal and Kennedy,

1982). Concurring, Bellou (2010) states that ‘organizational values, along with beliefs, assumptions, expectations, attitudes, philosophies, and norms form the basis of organizational culture and are integral to the distinct identity that every organization has’ (Bellou, 2010, p.5).

As workplace communication is impacted by the culture of the working environment and indeed the style and characteristics of workplace leaders. A study carried by Usman from Pakistan, in respect to the impact of internal communication and the impact of culture on employee engagement, it was found that the internal communication in the organisation positively affects the level of job satisfaction among the workers. Moreover, having good leadership management could accordingly affect the level job satisfaction (Usman, 2019). Studies have sought to understand cultural differences and their impact on internal communication impact, particularly as workplaces begin integrating varying cultures and values due to globalisation; thus, cross-cultural communication is part of the daily organisational routine (Leonard et al., 2009; Lasswell, 1948). White et al. (2010) note that ‘there is a symbolic relationship between communication and organizational culture: communication influences culture and culture influences communication’. For example, language forms one aspect of a culture, and communication is undoubtedly influenced by it (White et al., 2010, p.70).

Indeed, culture provides people with a knowledge base that influences how they think, behave/act, and communicate with others. Therefore, understanding cultural differences is especially important in the workplace. For instance, conducting business (especially at the global level) requires an understanding of different cultures, since culture guides decision-making and behaviour in the business world (Leonard et al., 2009; Bellou, 2010). That is, being able to communicate successfully with clients from culturally diverse backgrounds increases one’s ability to understand those clients’ needs and, thus, gain their loyalty. As we communicate, we tend to

use different cultural habits and meaning systems; thus, it is crucial to understand people's culture in order to interpret their social behaviour.

As noted by Berlo, communications are influenced by the cultural context in which the sender and receiver are located (Berlo, 1960). For organisational communications, this could be the culture of the department, wider workplace, or even the country in which the organisation is located (Bellou, 2010). It is, therefore, important to understand how organisational communication is influenced by the culture in which that organisation and employees operate.

Like every other nation, Oman has a particular culture that impacts the workplace, including the public sector and government ministries, and affects how people communicate. Since Sultan Qaboos bin Said became the country's ruler in the 1970s, Oman has been shifting from its mostly collectivist and conservative traditional values to a society providing increasing support for individualism and a willingness to embrace change (Aycan et al., 2007). Oman operates as an authoritarian state, headed by His Majesty, who has 'an enormous degree of discretionary power over state and society [...] to the extent that power is centralized above the ministerial level' (Common, 2011, p.217). This is clearly demonstrated by the fact that most reforms and developments in Omani society result from the top-down imposition.

Today, however, Oman is modernising, and its transformation efforts are continuously evaluated, particularly the national efforts to promote and protect human rights. For instance, chapter 3 of the new constitution, 'The Basic Statute of the State', recognises *the Public Rights and Duties*, stating clearly that 'all citizens are equal before the law' (Art.17). Thus, the general idea of human rights and, particularly, the relationship between the state and its citizens, are protected by law (Funsch, 2015). The constitution is considered a citizens' road map for the protection of their basic human rights. Even so, several scholars (Al-Ghailani, 2005; Aycan et al.,

2007; Al-Fahdi, 2009) observe that Omani culture still favours social connections over organisational loyalty (Common, 2011). As Common notes, the ‘cultural and institutional dominance of political leadership in the Sultanate extends to its organisational behaviour’ (Common, 2011, p.215).

These ongoing changes are reflected in public-sector organisations, where the importance of achievement, monitoring, and planning are now emphasised over the tribal leadership of the past, which placed importance on assisting families (e.g. through financial and social support). Thus, the main role of the tribe as an organisation is to offer a social safety net (or services) for the local community (Funsch, 2015). This phenomenon is also highlighted by Al-Ghailani (2005), who observes that tribal allegiances in Oman have a significant impact on organisational structures as social criteria, rather than, for example, merit. They are still actively used to select, recruit, and promote within institutions. For instance, employment can still be attained through nepotism and personal petitions on behalf of family members (Al-Ghailani, 2005; Aycan et al., 2007; Al-Fahdi and Swailes, 2009). In a Saudi Arabian study, Al-Shehry et al. (2006) reported that the tribal system still plays an influential role in the workplace, as some government leaders tend to give preference to their relatives while performing their official duties despite this being contrary to workplace principles (Al-Shehry et al., 2006).

Furthermore, Al-Fahdi and Swailes (2009) argue that, ‘social relations in the majority of public organizations in Oman are unhealthy and distorted’. They add that social relationships among officials and employees are rare, even though the practice of nepotism is prevalent throughout Oman. Tensions between the traditional and modern systems and cultures have led to many challenges within organisations, particularly regarding internal communications (Al-Fahdi and Swailes, 2009, p.13). These challenges include, for example, the lack of feedback such as

managers not providing performance feedback to their employees, and employees not being able to appraise their managers; this lack of transparency can hinder organisational development and diminish employee morale (Aycan et al., 2007; Eakin, 2014). This is not only at the administrative level also the citizens usually do not understand some of the government decisions. This lack of transparency would prevent public from participating actively in government communication, (Alsalmi et al 2016). For example, Al-Fahdi and Swailes claim that top management officials (sometimes) refuse to provide any type of training to employees because they fear losing their position to upskilled employees (Al-Fahdi and Swailes, 2009). Indeed, some top management officials interviewed mentioned that preserving a certain level of professional distance from employees (for instance by lessening communication and interaction with them) can help to maintain their empowerment in the workplace. Moreover, top management tended to personalise any criticism from their employees, which could result in negative consequences for mid- or lower-level employees who deliver even mildly critical feedback or criticism. Regarding eGovernment implementation in the public sector, Al-Shafi and Weerakkody's (2010) study in Qatar suggests that constructive criticism might help governments rebuild public trust by tackling corruption, incompetence, and policy alienation (Al-Shafi and Weerakkody, 2010). Overall, the structure of communication in Oman and the direction of informational flow (dynamically top-down communication) and (decision-making) starts from the top (the government) and not necessarily from the masses (Funsch, 2015).

In this research, it is pivotal to explore whether these cultural challenges for internal communication persist in the Omani public sector, especially with the adoption of eGovernment.

2.6. Impact of Age and gender on organisational culture

In addition to the cultural norms affecting communication in the workplace, an individual's characteristics and the associated societal norms may also influence how staff members communicate (Garratt,2000). In earlier documents, the researcher found that demographics, particularly age and gender, impacted the ways in which staff members communicate with one another.

Age:

In addition to the tensions created by Oman's move towards modernisation, particular elements of Omani culture such as how age and gender are perceived have proven to have a further impact on how individuals communicate with one another. Indeed, earlier documents by the researcher found this to be the case. (Aaltio and Mills, 2003; Acker, 1998; Britton, 2000). Eakin (2014), states that the generation gap between young and old citizens in Oman has potentially delayed the progress of increasing organisational efficiency and the move to modernisation. He claims that younger generation in Oman, generally, does not appreciate the achievements attained since being under the rule of current Sultan (Eakin, 2014). When the Sultan first came to power, the country was facing severe poverty and though it improved significantly today. Furthermore, the younger Omani generation "tends to be less affectively committed to their current organisation and display less organisational citizenship behavior" (Aycan et al, 2007, p. 7). In contrast, the older generation in Oman remains wary of modernisation (Eakin, 2014). As Aycan et al (2007, p.17) notes, "The security and prosperity experienced since 1970 would suggest that employees below the age of approximately 40 years would be more likely to espouse values of egalitarianism, individualism and risk tolerance" Clearly this has implications for internal workplace communications in that employees will act and behave accordingly; thus, age affects decision-making strategies. (Eakin,

2014).

On the other hand, Western studies of the role of age in the workplace have found that the younger age group are content with working longer hours and are happy to undertake complicated tasks because they view this as being valued and appreciated by the organisation (Donohue and Heywood, 2004; Mainiero and Sullivan, 2005). In contrast, other studies have shown, for instance, that older employees experience greater levels of job satisfaction because they have already proven themselves to the organisation (Baruch, 2004). This may mean then that older employees have less work-related stress and might be more productive at work than younger employees. Moreover, considering gender in more detail, especially given the Omani workplace context where the presence of working women is generally increasing yet cultural norms can limit the communication between genders (Khan ,2010).

According to the World Health Organization (WHO, 2018), ‘gender’ refers to the socially constructed characteristics of women and men such as norms, roles, and relationships of and between groups of women and men. It varies from society to society and can be changed. While most people are born either male or female, they are taught appropriate norms and behaviours – including how they should interact with others of the same or opposite sex within households, communities, and work places.

A study in Oman about women entrepreneurs has declared that there are barriers related to society and culture. The study showed that women need networking support in the workplace in terms of communicating with the opposite gender freely considering the cultural restrictions (Alsadi et al,2011).

In 2019, an online report published by Oman’s National Centre for Statistics and Information, the total number of government employees was 229,000, of whom 94,021 were

women (41%). Notably, three government units had more women than men: (1) the Ministry of Education (60% women); (2) the Ministry of Health (59% women); and (3) the Ministry of Social Development (52% women). Meanwhile, women form 43% and 42% of the workforces in the Ministry of Higher Education and the Ministry of Legal Affairs, respectively. Although very few studies have explored the role of gender in the workplace in Oman, Elnaggar's (2007) study of the ICT sector in Sultan Qaboos University found that Omani women have made tremendous progress in their education, with rapidly decreasing gender differentials in educational levels and literacy rates and access to education at all levels almost reaching gender parity. However, Elnaggar argues that Omani women are less involved, particularly in technical sectors such as ICT. He found that women in the ICT sector were limited by socio-cultural traditions, which determine and control their performance and limit their interaction with males (Elnaggar, 2007). The aforementioned examples of higher numbers and percentages of women working in the Ministries of Education and Social Development support Elnaggar's perspective that Omani women are less involved in ICT.

Some researchers have observed that when describing the dynamics of male and female managers, they claimed that male managers were considered more successful than their female counterparts (Dennis and Kunkel, 2004; Powell et al., 2002; Willemsen, 2002). Similarly, Heilman (2012) notes that 'the general idea that we "think manager, think male" seems to live on'. He suggests that these negative and stereotypical ideas impact 'information processing, prompting cognitive distortions that form the basis of gender bias in performance evaluation' (Heilman, 2012, p.116). Laster (2008) also states that 'organizational cultures shape and reinforce socially appropriate roles for men and women' (Laster, 2008, p.277).

As a conclusion, according to Funsch (2015, p.101), the shifting role of women in the workplace and the redefinition of gender relations in Oman has been remarkable: ‘the progress of Omani women is reflected not only in steadily increasing employment figures but also in the variety of fields in which they serve’ She also adds that Oman, as a country, is also culturally authentic; thus, these improvements did not occur through the agency of society or the Women's Rights Movement (i.e. feminist movements). In fact, these reforms and transformations towards women’s empowerment were initiated by the head of state, Sultan Qaboos. Nevertheless, communication between genders is guided by cultural norms which in Oman, are directly linked to factors like religion, (Khan ,2010; Alsadi et al,2011).

This, therefore, has implications for how staff communicate internally in the workplace which may or may not be different to workplaces operating in other social-cultural contexts, particularly those in the West where much of the eGovernment research has been conducted.

2.7. eGovernment

The previous subsections explored how workplace culture, particularly in relation to societal norms, may impact workplace communications. An eGovernment strategy is arguably likely to influence how employees communicate internally due to its emphasis on digital communication. However, particularly in a setting like Oman, it is unclear how such a strategy enhances or disturbs communication. EGovernment can be described as a governmental nationwide digital strategy that aims to develop improved e-service for its citizens utilising ICTs in different areas (government, commerce, and education/e-learning) (Al-Gharbi and Al-Kindi, 2010). According to Moon (2002), eGovernment was initially envisioned as a means of enhancing intragovernmental communications via an intranet system (Moon, 2002). Schwester (2009) discusses that the

government in general is a function of accepting and applying technological innovations; as such, the notion of eGovernment expanded to include web-based information dissemination and service delivery applications (Schwester, 2009). Al-Shehry et al. stated that eGovernment includes two notions: ICT as the means of this transformation and administration as the context of implementation (Al-Shehry et al., 2006). The next subsections will explore eGovernment in more detail and how this strategy impacts internal communications.

2.7.1. Developmental Stages of eGovernment

The literature offers various models to explain the development of eGovernment (Ndou, 2004; Almarabeh and AbuAli, 2010). It must be understood that 'eGovernment is an evolutionary phenomenon and therefore eGovernment initiatives should be accordingly derived and implemented' (Almarabeh and AbuAli, 2010, p.30). In other words, each country will have a different approach to eGovernment implementation and face its own set of challenges. The implementation of eGovernment in any given system occurs in continuous stages, and just as there are different governments with varying entities, these stages also differ in their description and timeline (Ndou, 2004; Almarabeh and AbuAli, 2010). EGovernment is a continuance of the technological revolution that will also lead to the continuation of knowledge in society. EGovernment combines new concepts such as transparency, accountability, and citizen participation in the evaluation of government achievement (Ndou, 2004; Al Busaidy and Weerakkody, 2009; Almarabeh and AbuAli, 2010).

Generally, most stages include the following steps: utilising the internal communication process while creating an email system, enabling public and inter-organisational access to information, creating two-way communications, establishing a way to exchange information, providing digital government services, and linking government entities (Fang, 2002; Almarabeh

and AbuAli, 2010).

A framework to describe eGovernment implementation was developed by Almarabeh and AbuAli (2010), adapted from Layne and Lee (2001). They conclude that there are four stages of increasing complexity: cataloguing, transaction, vertical integration, and horizontal integration. The stages are summarised in Table 2. According to an analysis of the eGovernment implementation plan, the MOI has followed these stages. So, for example, Activation of email for correspondence with users by establishing email accounts for MOI employees to conduct official correspondence. Each ministry has an internal email system for exchanging documents, and this will be reviewed to ensure compliance with the general scope specified by the plan see page 7.

Stage	Description
Cataloguing	Develop online presence with a static website.
Transaction	Develop access to online transactions, payments, e-filing, and customer interaction.
Vertical integration	Create seamless linkages between domains and share data vertically.
Horizontal integration	Integrate different levels across government and its functions.

Table 2 Almarabeh and AbuAli's Framework for Development Stages of eGovernment (2010, pp.30-31)

2.7.2. Types of eGovernment relationships

According to Almarabeh and AbuAli (2010), eGovernment mainly affects three different groups within a given country: citizens, business organisations, and government entities. Accordingly,

there are different types of eGovernment relationships. When using the new eGovernment services, they will be uniquely affected by the application, quality, and efficiency of the provided services. However, some eGovernment studies add a fourth group: ‘employees’. The relationships between these groups and the government are based on the interactions, communications, and electronic transactions with employees (Fang, 2002).

Based on several previous studies, each category of eGovernment and the benefits it can bring to these types of interactions are briefly described in Table 3.

Category	Definition	Benefits
Government to Citizens (G2C)	The government provides online electronic services to citizens, enabling them to access information and communicate about official procedures (Fang, 2002).	<ul style="list-style-type: none"> - Direct interaction between citizens and government (Yildiz, 2007) - Encourages participation in government activities (Ndou, 2004)
Government to Business (G2B)	E-transactions are actively utilised to carry out electronic exchanges of commodities and information between the government and businesses (Yildiz, 2007).	<ul style="list-style-type: none"> - Direct access to electronic procedures: e.g. filing statements and sourcing information on workforces (Fang, 2002) - Regulatory process simplified; challenges reduced (Yargovan, 2013) - Allows more competitive business

		(Ndou, 2004).
Government to Government (G2G)	Allows communication and cooperation via an online database for government, and the transfer and exchange of commodities and information (Fang, 2002).	- Allows different government departments/agencies to share databases, resources, and capabilities (Yargovan, 2013)
Government to Employees (G2E)	Enhances internal relationships between the government and its employees (Fang, 2002).	- Promotes e-learning and knowledge sharing (Yildiz, 2007) - Connects employees internally (Scholl, 2005).

Table 3 *Types of eGovernment*

Although each category is distinct, there is limited research on the last category, Government to Employees (G2E), because most research has focused on G2G interactions (Fang, 2002; Yargovan, 2013). Ndou (2004) observes that most studies refer only to G2C, G2B, and G2G, considering G2E as part of the latter (Ndou, 2004). There is no category which relates to E to E as claimed: “Many people today refer to employees as internal customers and as a result, in order for

an eGovernment initiative to be customer oriented and centric, it has to take into account needs and requirements of this group as well (Ndou,2004, p.5)

However, the transactions and interactions between employees and the ‘government’ form a critical component of the eGovernment system that needs thorough consideration. This represents a knowledge gap in the literature which this research attempts to address. As employees are often considered ‘internal customers’, a successful eGovernment initiative depends on support from this group (Al Busaidy and Weerakkody, 2009). The G2E bring employees together and promote knowledge sharing amongst them. It provides employees the potential for access to relevant information regarding, for example, compensation and benefits policies, training and learning opportunities, and employment rights, as well as sharing information pertinent to their jobs (Heeks, 2001; Fang, 2002).

In sum, ‘G2E refers to strategic and tactical mechanisms for encouraging the accomplishment of government goals and programs as well as human resource management, budgeting and accounting’ (Ndou, 2004, p.6). In addition, G2E aims to develop easier processing systems, paperless communication, and e-applications which are accessible and user friendly to employees within a government organisation (Fang, 2002). From an internal perspective, eGovernment also aims to enhance the services offered to the employees in the organisation, such as travel requests, training programmes, purchase requisitions, payroll, transferring intergovernmental funds, and job applications (Fang, 2002; Ndou, 2004).

2.8. Challenges of Applying eGovernment to Internal Communication

Several studies from around the world have found that the implementation of eGovernment has not achieved its promised goals, such as increased efficiency, especially in developing countries

(Heeks, 2001, Alshihi, 2006; Al Busaidy and Weerakkody, 2009; Almarabeh and AbuAli, 2010; Qaisar and Khan, 2010). Many governments in developing countries continue to face challenges in terms of infrastructure development, policy, inoperability, and evaluation methods (Ndou, 2004). The growing cost of ensuring data privacy for both citizens and the government also affects all levels of eGovernment implementation. Unfortunately, due to different economic, technological, and social conditions in developing countries, particularly compared to the West, eGovernment strategies have not been adapted properly (Chen et al., 2006). Challenges extend to security, trust, and privacy, as sharing personal information electronically increases the fear of identity theft (Chen et al., 2006).

Moreover, to accomplish its initiatives, eGovernment requires strong and flexible infrastructure, which is unavailable in some institutions (Almarabeh and AbuAli, 2010). There is also a risk of mismanaging the information provided and shared over the eGovernment network (Al-Busaidy and Weerakkody, 2009). Moreover, in Oman, the cost of shifting from the traditional (paper-based) system to a digital or modern electronic system is costly, and as financial resources are limited, the high costs of this transformation and the lack of financial aid may hinder the progress of implementing the eGovernment strategy (Ebrahim and Irani, 2005; Al-Busaidy and Weerakkody, 2009; Al Salmi and Hasnan, 2015).

At the staff level, further challenges include: training and dealing with unqualified staff, inflexible management reluctant to change, limited awareness of the benefits of eGovernment, high IT staff turnover due to uncompetitive pay, poor public-sector skills and weak infrastructure, and a gap between a skilful junior with access to technology and a senior without such skills and access (Chen et al., 2006; Almarabeh and AbuAli, 2010). In particular, organisations need to update their technology to facilitate moving to eGovernment (Qaisar and Khan, 2010), and staff

may be resistant given their limited exposure to modern technologies and potential fear that they might lose their roles due to automation concerns (Qaisar and Khan, 2010).

At the organisational level, both availability and accessibility are critical to developing a successful eGovernment plan. This means that eGovernment requires 24/7 availability (Almarabeh and AbuAli, 2010), as one of the main reasons for establishing the eGovernment system is to facilitate communication between the government and its citizens, business corporations, staff, and other interest groups. Preserving documents has proven to be another challenge, given the need to establish an information management framework to standardise data and manage records if these all become electronic. This would entail a system that archives and preserves documentation yet allows easy retrieval (Chen et al., 2006; Qaisar and Khan, 2010). This challenge mostly concerns the eGovernment interface, which must cater to the needs of all users, including staff. For instance, the design must be simplified, use common standards, reduce development time, and enhance compatibility across departments (Qaisar and Khan, 2010).

At the government level, there is a growing gap between developed and developing countries in relation to eGovernment implementation, as this depends on technology infrastructure for ICT adoption (Haque and Pathrannarakul, 2013). This gap is mainly due to the differences between the software engineer's capabilities and the locations where the software is being implemented (Heeks, 2002). In addition, developing countries face further issues, as they often lack the relevant skills in the labour market or sufficient capital to create effective plans and strategies to support eGovernment (Chen et al., 2006). Some studies explain that developing countries such as Pakistan, Egypt, Jordan, and Bahrain have tried to implement eGovernment strategies but frequently encountered problematic mismatches between older and newer ICT systems (Heeks, 2002; Al-Shihi, 2006; Qaisar and Khan, 2010). Moreover, the transformation towards eGovernment is

linked with the use of ICTs such as computers, computer networks, and the Internet, which facilitate the provision of eGovernment products and services and improve the government's interactions with citizens and other parties (Rho, 2004). In eGovernment initiatives, it is vital to understand the government's organisational culture and practices to minimize risk and determine the most effective methods to modify or improve the relationships between the adopted technology, organisational characteristics, institutional arrangements, and environmental circumstances (Fountain, 2004).

Fountain (2004) mentioned that the era of hierarchical government bureaucracy will end; a substantially different model, known as eGovernment, will emerge in which government executives redefine their core responsibilities from managing people and programmes to coordinating resources for constituting public value (Fountain, 2004). The transformational applications usually encompass every major organisational dimension, including strategy, structure, people, technology, and processes, as well as primary external forces such as citizens, suppliers, partners, and governors; moreover, it enhances performance and the processing of information that can alter social relations within an organisation's hierarchies or within another social context (Farhoomand and Wigand, 2003; Tung and Rieck, 2005). Fountain (2004) asserted that the importance of understanding the implementation of eGovernment in relation to the cultural concepts of the public sector is influenced by the values, norms, and social structures that affect communication between the employees and officials. This integration between the adoption of the new eGovernment and the workplace culture will lead to increased knowledge and an improved workplace environment, as well as the ability to manage potential challenges (Fountain, 2004).

eGovernment illustrates a fundamental change, and therefore, resistance from stakeholders is possible. Wargin and Dobiéy (2001) identify some reasons behind resistance to change,

particularly lacking skills to use the new technologies, failing to see the ‘big picture’, and fearing that the latest technologies will cause organisational structures and power distribution to be redefined (Wargin and Dobiéy, 2001). Dent and Goldberg (1999) indicate that individuals do not resist the change itself but rather the loss of status, pay, and satisfaction.

This section explored the concept of eGovernment, its developmental stages, and the challenges faced when implementing eGovernment in developing countries in general such as the absence of basic infrastructure, practical policies, and strategies, especially in the public sector. However, the recent WEF Global Competitiveness Report (2017-2018) Oman was ranking 59 of the 137 countries in regards of technological readiness. Moreover, the report has pointed some issues that related to the government inadequately in having educated workforce and inefficient government bureaucracy which mean that Oman needs to continue effort to upgrade education and training systems and fundamentally reform the labor markets, this means it may present further challenges in an era of digital revolution, (p.228).

In summary, Al-Shihi (2006) identifies several elements that affect the adoption of eGovernment in Oman, including the lack of infrastructure, funding, IT knowledge and skilled employees, user input and feedback, and most importantly, higher officials’ commitment and understanding. The section also highlighted that most previous studies treat G2E as part of the G2G category of eGovernment. Consequently, there is a shortage of research questions involving eGovernment implementation experiences, and how such experiences impact employees’ ability to communicate. The next chapter presents the study’s conceptual framework and a summary of the literature review.

Chapter 3. Conceptual Framework and Summary

The conceptual framework which guides this study draws on Berlo's (1960) Model of Communication – the SMCR model – to illustrate the factors in any internal communication process within the MOI. Scholars have previously indicated that internal communication is a key component of organisational success (Hayase, 2009; Borca and Baesu, 2014).

The literature reviewed in the previous chapter provides the background for this study's

conceptual framework and essential elements from the literature, which lays the required theoretical foundation for further work. The framework is depicted in Figure 5.

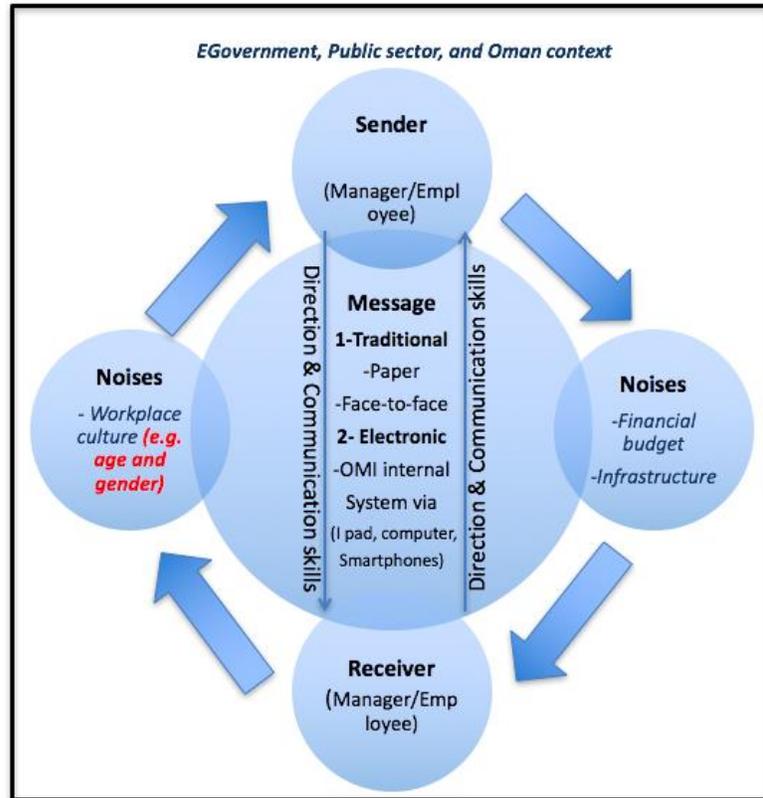


Figure 5 Researcher’s conceptual framework, based on Berlo’s (1960) SMCR model

The researcher identified certain factors governing the impact of an internal communication system, such as organisational communication (sending and receiving clear instructions/messages), communication tools, and workplace culture, particularly age and gender. (Khan ,2010; Alsadi et al,2011; Eakin, 2014) Moreover, the structure of the model presumes a parallel relationship between the sender and the receiver in the same social context that might affect the communication process. In Berlo’s model, these components (for instance, employees’ communication skills and cultural factors are essential to structure the communication strategy using traditional and electronic channels. Since the model allows many variables to co-exist, and

because communication occurs in different environments; the researcher will focus on the workplace and explore how communication is used in order to understand the influence of eGovernment implementation on the MOI's internal communication system (Berlo, 1960; Corman et al., 2007). However, Berlo's model does not consider hierarchical structure, direction of communication, and the challenges highlighted in the literature review as important themes for this research. Furthermore, factors such as hierarchal structure can create additional challenges or 'noise'.

The model's structure also presumes connectivity between the sender and receiver in the same social context that might affect the communication process, (Berlo, 1960; Corman et al., 2007). With the adoption of eGovernment in the workplace, the internal communication system aims to keep the employees in the public sector regularly informed and aware of updates, feedback, tasks, and any further communications between sender and receiver within the organisation (De Ridder, 2003; Popescu et al., 2014). According to several scholars, face-to-face interaction is preferred among employees because it creates better understanding among colleagues (Welch and Jackson, 2007; Rho, 2009; Peak, 2010; O'Murchú, 2012). Moreover, the structure of communication between different organisational levels depends on the organisation's hierarchical structure, and its system to determine each employees' specific role and purpose (Haque and Pathrannarakul, 2013; Qaisar and Khan, 2010).

In fact, internal communication in the workplace has traditionally depended on information moving downwards from the top of the organisational hierarchy (Al-Nabhani, 2007; Peak, 2010). Tensions between the traditional and modern systems and cultures have led to many challenges ('noises') within Omani organisations, particularly regarding internal communications and the role of gender and age (Al-Fahdi and Swailes, 2009; Khan, 2010; Alsadi et al, 2011; Eakin, 2014). Other

noises, such as financial budget limitations (which restrict the provision of training courses) can hinder organisational development and diminish employee confidence (Aycan et al., 2007; Eakin, 2014). Based on the literature review and the study's conceptual framework, a series of research questions have been developed to guide the study. By addressing these research questions, the study will investigate the current situation with respect to the theoretical knowledge and managerial practice presented in the literature review. Its fundamental aim is to explore how adopting an eGovernment strategy impacts the MOI's internal communication system. Figure 5 has provided a framework which highlights the key issues associated with eGovernment and the impact it *may* have on internal communications in the Omani public sector. This, in addition to the literature review, highlights where gaps in knowledge exist and where the study should focus its attention. In order to explore this proposed framework, specific research questions are therefore required. These are as follows:

Research Questions:

RQ1. What factors impact internal communications across organisational levels within the MOI and how do they influence internal communications?

RQ2. Drawing upon a critical evaluation of the MOI's eTransformation Plan, how has this impacted upon the internal communication system?

RQ3. How can the insights from this study be used by other Omani ministries adopting the eGovernment Transformation Plan, and what are the implications for their internal communicational systems?

Chapter 4. Research Methodology

4.1. Introduction

The study adopted an interpretivist, qualitative approach. The two data collection methods were semi-structured interviews and document analysis. The interview process sought to gain the personal opinions and experiences of MOI managers and employees, while the document analysis examined the MOI's Official eGovernment Transformation Plan Statement revealing the formal aims and procedures of the Omani government.

The overall research adopted a case study approach enabling in-depth exploration of how the eGovernment has impacted the MOI's internal communication system. The next section will discuss the research philosophy, followed by sections on case study methodology, qualitative research, data collection methods, document analysis, thematic analysis, reliability and validity, and ethical considerations.

4.2. Research Philosophy: Positivism - Interpretivism

There are several research approaches to consider depending on the aims of the research, the researcher's particular interest, and the availability of different research models; thus, researchers are given the opportunity to explore different methods for different reasons (Deetz, 1996).

Among the different research philosophies, some of the more prevalent approaches are positivism, pragmatism, realism and interpretivism. Positivism and interpretivism can be considered to be opposing approaches with other philosophies taking elements of each (Creswell, 2009).

So, for example, a pragmatist approach often uses mixed methods (Creswell, 2009) pragmatism paradigm centers on what actually works to achieve certain requirements of the investigator and does not limit the researcher to particular approaches in responding the study question (Creswell & Plano, 2011). According to Fisher et al. (2010, p.19), 'positivism holds that an accurate and value-free knowledge of things is possible'. It assumes that there are universally accepted laws that enable researchers to predict, explain, and even control social phenomena (Wardlow, 1989). Positivism also adopts a deductive approach which tests theories and follows rigid guidelines, relating to quantitative data, that ensure reliability, these features with proposals then are tested in other cases (Bryman and Bell, 2011; Willson, 2014). Moreover, 'positivism is a form of

philosophical realism adhering closely to the hypothetic-deductive method [...] Positivism approves that hypotheses are illustrated first in quantitative declarations then into numerical formulas in presenting the functional relations. In the same vein, Ponterotto claims that positivism is to essential to estimate and control the social phenomenon (Ponterotto, 2005). Moreover, interpretivism seeks to associate the features into specific systems of belief to specific case. (Lin,1998). Deductive reasoning also stresses scientific principles with the aim of generating new and generalisable theories (Bryman and Bell, 2011; Willson, 2014).

In contrast, interpretivism is defined as an epistemological position concerned with understanding differences between humans in their role as social actors (Bryman and Bell, 2011; Saunders, 1999). An interpretivist research philosophy aims to explore the beliefs, values, and meanings pertaining to the social phenomena of human experiences (Van Manen, 2016; Fisher et al., 2010). Thus, the results of such research are based on studying human behaviour. An interpretivist approach helps to generate, rather than test, theory. It is based on the interactions between the researcher and participants within their own cultural frame. Additionally, interpretivism is inductive and tolerates flexible data collection to allow change and increase engagement in what is being studied (Willson, 2014). This method is useful when theories are lacking or an existing theory fails to adequately explain a phenomenon (Saunders, 1999). So, in sum, the difference between the two is that positivism stresses “theory verification” and interpretivism emphasizes “theory falsification” (Ponterotto, 2005, p.129). Interpretivism denotes that learners construct knowledge for themselves, in other words, each learner constructs meaning on the ongoing process of learning and through interacting with what they previously know and believe (Mogashoa,2014) leading to multiple, understandable, and valid realities (Ponterotto, 2005).

To the best of the researcher's knowledge, no prior studies have explored internal communication impact in Oman's public sector. As this study aims to address this gap, the researcher adopted an interpretivist philosophy, seeking to deepen understanding of internal communications and how people interact with one another in the context of the Omani public sector, against the backdrop of implementing an eGovernment strategy. The interpretivist approach thus considers the context in which the implementation of eGovernment is occurring. Other research philosophies, such as positivism, were unsuitable as they do not consider the role context plays in the research nor do they aim to study the issue in real depth using small, select samples (Willson, 2014). Furthermore, the researcher completed the HARP reflexive tool (Saunders et al, 2007), which helped her to understand her preferred philosophical approach which in this case was interpretivism.

4.3. Case study

The researcher adopted a qualitative case study strategy, entailing an intensive, systematic investigation into the activities and programmes of individuals at different levels in an organisation in order to generalise over several departments within the organisation (Simons, 2009; Starman, 2013; Gustafsson, 2017). As defined by Yin, the case study is but one of several ways of doing social science research. Other ways include experiments, surveys, histories, and the analysis of archival information (as in economic studies). Each strategy has peculiar advantages and disadvantages [...] In general, case studies are the preferred strategy when 'how' or 'why' questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context'(Yin, 2003, p.1).

Case study method has always been criticised for its lack of rigour and the tendency for a researcher to have a biased interpretation of the data (Gustafsson, 2017; Baxter and Jack, 2008). Grounds for establishing reliability and generality are also subjected to scepticism when a small sampling is deployed. Often, case study research is dismissed as useful only as an exploratory tool. Despite these criticisms, researchers continue to deploy the case study method particularly in studies of “real-life situations governing social issues and problems” (Zainal,2007. p.5). In the terms of ‘how’ and ‘why’ questions, the researcher believes that the case study method is most suitable for this study because it focuses on studying the impact of the adoption of eGovernment in the MOI as one of the public sector organisations in Oman. Through a case study, researchers can understand specific circumstances or a phenomenon and gain contextual knowledge about the research problem (Thomas, 2011a; Gustafsson, 2017). As Saunders (1999) comments, it is a strategy for completing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context (Saunders, 1999). For this reason, management studies and organisational theory strongly depend on case studies as a research strategy (Baxter and Jack, 2008; Thomas, 2011b).

Case studies typically combine data collection methods to obtain an in-depth understanding of the issue using archives, interviews, questionnaires, and observations with a qualitative (words), quantitative (numbers), or mixed-methods approach (Kaplan and Maxwell, 2005; Gustafsson, 2017). The current research is a single case study concerning the MOI’s strategic objective. Also, the research examines the impact of etransformation plan upon the MOI internal communication system. By adopting new technologies and professional conventions; This can, in turn, enhances the work productivity in the MOI. Media development is an essential pillar of democracy and can

certainly contribute positively to developing democracy in the country by supporting an independent, responsible, diverse, and transparent media.

The MOI is a hierarchical organisation that has to adopt strategies and objectives according to the directives and instructions of the Minister of Information (assisted by the Undersecretary for Information). Several Directorates-General and Directorates come under the offices of the Minister and the Undersecretary. The most recent organisational structure of the MOI is shown in Figure 6. According to the *Statistics of Civil Service Employees, 2015*, the MOI has over 450 employees.



Figure 6 Ministry of Information hierarchy- MOI Website-2017

4.4. Qualitative Research

Qualitative research is used to explain situations ‘in their uniqueness as part of a particular context and the interactions there’ (Merriam and Grenier 2019, p.5). In contrast, quantitative studies emphasise the measurement and analysis of causal relationships between variables, rather than processes (Denzin et al., 2006). According to Miles and Huberman (1984), the qualitative method collects data that enables consequences to be observed and explanations derived (Miles and Huberman, 1984). Hence, qualitative researchers emphasise the socially constructed nature of reality, the intimate relationship between the research and what is studied, and the situational constraints that shape a study, and seek answers to open-ended questions (Creswell, 2003; DiCicco-Bloom and Crabtree, 2006). However, as Bryman and Bell (2011) contend, qualitative data has limitations, such as the ability to generalise, difficulties in replicating, limited transparency, and excessive subjectivity (Bryman and Bell, 2011). Nonetheless, qualitative research is most suitable for this study’s aim of collecting in-depth data which considers the context. It enables immersion in the field of study, reflecting the role of the researcher as an MOI employee, which leads to deeper understanding of the researched phenomenon of the implementation of eGovernment. It is also in line with the interpretivist research philosophy adopted in this study.

4.5. Data Collection

The research data were collected through two qualitative methods: interviews and documentation. According to Patton (1990), triangulation of data enhances data collection credibility and is typically adopted in case study research. Findings across the study were compared and analysed using thematic analysis (see section 4.7) to reduce the impact of potential biases in either method. Accordingly, triangulation enabled the researcher to recognise if the study’s findings are simply

artefacts of a certain source, method, or even the investigator's bias, as Patton (1990) cautions. In addition, to reduce any respondent bias, a pilot interview was conducted (see section 4.5.2). The following subsections will explain these methods in more detail.

4.5.1. Interviews

Interviews, rather than questionnaires which are typically associated with positivist, quantitative research, are among the most widely used methods for gathering qualitative data, as they collect from respondents both general and specific information related to the research questions (Creswell, 2013; DiCicco-Bloom and Crabtree, 2006). Interviews are a qualitative research technique, 'conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, program or situation' (Boyce and Neale, 2006, p.3). As purposeful conversations, interviews assist the researcher in exploring the perceptions, trends, and attitudes of people regarding the subject matter (Bryman and Bell, 2011). Aspects such as values, behaviour, motives, and reservations are, of course, expected to vary between respondents, but the ultimate goal is to gain as much understanding as the sample allows (DiCicco-Bloom and Crabtree, 2006; Denzin et al., 2006).

In-depth interviews also encourage participants to share their personal experiences in their own words (Fisher et al., 2010). There are three main interview categories in qualitative research: structured, unstructured, and semi-structured. Structured interviews seek to standardise the interviewing process and lessen the amount of question variation between interviews (Bryman and Bell, 2011), whereas unstructured interviews are primarily informal: the main discussion topics or issues are listed before interviewing the respondent, but the sequence can differ from one interview to another (Bryman and Bell, 2011). Semi-structured interviews combine aspects of both structured and unstructured approaches. They follow a set of pre-determined questions but allow

flexibility in prompting further questions in response to replies (Bryman and Bell, 2011). In this study, semi-structured interviews were conducted to collect data, allowing respondents' opinions to be explored in detail (Barriball and While, 1994).

Semi-structured interviews ensure that the respondents are motivated to participate through an interactive session with the researcher and enable the researcher to explore specific themes using questions that are easily comprehended (Malhotra and Galletta, 1999). This method helps respondents maintain a relaxed state while sharing their personal experiences and providing details that the researcher may not expect (Fisher et al., 2010). While conducting interviews, the researcher adopted a non-judgmental approach: 'the mark of true willingness to listen, see and understand, it involves respect and certain humility toward the phenomenon, as well as sensitivity and flexibility' (Nyström and Dahlberg, 2001, p.97). Furthermore, with open-ended questions, the respondents were encouraged to explain and narrate their personal experiences in relation to their own positions in the MOI. Thereby, the researcher had the flexibility to further probe respondents with additional sub-questions where elaboration was needed (Bryman and Bell, 2011; Silverman, 2015). This, accompanied by a participant briefing before the interview, also addressed any issues with participants providing answers they felt were acceptable, rather than answers which reflected their experiences.

Kothari (2004) mentions that errors can occur while gathering information in interviews. Effective qualitative interviews require the interviewer to remain neutral and not intervene via unintentional feedback through body language or facial expressions, which could unconsciously influence the respondents' answers, as this could undermine the validity and reliability of the interviewees' answers and the collected data. As Seidman (2006, p.42) explains, 'the interviewer and the participant need to have enough distance from each other that they take nothing for

granted'. It is, therefore, highly recommended to maintain social distance between the interviewer and interviewee in order to maintain data quality. This was important for the researcher to adopt the perspective and role of an outsider, rather than an employee, to minimise any bias. Moreover, this method might be limited by the difficulty of reaching some participants, potentially leading to insufficient data (Kothari, 2004).

4.5.2. Interview Questions

The interview questions were worded simply, and their contents carefully crafted to seek information on the main points without delving into unnecessary details. To ensure that interview errors are minimised, it is important to ask relevant questions that are clear and straightforward, ensuring that respondents understand the questions and answer them accurately. The structure and order of the questions were also considered, as they were arranged thematically to allow for easy conversations (Alreck and Settle, 1985; Malhotra and Galletta, 1999).

The open-ended interview questions were developed to address the study's research questions and the relevant theoretical themes identified in the literature review, and were ultimately arranged by importance and interest (Fisher et al., 2010). In addition to the six main questions, a series of prompts were included. These prompts were used whenever further explanations were needed from the respondents regarding their experiences, allowing the researcher to form a better understanding of the workplace situation and seek evidence related to the study's aim (Fisher et al., 2010).

The interview questions used in this study included four main themes: factors influencing internal communication impact, impact of the eGovernment Transformation Plan, challenges of the internal communication system, and cultural effects on the internal communication system. These themes were each associated with one or more research questions. For instance, regarding

RQ1, ‘What factors influence the impact of internal communications across organisational levels within the MOI?’, the researcher created the interview question, ‘How do employees communicate internally within the Ministry of Information?’. It was supported by a series of prompting questions – e.g. ‘What types of communication channels or tools do you rely on and why?’ and ‘What devices do you use in your workplace?’ to explore how communication occurs between employees in different departments. The themes were also informed by the literature as shown in Table 4.

<i>Themes</i>	<i>Authors/Dates</i>
Factors influencing internal communication impact	Fang, 2002; Ndou, 2004 ; Stahl,2009; Cornelissen 2010; Qaisar and Khan, 2010; Omilion-Hodges and Baker, 2014; Adjei-Bamfo et al.2018.
Impact of the eGovernment Transformation Plan	Layne and Lee ,2001; Alshihi, 2006; Al-Shehry et al., 2006; Al Salmi and Hasnan, 2015.
Challenges of the internal communication system	Heeks, 2001, Alshihi, 2006; Al Busaidy and Weerakkody, 2009; Almarabeh and AbuAli, 2010; Qaisar and Khan, 2010.
Cultural effects on the internal communication system	Al-Nabhani, 2007; Al-Fahdi and Swailes Peak, 2010; Common, 2011; Alsadi et al, 2011; Eakin, 2014; Funsch, 2015.; 2009 Usman, 2019

Table 4 Summary of studied themes

Prior to the interviews, the consent form (see Appendix 2) and interview questions were distributed to each participant through the MOI’s internal communication system. All interviews were conducted in Arabic, as this is the official language in the Sultanate of Oman. The interviews were recorded using a smart phone recording facility and a smart recorder tape to avoid any

mistake or insufficiency while recording the interviews. After that recordings were initially transcribed in Arabic and then translated into English (see Appendices 3 and 4, respectively). In qualitative research, a pilot study can help to eliminate bias but it can be ‘time-consuming, frustrating, and fraught with unanticipated problems, but it is better to [...] deal with them before investing a great deal of time, money, and effort in the full study’ (Teijlingen and Hundley, 2001, p.4). Accordingly, the researcher sent the interview questions (see Appendix 3) for pilot testing by a small number of faculty members at Sultan Qaboos University. The researcher used feedback from the pilot testing to make necessary changes to the translation from Arabic into English. It was necessary to consult a linguist to ensure that the terminology for the area covered by the instrument would yield better results in meaning.

4.5.3. Interview Sampling

The sampling procedure involves systematically selecting individuals from the population to be examined during the course of a study. As Tuckett explains, ‘sampling is a core concern determining the ongoing success of a research project. Consequently, it is an issue requiring continual examination as practiced.’ In qualitative research, sampling relies on numbers to examine the phenomenon in detail (Tuckett, 2004, p.1).

It is important to distinguish between the ‘probability’ and ‘non-probability’ techniques of qualitative sampling. Probability sampling uses random selection, with each unit in the population assigned a known probability of being selected (Bryman and Bell, 2011). It is generally considered the most rigorous approach to sampling for statistical research but is inappropriate for qualitative research (Tongco, 2007). Moreover, Silverman (2013) suggests that it is impractical to sample the whole population or choose random samples in a qualitative study. Some scholars also note that qualitative sample sizes tend to be small to ensure direct involvement between the researcher and

respondents and to enhance the validity of observations (Patton, 1990; Miles and Huberman, 1984; Marshall, 1996; Crouch and McKenzie, 2006). Moreover, Patton (2002) states that there is no specific criterion for sample size in qualitative research, as it relies on ‘what you want to know, the purpose of the inquiry, what will be useful, what will have credibility and what can be done with available time and resource’ (Patton, 2002, p.243). Therefore, the researcher decided to use a small sample for this study in-line with qualitative, interpretive research.

The findings from non-probability samples cannot be generalised, but this approach enables in-depth insight into what might be happening. There are three non-probability sampling techniques: purposeful, convenience, and snowball (Bryman and Bell, 2011). A qualitative research sample is selected to represent specific features within the study population (Bryman and Bell, 2011). In this study, the researcher adopted purposeful sampling, which allows some degree of choice in selecting the sample. Respondents were carefully selected based on their location, position, and demographic information. They were also selected because they utilise the eGovernment system in the MOI and had sufficient knowledge about it. It was not the original intention to interview 20 people however, after conducting 20 interviews, similar themes started to emerge and theoretical saturation was reached (Tongco, 2007; Bryman and Bell, 2011). This approach to sample size is common in qualitative research (Dworkin,2012).

Accordingly, no further interviews were conducted. To obtain a suitable cross-section of staff, the study sample included both males and females from different age groups and with a range of experience. The sample also included staff from different hierarchal levels, ranging from junior and senior employees in different administrative roles to a member of the Minister’s office. In total, 20 semi-structured interviews lasting 45-60 minutes were conducted in the MOI offices in 2017.

This study will consider the experiences of 20 of them. The interviewees included one high-ranking official, two general director managers, one assistant director manager, six managers, and ten specialist employees working in different departments and sections. It was not the intention to obtain an equal split of male/female respondents but instead to ensure different genders were represented in the sample. Staff were drawn from departments in the MOI that were responsible for different departments but all were physically based in the offices at MOI Profiles of the interviewees are outlined in Table 5.

Respondents of MOI	Gender	Years of experience	Highest Qualification	Role
1	Female	15	BA	Director Manager – E-Media Directorate
2	Male	4	BA	Junior Specialist – E-Media Directorate
3	Male	4	BA	Junior Specialist – E-Media Directorate
4	Male	4	BA	Junior Specialist – E-Media Directorate
5	Female	15	BA	Director Manager – Publication & Art Works
6	Female	15	BA	Senior Specialist – External Media
7	Female	14	BA	Senior Specialist – E-Media Department
8	Male	20	BA	Director Manager – Publication & Art Works
9	Male	18	BA	Senior Specialist – External Media
10	Male	4	BA	Junior Specialist – E-Media Department
11	Male	16	BA	Senior Specialist – E-Media Department

12	Female	25	BA	Director Manager – Publication & Art Works
13	Male	4	BA	Junior – External Media
14	Female	25	BA	Director Manager – Publication & Art Works
15	Male	26	BA	Director Manager – External Media
16	Male	10	BA	Specialist – Public Relations
17	Male	20	BA	Director Manager– Financial & Administration
18	Male	Over 30	BA	General Manager – External Media
19	Male	28	BA	General Manager’s Assistance – Publication & Art Works
20	Male	5	PhD	High-ranking Official – Minister’s Office

Table 5 Respondents’ profiles as MOI employees

4.6. Document analysis

Document analysis is a means of tracking changes and developments; direct access to documents enables researchers to compare and identify changes, such as alterations to organisational policies and procedures (Kothari, 2004; Braun and Clarke, 2006; Bowen, 2009). Moreover, document analysis can be used to verify findings or evidence from other sources, such as interviews. If, for example, evidence from documents contradicts findings from other methods, the researcher should investigate further (Bowen, 2009; Bryman and Bell, 2011; Owen, 2014). Document analysis can also provide valuable information regarding the sources of knowledge (Bowen, 2009; Bryman and

Bell, 2011; Owen, 2014), and each document must be carefully considered to determine its relevance (Atkinson and Coffey, 2004).

According to Bowen (2009, p.27), ‘Document analysis is a systematic procedure for reviewing or evaluating documents both printed and electronic (computer-based and Internet-transmitted) material’. It involves investigating the contents of books, newspapers, annual reports, mission statements, transcripts, speeches, press releases, advertisements, and public relations material (Labuschagne, 2003; Bowen, 2009). The researcher considered document analysis to be more relevant to the study’s aims than other qualitative methods, such as using photographs, recordings, and field notes: it enabled verification of whether respondents’ personal stories and experiences were supported by other data. Hence, respondents’ views were compared with the eTransformation Plan of the MOI official statement. The many benefits and limitations of using document analysis (Bowen, 2009) are summarised in Tables 5 and 6.

Benefits:

1	Efficient method	Less time-consuming (data selection, not collection)
2	Availability	Through the Internet and public records
3	Cost-impact	Less costly than other methods
4	Lack of obtrusiveness and reactivity	Documents unaffected by research process
5	Stability	Unaffected by researcher’s presence
6	Exactness	Inclusion of exact details
7	Coverage	Covers long period

Table 6 *Benefits of documentation analysis* (Bowen, 2009)

Limitations:

1	Insufficient detail	Documents originally created without research purpose in mind
2	Low retrievability	Possible difficulty in retrieving documents
3	Biased selectivity	Selection of documents may be incomplete

Table 7 *Limitation of document analysis* (Bowen, 2009)

In this study, the MOI’s official eTransformation Plan statement was the main document analysed, as it includes the vision and tasks associated with the implementation in addition to the priorities of the eGovernment transformation strategy, such as developing the technical infrastructure. There was, for example, no policies or procedures document to accompany this. To support the official eTransformation Plan statement, the MOI formed a monitoring committee to assess progress against the plan. The monitoring committee prepared a document in 2012 that comprises approximately 45 pages. It was prepared and written by a group of technical and administrative specialists in the MOI, headed by the Minister (see Appendix 1). The researcher was able to obtain this document from a member of the technical committee.

4.7. Thematic Analysis

Qualitative ‘raw’ data can be presented in various forms; however, it usually consists of verbatim transcripts of interviews or discussion, observational notes, or written documents (Kothari, 2004). Regardless of the form, the most important aspect is the material, which should be rich and provide adequate details (Kothari, 2004). As Braun and Clarke (2006, p.7) note, ‘analysis is exciting because you discover themes and concepts embedded throughout your interviews’.

Thematic analysis is widely used as a qualitative analytic method, providing an easily interpreted form of analysis, particularly for inexperienced qualitative researchers (Braun and Clarke, 2006). Charmaz and Mitchell (2001) explain coding as the ‘critical link’ between data

collection and its meaning. A code in qualitative research is often a word or short expression that metaphorically assigned to interview records, participant observation field notes, journals, reports, and other written information (Charmaz and Mitchell, 2001).

As several studies have mentioned (Basit, 2003; Thomas, 2011a), manual coding in qualitative data analysis should be performed on paper using multi-coloured pens. Usually, if a relatively small amount of data is collected, a hard copy of the data could be listed and formatted using essential Microsoft Word processing software. In conventional pen-and-paper processes, qualitative coding is performed manually by physically writing the code in the margins of the document, alongside the text it represents. In the above situation, there is no wrong or right way to code qualitative data; codes can be researcher-denoted and in vivo (emerging during the analysis) or be derived from earlier established constructs. With this approach, codes are usually denoted by letters. Because this study collected sizeable sets of qualitative information from the interviews and analysed documents, examining response patterns within these data required the adoption of thematic analysis (Fouka and Mantzorou, 2011; Baralt, 2012; Saldaña, 2015).

The approach suggested by Braun and Clarke (2006) was adopted in this study, as it offers a sequential series of six clear phases and ensures researcher bias is minimalised. These phases are explained in Table 7.

Phase	Description of the process of analysing the interview responses and official documents
Phase 1: Be familiar with the data	All interviews were conducted and transcribed in Arabic, then translated into English. Notes and comments were then added to the transcripts. To ensure

	<p>familiarity with the data, the researcher read the interview transcripts and transformation plan several times, which helped in categorising and labelling the data. Respondents were identified in the analysis by an alphanumeric reference derived from the order in which they were interviewed. For example, the first respondent was referred to as R1. This was done to ensure the privacy and anonymity of each respondent (see Appendices 5 and 6). These data were combined with that derived from analysing the interview responses.</p>
<p>Phase 2: Generating initial codes</p>	<p>The codes were generated manually by colour-coding with highlighters. The repeated points in all respondents' answers were coded using a yellow highlighter. Each respondent's identity (R1, R2, etc.) was individually colour-coded in the documents to facilitate referring to them. The colour-coding also served to distinguish between respondents' answers in the Generated Themes table (see Appendix 8).</p>
<p>Phase 3: Searching for themes</p>	<p>The extracts from responses and documents identified in the previous steps were clustered into themes. The researcher used visual representations such as tables</p>

	and mind maps to organise the codes into themes and show the links between them.
Phase 4: Reviewing themes	Themes were reviewed to verify their coherence with the extracts. The researcher noticed that the responses of some respondents were coherent, and themes began to emerge from the data, such as the internal communication system tools and hierarchal structure.
Phase 5: Defining and naming themes	The researcher named the final themes that emerged from the research questions, literature review, and interview transcripts and etransformation plan. General themes and sub-themes were generated from interview analysis. The sub-themes were developed to provide structure to the general themes and give meaning to the data. For example, the researcher developed several unique themes that helped to address RQ1: one generated theme was ‘internal organisational communications’, for which the general theme was ‘communication tools’, and further sub-themes were the ‘MOI portal’ and ‘face-to-face’.
Phase 6: Producing the report	The findings are based on the themes created from the interview transcripts and etransformation plan. The findings are the culmination of using the data extracts

	to form a comprehensible, brief, and logical narrative, based upon pertinent themes.
--	--

Table 8 *Braun and Clarke's six steps applied to the research (2006, pp.35-36)*

In this study, analyses of the interviews and documents were conducted separately. The themes were then compared and re-evaluated across the data sources in order to reduce bias to develop a final, complete set of themes that encapsulated the entire data set. Analysis of the interviews was a demanding process involving several rigorous stages, as outlined in Table 7. The researcher preferred to colour-code with different highlighters to facilitate coding decisions. Researcher's recognition of the advantageous of the manual and electronic tools in qualitative data is imperative. The researcher used a manual approach rather than analytical software such as NVivo because a main drawback of using electronic methods is that the researcher can become removed from the data and fail to see connections. Additionally, the software is not suitable for adopting validity and reliability issues that might emerge in the thematic ideas while analyzing the data, this is mainly due to the creative compositions of these themes. Also, when relating the themes to other thoughts, for instance the memos. memos and coded data together create the themes to have nodes that can summaries the broad view and interrelations of the codes at a glance as it is difficult to demonstrate the whole model on screen at once (Welsh,2002).

This manual process involved placing all data coded as 'negotiation for meaning' in a table and then revising and re-reading those data to ensure accuracy (Basit, 2003; Baralt, 2012; Saldaña, 2015). A beneficial rule of thumb is to always step back after each sequence of coding and write about how a concept is emerging. This further assists in refining and restructuring the coding schema. Although analysis software offers potent tools to researchers, the human mind is what

motivates coding patterns and interpretation. Moreover, Basit (2003) observes that personal experiences between manual and electronic coding are subject to the size of the project, the funds and time available, and the researchers' capability and expertise (Basit, 2003).

4.8. Reliability and validity

Data reliability and validity are both considered when planning, analysing, and judging the quality of a qualitative study (Bryman and Bell, 2011, p.47). For qualitative research, Stenbacka (2001) defines reliability as a way of evaluating the knowledge, while validity refers to the appropriateness of the methods, procedures, and data collected, and whether the final outcomes address the research objectives (Waterman, 2013). It is critical for research to meet the criteria of validity and reliability (Petrić and Czárí, 2003). The core question for qualitative research is not whether the results are similar, but whether they are consistent with how the data are collected and analysed.

To improve and ensure the validity, consistency, and clarity of this study, the researcher arranged for the interview questions to be peer reviewed. To illustrate, the interview questions were sent for review to three official members of public-sector entities in the Sultanate of Oman, two of whom were also employees of Sultan Qaboos University.

Apart from identifying the need for some minor changes, the feedback was positive and suggested that the interview questions were clear and suitable. Lincoln and Guba (1985) refer to such sharing as 'member-checking' and indicate that this contributes to a study's trustworthiness and credibility (Lincoln and Guba, 1985). The researcher also implemented several other practices to address reliability and validity, such as preparing a clear interview guide that was consistently used in all interviews, maintaining high-quality data by audio-recording the interviews, and taking notes during the interviews (Corbin and Strauss, 2014). To enhance reliability and validity, every

interview followed the same set of questions, with the exception of some probing, as recommended by Braun and Clarke (2006). In addition, since the interviews were conducted in Arabic, the researcher sent the transcripts to a colleague at Sultan Qaboos University, who checked the accuracy of the English translations.

4.9. Ethical Considerations

Research ethics is a branch of applied ethics that establishes rules and standards for researcher conduct (Neuman, 2014). Research ethics provide guidelines on how researchers should preserve the dignity of their subjects and demonstrate integrity when researching (Fouka and Mantzorou, 2011). It is, therefore, important to consider research ethics before beginning any type of data collection in order to protect both the researcher and respondents (Neuman, 2014). To urge respondents to provide honest accounts of their experiences during interviews, they should not, for instance, be pressured and must be guaranteed full confidentiality for their answers. The answers provided must not be misinterpreted by the researcher, nor exploited after the course of the research for purposes other than the stated research purposes (Salant et al., 1994).

An interview consent form was developed by the researcher and an official letter was received by the researcher from Nottingham Trent University. These were issued to the employees of the MOI prior to collecting any data. This was done to ensure that the MOI employees understood the research objectives. Interviewees were provided with information on the study and the interview process, including its benefits and risks. It was important to gain explicit permission to record the interviews, and the consent form that respondents signed informed them that they could opt out of the interview and withdraw from the research after two weeks from the interviews date (Bryman and Bell, 2011; Fisher et al, 2010; Silverman, 2013). In addition, the anonymity of

all interviewees was assured. As Fisher et al. (2010) state, ‘no one should be a participant or a source of information in a research project unless they have agreed to be so on the basis of a complete understanding of what their participation will involve and the purpose and use of the research’ (Fisher et al., 2010, p.75). No monetary incentives were provided for participation, though the researcher has guaranteed that a condensed version of the final study will be shared with all those who contributed. Furthermore, the consent form guarantees that the findings cannot be exploited in any manner beyond academic purposes, thus protecting the data, which will be deleted after the study’s completion. The study also received ethical approval from Nottingham Trent University.

In summary, this chapter explained the interpretive and qualitative approach adopted by the researcher to address the research objectives. The study collected and analysed data from 20 interviewed respondents and relevant documents from the MOI. Braun and Clarke’s (2006) six steps were adopted for data analysis. The next chapter will present the findings that emerged from thematic analysis.

Chapter 5. Findings

The findings have been organised around four main themes. These themes have emerged from the coding and thematic data analysis of all of the interviews and documentary evidence in line with the interpretivist philosophical position. These themes have also been informed by the research questions, as these questions need to be addressed by the study. The first general theme, concerning factors influencing internal communication impact, was communication tools; the generated theme was the MOI's organisational hierarchy, and the sub-themes were the MOI portal, face-to-face, and the role and task of the employees. The second general theme was the impact of the eGovernment Transformation Plan; the generated theme was the impact of the electronic system, and the sub-themes were paperless communication, improving work speed, feedback, and transparency, and crediting employees by recognising their work.

The third general theme was the challenges of the internal communication system; the generated theme was employee acceptance of the electronic system, and the sub-themes were fear and resistance, infrastructure and system limitations. Finally, the fourth general theme was related to workplace improvements; its sub-themes were gender relations and employee appreciation and satisfaction.

5.1. Factors Influencing Internal Communication Impact

The main factors that influence internal communication impact were linked to respondents' preferences for certain communication tools and their perceptions of the MOI's administrative hierarchy. The sub-themes of the communication tools theme were the MOI portal, face-to-face communication, and the role and task of the employees. The MOI portal hosts the email correspondence system and is titled 'Maktaby' (an Arabic word meaning 'My Office'). It is

accessed via the web and can also be installed on smartphones to allow employees to access work systems even when they are off-site (see Figures 7 and 8).

Regarding the generated theme of the MOI's administrative hierarchy, the findings indicate that internal communications were influenced by the directional flow of communication between employees, which reflected their job role. These factors are explored in more detail in the following subsections.

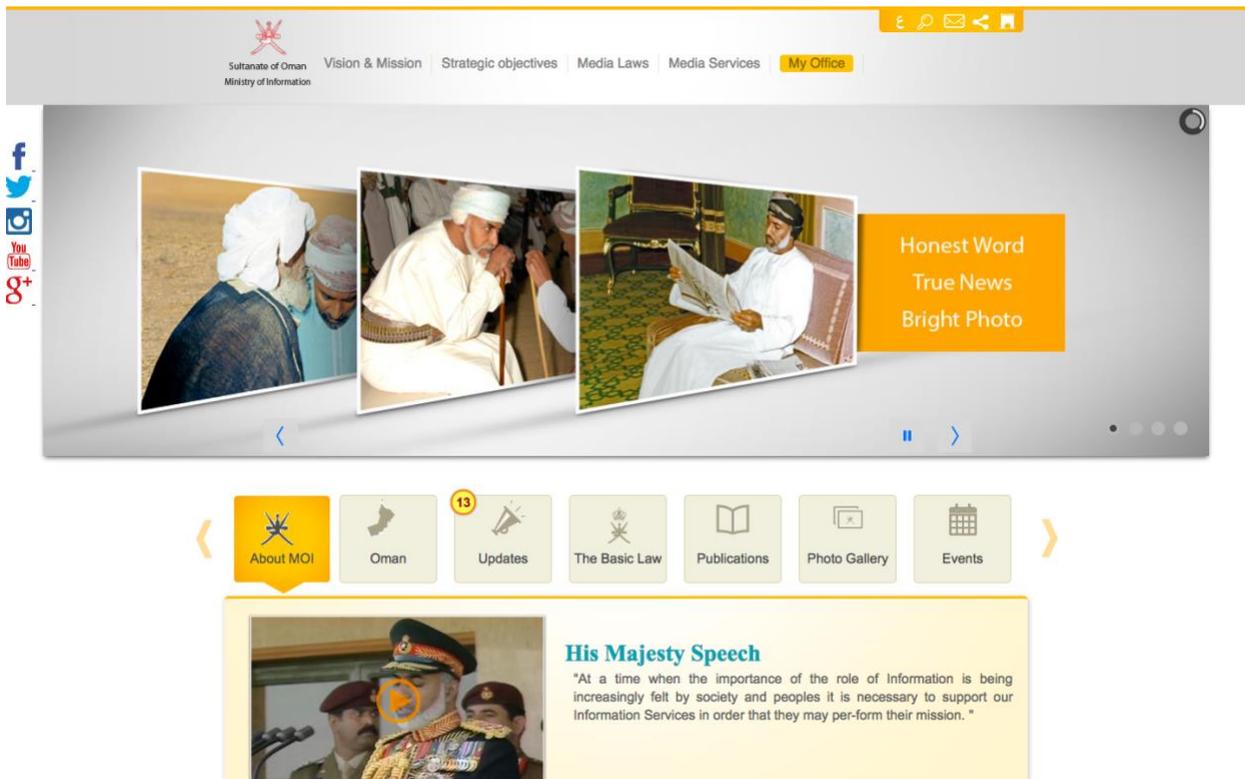


Figure 7 MOI Portal Website page, featuring the 'My Office' icon on the right side of the banner

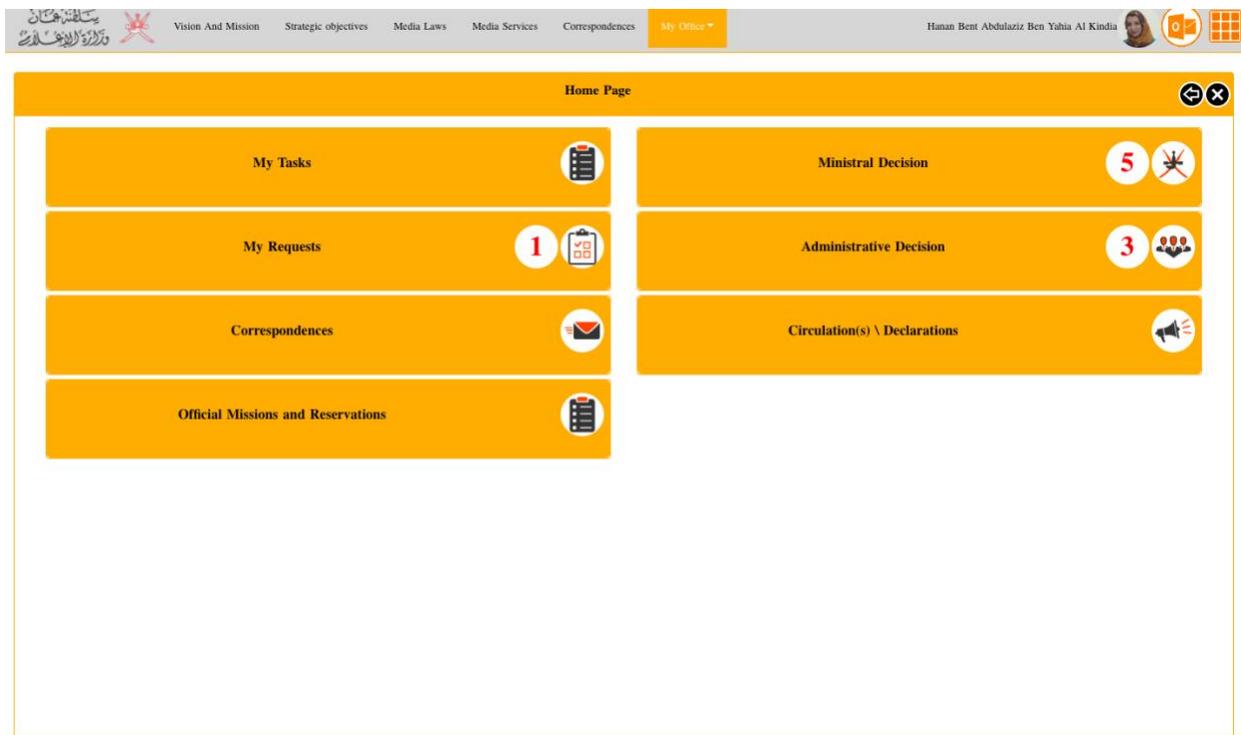


Figure 8 'My Office' contents, including the correspondence email system. From the MOI Portal Website.

5.1.1. Communication Tools

1-MOI Portal

All 20 interviewees conveyed that the MOI portal was the most widely used communication tool. Respondents agreed that the eGovernment Transformation Plan and subsequent development of the MOI portal were both necessary to improve the internal communication system in the MOI. The MOI website allows internal and external communication. It is a secured website that MOI employees can only access with a personal login and password to use the internal communication system option and communicate internally. It has several features, such as administrative circulars, details of official missions, employee management, job management, and attendance records. In addition, this system enables staff to access their desktop, files, tasks, administrative decisions,

and correspondence email system, which are all included in Maktaby (My Office). Moreover, all respondents mentioned that the MOI provided each employee with a desktop computer to access the system in the workplace. Reflecting on this new way of working, R15 said: *'I communicate now using the electronic system and it is one of the best communication methods. I can communicate via messaging and My Office for administrative and financial aspects.'* Similarly, R12 said: *'The most important tools used to communicate internally are through the correspondence system'*.

Respondents particularly praised the Maktaby (My Office) application installed on staff phones, which allows employees to access the internal communication system from any location. Previously they could only communicate electronically within the office. Some respondents also noted that the MOI portal had changed how staff communicate internally, as all employees now have 24/7 access via the Maktaby (My Office) application. As R16 and R5 respectively observed: *'the communication is 95% via the electronic system'* and *'All devices including computers, iPads, or phones are connected to the Internet, so I can work from any place'*. In conclusion, all 20 respondents agreed that the MOI portal was the most utilised communication tool. However, as explored in the next sub-theme, face-to-face communication was still considered necessary in certain situations in the workplace.

2-Face-to-face

The researcher found that, despite the MOI portal becoming the primary way to communicate internally, all 20 respondents still preferred face-to-face communication as a means to gain further confirmation and clarity that illustrates the significance of face-to-face communication. For instance, R6 explained how face-to-face communication could complement electronic methods of

communication: *'I speak to people face-to-face before I send an electronic memo so that there is no misunderstanding. The more clarifications I provide, the easier it is to prevent problems.'*

Face-to-face communication was used by employees to validate and ensure that instructions in their emails were comprehensible. It was also considered useful to avoid confusion and build personal connections in the workplace. As R14 explained: *'when I have an employee who comes late, I do not directly send out a memo via the system. First, I speak to the person face-to-face to give them the chance to explain the reason for their delay. This is a more personal and humane approach which helps to support relationships.'* This example revealed how the cultural concept impacts the workplace, despite the advanced communication tools.

By contrast, R10 pointed out that work interactions had changed as a result of the portal and electronic communications but not necessarily for the better. *'The electronic system changed the relationships among employees'*, R10 said. *'Every employee works alone on the computer and I think that this has negatively affected relations and communication. We used to meet every day but now, two or more weeks pass without meeting.'* R17 also mentioned that the electronic system had reduced face-to-face communication: *'using the correspondence system has limited human communication face-to-face between the staff [...] sometimes I do not see a colleague for weeks'*. In contrast, others felt that fewer interactions could be viewed positively. As R14 stated, *'I think using electronic communication can have a positive side because sometimes time is wasted on unnecessary side conversations'*.

Overall, it was found that face-to-face communications could strengthen the relationships between employees, yet this verbal interaction could not be used formally. This is possibly because verbal communication can be misinterpreted, forgotten, and not documented, whereas written communication via Maktaby (My Office) is always documented and retrievable. Therefore,

recorded correspondence via emails is essential. R1 explained that *'the most effective communication method between me and my colleagues is face-to-face. As you may have noticed, our offices are open plan, so communication with my colleagues is direct. On the other hand, we want our work to be documented and recorded so we use the electronic correspondence system instead'*.

In summary, the respondents used both electronic and non-electronic methods to communicate internally. All of the respondents stated that they prefer to interact with each other directly (face-to-face) to strengthen and build positive workplace relationships. Even though the use of the correspondence email system may limit the interaction between employees, it enables them to document their work progress and save their emails for future retrieval. This point will be discussed in detail in section 5.2 regarding the fourth sub-theme of transparency and crediting and recognising employee work.

5.1.2. MOI Organisational Hierarchy

Another important theme to emerge was how respondents respected the organisational hierarchy when communicating internally, the sub-themes of which were role and task. All the respondents recognised that they had to communicate in accordance with the norms of the organisational hierarchy system as applicable to their role, as illustrated by the organisational chart (figure 6). In part, this was because the MOI portal only allows communication between employees depending on their hierarchy position. R15 and R8 explained that the MOI portal was based on the organisational hierarchy, which prevented them bypassing their manager to communicate directly with other staff. According to R15, *'The correspondence system is organised and systematic, so that it follows the administrative structure and does not allow employees to bypass their direct manager. I find this important to our work, so that errors do not occur.'* Relatedly, R8 stated, *'I*

do not communicate directly with other departments - I send my messages to my manager, and he is the one that communicates with them across the system according to the hierarchy. I cannot bypass this order'.

The respondents, therefore, asserted that it is essential to respect the organisational hierarchy and not bypass their managers. This is due to the organisational culture in Oman, which affects how people interact with one another. As mentioned in the literature review, the government uses this organisational structure and management system (based on top-down hierarchy) to govern and regulate the public sector. For instance, R14 clearly expressed that he does not need to communicate with any level higher than his direct managers: *'Certainly, I believe in a hierarchical communication system for employees, it is effective. It has established a base of communication that cannot be bypassed'*. He added: *'With higher levels, there is no connection except through the hierarchy. I do not need to go beyond my direct managers'*.

However, employees such as those working in finance and IT, could communicate with everyone; these people were exceptions. The organisational hierarchy impacted the direction of communication, which can be directed in both top-down or bottom-up within the MOI portal. For example, employees in the external media and finance departments could disregard the hierarchy by communicating directly with high officials, especially when immediate action is required, using either Maktaby or Microsoft email depending on their role and task.

1-Role and Task of the employees

The thematic analysis found that the role of the employee, that is their job/position in the organisation and the task that they were undertaking as part of that role, impacted upon internal communications. Respondents reported using two distinct systems for internal electronic communication. As mentioned earlier, the first was the portal's correspondence system, which

allows employees to communicate only with others within the same hierarchical level and their direct managers. The second system used was Microsoft Outlook, which allowed employees to disregard the hierarchy by contacting anyone either internally or externally. Through Outlook email, employees could communicate to send suggestions or emails with specific issues -related to work matter, particularly those in departments such as E-Media, External Media, Finance, and IT, despite their hierarchy level.

Respondents expressed their respect for the organisational hierarchy governing internal communication through the portal, some respondents said they could use Microsoft Outlook as related to their work role and the task in the MOI. R1 declared, '*As I work in the E-Media Department, I can communicate using Outlook with all the MOI employees up to the Minister*'. R3, another E-Media Department employee, stated the following:

The (official) system of communication depends on the administrative structure so I cannot bypass the manager. However, because of my role in the department I have the other system (Outlook emails) through which I can communicate with any employee. Especially if they faced any obstacles within the electronic system in the ministry, part of my duty is to solve it, so it is an open direction of communication, even with the Minister.

Besides the organisational hierarchy, internal communications were also found to be influenced by the task of the correspondence. For instance, the General Directorate of Finance, the General Directorate of External Media, and the Department of Public Relations, deal with external entities, hence they bypass the hierarchy due to instant act. As R5 explained, '*I communicate directly with my colleagues via Outlook email. This is because my work is related to foreign countries outside the Sultanate, so I rely on Outlook. My colleagues and I have the same password, and we communicate with the same email.*'

R5 commented on external correspondence as follows:

The direction of communication is from the bottom-up and horizontal in the sense that it is interactive. For example, I deal with overseas correspondents who send messages to me via Outlook email. I then send it to my direct supervisor, who in turn sends it to the higher authorities for approval.

[...]

it depends on the subject or task. I also communicate via Outlook for administrative and financial aspects with different departments depending on my task of work.

5.2. eGovernment Transformation Plan

This section will explore the specific influence of the MOI's official eTransformation Plan statement on internal communications. The key sub-themes relate to paperless communication, speed of work, feedback, transparency, infrastructure, and staff.

5.2.1. Impact of Electronic System

1-Paperless Communication

One of the MOI's official eTransformation Plan statement visions was to shift from traditional (paper-based) communications to electronic communications. Respondents have agreed to, and adopted, the concept of paperless communication using the electronic system. For example, R13 stated: *'I communicate with my colleagues using the electronic system. Before, we used paper. Right now, I communicate widely using the system'*. As a result of the shift to paperless communication, *'financial and consumer expenses have greatly reduced'* (R15). It is important to note that this shift would not have happened had the order not come from the Minister himself. As R7 reported: *'On 1 June 2014 during its official introduction, the Minister of Information stated*

that paper should not be used anymore and that there should be no return to the traditional system, so all correspondence will be electronic through the MOI portal system’.

2-Improving Work Speed

As noted in section 2.4.3, by utilising advances in ICT, administrative procedures can be simplified and more easily modified, and the speed and flow of information between manager and employees, as well as between staff, can be improved (Castells, 1996; Baker, 2002; Qaisar and Khan, 2010; Mortezaei, 2012). R6 asserted that the move to electronic communication had helped him to track progress and workflow accurately and had prevented delays in task completion: *‘Within the departments, I think it is better through the electronic system because the system shows the path of the message such as who received it and whether it was followed up or implemented on the system. Its path is tracked with all the steps from all parties so there is no chance for any excuses’.* R4 also explained that *‘If a message is sent to any colleague who then does not respond to me, a red sign will appear after three days. If he or she does not reply, I will call them to get a response’.*

As well as preventing delays, communicating electronically can potentially enhance productivity by accelerating employee responses to requests. R4 declared, *‘the correspondence system has had a positive impact on daily routines. Now, we do not wait for days to get a response; it has made communication faster’.* Furthermore, R10 claimed that communication delays had become rare at work: *‘The electronic system has had an effect on the routine. I can say that we hardly hear of any delays because the system is fast and available all the time. Even when you are home, you can follow your work through your phone and with a push of a button you can finish your business’.* Similarly, R6 noted that staff could not deny responsibility if workflow had been delayed: *‘through the electronic system, correspondence is tracked, showing all the steps from all the parties, so there is no chance for any excuse, which has improved work habits’.* Overall, the

respondents expressed their pleasure that the electronic system had led to faster communication flows.

In contrast, respondents mentioned that despite the electronic system introducing improvements in response to speed and daily routines (work progress), face-to-face contact remained important. As they explained that they are still relying on direct interaction with colleagues. For example, as some emails were still ignored, the sender would need to remind the receiver to take action. It is not clear why emails were ignored but this could be due to factors such as too many emails or the request not being important to the receiver. So, despite tracking delays, the system itself could not force colleagues to act or respond. As R5 stated, *'Using the correspondence email system has not changed anything because when I send a message through the system, I also have to contact the person to make sure he or she has read the correspondence email'*. Similarly, R12 explained that the electronic system *'has affected the daily routine and made work patterns more effective. However, we cannot do it without face-to-face meetings as I think they are necessary. Optimisation exists in the electronic system, but the human aspect is indispensable.'* These comments highlight the importance of face-to-face communication in the internal communication system, as discussed in section 2.3.1.

3-Feedback

The interviews revealed that the electronic system as well as face-to-face communication enabled users to provide feedback. For example, if an employee sent a memo to a department manager, the system enabled the sender to specify the time/date by which he/she needed to receive feedback. Respondents exhibited divergent perspectives regarding electronic feedback. Those in the E-Media Directorate felt they did not need electronic feedback because they mostly received feedback face-to-face. As R1 explained,

[f]or me and my communication with the general manager, I do not need feedback. For example, as you noticed, our offices are open and any comment about work, I get it directly from my general manager. I also offer direct feedback to my colleagues. Dialogue is always open and feedback is always direct between the general manager, myself, and the employees. Usually feedback is face-to-face.

Open plan offices, therefore, allow greater feedback and support face-to-face communications. Other respondents did not want to give or receive feedback in order to avoid any possible tension arising between them and other employees. As R12 said, *'I do not provide feedback to employees but that does not mean I do not do my job. Feedback is guidance and sometimes the employee understands it negatively and considers it a criticism'*. Their reluctance might be due to feedback not being anonymous, which can cause friction between employees. Additionally, respondents reported that the ability to communicate electronically was limited to the respondent's position in the organisational hierarchy. For example, R6 reported: *'It is unusual for feedback to be sent immediately. Because the issue is often linked to bureaucracy, the response goes from one official to another along the administrative hierarchy and we do not get the feedback directly. Getting feedback is only available through the electronic system in this case'*.

Although most respondents did not object to the hierarchal structure as discussed earlier, it was found that at higher levels in the hierarchy, feedback delivery may be slower despite the shift to electronic communication. While receiving feedback from colleagues at the same level was regarded as a positive aspect of the electronic system, not all respondents shared the same opinion, as some struggled to obtain feedback from staff at different hierarchal levels or in different departments. This, again, might be influenced by Omani culture. For example, employees could easily track and follow up on matters with colleagues on the same level, but lower-level employees

could not chase higher-level employees, such as senior managers and above, due to the need to respect hierarchical structures; consequently, feedback delays occur.

4-Transparency and Crediting Employee Work

Another sub-theme was the increase in transparency since the correspondence email system was introduced, which includes recognising individual contributions. Many respondents eagerly described how the electronic system had stopped exploitation in terms of work distribution and tracking and, most importantly, was fairer than the paper-based system in acknowledging the good (or poor) work of individual staff. Under the traditional (paper-based) system, credit for work was often not given or lacking in transparency.

On this matter, R12 declared that *‘the electronic system allows the employee to follow what he or she contributes through the tracking system. Here, it is clear and transparent what the employees have done.’* In the same respect, R13 explained that the move to electronic communications as part of the eGovernment strategy had made open and honest communication the norm: *‘As an internal method of communicating, the eGovernment system has simplified the work function process and given us more confidence by tracking memos that we send out. Transparency has become a reality’*. Similarly, R2 added that there is now *‘more security for us through the documentation of our activity as a result of tracking the correspondence’*. Providing a specific example, R4 explained: *‘In the past, before electronic communication, we had expenses claims related to our allowances at work, and because the system was paper-based, we did not always retain copies of some memos, which led to non-payment; now, with the electronic system, transparency is achieved’*. The electronic communication system has, therefore, helped to guarantee that all employees receive credit for their work since all correspondence is documented.

5.3. Challenges for the Internal Communication System

Despite the overall positive impact of the eGovernment strategy on the internal communication system, some respondents reported implementation challenges. Respondents who had worked at the MOI for a long time were less enthusiastic about the new system than those six who were recent graduates and newly enrolled in the workplace. This was perhaps because younger staff members are more accustomed to working with electronic communications, and are therefore more willing to accept technological change. Some other challenges reported by respondents concerned the IT infrastructure and system limitations, with respect to archiving documents and network services.

5.3.1. Employee Acceptance of the Electronic System

1-Fear and resistance

Several respondents mentioned instances of resistance to the changes being implemented due to some employees' preference for traditional paper-based and face-to-face communication, and their refusal to change how they correspond. Specifically, R13 said that *'[t]he greatest challenge has been the lack of computer use knowledge. It is one of the biggest problems experienced by some of the employees. The other challenge was with those who did not accept the use of the eGovernment system due to their preference for communicating in person'*. R3 added, *'When the employee has no background and skills in using computers, he or she needs training regardless of whether the employee has worked here for a long time or is a new employee with no experience'*.

This issue has also been asserted in several previous studies in the Gulf, especially in Saudi Arabia and Qatar, which recognised that eGovernment represents a substantial change to which resistance by some senior officials is feasible. These studies suggested that the implementation of eGovernment requires a shift from leadership by control to a flexible administration based on inter-

departmental teamwork and coordination (Al-Shehry et al., 2006; Al-Shafi and Weerakkody, 2010).

Another interesting point was raised by R18, a senior employee with more than 35 years of experience at the MOI: - *'[I]f it is necessary to deal with the new electronic system, I ask my secretary to respond on behalf of me, because I have bigger responsibility to take care of instead of communicating through the internal communication system'*. However, this might be pertinent to the cultural effect of the workplace environment, as senior employees are sometimes resistant not to the system itself, but rather, to the perceived risk it poses of diminishing the authority, prestige, and power of their job status in the workplace. Besides, the lack of skills required to effectively use new technologies might cause anxiety, which manifests in heightened resistance.

R20, a senior manager, reported experiencing significant resistance to change from his staff, which he had tried to address through persistence and committing to a plan for implementing the Transformation Plan. As he explained: -

The most challenging aspect is dealing with the passive or discouraged staff who are not receptive to new methods. Those employees, who have spent more than twenty years working here and can't handle the electronic system, have been more challenging in getting them to accept or apply the idea of digital transformation. They would refuse to admit that they couldn't use the system and also report problems with it that they cannot explain. There were others who hung up on us by phone and refused to participate, though we were more patient and tolerant with them.

Attempts to overcome this resistance have focused on staff development via training, and R12 explained how the training was conducted: -

An employee was selected from each department to take an intensive course and then they were used to train the rest of the staff in the departments. This method was effective if the selected employee had experience and knowledge. For example, there are people who are considered older and have difficulty dealing with the system and there was resistance from them because they could not use the computer.

Further problems were highlighted by R6: *'In my opinion, the training was weak because the training was for only one day'*. This may reflect the limited budget assigned for training under the MOI's official eTransformation Plan statement: *'Due to the weak budget for training in the ministry and a lack of financial resources to bear the costs of the digital transformation, there is a lack of training programmes in the technical field and electronic media for the OMI staff,'* (MOI, 2012).

2-Infrastructure and System Limitations

Respondents were satisfied with the internal electronic communication system. However, some highlighted infrastructure issues, such as problems with the internet connection in Oman, which are beyond the MOI's control. This particular factor was also noted as an obstacle in the MOI Transformation Plan; challenges mentioned included a *'lack of infrastructure, given the transfer of all devices (servers, systems) to the General Authority for Radio and Television, and the transfer of the ministry to a rented building'* (MOI, 2012, p.11).

R8 reported having problems connecting to the Internet: *'The challenges relate to the infrastructure of the Internet. The MOI system must take into account the fact that the public internet network system is weak and needs to be strengthened.'* In the same respect, R2 mentioned that *'Sometimes, a challenge of the electronic system has to do with the slow network connection and the breaking down of the online system that we use. The truth is we face this problem when*

we are outside the ministry buildings too.' Respondent 18 explained that while the MOI had moved to electronic communications, other similar ministries in the Omani government had not. Although information could still be transferred between ministries but the MOI would have to scan and file items. In combination with internet connectivity problems, this meant that staff had difficulty communicating with other external organisations, making it hard to exchange information, respond to requests, and retrieve archive information.

R18 explained the situation in detail:

I am now a member of external committees with other Gulf - Arab - Islamic countries and work with them for long periods. All the reports of these committees are on paper and so far, there is no way to document them electronically. We have ministerial conferences where a huge number of decisions are made, all documented on paper, but how can I archive them electronically every year and keep them in order and ensure they are all linked to one another? When I attend any meetings, I have to go back to previous topics, but I cannot do this easily because they are not archived electronically. We need to coordinate with other organisations regarding this matter.

Interestingly, the MOI's eTransformation Plan states that 'the electronic archive system must store and protect all work documents' (MOI, 2012). However, as R18 highlighted, this was impossible when other ministries were not using the same system. This suggests the need for coordinated activity across the Omani government, particularly involving the National Records & Archives Authority.

In summary, respondents identified several challenges to implementing the eTransformation Plan in the MOI that impacted internal communications, such as infrastructure limitations and

resistance from some senior employees. The next section will assess improvements in the workplace resulting from the adoption of eGovernment.

5.4. Improvements in the Workplace

1-Gender Relations

The findings suggest that the electronic system erased many of the social boundaries and norms within Omani society regarding male–female interactions. Omani women have traditionally preferred to work in an environment managed by other women, as this made them feel more comfortable and confident. For example, most women acquired jobs in the teaching profession, where male and female schools were segregated and male–female interactions were limited. However, notwithstanding the structural issues associated with the systems and technology, electronic communication in the MOI facilitated freedom of communication between both genders. R8 (male) explained that *‘The electronic system helps to communicate directly with any colleague - male or female. The system is just a series of memos exchanged between the sender and receiver, regardless of gender. There is no difference.’*

Furthermore, the move to eGovernment led to changes in relationships in terms of when and where it was acceptable to call and follow up on work-related matters between men and women. In most cases, the communication behaviour experienced a positive shift, allowing some women to work from home which they appeared to prefer. As R1 (female) explained:

The general work environment encourages work and cooperation between both genders. I am a woman who is responsible for male and female employees and there is nothing wrong with this aspect. I sometimes work later, though because of the electronic system, I work at home rather than the office. This makes things easier. Communication now, between my colleagues, does not make anyone uncomfortable, even if it is in the evening.

Because as long as it is work-related or an emergency that requires immediate responses by phone, then it is okay for me to communicate with male colleagues in the evening as it is not face-to-face. The electronic system has affected the work culture positively - even those on vacation or based remotely can accomplish their tasks. Three years ago, before the eGovernment strategy, this was not possible.

R10 (male) also mentioned that some employees may feel uncomfortable when dealing face-to-face with the opposite gender, which is somewhat overcome using the electronic system: *'So the electronic system encourages communication between men and women. If the woman is uncomfortable to communicate face-to-face, then the electronic system makes it easier to do this.'* In sum, the internal electronic communication system improved gender relations as it enabled more comfortable interaction among the MOI staff.

2-Employee Appreciation and Satisfaction

The move to electronic communications has yielded several benefits, yet respondents offered varying opinions regarding appreciation and satisfaction. Although most respondents referred to a more general sense of satisfaction and appreciation, the quotes examined in this section focused specifically on employee satisfaction in relation to the internal communication system. As R7 said, *'Ten years ago, I was satisfied. Now, after about 14 years of work and with the eGovernment Transformation Plan, I find myself even more satisfied with my work. Now, I can even work from home'*. This implies his additional work satisfaction could be a result of better working arrangements facilitated by the move to electronic communication. R8 commented on how the electronic system affected the organisational culture: *'Right now [referring to the adoption of eGovernment], the administration has changed considerably for the better and with more ambition'*.

Respondents who were satisfied with their communication with officials, with whom they were able to freely interact. However, these respondents were all managers, thus reinforcing the earlier discussion of themes related to the hierarchical structure and employee roles. R15, a manager in the MOI, observed that *‘The working environment has changed with the electronic system, the interaction increased and dealing with: officials became more direct with the system’*. Similarly, Respondent 12 declared, *‘I have a great satisfaction, as I told you, when there is dialogue and communication between the employee and the official – from the minister to the undersecretary and direct manager. This environment is good and productive.’*

In summary, the themes that emerged from the interviews and analysed documentation concerned four main issues: 1) factors influencing internal communication impact; 2) the impact of the eGovernment Transformation Plan; 3) challenges for the internal communication system; and 4) improvements in the workplace. Generated themes and sub-themes of the factors influencing the internal communication system included the communication tools, respondents’ preference for email correspondence through the MOI portal, face-to-face meetings, and applications such as Maktaby (My Office) accessible via cellular phones. However, these types of interactions were affected by the organisational hierarchy and Omani culture. The hierarchical structure also played a vital role in regulating communication flows across levels and in different directions, including the roles and tasks of the employees.

The MOI’s eTransformation Plan statement has outlined several goals, including ministries moving to paperless communication through internal electronic communication systems. The findings suggest that this has largely been achieved in the MOI, leading to improved efficiency and workflow processes. Nonetheless, some respondents explained that they still rely on direct interaction with colleagues since emails are sometimes ignored. As such, the sender must remind

the receiver to take action. These issues may affect the feedback process and outcomes. Nevertheless, the electronic communication system has helped to reduce paperwork and enhanced the level of transparency and credibility of employees in recognition of employees' contributions.

Despite the positive impact of the MOI's official eTransformation plan on the internal communication system, respondents reported several challenges associated with the IT infrastructure and system limitations with respect to archiving documents and network services. However, these infrastructure limitations are beyond the direct control of the MOI and need to be tackled by the Omani government as a whole. Fear and resistance towards the move to electronic communication system was expressed by some respondents who had worked in the MOI for a long time. Respondents also agreed that the work environment had changed considerably as a result of the eTransformation Plan. In particular, it had enhanced communications between male and female staff.

Chapter 6. Discussion and Conclusion

The previous chapter presented the findings from analysing the semi-structured interviews and documents concerning the impact of the MOI's internal communication system set against the adoption of eGovernment. In this chapter, the researcher will further discuss the findings and their implications for theory and practice. Additionally, the three research questions presented at the start of this thesis are listed once more, followed by a discussion of each solution. The central themes to emerge from the data, which have allowed us to answer the research questions, include the factors influencing internal communication impact, the impact of the eGovernment Transformation Plan, the challenges of the internal communication system, and improvements in the workplace.

RQ1 What factors impact internal communications among organisational levels within the Ministry of Information in Oman and how they influence internal communication?

Communication is the transfer of information from one person to another and is a way of reaching others by transmitting ideas, feelings, thoughts, facts, and values (Littlejohn and Foss, 2008). The results presented herein may overlap due to the interconnectivity of the factors affecting communication, the tools of communication used, and the directions of communication within the organization. According to the findings, two factors influenced the impact of internal communication in the MOI. First, interviewees referred to the tools of communication, including mobile phones and iPads, and how important it was to use them to communicate across all employee levels. The most common communication tools were the MOI portal and face-to-face interactions. The second factor influencing the impact of internal communication was the structure of the hierarchal system and its relation to the role of the employees and the nature of the email

correspondence. These were the most important findings with respect to the first research question, and they will be discussed in greater detail in this section.

The MOI portal has generally proved to be efficient and has changed how employees communicate internally. The 20 respondents confirmed that they communicate internally via the MOI portal, as it has played an essential role in facilitating remote communication between organisational employees through smartphones and other devices. Also, it has improved the speed of communication in some cases, which was mentioned by some as essential in preventing delays; this has led to enhanced productivity by fast-tracking employee email responses. However, the speed of responses was affected by other elements, such as non-responses and the need to follow up things face-to-face, that will be explained later.

These findings are consistent with prior studies' recognition that using technological communication tools allows organisational members to always be accessible, regardless of location and time, and potentially increasing work efficiency by reducing the time taken to complete work requirements (Qaisar and Khan, 2010; Hodges and Baker, 2014; Castells, 1996). However, it is important to mention that the adoption of the eTransformation Plan is an ongoing process in the MOI. These findings could be seen as an achievement by the MOI, yet it is essential to highlight that the infrastructure in Oman could hinder the efficiency of eGovernment accessibility, particularly in terms of poor IT infrastructure and internet connections (Almarabbeh and AbuAli, 2010).

The second factor was the administrative hierarchical structure system; however, it is important to highlight that there were some contradictions within the results of the respondents. As mentioned earlier, although the electronic system enhanced communications by making MOI staff more accessible and improved efficiency, the findings also indicated that communication

among employees and officials using the email system 'Maktaby' (My Office) still adhered to the MOI's administrative hierarchy. This system ensured that no individual employee could directly bypass their manager, in effect controlling with whom people could communicate. Given the move to an electronic communication system, the organisation still controls who interacts with whom. This is in line with Haque's (2012) research, which claims that an organisation functions and processes communication through different types of structures: 'hierarchical, departmental, team-based, and task specialization' (p.136). Indeed, Almarabbeh and AbuAli (2010) and Leidner and Kayworth (2006) argued that the success of an eGovernment project requires human resources to support and commit to 'digital democracy', where actions administered electronically are communicated freely, allowing two-way communication or maybe more. In the same vein, organisations should utilise many different types of communication channels or tools to facilitate communication between individuals and groups and to sustain employee to manager interaction (Mortezaei, 2012; Langer, 2014).

Despite the adoption of eGovernment and the implementation of the internal electronic system, cultural influences still perpetuate the creation of bureaucratic problems as employees continue to deal with one another in ways that reflect the traditional hierarchical system in which employees do not have the ability to directly communicate with the top officials. Therefore, it was expected, even obligatory, for them to continue to follow the traditional hierarchical system even when using electronic means. Indeed, Leidner and Kayworth (2006) found that hierarchical systems like these are a way of controlling individuals through authority relationships. In relation to Omani institutions, the literature has previously mentioned that most reforms and developments in Omani society result from top-down regulatory authorisation (Common, 2011). Ndou (2004, p3) describes this as a 'departmentalisation vertical hierarchy of control'. Furthermore, this finding

supports the work of Al Fahdi and Swailes (2009, p.13) who contend that ‘social relations in the majority of public organizations in Oman are unhealthy and distorted’. The degeneration of relationships at the workplace may be due to the nepotism and favouring of some persons who are in institutions for tribal considerations and the social status of the person. Besides, studies in some Arab Gulf countries have argued that the tribal system still plays a significant role in the workplace, despite the adoption of eGovernment (Al-Shehry et al., 2006; Al-Shafi and Weerakkody, 2009; Schwester, 2009). Similarly, the literature has argued that communication patterns between different organisational levels depend on the structure of the organisation, and that its system is vital to protect specific roles and purposes (Haque, 2012; Qaisar and Khan, 2010).

That said, although the literature has argued that loyalty to families and tribes prevails in Omani workplaces, these studies are approximately 10 years old. With the adoption of eGovernment and the implementation of electronic communication systems, one might expect communications to flow more freely and harmoniously with little acknowledgement to employee’s tribes and loyalties. However, this study has shown that cultural powers still have some impact in the workplace environment. Aligned with this concept, some studies have in fact found that in Saudi Arabia and Qatar social influences are an important determinant of behaviour that still affects the direction of communication despite the adoption of new electronic systems (Abdullah Al-Shehry et al., 2006; Al-Shafi and Weerakkody, 2009; Schwester, 2009).

Furthermore, besides the hierarchical structure, this study’s findings reveal that internal communications via the MOI portal are also impacted by the nature of the correspondence and employees’ roles. For example, an employee working in the finance department (role) is permitted to communicate directly with different departments and high officials’ offices about their financial transactions (task). Although most respondents said that the direction of communication is usually

top-down, certain departments allow direct communication regardless of the hierarchical position (role) within the department, as an immediate or fast response might be needed depending on the nature of the task. Though direction of communication within the MOI portal was hindered by the organisational hierarchy, some employees could disregard the hierarchical structure and the cultural norms by communicating directly with high officials. However, these exceptions were due to work that needed an immediate action and required communication via Maktaby or Microsoft Outlook email depending on the individual's role and task. Thus, the findings reveal that the Outlook email system is an option for employees, implying that anyone could communicate with any member of the staff; however, the respondents in general did not use this unless they were required to because of their job role/task. This suggests then that the role and task have a significant influence on how messages are communicated internally and may override any cultural norms within the workplace. This can be considered a significant contribution by this study as these factors have not been previously considered.

Although this study highlights the importance of internal electronic communication, face-to-face communication still remained significant to the respondents. Judging from their answers, they communicated face-to-face for two reasons: to ensure that their email had been received and to clarify and ensure that the message had been interpreted correctly. This step was evidently intended to avoid any misunderstanding or confusion, thus reinforcing the argument of several researchers that face-to-face interaction is preferred by staff because it creates trust and rapport while preserving the element of human contact (Byron, 2008; O'Murchu, 2012; Welch and Jackson, 2007; Rho, 2009). Furthermore, verbal communication, including face-to-face conversations, can provide a sense of assurance and professionalism that cannot be achieved via e-mails or text messages (Gillis, 2006). Regarding the first reason mentioned above, some respondents explained

that they had colleagues who did not check for notifications (their emails), which caused delays in responding and, thus, inhibited work progress. So, despite the potential efficiency of electronic communications, there were inefficiencies when messages were ignored or misinterpreted. Face-to-face communication ensured that this did not happen. In summary, the interviews confirmed that speed and productivity can be achieved using the MOI portal and face-to-face interaction as tools of communication. However, some areas in the workplace need to be considered when developing and implementing eGovernment. For instance, the structure of the hierarchal system and cultural norms, especially if they prevail over the electronic communication system, may hinder the improvements that adopting eGovernment has the potential to deliver.

Nonetheless, the major problems faced by organisations in some Arab and Asian countries have previously been found to include the lack of qualified employees and insufficient training. Some of the other most common issues were associated with a lack of co-operation between departments within an organisation (Al-Shehry et al., 2006; Al-Shafi and Weerakkody, 2009; Schwester, 2009). However, since these studies were conducted over 10 years ago, it is necessary to reconsider whether these factors remain barriers to the impact of internal communication systems, focusing specifically on the MOI's adoption of eGovernment. From an organisational perspective, it is also essential to explain the Omani government's movement towards the eGovernment Transformation Plan, enabling public sector entities to improve their services and eliminate bureaucracy in terms of time and location and paperless usage (Al-Shehry et al., 2006; Al-Shafi and Weerakkody, 2009; Schwester, 2009).

RQ2 Drawing upon a critical evaluation of the MOI's eTransformation Plan, how has this impacted upon the internal communications system?

‘The eGovernment Transformation Plan requires the deployment and updating of government services electronically and the conversion of all forms of paper applications to electronic. All content is to be published in both Arabic and English’ (eGovernment Transformation Plan Document-MOI). Introduced in 2012, the plan’s transformation goals were set to be achieved by 2015; however, some of the goals are yet to be achieved, especially those related to external communication (see Appendix 1).

The MOI’s adoption of eGovernment has generally improved communication between employees. All 20 respondents confirmed that they have used the MOI portal and the email correspondence system, which proves that at least one objective of the eGovernment Transformation Plan has been achieved, namely the shift to paperless communication. In this study, this also led to improvements in crediting employees and increased transparency. Interestingly, this was perhaps not an original intention of the MOI but was found to be an important improvement by the interviewees; this information represents a potential contribution to practice made by this study.

Furthermore, the traditional system used paper memos to communicate, leading to delays due to memos being lost during transfer between departments and directorates, especially as the hierarchal structure required memos to be transferred to more than one official. Therefore, most respondents confirmed that the eGovernment Transformation Plan had increased transparency since all documents are now saved and are easy to retrieve. This supports other studies which found that eGovernment improves the impact of organizational practices by being more accurate and reliable, as there is less data loss and activity is notably faster (Al-Shehry et al., 2006; Al-Shafi and Weerakkody, 2009; Almarabheh and AbuAli, 2010; Haque, 2012). The ability to track work progress through the MOI portal system meant all communications were documented and saved

by the sender and the receiver, enabling employees to track their work via emails sequentially according to their administrative level. This particular point links to Almarabheh and AbuAli's work which suggested that eGovernment will increase transparency 'as all the information about the government and its agencies will be available, nothing ambiguous' (2010, p.37).

In terms of the impact of the Transformation Plan, the respondents had divergent opinions regarding the nature of feedback provided through the electronic system. The most significant response on this point was from a respondent who worked in the e-Media directorate: she mentioned that at the operational level, they did not depend on the electronic system to give or receive feedback. For instance, the feedback here was related to completing a task or any other work demands. Instead, she explained that the open office allows direct face-to-face feedback from all employees working in the department. This is linked to a point made in the first research question regarding respondents' preference for certain communication tools used in the MOI. In this case, face-to-face communication was facilitated by the open plan office space and reflects Leidner and Kayworth's (2006) study which found that Arab countries favour face-to-face interaction. Another respondent said that feedback (related to work task) takes a long time to reach him due to the organisation's hierarchal structure. He felt that this disrupted work progress as he could not directly follow up on matters with higher officials because of the cultural norms associated with who staff could directly communicate with: *'Sometimes the feedback comes back immediately, but most of the time I just wish to receive at least one feedback or response; the issue is often linked to bureaucracy'*.

Hence, to achieve improved communications in the workplace through the adoption of the eTransformation Plan, it is essential to receive feedback (related to work tasks) in a timely manner. Procrastination or delays from higher officials may hinder progress in accomplishing tasks.

Therefore, the implementation of eGovernment will not lead to any significant changes if the present administrative system continues and the time to process electronic communications is not considered. Delivering feedback via the electronic system is supposed to eliminate delays and selection of the incorrect department. By providing services online, the outcomes are likely to increase citizen and employee satisfaction with such an innovative way of serving and communicating (Al-Shehry et al, 2006; Al-Shafi and Weerakkody, 2009; Almarabheh and AbuAli, 2010; Haque, 2012). But as this study has found, this may not necessarily be the case. Indeed, feedback delays may be caused by other reasons, as one respondent noted, *'I do not provide feedback to employees but that does not mean I do not do my job. Feedback is a guidance and sometimes the employee understands it negatively and considers it as criticism'*. In the same vein, some respondents reported not wanting to provide or receive feedback regarding evaluations or articulating judgments toward work performance to avoid such sensitive areas being perceived as criticism.

For this study, the respondents in general may have avoided providing specific concerns or opinions toward the implementation of the eTransformation Plan, as this would be perceived as criticism. It may be inferred that because they were working for the MOI, respondents believed that expressing negativity may have been interpreted as criticism of the minister or the ministry. This issue was discussed in the literature review within the Omani culture section, and as Al Fahdi and Swailes (2009) state, top management in Arab states tend to personalise any criticism from their employees (). Therefore, any feedback or criticism might have a negative impact on mid- or low-level employees. Also, regarding job satisfaction, some respondents conditionally linked this to their ability to communicate with higher officials. The more employees communicated with higher officials, the greater their job satisfaction, and vice versa; thus, satisfaction was conditional

on the employee's role and task within the hierarchal structure. Employees whose jobs allowed them to communicate with higher officials indicated that they were satisfied, while employees who could not communicate with higher officials revealed that they were not satisfied. This may relate to the notion of not being heard or listened to by someone who is perceived to be in a position of authority, reflecting their desire to improve their personal and professional relationships with high officials (Kikoski, 1993).

In addition to job satisfaction, issues associated with gender proved to be important. Existing studies on internal communication, particularly involving eGovernment, have not explored the role of gender. Instead, they have assumed little diversity among employees and managers and that it has limited influence on how people communicate within organisations. By considering gender, this study may provide new insight into the progress and role of women in Oman, and specifically in workplaces with the adoption of eGovernment. Most respondents were found to be supportive and very appreciative of women's contribution in the workplace. They indicated that gender was not an issue and emphasised instead the importance of employee efficiency. This study found that with the adoption of the eTransformation Plan, the internal communication system had helped to enhance communication between male and female employees because most communications are through the MOI portal, which does not require many physical face-to-face interactions. As Lester (2008, p.277) comments, 'organizational cultures shape and reinforce socially appropriate roles for men and women'. Traditionally, Omani women wanted and were expected to work in environments where male and female interactions were limited; therefore, they mostly worked in the gender-segregated teaching profession, which has limited male-female interaction (Elnaggar, 2007).

However, Oman has made considerable progress in shifting from tradition to modernity. These developments have affected all citizens, regardless of gender. Funsch (2015, p.101) states that '[t]he progress of Omani women is reflected not only in steadily increasing employment figures but also in the variety of fields in which they serve'. She also comments that the shifting role of women and the redefinition of gender relations in Oman has been remarkable in recent years. Culturally, communication between males and females has changed. For example, some respondents in this study mentioned that they can accept calls or check their correspondence emails from the opposite sex outside working hours with no hesitation. As illustrated in the literature, women in Oman used to work in segregated jobs where communication is solely between those of the same gender. This research also revealed a change in the organisational culture regarding female employees, as most members of the MOI's IT department were women. The women in this department revealed that they were able to communicate internally with all employees regardless of the hierarchical level, demonstrating the improvement of internal communication regarding women in the workplace. As discussed earlier, this finding also suggests again that the job role and task enabled staff to not only circumnavigate cultural norms associated with levels of authority, but also expected behaviours associated with gender relations.

Nonetheless, the eTransformation Plan has given rise to several challenges. One challenge was resistance to the electronic system from employees who had been working at the MOI for over 20 years. Besides resistance, some senior employees had insecurities regarding their authority, which they fear could be threatened by the new electronic system. This issue created tension between junior and senior employees. This resistance reflects findings from other studies who have suggested that such opposition comes from limited exposure to new technologies and the potential fear that they might lose their roles due to concerns over automation (Ndou, 2004; Ebrahim and

Irani, 2005; Al-Shehry et al, 2006; Al-Shafi and Weerakkody, 2009; Qaisar and Khan, 2010).

In the case of the MOI, this issue could be solved through intensive training for only the affected senior employees, which are a small proportion of the staff. Training is an essential factor that needs to be addressed and appropriately resourced. To resolve the resistance, training sessions should be required; however, in this study the MOI had a limited budget that did not allow all employees to receive proper training. As several prior studies have mentioned, transferring from a traditional to a digital communication system requires careful training and budgeting; as this study has found, this issue continues to persist (Al-Shehry et al., 2006; Al-Shafi and Weerakkody, 2009; Schwester, 2009).

Another issue to emerge was the infrastructure related to document archiving; specifically, not all ministries implemented the electronic system, so working across departments remained paper-based. Documenting and archiving papers proved to be challenging and led to delays. However, this issue is not intrinsic to the MOI's Transformation Plan; rather, it relates to other ministries not yet implementing an electronic system. The full success of the MOI's plan is dependent upon other ministries mirroring their process, because even if the MOI does everything right, they will not reach their full potential until other ministries are on the same level. As Al Salmi and Hasnan (2015) explain, Oman's eGovernment plan is slowly progressing as each public-sector entity creates its own website and electronic services, such as providing downloadable electronic forms. Another infrastructure issue generally related to the overall eGovernment Transformation Plan was the Internet connection, which was slow and easily disrupted (Al Salmi and Hasnan, 2015; Al-Busaidy and Weerakkody, 2008).

In sum, the impact of the eTransformation Plan has improved the organisational workflow, especially the shift to paperless communication which has facilitated transparency since all

documents are now saved and tracked. However, feedback related to work and task requirements still faced procrastination or delays that could hinder the progress in completing duties. It was found that the organisational culture, specifically gender relations, had somewhat improved as electronic communication enabled women employees the opportunity to work directly with men. Although there were some obstacles related to resistance from the employees towards the electronic system, these were not insurmountable if suitable training was provided.

RQ3 How can the insights from this study be used by other Omani ministries adopting the eGovernment Transformation Plan, and what are the implications for their internal communicational systems?

EGovernment is a relatively new initiative in the Sultanate of Oman. Consequently, its stages, description, and specifications remain open for discussion. Despite the accelerated implementation of eGovernment, no universal model can be implemented in all countries, as each area has its own set of unique circumstances. These include the economic, political, cultural, and social systems, which might influence the adoption of eGovernment in a specific country or ministry (Al-Shehry et al, 2006; Al-Shafi and Weerakkody, 2009; Qaisar and Khan, 2010). This study's main focus has been to explore the impact of the MOI's internal communication system with the adoption of eGovernment in Oman.

Implementation of the eGovernment Transformation Plan is at an early stage in the Sultanate of Oman, and several challenges have been revealed in the public sector. Being aware of these challenges will help the MOI eGovernment policymakers and developers understand the factors that might facilitate or hinder the eGovernment adoption. Accordingly, the MOI has established a General Directorate for Electronic Media, within which the Department of Digital Transformation

was created. This shows that the MOI has to some extent felt the need to make structural changes to enhance the eGovernment objective of electronic transformation.

The application of this qualitative study to other ministries will help to fill some gaps by providing insight into the phenomenon of eGovernment. If other ministries plan to establish their own eGovernment transformation plans, they ought to establish an e-media directorate to facilitate the transformation by offering expert support from the beginning, and possibly, an ongoing programme of in-house training. The financial aspect is also crucial, as the state budget limits each ministry's financial resources, as the adoption of eGovernment is a determination of financial, technical, and human resources. Holding all other factors constant, ministries with higher operating budgets, more full-time IT staff, and more specialised hardware are more likely to have a comprehensive eGovernment platform. Since technology is ever-changing, there is a demand to have a full-time IT staff. This corresponds with Schwester's (2009) assertion that the adoption of eGovernment and ICT relies on having a firmly established IT department. Therefore, each ministry sets its priorities by achieving the overall goal of adopting its own eGovernment transformation plan, such as that of the MOI. By approving the objectives set by the ministry to achieve the eGovernment transformation plan within the anticipated financial constraints, problems due to a lack of financial resources should be avoided. Internal support is another crucial determinant of eGovernment adoption: organisations whose higher officials and managers hold a positive view of eGovernment are more likely to have an advanced eGovernment system (Ndou, 2004; Ebrahim and Irani, 2005).

According to the etransformation plan, the following goals contributed to the development of the internal communication system as part of the transition to eGovernment.

1. Developing a clear objective and goal for senior management officials and involving employees in determining the methods of change.
2. Using local expertise from companies working in the technical field to choose a system that fits the needs of each stage.
3. Equally dividing the tasks of preparing and implementing plans while dealing with the challenges of work.

However, from the researcher's perspective and considering the views expressed by other respondents, obtaining the potential benefits of internal communication from adopting eGovernment necessitates addressing the boundaries and challenges. EGovernment is unquestionably a reality: governments are increasingly using the Internet to provide services, disseminate information, and facilitate a more open dialogue for liberal revival (Ndou, 2004; Ebrahim and Irani, 2005; Al-Shehry et al, 2006; Al-Shafi and Weerakkody, 2009; Qaisar and Khan, 2010). While eGovernment adoption is impeded by several barriers, the literature suggests these are mainly related to insufficient infrastructure, lack of administrator support, lack of proficient IT staff, and unsatisfactory IT training and support. These obstacles, encountered in public sector organisations, might prevent an organisation from fulfilling its goals (Ebrahim and Irani, 2005).

In addition, some of the barriers identified in this study are also related to socio-cultural factors, which have not been explored sufficiently in the literature. For instance, some employees may view eGovernment as reinforcing the hierarchical division between higher management and employees. This hierarchical structure, however, is somewhat related to the entire system of the Omani government, which remains based on tribal influences and the general exercise of power found within Omani society. Although this issue was raised in studies of Gulf States conducted

over 10 years ago, (Al-Shehry et al, 2006; Al-Shafi and Weerakkody, 2009; Al- Fahdi and Swailes, 2009), its persistence is demonstrated by the effects on the adoption of eGovernment in this study. Hence, a strict hierarchical structure disrupts flexibility and paralyses the flow of communication and feedback.

More insights are required, therefore, of the socio-cultural obstructions to eGovernment's adoption. Some of these obstructions might be solved by genuinely encouraging and facilitating direct communication between employees in the new system. In particular, employees from the middle and lower departments were hoping that the eGovernment transformation would encourage an open dialogue with their officials. Whilst there was an opportunity to communicate directly with officials through the email system, in reality this option did not guarantee any feedback or response from the officials and was only used by staff in specific roles or completing specific tasks that warranted direct communication. Thus, in reality, the new electronic system within the MOI did not allow direct communication to be exercised, which may be hindering the potential to increase efficiency at work. Therefore, when implementing eGovernment transformation plans, it is essential to other ministries to consider the internal communication system based on its objective, which is to enhance the impact of communication between all employees.

In addition, based on the findings of this study the researcher believes that the following points could also be incorporated.

1. Holding regular, periodic meetings and establishing direct and open communication channels between teams and senior management. This will build team confidence and create flexibility in communicating across the departments in the workplace.
2. Creating the necessary training programmes is very essential for employees based on their technical expertise and skills.

3. Conducting introductory meetings for each phase of the transformation and holding lectures and workshops where each technical issue in the internal and external departments is clarified.
4. Understanding that some employees will resist the changes due to their limited experience with electronic systems or insecurity over their status and position being threatened. Attempt to solve these issues by involving them in devising solutions to problems and challenges. Policymakers and developers should emphasise the importance of change management by adopting a consultative approach to managing such eTransformation projects both at organisational and national levels.

The researcher believes that these points are essential to guarantee the impact of the eGovernment transformation. The MOI planned to achieve its objectives by 2015, but some have still not been accomplished; thus, the date for completion has been pushed back to 2019. This delay is attributable to several challenges, including budget limitations, senior staff resistance, the limited number of contributing members, and some members leaving the ministry. Another reason for the delay and rescheduling is the need to implement technological improvements and updates emerging as the project progressed. Despite facing all these obstacles, the MOI continued to adopt eGovernment, whereas other entities have not yet started this process. Recognising its achievements, the MOI won the Award of Best eTransformation Achievement in the Sultanate of Oman in 2018 (see Appendix 9). According to the interviewed senior official, the MOI has recently held field meetings with more than one Omani ministry where it has shared its experiences and explained the challenges faced in changing the internal communication system. Other interviewees noted that the MOI is recognised as a reliable model by other government entities.

Revised Conceptual Framework

Combining prior literature with the study’s findings, the researcher proposes the conceptual model depicted in Figure 9. The proposed model posits that, with the adoption of eGovernment, the structure of the internal communication system impacts both the sender and receiver. Furthermore, ‘noises’ such as the financial budget, infrastructure, resistance, and hierarchical structure appear as obstacles to effective communication between the sender and the receiver.

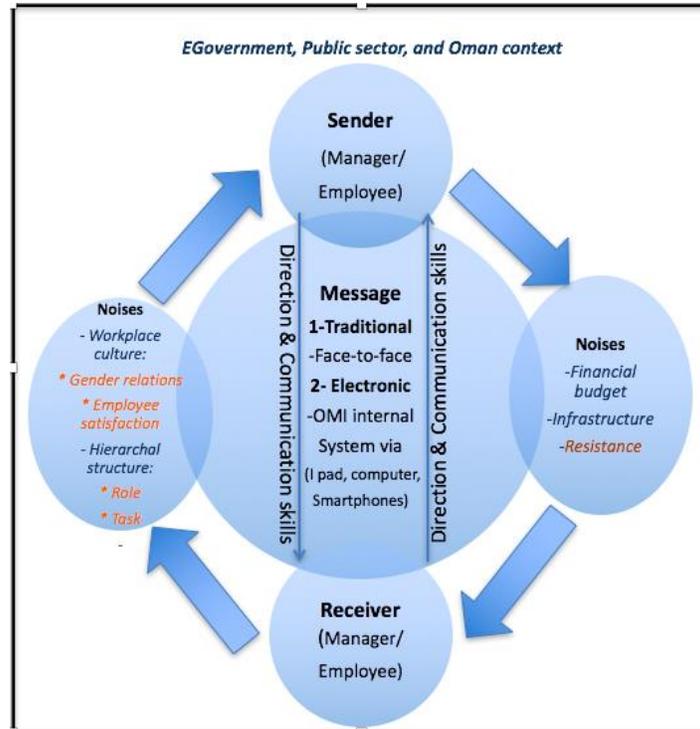


Figure 9 *Conceptual framework based on the current research findings*

Compared to the conceptual framework originally proposed in Chapter 3, Berlo’s SMCR Model of Communication (1960) identified the process of communication which contains the elements required to facilitate effective communication between the sender and the receiver. Based on this research, an adopted model has been developed, representing another contribution of this study. The concept of ‘communication tools’ has been refined to only include ‘face-to-face’ and the ‘MOI portal’, with the latter replacing paper-based communication; this constitutes an achievement of the MOI’s eGovernment Transformation Plan. However, the preferences of face-

to-face made it clear that adopting eGovernment with the internal communication system in the MOI's could not change the cultural concept of the work place structure.

Another element to emerge from the findings includes how 'noises' impact the way the message is sent between the sender and receiver. In the original conceptual framework, the main noises were external factors such as the financial budget that effect the completion of the integration process. The high cost of the technology implementation and IT technical and software infrastructure, as reported in the literature; are delaying the technology training for employees not to mention the poor internet connection, which are common issues in Oman.

However, the findings revealed further internal obstacles; for example, the hierarchical structure, through its impact on role and subject matter, can inhibit satisfaction and communication flow, which is also affected by senior employees' resistance to change. In contrast, workplace culture is an essential factor that emerged from the findings. Culture has played a role in enhancing internal communication with the adoption of eGovernment, as per this study's finding indicate that the MOI has achieved a significant shift in the role of women and the redefinition of gender relations including positions held by women in the ministry. Moreover, with the adoption of eGovernment, employee satisfaction has increased due to greater transparency over work and responsibility for tasks since all email correspondence is saved and archived. Ultimately, these contributions in both practice and theory will be discussed in the following sections.

Research Implications

This research has implications for government policymakers in public sectors that have employed or are planning to adopt the eGovernment Transportation Plan and also for some scholars in academia. These contributions might assist policymakers in articulating strategies that will allow

them to accomplish their objectives. It also can provide a specific plan that corresponds to their aims and the context of their entities.

This study examined the impact of the adoption of eGovernment and how this has impacted internal communications in the MOI in Oman, an entity in the public sector. The adoption of eGovernment is still in progress in Oman; however, other communications researchers can benefit from the developed conceptual framework which can be applied to similar contexts, specifically in Arab countries. As mentioned earlier in the literature review, previous researchers have overlooked the significance of the adoption of eGovernment as related to the internal communication system within the entity.

This study identified essential issues related to the communication system, eGovernment adoption, and organisational culture and improvements and challenges, which could have implications for policymakers in other public sector organisations. It provides an understanding of issues surrounding the adoption of an eTransformation Plan and a new electronic system which, if the policymakers will consider them, will aid in reaching their entities' goals. Policymakers may also benefit from the study's findings in terms of how to develop their internal communication policies by considering the interactions of their employees despite the hierarchical structure of the organisation. Further, it sheds light on how these findings of organisational culture should be considered and addressed to modify officials' and employees' behaviour regarding the internal communication system within the organisation. The study helps bridge the knowledge gaps in the available research by contributing practical recommendations to the Omani government and other governments in similar developing countries in order to support their adoption of useful eGovernment applications, particularly in terms of the internal mechanisms.

Regarding the impact of the internal communication system within the MOI which depends on the portal and the smartphone application, the ambition to improve internet coverage and IT infrastructure in Oman should enhance employees' participation by providing the opportunity to work remotely.

Concluding comments

This research aimed to explore the impact of the internal communication system with the adoption of eGovernment in the MOI in the Sultanate of Oman. It concludes that the adoption of eGovernment must not only consider the use of technology. Thus, to achieve the proposed research aims and provide both theoretical and practical insights into the adoption of eGovernment by implementing the eTransformation Plan, it is crucial to present a review of those elements that lead to success and identify any avoidable obstacles. As previously declared, there are general deficiencies in the area of eGovernment studies in the Arab countries. This study is beneficial because it will bridge gaps in the literature and contribute another point of view for the impact of eGovernment in Arab countries, precisely in public sector institutions.

This study has developed a framework based on the current literature and the interpretive findings from the qualitative approach, case study, and document analysis to provide evidence of the impact of the internal communication while considering the influence of the workplace culture. This study revealed that the adoption of eGovernment has helped government organisations achieve their goals and has improved employee productivity and credibility. The transparency at work was also a result of the implementation of the transformation plan; however, while the adoption of the electronic communication system has improved transparency, the workplace culture has not improved in terms of feedback. Traditionally, feedback has been linked to criticism,

and according to the result of this study, this still appears to be the case for some employees and managers.

The research outcome indicates some cultural issues surrounding the adoption of the eTransformation Plan in the MOI. The implementation of the internal communication system has led to more economical, productive, and efficient communication channels that have shown to be critical in social contexts. Additionally, the interpretive method used in this study, along with data from interviews and document analysis, provides depth to the research. Moreover, the use of semi-structured interviews was considered essential for this type of research in Oman because it allowed for face-to-face contact, which facilitated a deeper understanding of the reality. Another strength of this study included exploring the cultural aspects of the implementation in the Omani context. It was noticeable that the new communication system had changed work practices; therefore, one must pay more attention to how cultural aspects can be managed when planning to adopt the eTransformation Plan for any entity in the public sector.

The findings demonstrated that the employees were confused about the hierarchy; this occurred when interaction was linked to the role and task of the employees. Additionally, although a significant transition from traditional to electronic systems had occurred, face-to-face communication remained active. Employees were satisfied in terms of receiving credit for their work using the email system, yet they were affected by the hierarchical structure. However, the role of employees and the subject matter of the correspondence were the only two factors that would require some employees from specific departments, such as finance and IT, to bypass the hierarchal structure. Horizontal internal communication through the electronic system is adequate, but vertical communication (bottom-up) did not prove to be effective. Horizontal communication between employees at the same level is more flexible and capable than communication with the

senior officials. The findings indicated that the higher the employees' levels, the more difficult it is to communicate with them; consequently, the flow of information through the system is hindered. The adoption of eGovernment has not changed the relationship barriers between employees and officials due to the top-down hierarchy favoured by Omani culture.

Furthermore, this study concluded that the adoption of eGovernment and an internal communication system within the MOI had improved gender relationships. The electronic system has made the relationship more equal; both male and female employees can communicate through the system about any issue related to work regardless of time and place. The MOI has set a positive example in the field of work culture between the genders, which will eventually be reflected throughout Omani society. This study is essential for developing countries and highlights the success or failure of new technology adoption. Therefore, governments in developing countries are encouraged to see this as a practical and quickly implemented technology for communicating and interacting with their employees, particularly in contexts where limited budgets and infrastructure dominate.

Research Limitations and Future Recommendations

This study has focused on the adoption of e Government by studying the impact of the internal communication system by implementing the eTransformation Plan from the views of the employees. However, future research could include other stakeholders such as the Information Technology Authority (ITA) and the Ministerial Cabinet. By including them it can be more beneficial to understand how the officials and seniors staff rolling as leaderships while dealing with reformation and progress in public sector entities. This study used a qualitative approach and case study technique, as it was believed that these were the best ways to fulfil the exploratory nature of this research. Future researchers could experiment with other research approaches and

methods, such as conducting a comparative study. This study was based on the MOI, a government entity in Oman, as a case study; any future study might examine several other organisations in the Omani public sectors to ensure the validity of the research and make certain that it can be generalised to other organisations.

The adoption of eGovernment is relatively new, particularly with the introduction of the internal communication system by many governments in developing countries. Many areas of eGovernment, mainly related to the internal communication system, still needed to be studied. Thus, to develop the knowledge of the organisational culture, particularly in Arab countries, future studies are needed. This will also help to acquire a better perception of this new approach and reduce employee resistance. Moreover, since this research did not explore the effect of studies the impact of eCommunication by working from home, the issues associated with this might be considered in further study to be explored in more details.

Furthermore, the lack of prior research on electronic internal communication systems linked to the Omani culture made writing the literature review of this research paper a challenging task. In addition, it is difficult to generalize the findings of this study to all parts of the government or private sector; therefore, further studies are required to investigate the impact of the internal communication system by tracking the quantity and quality of correspondence emails being exchanged among directorates. By focusing on the content of the correspondence and consider the measurement of eCommunications, further study could examine the quality of feedback, the impact of the employee's specific role, and whether the message has achieved its intended goal.

For more exploratory research, it is also essential to focus on the content of the correspondence and not only on the mechanism involved in the flow of messages using the

electronic system. In the same vein, it is essential to mention that locating studies and literature relevant to the impact of the internal communication system with the adoption of eGovernment in the public sectors was quite challenging, specifically for Arab countries. Moreover, the studies that were embraced in this research in terms of the adoption of eGovernment mostly fell under the categories of G2G or G2C; this means that relevant literature, particularly on G2E in the public sector in Arab countries, was scarce.

In addition, limitations related to methodology included that the research was time-consuming and it was pertinent to build a positive relationship with the MOI candidates. The researcher is working overseas and had a limited amount of time to collect data, and most of the candidates who participated in this research were strangers; thus, additional effort was required to ensure confidence while conducting the interviews. Language issues also added pressure and presented challenges, as interviews were recorded in Arabic and translated to English. However, these issues were part of the research process that, in the end, despite these obstacles, revealed findings that have added to the literature and contributed to managerial practice.

References

- Aaltio, I. and Mills, A.J. eds., 2003. *Gender, identity and the culture of organizations*. Routledge.
- Abraham, S., 2012. Development of employee engagement programme on the basis of employee satisfaction survey. *Journal of economic development, management, IT, finance, and marketing*, 4(1), p.27.
- Acker, J., 1998. The future of 'gender and organizations': connections and boundaries. *Gender, Work & Organization*, 5(4), pp.195-206.
- Adjei-Bamfo, P., Yeboah-Assiamah, E. and Bawole, J.N., 2018. Recruitment and Selection into Ghana's local governments: Theory and Practice. *Global Encyclopedia of Public Administration, Public Policy, and Governance*, pp.1-14.
- Al Salmi, M., Hasnan, N. and Mohtar, S., 2016. Challenges towards successful e-government: case study of Sultanate of Oman. *International Journal of Multidisciplinary Research and Development*, 3(3), pp. 312-318.
- Al-Awadhi, S. and Morris, A., 2009. Factors influencing the adoption of e-government services. *Journal of Software*, 4(6), pp.584-590.
- Al-Azri, A, Al-Salti, Z & Al-Karaghoul, W 2010, The successful implementation of e-government transformation: A case study in Oman. in *Proceedings of the European, Mediterranean and Middle Eastern Conference on Information Systems: Global Information Systems Challenges in Management, EMCIS 2010*.
- Al-Busaidy, M. and Weerakkody, V., 2009. E-government diffusion in Oman: a public-sector employees' perspective. *Transforming Government: People, Process and Policy*, 3(4), pp. 375-393.

- Al-Fahdi, S. and Swailes, S., 2009. *Barriers to human resource development in the public sector of the Sultanate of Oman*. Working paper, Hull University Business School.
- Al-Fedaghi, S., 2012. A conceptual foundation for the Shannon-Weaver model of communication. *International Journal of Soft Computing*, 7(1), pp. 12-19.
- Al-Ghailani, R. M., 2005. *Equal employment opportunity in public office in principle and practice: an empirical study of the Omani civil service*. Doctoral dissertation, University of Hull.
- Al-Gharbi, K. and Al-Kindi, A., 2010. E-government initiative in the Sultanate of Oman: the case of Ubar. *International Journal of Technology Diffusion*, 1(1), pp. 70-74.
- Al-Hajri, H.H., 2019. The Innovation of Internet Industries Transformed to Fourth 4th Industrial Revolution: Threats and Challenges of the Cyber-Enabled Industries. *International Journal of Engineering & Technology*, 8(1.12), pp.79-82.
- Al-Nabhani, M. B. M., 2007. *Developing the education system in the Sultanate of Oman through implementing total quality management- the Ministry of Education Central Headquarters- a case study*. Doctoral dissertation, University of Glasgow.
- Al-Sadi, R., Bewal, R. and Al-Badi, R. (2011), "Women entrepreneurship in the Al-Batinah Region of Oman: an identification of the barriers", *Journal of International Women's Studies*, Vol. 12 No. 2, pp. 58-75.
- Al-Shafi, S. and Weerakkody, V., 2010. Factors affecting e-government adoption in the state of Qatar. *Proceedings of European and Mediterranean Conference on Information Systems*, Abu Dhabi, UAE.
- Al-Shehry, A., Rogerson, S., Fairweather, N. B. and Prior, M., 2006. The motivations for change towards e-government adoption: case studies from Saudi Arabia. eGovernment Workshop '06. *Brunel University*, Brunel University, West London, 11 September 2006.

- Al-Shihi, H., 2006. *Critical factors in the adoption and diffusion of e-government initiatives in Oman*. Doctoral dissertation, Victoria University.
- Almarabeh, T. and AbuAli, A., 2010. A general framework for e-government: definition maturity challenges, opportunities, and success. *European Journal of Scientific Research*, 39(1), pp. 29-42.
- Alreck, P. L. and Settle, R. B., 1985. *The Survey Research Book*. Homewood, IL: Irwin.
- Atkinson, P. and Coffey, A., 2004. Analysing documentary realities. In D. Silverman (ed.), *Qualitative Research*. 2nd ed. London, UK: Sage. p.56.
- Attaran, M., Attaran, S. and Kirkland, D., 2019. The need for digital workplace: increasing workforce productivity in the information age. *International Journal of Enterprise Information Systems (IJEIS)*, 15(1), pp.1-23.
- Aycan, Z., Al-Hamadi, A. B., Davis, A. and Budhwar, P., 2007. Cultural orientations and preference for HRM policies and practices: the case of Oman. *International Journal of Human Resource Management*, 18, pp. 11-32.
- Baker, K. 2002. Organizational communication. Ch.13. Accessed on October 19, 2017, from <http://www.au.af.mil/AU/AWC/AWCGATE/doe/benchmark/ch13.pdf>
- Baralt, M., 2012. Coding qualitative data. In *Research methods in second language acquisition*, edited by Alison Mackey Sue Gass, 222–244. Malden, MA: WileyBlackwell.
- Barriball, K. L. and While, A., 1994. Collecting data using a semi-structured interview: a discussion paper. *Journal of Advanced Nursing*, 19(2), pp.328-335.
- Basit, T., 2003. Manual or electronic? The role of coding in qualitative data analysis. *Educational Research*, 45(2), pp. 143-154.

- Baxter, P. and Jack, S., 2008. Qualitative case study methodology: study design and implementation for novice researchers. *The Qualitative Report*, 13(4), pp. 544-559.
- Bellou, V., 2010. Organizational culture as a predictor of job satisfaction: the role of gender and age. *Career Development International*, 15(1), pp. 4-19.
- Bennett, W. L., 2003. Communicating global activism: strengths and vulnerabilities of networked politics. *Information, Communication and Society*, 6(2), pp. 143-168.
- Berlo, D. K., 1960. *The Process of Communication*. New York, NY: Holt, Rinehart and Winston.
- Borca, C. and Baesu, V., 2014. A possible managerial approach for internal organizational communication characterization. *Procedia-Social and Behavioral Sciences*, 124, pp. 496-503.
- Bowen, G. A., 2009. Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), pp. 27-40.
- Boyce, C. and Neale, P., 2006. Conducting in-depth interviews: a guide for designing and conducting in-depth interviews for evaluation input. Pathfinder International Tool Series. *Monitoring and Evaluation*, 2.
- Braun, V. and Clarke, V., 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), pp. 77-101.
- Britton, D.M., 2000. The epistemology of the gendered organization. *Gender & society*, 14(3), pp.418-434.
- Bryman, A. Bell, E. (2011). " Business research methods 3rd ed. New York: Oxford University Press.

- Byron, K., 2008. Carrying too heavy a load? The communication and miscommunication of emotion by email. *The Academy of Management Review*, 33(2), pp. 309-327.
- Castells, M., 1996. *The Rise of the Network Society*. Cambridge, MA: Blackwell Publishers.
- Charmaz, K. and Mitchell, R. G., 2001. Grounded theory in ethnography. *Handbook of Ethnography*, 160, p.174.
- Chen, D. Y., Huang, T. Y. and Hsiao, N., 2006. Reinventing government through on-line citizen involvement in the developing world: a case study of Taipei City Mayor's e-mail box in Taiwan. *Public Administration and Development: The International Journal of Management Research and Practice*, 26(5), pp. 409-423.
- Collins, K., 2009. *Exploring Business*, Flat World Knowledge, Inc., Version 2.0 edition. <https://resources.saylor.org/wwwresources/archived/site/textbooks/Exploring%20Business.pdf>
- Comfort, L. K., 2007. Crisis management in hindsight: cognition, communication, coordination, and control. *Public Administration Review*, 67, pp. 189-197.
- Common, R. K., 2011. Barriers to developing leadership in the Sultanate of Oman. *International Journal of Leadership Studies*, 6(2), pp. 215-228.
- Corbin, J. and Strauss, A., 2014. *Basics of Qualitative Research*. Thousand Oaks, CA: Sage.
- Corman, S. R., Trethewey, A. and Goodall, B., 2007. A 21st century model for communication in the global war of ideas. *Consortium for Strategic Communication Report*, Arizona State University, p.701.
- Cornelissen, J.P., 2010, *Corporate Communications Theory and Practice*, Sage, London.p

- Craig, R. T., 1999. Communication theory as a field. *Communication Theory*, 9(2), pp. 119-161.
- Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. 2nd ed. Thousand Oakes, CA: Sage, p.196.
- Creswell, J. W., 2009. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 3rd ed. Thousand Oaks: Sage.
- Croft, R. S. (2004). *Communication Theory*. La Grande, OR: Eastern Oregon University
- Crouch, M. and McKenzie, H., 2006. The logic of small samples in interview-based qualitative research. *Social Science Information*, 45(4), pp. 483-499.
- Cupchik, G., 2001, February. Constructivist realism: An ontology that encompasses positivist and constructivist approaches to the social sciences. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* (Vol. 2, No. 1).
- Cutlip, S. M., Center, A. H. and Broom, G. M., 2000. *Effective Public Relations*. Upper Saddle River, NJ: Prentice Hall International.
- Daft, L.R., 2009. *Organizational Theory and Design*. Cengage Learning; USA.
- Daft, R.L., Lengel, R.H. and Trevino, L.K., 1987. Message equivocality, media selection, and manager performance: Implications for information systems. *MIS quarterly*, pp.355-366.
- Dayton, E. and Henriksen, K., 2007. Communication failure: basic components, contributing factors, and the call for structure. *The Joint Commission Journal on Quality and Patient Safety*, 33(1), pp. 34-47.
- Deal, T. E. and Kennedy, A. A., 1982. *Corporate Cultures*. Reading, MA: Addison-Wesley.
- Deetz, S., 1996. Crossroads—describing differences in approaches to organization science: Rethinking Burrell and Morgan and their legacy. *Organization Science*, 7(2), pp. 191-207.

- Dennis, M. R. and Kunkel, A. D., 2004. Perceptions of men, women, and CEOs: the effects of gender identity. *Social Behavior and Personality: An International Journal*, 32(2), pp. 155-171.
- Dent, E. B. and Goldberg, S. G., 1999. "Resistance to change": a limiting perspective. *The Journal of Applied Behavioral Science*, 35(1), pp. 45-47.
- Denzin, N. K., Lincoln, Y. S. and Giardina, M. D., 2006. Disciplining qualitative research. *International Journal of Qualitative Studies in Education*, 19(6), pp. 769-782.
- DiCicco-Bloom, B. and Crabtree, B. F., 2006. The qualitative research interview. *Medical Education*, 40(4), pp. 314-321.
- Dimbleby, R. and Burton, G., 1992. *More than Words: An Introduction to Communication*. New York, NY: Rinehart and Winston.
- Dworkin, S. L. (2012). Sample size policy for qualitative studies using in-depth interviews. *Archives of Sexual Behavior*, 1–2.
- Eakin, H. 2014. In the heart of mysterious Oman.
<https://www.nybooks.com/articles/2014/08/14/heart-mysterious-oman/> [Accessed June,3,2015]
- Ebrahim, Z. and Irani, Z., 2005. E-government adoption: architecture and barriers. *Business Process Management Journal*, 11(5), pp. 589-611.
- Education State. 2013. Why do teachers go on strike? [Accessed April,10, 2013]
- Elnaggar, A., 2007. The status of Omani women in the ICT sector. *International Journal of Education and Development Using ICT*, 3(3), pp. 4-15.
- Elving, W. J., 2005. The role of communication in organisational change. *Corporate Communications: An International Journal*, 10(2), pp. 129-138.

- Fang, Z., 2002. E-government in digital era: concept, practice, and development. *International Journal of the Computer, the Internet and Management*, 10(2), pp. 1-22.
- Farhoomand, A. and Wigand, R., 2003. Special section on managing e-business transformation. *European Journal of Information Systems*, 12(4), pp.249-250.
- Fisher, C., Buglear, J., Lowry, D., Mutch, A. and Tansley, C., 2010. *Researching and Writing a Dissertation: An Essential Guide for Business Students*. 3rd ed. Harlow, UK: Pearson Education.
- Flensburg, P., 2009. An enhanced communication model. *The International Journal of Digital Accounting Research*, 9(15), pp.31-43.
- Forman, D. and Argenti, A., 2005. *To Reduce Waste in Municipal Government: A Guide to Source Reduction*. Newton, MA.
- Fouka, G. and Mantzorou, M., 2011. What are the major ethical issues in conducting research? Is there a conflict between the research ethics and the nature of nursing? *Health Science Journal*, 5(1), pp. 3-14.
- Fountain, J., 2004. *Building the Virtual State: Information Technology and Institutional Change*. Washington, DC: Brookings Institution Press.
- Funsch, L. P., 2015. *Oman Reborn: Balancing Tradition and Modernization*. New York, NY: Palgrave Macmillan.
- Garratt, B., 2000. *The Twelve Organizational Capabilities: Valuing People at Work*. Portsmouth, NH: HarperCollins Pub Ltd.

- Gillis, T. ed., 2006. *The IABC Handbook of Organizational Communication: A Guide to Internal Communication, Public Relations, Marketing and Leadership* (Vol. 2). San Francisco, CA: John Wiley & Sons.
- Goldhaber, G. M., 1993. *Organizational Communication*. Dubuque, IA: Brown & Benchmark.
- Goldsmith, S., and Eggers, W.. *Governing by Network: The New Shape of the Public Sector*. Brookings Institution Press, 2004. [Accessed on November 1, 2018].
- Grunig, J.E. and Grunig, L.A., 2002. Implications of the IABC excellence study for PR education. *Journal of communication Management*.
- Guo, L. C. and Sanchez, Y., 2005. Workplace communication. In Borkowski, N. ed., *Organizational Behavior in Health Care*, pp.77-110. London, UK: Jones & Bartlett Learning.
- Gustafsson, J., 2017. Single case studies vs. multiple case studies: A comparative study. Halmstad University, School of Business, Engineering and Science.
- Hackman, M.Z. and Johnson, C.E., 2013. *Leadership: A communication perspective*. Waveland press.
- Hall, J. A. and Mast, M. S., 2009. Five ways of being “theoretical”: applications to provider–patient communication research. *Patient Education and Counseling*, 74(3), pp. 282-286.
- Haque, S. and Pathrannarakul, P., 2013. E-Government towards good governance: a global appraisal. *Journal of E-Governance*, 36(1), pp. 25-34.
- Hayase, L. K. T., 2009. Internal communication in organizations and employee engagement. Unpublished thesis, University of Nevada, [Online] [Accessed on October,12, 2016].
- Heeks, R., 2001. Building e-governance for development: A framework for national and donor action. The University of Manchester, Institute for Development, Policy and

Management Information, Systems, Technology and Government: Working Papers
Series, Number 12/2001.

Heilman, M. E., 2012. Gender stereotypes and workplace bias. *Research in Organizational Behavior*, 32, pp. 113-135.

<http://reports.weforum.org/global-competitiveness-index-2017-2018/> [accessed 11/10/20]

<http://www.educationstate.org/2013/10/12/teachers-strike/> [Accessed June,3,2015]

<https://www.cipd.co.uk/about/who-we-are/annual-report>[Accessed November, 10, 2020]

<https://www.ita.gov.om/ITAPortal/eOman/eoman.aspx> [Accessed May, 20, 2017]

<https://www.ita.gov.om/ITAPortal/ITA/default.aspx>[Accessed April, 12, 2016]

https://www.oman.om/wps/portal/index!/ut/p/a1/04_Sj9CPykssy0xPLMnMz0vMAfGjzOKNDd

wNDPwtPX29Q3wdDYyMw9y8LH3MjF1cTIAKIoEKDHAARwNC

sP1o8BK8JhQkBthkO6oqAgAFdYtmg!!/dl5/d5/L0IDU1EvUU5RSy80SINFL2Fy/

[Accessed November, 10,2019]

https://www.who.int/gho/publications/world_health_statistics/2018/en/[Accessed

February, 12, 2019]

<https://www.y-oman.com/2013/10/teachers-strike-continues/> [Accessed 15 March 2014].

Hu, Q., Dinev, T., Hart, P. and Cooke, D., 2012. Managing employee compliance with information security policies: the critical role of top management and organizational culture. *Decision Sciences*, 43(4), pp. 615-660.

Jaradat, Y. M. and Sy, M. V. U., 2012. Organizational communication practices of Toc Glycol Company Ltd., Thailand. *Procedia-Social and Behavioral Sciences*, 40, pp. 122-127.

- Jo, S. and Shim, S.W., 2005. Paradigm shift of employee communication: The effect of management communication on trusting relationships. *Public relations review*, 31(2), pp.277-280.
- Kamarudin, M. F., Starr, K., Abdullah, A. N. and Husain, K., 2014. Communicating change in organizational restructuring: a grounded theory case study. *Procedia-Social and Behavioral Sciences*, 155, pp. 496-501.
- Kaplan, B. and Maxwell, J. A., 2005. Qualitative research methods for evaluating computer information systems. In J. G. Anderson, C. E. Aydin, & S. J. Jay (Eds.), *Evaluating the Organizational Impact of Healthcare Information Systems* (pp. 30-55). New York, NY: Springer.
- Keyton, J., 2017. Communication in organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 4, pp.501-526.
- Khan, R. (2010). Trying to creat a balance between work and home. Gulf News dated 08.03.2010, p. 4.
- Kikoski, J.F., 1993. Effective communication in the intranational workplace: Models for public sector managers and theorists. *Public Administration Quarterly*, pp.84-95.
- Kim, J.N. and Rhee, Y., 2011. Strategic thinking about employee communication behavior (ECB) in public relations: Testing the models of megaphoning and scouting effects in Korea. *Journal of Public Relations Research*, 23(3), pp.243-268.
- Kopp, C., 2003. Shannon, hypergames and information warfare. *Journal of Information Warfare*, 2(2), pp.108-118.
- Kothari, C. R., 2004. *Research Methodology: Methods and Techniques*. New Delhi: New Age International.

- Krippendorff, K., 2009. Testing the reliability of content analysis data. *The content analysis reader*, pp.350-357.
- Labuschagne, A., 2003. Qualitative research—airy fairy or fundamental? *The Qualitative Report*, 8(1), pp. 100-103.
- Langer, E., 2014. What's trending? Social media and its effects on organizational communication. *Journal of Undergraduate Research*, 17, pp. 1-14.
- Lasswell, H. D., 1948. The structure and function of communication in society. *The Communication of Ideas*, 37, pp. 215-228.
- Layne, K. and Lee, J., 2001. Developing fully functional e-government: a four stage model. *Government Information Quarterly*, 18(2), pp. 122-136.
- Leidner, D.E. and Kayworth, T., 2006. A review of culture in information systems research: Toward a theory of information technology culture conflict. *MIS quarterly*, 30(2), pp.357-399.
- Leonard, K. M., Van Scotter, J. R. and Pakdil, F., 2009. Culture and communication: cultural variations and media impact. *Administration & Society*, 41(7), pp. 850-877.
- Lester, J., 2008. Performing gender in the workplace: gender socialization, power, and identity among women faculty members. *Community College Review*, 35(4), pp. 277-305.
- Lin, A.C., 1998. Bridging positivist and interpretivist approaches to qualitative methods. *Policy studies journal*, 26(1), pp.162-180.
- Lincoln, Y. S. and Guba, E. G., 1985. *Naturalistic Inquiry* (Vol. 75). Beverly Hills, CA: Sage.
- Littlejohn, S. W. and Foss, K. A., 2010. *Theories of Human Communication*. Long Grove, IL: Waveland Press.

- Losee, R. M., 1999. Communication defined as complementary informative processes. *Journal of Information, Communication and Library Science*, 5(3), pp. 1-15.
- Luhmann, N., 1992. What is communication? *Communication Theory*, 2(3), pp. 251-259.
- Lunenburg, F. C., 2010. Communication: the process, barriers, and improving impact. *Schooling*, 1(1), pp. 1-11.
- Malhotra, Y., and Galletta, F. D., 1999. Extending the technology acceptance model to account for social influence: theoretical bases and empirical validation. In: *Proceedings of the 32nd Hawaii International Conference on System Sciences*. IEEE. [Accessed on June,22,2016] from <https://www.computer.org/csdl/proceedings-article/1999/hicss/12OmNzy7uNV/12OmNyQYtdg>].
- Marshall, M. N., 1996. Sampling for qualitative research. *Family Practice*, 13(6), pp. 522-526.
- Merriam, S. B. and Grenier, R. S. eds., 2019. *Qualitative Research in Practice: Examples for Discussion and Analysis*. Hoboken, NJ: Jossey-Bass.
- Miles, M. B. and Huberman, A. M., 1984. *Qualitative Data Analysis: A Sourcebook of New Methods*. Beverly Hills, CA: Sage.
- Mitrofan, N. and Bulborea, A., 2013. The role of organizational communication in structuring interpersonal relationships. *Procedia-Social and Behavioral Sciences*, 76, pp.511-515.
- Mogashoa,T., 2014. Applicability of constructivist theory in qualitative educational research. *American International Journal of Contemporary Research*, 4(7), pp.51-59.
- Moon, M. J., 2002. The evolution of e-government among municipalities: rhetoric or reality? *Public Administration Review*, 62(4), pp.424-433.

- Mortezaei, F., 2012. The role of the information systems (office automation) in improving managerial decisions. *Oman Chapter of Arabian Journal of Business and Management Review*, 2(5), p. 109.
- National Centre for Statistics and Information. Sultanate of Oman: <https://www.ncsi.gov.om/Pages/NCSI.aspx>. [Accessed March, 12, 2019].
- Ndou, V., 2004. E-government for developing countries: opportunities and challenges. *The Electronic Journal of Information Systems in Developing Countries*, 18(1), pp. 1-24.
- Neuman, W. L., 2014. *Social Research Methods: Qualitative and Quantitative Approaches*. Boston, MA: Allyn and Bacon.
- Nyström, M. and Dahlberg, K., 2001. Pre-understanding and openness—a relationship without hope? *Scandinavian Journal of Caring Sciences*, 15(4), pp. 339-346.
- O'Murchú, L., 2012. Internal Communication in Ireland Before and During the Economic Recession from the Perspective of Communication Practice, Technology, and Ethics. Doctoral Thesis, Dublin Institute of Technology. doi:10.21427/D74S4W [Accessed on March ,18,2015].
- Official eGovernment Services Portal of Oman:
- Oman 2018 (Ministry of Information): http://www.omaninfo.om/english/files/oman_english/oman2019.html. [Accessed March, 21,2019]
- Omilion-Hodges, L. M. and Baker, C. R., 2014. Everyday talk and convincing conversations: utilizing strategic internal communication. *Business Horizons*, 57(3), pp. 435-445.
- Owen, G. T., 2014. Qualitative methods in higher education policy analysis: using interviews and document analysis. *The Qualitative Report*, 19(26), pp. 1-19.

- Patton, M. Q., 1990. *Qualitative Evaluation and Research Methods*. Newbury Park, CA: Sage.
- Patton, M. Q., 2002. Two decades of developments in qualitative inquiry: a personal, experiential perspective. *Qualitative Social Work*, 1(3), pp. 261-283.
- Pavitt, C. and Kline Johnson, K., 2002. Scheidel and Crowell revisited: a descriptive study of group proposal sequencing. *Communication Monographs*, 69(1), pp.19-32.
- Peak, K. J. and Cohn, E., 1998. *Justice Administration*. Upper Saddle River, NJ: Prentice Hall.
- Peterson, K., Hohensee, M. and Xia, F., 2011, June. Email formality in the workplace: A case study on the Enron corpus. In *Proceedings of the Workshop on Language in Social Media (LSM 2011)* (pp. 86-95).
- Petrić, B. and Czár, B., 2003. Validating a writing strategy questionnaire. *System*, 31(2), pp. 187-215.
- Ponterotto, J. G., 2005. Qualitative research in counseling psychology: a primer on research paradigms and philosophy of science. *Journal of Counseling Psychology*, 52(2), p. 126.
- Popescu, A. D., Borca, C. and Baesu, V., 2014. A study on multicultural personality. *Cross-Cultural Management Journal*, 16(1), pp. 147-156.
- Powell, G. N., Butterfield, D. A. and Parent, J. D., 2002. Gender and managerial stereotypes: have the times changed? *Journal of Management*, 28(2), pp. 177-193.
- Qaisar, N. and Khan, H. G. A., 2010. E-government challenges in public sector: a case study of Pakistan. *International Journal of Computer Science Issues*, 7(5), p. 310.
- Rho, E., 2009. The impact of organizational communication on public and nonprofit managers' perception of red tape. *10th Public Management Research Conference*, October 2009, Columbus, OH.

- Rho, S. Y., 2004. *Citizen-Government Interaction and Its Effects on Trust in Government*. State University of New Jersey, Newark, NJ.
- Salant, P., Dillman, I. and Don, A., 1994. *How to Conduct Your Own Survey*. New York, NY: Wiley.
- Saldaña, J., 2015. *The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA: Sage.
- Saunders, M., 1999. Linking external communication & organizational impact. *Organizational Development Journal*, 17(4), pp. 35-40.
- Saunders, M., Lewis, P.H.I.L.I.P. and Thornhill, A.D.R.I.A.N., 2007. Research methods. *Business Students 4th edition Pearson Education Limited, England*.
- Schement, J. R., 2018. *Tendencies and Tensions of the Information Age: Production and Distribution of Information in the United States*. New York, NY: Routledge.
- Scholl, H. J., 2005. January. interoperability in e-government: more than just smart middleware. *Proceedings of the 38th Annual Hawaii International Conference on System Sciences (HICSS'05)*, p.123. IEEE.
- Schwab, Klaus (2016), "The Fourth Industrial Revolution," World Economic Forum (accessed Nov 12, 2020, [available at <https://professionallearning.education.gov.scot/media/1352/the-fourth-industrial-revolution-what-it-means-and-how-to-respond-world-economic-forum.pdf>]
- Schwester, R., 2009. Examining the barriers to e-government adoption. *Electronic Journal of e-Government*, 7(1), pp. 113-122.
- Seidman, I., 2006. *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences*. New York, NY: Teachers College Press.

- Sfard, A., 2008. *Thinking as Communicating: Human Development, the Growth of Discourses, and Mathematizing*. Cambridge University Press.
- Shachaf, P., 2008. Cultural diversity and information and communication technology impacts on global virtual teams: an exploratory study. *Information & Management*, 45(2), pp. 131-142.
- Shannon, C. E. and Weaver, W., 1949. *The Mathematical Theory of Communication*. Urbana, IL: University of Illinois Press.
- Shannon, C. E., 1949. Communication theory of secrecy systems. *Bell System Technical Journal*, 28(4), pp. 656-715.
- Silverman, D., 2013. *Doing Qualitative Research: A Practical Handbook*. London, UK: Sage.
- Silverman, D., 2015. *Interpreting Qualitative Data*. London, UK: Sage.
- Simons, H., 2009. *Case Study Research in Practice*. London, UK: Sage.
- Smidts, A., Pruyn, A.T.H. and Van Riel, C.B., 2001. The impact of employee communication and perceived external prestige on organizational identification. *Academy of Management journal*, 44(5), pp.1051-1062.
- Sperber, D. and Wilson, D., 1986. *Relevance: Communication and Cognition* (Vol. 142). Cambridge, MA: Harvard University Press.
- Sriram, B. and Sarrayrih, M.A., 2016. An Analytical Study on user Satisfaction on Wi-Fi Services: A Case Study on Omani Undergraduate Environment. *Indian Journal of Science and technology*, pp.1-9.
- Stahl, B., 2005. The ethical problem of framing e-government in terms of e-commerce. *The Electronic Journal of e-Government*, 3(2), pp.77-86.
- Starman, A. B., 2013. The case study as a type of qualitative research. *Journal of Contemporary Educational Studies/Sodobna Pedagogika*, 64(1), pp. 28-43.

- Stenbacka, C., 2001. Qualitative research requires quality concepts of its own. *Management Decision*, 39(7), pp. 551-556.
- Sultanate of Oman Information Technology Authority:
- Swailles, S. and Al-Fahdi, S., 2011. Voluntary turnover in the Omani public sector: an Islamic values perspective. *International Journal of Public Administration*, 34(10), pp. 682-692.
- Thomas, G., 2011a. The case: generalisation, theory and phronesis in case study. *Oxford Review of Education*, 37(1), pp. 21-35.
- Thomas, G., 2011b. A typology for the case study in social science following a review of definition, discourse, and structure. *Qualitative Inquiry*, 17(6), pp. 511-521.
- Tongco, M. D. C., 2007. Purposive sampling as a tool for informant selection. *Ethnobotany Research and Applications*, 5, pp. 147-158.
- Tsui, A. S., Zhang, Z. X., Wang, H., Xin, K. R. and Wu, J. B., 2006. Unpacking the relationship between CEO leadership behavior and organizational culture. *The Leadership Quarterly*, 17(2), pp. 113-137.
- Tuckett, A. G., 2004. Qualitative research sampling: the very real complexities. *Nurse Researcher*, 12(1), pp. 47-61.
- Tung, L. L. and Rieck, O., 2005. Adoption of electronic government services among business organizations in Singapore. *The Journal of Strategic Information Systems*, 14(4), pp. 417-440.
- Usman, K., 2019. Impact of organizational culture, organizational communication and supervisor support on the job satisfaction of employees working in online IT based distance learning institutions of Pakistan. *Open Praxis*, 11(2), p.143.

- Van Manen, M., 2016. *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy*. London, Canada: Routledge.
- Van Teijlingen, E. R. and Hundley, V., 2001. The importance of pilot studies. *Social Research Update*, p.35. [Accessed 24 December 2013 from <http://www.soc.surrey.ac.uk/sru/SRU35.html>].
- Wardlow, G., 1989. Alternative modes of inquiry for agricultural education. *Journal of Agricultural Education*, 30(4), pp. 2-7.
- Wargin, J. and Dobiéy, D., 2001. E-business and change—managing the change in the digital economy. *Journal of Change Management*, 2(1), pp. 72-82.
- Waterman, A. S., 2013. *The Best Within Us: Positive Psychology Perspectives on Eudaimonia*. Washington, DC: American Psychological Association.
- Welch, M. and Jackson, P., 2007. Rethinking internal communication: a stakeholder approach. *Corporate Communications: An International Journal*, 12(2), pp. 177-198.
- Welsh, E., 2002, May. Dealing with data: Using NVivo in the qualitative data analysis process. In *Forum qualitative sozialforschung/Forum: qualitative social research* (Vol. 3, No. 2).
- White, C., Vanc, A. and Stafford, G., 2010. Internal communication, information satisfaction, and sense of community: The effect of personal influence. *Journal of Public Relations Research*, 22(1), pp. 65-84.
- Willemsen, T. M., 2002. Gender typing of the successful manager—a stereotype reconsidered. *Sex Roles*, 46(11-12), pp. 385-391.
- Wilson, B., 2014. *System and method for adaptive application of authentication policies*. U.S. Patent Application 14/218,646.
- World Health Organization. Global Health Observatory (GHO) data:

- Worley, J. M. and Doolen, T. L., 2006. The role of communication and management support in a lean manufacturing implementation. *Management Decision*, 44(2), pp. 228-245.
- Yargovan, S., 2013. *Transformation of administration into e-government: from municipality to e-municipality in İstanbul Metropolitan Municipality in Turkey*. Thesis, Jönköping University, Jönköping International Business School.
- Yildirim, O., 2014. The impact of organizational communication on organizational citizenship behavior: research findings. *Procedia-Social and Behavioral Sciences*, 150, pp.1095-1100.
- Yin, R., 2003. *Case Study Research: Design and Methods*. 3rd ed. Thousand Oaks, CA: Sage.
- Youth Magazine, 2013. Teachers strike continues.
- Zainal, Z., 2007. Case study as a research method. *Jurnal Kemanusiaan*, 5(1).

Appendix 1: Ministry of Information eTransformation Plan

1

وزارة الإعلام

خطة التحول للحكومة الإلكترونية

ديسمبر 2012

المحتويات:

3.....	1. المقدمة
4.....	2. ملخص
9.....	3. نبذة عامة حول وزارة الإعلام
9.....	3.1 الرؤية
9.....	3.2 المهمة
10.....	3.3 الوظائف والمهام
12.....	4. أولويات التحول للحكومة الإلكترونية
12.....	4.1 حوكمة تقنية المعلومات والاتصالات
14.....	4.2 تقديم الخدمات
16.....	4.3 الكفاءة والفاعلية الداخلية
18.....	4.4 الالتزام باستخدام تقنية المعلومات والاتصالات
19.....	4.5 التطوير المؤسسي
21.....	الملحق "أ": ملخص بأولويات التحول للحكومة الإلكترونية
32.....	الملحق "ب": الموازنة والأهداف قصيرة المدى
47.....	الملحق "ج": تفاصيل المشاريع المتعلقة بتقنية المعلومات والاتصالات

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

1. المقدمة:

شرعت وزارة الإعلام في اتخاذ الإجراءات الأساسية من أجل وضع جدول زمني لتحقيق الأهداف الوطنية المنوطة بها في خطة التحول للحكومة الإلكترونية المصادق عليها من قبل مجلس الوزراء في يونيو 2012م، إذ تلزم الخطة جميع الجهات الحكومية، بما فيها وزارة الإعلام، بتطبيق الأهداف الوطنية المذكورة والتي من شأنها تحويل الحكومة العمانية إلى حكومة إلكترونية ذات كفاءة وفاعلية عالية تقدم الخدمات الضرورية للمواطنين والمقيمين وقطاع الأعمال.

وتركز خطة التحول للحكومة الإلكترونية على الإجراءات الأساسية التي يمكن أن تتبناها وزارة الإعلام والأهداف التي ينبغي تحقيقها. فالتحول للحكومة الإلكترونية وتقديم الخدمات الإلكترونية لا يقتصر على الاستخدام الأمثل لتقنية المعلومات والاتصالات فحسب، بل هو تحول شامل يأخذ بعين الاعتبار عوامل أخرى مثل التطوير المؤسسي، والتزام الإدارة العليا بالتحول للحكومة الإلكترونية، بالإضافة إلى مراجعة الموازنة، والتدريب المهني الذي يتطلبه التحول، ومن ثم تحسين الخدمات الحكومية.

كما تركز هذه الخطة على الاستراتيجيات، والمشاريع، والممارسات التي ستساعد وزارة الإعلام على السير بخطوات واضحة وبناءة نحو التحول للحكومة الإلكترونية من أجل تحقيق الأهداف الوطنية المنشودة.

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

2. ملخص

يقدم هذا القسم شرحًا موجزًا للخطة الشاملة التي تسعى وزارة الإعلام من خلالها إلى بلوغ الهدف الرئيسي من خطة التحول للحكومة الإلكترونية والأهداف الوطنية التي جاءت بها، كما تهدف إلى تحقيق رؤية ومهمة وزارة الإعلام.

وتسعى وزارة الإعلام إلى العمل على خمسة وعشرين (25) أولوية ضمن خمسة مجالات أساسية مفصلة أدناه تتفرد وزارة الإعلام عددًا منها، بينما سيتم التعاقد مع مصادر خارجية لتنفيذ باقي الأولويات، ويقدم الملحق "أ" ملخصًا عن هذه الأولويات.

○ حوكمة تقنية المعلومات والاتصالات

تعنى حوكمة تقنية المعلومات والاتصالات بتوفير التوجيهات والضوابط لضمان التحول الناجح للحكومة الإلكترونية في وزارة الإعلام.

وتتوطر الحوكمة في وزارة الإعلام بشكل أساسي التفاعل بين اختصاصات القطاع الحكومي وبين الاستخدام الأمثل لتقنية المعلومات والاتصالات، كما تقوم بمراجعة جميع الموارد والجدول الزمنية الخاصة باستخدام تقنية المعلومات والاتصالات والموافقة عليها من أجل تطوير وزارة الإعلام.

وسعيًا منها لتحديد الاستخدام الفاعل لموارد ومشاريع تقنية المعلومات والاتصالات وتوجيهه والإشراف عليه- فيما يخص التحول للحكومة الإلكترونية على وجه الخصوص- ستعمل وزارة الإعلام على تطوير حوكمة تقنية المعلومات والاتصالات التي لا تقتصر على قسم تقنية المعلومات؛ إذ تشارك الإدارة العليا في وضع الأولويات والموازنة التي تلائم تقنية المعلومات والاتصالات والمهام الحكومية والمشاريع الخاصة بوزارة الإعلام.

وستتولى لجنة تسيير العمل بالحكومة الإلكترونية في وزارة الإعلام الإشراف على العمل لضمان تحقيق الأهداف الوطنية للتحول للحكومة الإلكترونية، وفي الوقت ذاته ستبنت اللجنة في القرارات المتعلقة بتطوير مشاريع تقنية المعلومات والاتصالات الخاصة بوزارة الإعلام، وتراقب التطور الحاصل فيها، ولن تقوم اللجنة باعتماد خطة التحول للحكومة الإلكترونية فحسب، بل ستتولى أيضًا مراجعة خطة العمل الخاصة بوزارة الإعلام.

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

ولتحقيق حوكمة فاعلة تقوم لجنة تسيير الأعمال بمراجعة أهم الخطط واعتمادها مثل خطة تطوير الاعلام الالكتروني (البوابة الاعلامية لسلطنة عمان) ، خطة إدارة الجودة، وخطة تقييم المخاطر وإدارة الأزمات وخطة التوعية وإدارة التغيير .

وسيكون هناك خمسة (5) أولويات تتعلق بحوكمة تقنية المعلومات والاتصالات، وهي:

- تشكيل لجنة تسيير العمل بالحكومة الإلكترونية في وزارة الإعلام.
- وضع خطة معتمدة للتحويل للحكومة الإلكترونية في وزارة الإعلام.
- تشكيل فرق للتحويل للحكومة الإلكترونية.
- وضع التوجيهات الإستراتيجية واتخاذ القرارات التي من شأنها تطوير إدارة الجودة، ورفع مستوى الخدمات، ودعم التكامل مع الجهات الحكومية والقطاع الخاص.
- وضع خطة لإدارة المخاطر المصاحبة للتحويل للحكومة الإلكترونية وتقديم الخدمات الإلكترونية والتدريب عليها.

○ تقديم الخدمات

ستقوم وزارة الإعلام بوضع خطة لتطوير وتقديم خدمات ذات جودة عالية للأفراد والحكومة، وكجزء من المرحلة الأولى من خطة التحويل للحكومة الإلكترونية يجب أن تكون وزارة الإعلام قد انتهت من حصر جميع خدماتها إلكترونياً قبل نهاية ديسمبر 2012م، وسيتم تشكيل فريق لتطوير الخدمات الإلكترونية في وزارة الإعلام لتحسين جودة الخدمات التي يتلقاها الأفراد والحكومة، كما سيتم تشكيل فريق محتوى إلكتروني لضمان سلامة ودقة معلومات الجهات الحكومية التي يتم نشرها عبر الموقع الإلكتروني ومركز الاتصالات وغيرها، وستقوم وزارة الإعلام بتنفيذ سبعة (7) أولويات لتقديم الخدمات وهي:

1. توثيق الخدمات التي توفرها الوزارة وفقاً للتصنيفات التالية (حكومة - مواطن، حكومة - قطاع أعمال، حكومة - حكومة). (جاري حصر وتوثيق الخدمات)
2. نشر وتحديث الخدمات الحكومية إلكترونياً.
3. تحويل كافة استمارات الطلبات الورقية إلى إلكترونية .

خطة التحويل للحكومة الإلكترونية- وزارة الإعلام

4. نشر المحتوى الإلكتروني باللغتين العربية والانجليزية سواء بالمواقع الالكترونية أو بالقنوات الأخرى بحيث تقوم فرق المحتوى الإلكتروني الذي سيتم تشكيلها بمراجعة وإدارة هذا المحتوى .
5. تبسيط وتحسين الخدمات الأساسية
6. تحويل إجراءات الدفع العادي إلى دفع إلكتروني
7. استخدام التطبيقات المتعلقة بذوي الإعاقة

○ الكفاءة والفاعلية الداخلية

بالرغم من وجود العديد من الطرق لرفع كفاءة وزارة الإعلام وفعاليتها الداخلية، إلا أنه تم التركيز على ستة (6) أولويات من شأنها تطوير البنية الأساسية لتقنية المعلومات والاتصالات والقدرات الإدارية لوزارة الإعلام.

1. حصر وتوثيق إجراءات وخطوات تقديم الخدمات
2. إعادة هندسة الإجراءات والأعمال (في المهام الأساسية) بهدف تقديم خدمات إلكترونية تتسم بالجودة
3. تثبيت الأنظمة المناسبة لأجهزة الحاسب الآلي والطابعات من أجل ضمان جاهزية المكتب وذلك للموظفين الذين يعملون في مكاتب فقط
4. تفعيل البريد الإلكتروني في المخاطبات مع المستخدمين
5. تحويل المهام الأساسية للوزارة بطريقة إلكترونية
6. تطبيق نظام توثيق إلكتروني

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

○ الالتزام باستخدام تقنية المعلومات والاتصالات

تتنوع مجالات استخدام تقنية المعلومات والاتصالات؛ ومنها المبادرات المركزية التي تعد عاملاً مهماً يُمكن وزارة الإعلام من التواصل مع الأفراد والحكومة ومشاركة المعلومات، ولضمان الالتزام باستخدام تقنية المعلومات والاتصالات، سيتم تنفيذ المبادرات المركزية التالية:

- ربط الموقع الإلكتروني للوزارة، بالبوابة الرسمية للخدمات الحكومية.
- الالتزام بإطار المعايير التقنية للحكومة الإلكترونية عند استخدام تقنية المعلومات والاتصالات.
- استخدام اتفاقية رخص برمجيات (مايكروسوفت) التي وقعتها هيئة تقنية المعلومات .
- استخدام بوابة الدفع الإلكتروني لإتمام جميع عمليات الدفع الإلكتروني .
- استخدام مراكز تجميع البيانات المشتركة وتبادل المعلومات في حال توفرها مستقبلاً.
- تخزين التطبيقات وقواعد البيانات الخاصة بالوزارة في مركز البيانات الوطني التابع لهيئة تقنية المعلومات للالتزامه بمعايير التعافي من الكوارث.
- استخدام خدمات الاستضافة الآمنة الخاصة بهيئة تقنية المعلومات وخدمات أمن المعلومات

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

○ التطوير المؤسسي

بعد نقل مديريات من وزارة الإعلام إلى الهيئة العامة للإذاعة والتلفزيون أصبح لزاماً أن تقوم الوزارة بتقييم إمكانياتها والإجراءات المتبعة لديها وتحسينها حتى تتمكن وزارة الإعلام من التحول للحكومة الإلكترونية على نحو فاعل ، وفي هذا السياق تتضح أربعة (4) أولويات هي كالاتي:

1. بناء هيكل تنظيمي جديد للوزارة
2. وضع استراتيجية تشمل خطط للجوانب الإدارية والمالية والإعلامية والتدريب
3. تطبيق نظم إدارة الجودة
4. تطوير الخدمات الإلكترونية

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

3. نبذة عامة عن وزارة الإعلام

اختصاصات وزارة الإعلام

حدد المرسوم السلطاني رقم (35/2009) اختصاصات الوزارة على النحو الآتي :-

- 1 اقتراح السياسة العامة للإعلام بما يتفق والسياسة العامة للدولة وعرضها على مجلس الوزراء لدراستها ورفع توصيته بشأنها إلى المقام السامي للاعتماد. ووضع الخطط الإعلامية والبرامج الكفيلة بتنفيذها ومتابعتها.
- 2 اقتراح مشروعات القوانين وإصدار اللوائح المتعلقة بمجالات عمل الوزارة. والعمل على حسن تنفيذها.
- 3 إصدار المطبوعات وإعداد الدراسات والبحوث ذات الصلة بالمجالات الإعلامية بما يخدم أهداف السياسة العامة للإعلام والخطط الإعلامية.
- 4 العمل على تزويد المواطنين بالمعلومات الكافية عن التطورات والأحداث الداخلية والخارجية والتنمية التي تشهدها السلطنة وذلك من خلال وسائل ووسائط الإعلام في إطار من الصدق والموضوعية.
- 5 العمل على تنوير الرأي العام العالمي، بالأسس التي تقوم عليها سياسات السلطنة والمبادئ التي تستند إليها، ومعالم التقدم والتطور التي تشهدها، ومواقفها تجاه القضايا والأحداث المحلية والإقليمية والعالمية.
- 6 العمل على بث الوعي والمعرفة وتوظيف الرسالة الإعلامية لتحقيق الوعي والانفتاح الثقافي من خلال وسائل الإعلام مع ضمان حرية الرأي والتعبير وفقا للقانون.
- 7 العمل على استمرارية التواجد العماني في الوسائط الإعلامية.
- 8 رعاية الصحافة الوطنية وتقديم ما يمكن من تسهيلات في سبيل أداء مهامها.
- 9 دعم المواهب المبدعة والعمل على صقلها في المجالات الإعلامية.

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

- 10 دعم وتطوير التعاون من المنظمات والمؤسسات الإقليمية والدولية في المجالات الإعلامية، وتمثيل السلطنة في الاجتماعات والمؤتمرات الإقليمية والدولية ذات الصلة بمجالات عمل الوزارة.
- 11 كافة الاختصاصات الأخرى المعقودة للوزارة بموجب القوانين والمراسيم السلطانية.
- 12 العمل على تأهيل الكوادر الإعلامية لرفع مستوى أدائهم وكفاءاتهم.

- رؤية الوزارة في مجال التحول الرقمي :

العمل على التحول من بيئة العمل (الورقية) إلى بيئة عمل الكترونية (رقمية) تحقيقاً لشعار ترفعه الخطة (طاولة خالية من الورق) .

- رسالة الوزارة في مجال التحول الرقمي :

العمل على توفير بيئة عمل رقمية تتسم بالفاعلية وتساهم في تقديم خدمات ذات جودة عالية ، والعمل على إعداد موارد بشرية قادرة على التفاعل مع بيئة العمل الجديدة بكفاءة عالية .

- الفرص المتوفرة في مجال التحول الرقمي :

- وجود قرار استراتيجي على مستوى الدولة بالتحول إلى الحكومة الإلكترونية .
- دعم الإدارة العليا في الوزارة لعملية التحول الإلكتروني .
- وجود مجموعة من الموظفين (الشباب) - وإن كان قليلاً يدفع باتجاه التحول الرقمي في الوزارة -

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

- التحديات :

- عدم وجود بنية أساسية ، نظراً لإنتقال كافة أجهزة (السيرفرات ، والأنظمة) إلى الهيئة العامة للإذاعة والتلفزيون ، وانتقال الوزارة إلى المبنى المستأجر .
- عدم وجود الموظفين المتخصصين في المجال التقني ، نظراً لإنتقال جميع المهندسين مع إلحاق المديرية العامة للهندسة إلى الهيئة العامة للإذاعة والتلفزيون .
- قدم أجهزة الحاسب الآلي المستخدمة في الوزارة ، ومن الأهمية بأن يتم استحداثها.
- قدم برنامج المراسلات الداخلي (الشبكة الداخلية للوزارة) المستخدمة في الوزارة وأصبح لا يخدمها بعد إنشاء الهيئة العامة للإذاعة والتلفزيون.
- قلة البرامج التدريبية وعدم القدرة على تنفيذ برامج تدريبية مكثفة في المجال التقني والإعلام الإلكتروني للموظفين ، نظراً لضعف موازنة التدريب في الوزارة .
- عدم وجود كوادر إعلامية متخصصة في مجال الإعلام الإلكتروني باللغتين العربية والإنجليزية واللغات الأخرى ، لتقوم بتحديث البيانات وتزويد المواقع بالمعلومات أولاً بأول .
- مقاومة التغيير المتوقعة من قبل بعض الموظفين عند التحول من بيئة العمل ذات النمط الورقي إلى النمط التقني .
- عدم توفر الموارد المالية لتحمل التكاليف المترتبة على التحول الرقمي في الوزارة .

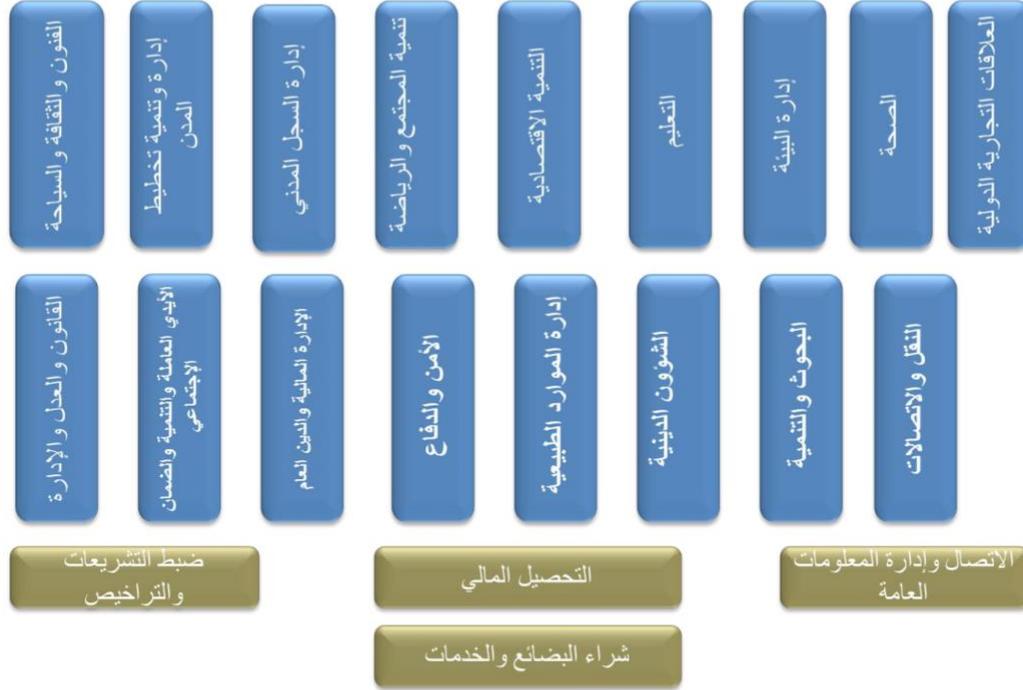
- الأهداف :

- العمل على تطبيق مراحل وأهداف خطة التحول الرقمي للخدمات الحكومية .
- تحويل أعمال الوزارة من إطار الأعمال الورقية إلى إطار العمل الإلكتروني الرقمي.
- التكامل مع الوزارات والمؤسسات الأخرى من حيث تبادل قواعد البيانات والبرامج المتخصصة .
- تقديم خدمات ذات جودة عالية وبصورة رقمية متكاملة .
- تسهيل وصول (ذوي الإعاقة) إلى الخدمات التي تقدمها الوزارة إلكترونياً.
- بناء هيكل تنظيمي يلبي الاحتياجات ويتسم بالفاعلية .
- دعم مبدأ تحليل الأعمال في عملية البناء والتطوير الإداري .

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

3.3 الوظائف والمهام

مجال الأعمال: الخدمات المقدمة للمواطنين، والمقيمين، والمؤسسات التجارية



مجال الأعمال: الخدمات الداخلية وخدمات الدعم



خطة التحول للحكومة الإلكترونية- وزارة الإعلام

تلعب وزارة الإعلام دوراً مهماً في التنظيم والإشراف على قطاع الإعلام في السلطنة وهي مسؤولة عن وضع السياسات الخاصة بالإعلام واقتراح القوانين المنظمة لممارسة النشاط الإعلامي في السلطنة كما تقوم بالعمل على تمكين وسائل الإعلام والإعلاميين من القيام بتقديم رسالة إعلامية تتسم بالصدق والموضوعية وضمان حرية الرأي والتعبير وفقاً للقانون، كما تقوم بالعمل على التواجد العماني في الوسائط الإعلامية محلياً ودولياً.

4. أولويات التحول للحكومة الإلكترونية

تركز مسيرة التحول للحكومة الإلكترونية على خمسة مجالات رئيسية، وتقوم وزارة الإعلام بتحديد أولوياتها للتنفيذ والتطوير وفقاً لتلك المجالات الخمسة لبلوغ الأهداف التي تم وضعها للتحول للحكومة الإلكترونية، ومن المقرر أن يتم تنفيذ هذه الأولويات في الفترة ما بين ديسمبر 2012م وحتى ديسمبر 2015م.

وهذه المجالات الخمسة الرئيسية تكون كالتالي:

- حوكمة تقنية المعلومات والاتصالات.
- تقديم الخدمات.
- الكفاءة والفاعلية الداخلية.
- الالتزام باستخدام تقنية المعلومات والاتصالات.
- التطوير المؤسسي.

وفيما يلي شرح موجز للأولويات الخمس التي تم إدراجها ضمن كل من المجالات الخمسة الرئيسية على التوالي، ولمزيد من التفاصيل وللاطلاع على الجداول الزمنية يرجى الرجوع إلى الأهداف قصيرة المدى المدرجة ضمن خطة التحول للحكومة الإلكترونية الخاصة بوزارة الإعلام

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

4.1 حوكمة تقنية المعلومات والاتصالات

تعنى حوكمة تقنية المعلومات والاتصالات بوضع توجيهات وضوابط وإجراءات واضحة لضمان نجاح عملية التحول للحكومة الإلكترونية في وزارة الإعلام، كما تركز الحوكمة على تحقيق التفاعل الأساسي بين مجال عمل وزارة الإعلام والاستخدام الأمثل لتقنية المعلومات والاتصالات، ويناط بها مسؤولية تقييم واعتماد كافة الموارد والجداول الزمنية المتعلقة باستخدام تقنية المعلومات والاتصالات لتطوير وزارة الإعلام.

تقوم وزارة الإعلام بتعزيز حوكمة تقنية المعلومات والاتصالات من أجل تخطيط وتوجيه ومتابعة كافة موارد ومشاريع تقنية المعلومات والاتصالات- في ما يتعلق بالتحول للحكومة الإلكترونية على وجه الخصوص- ولا تعد إدارة وحوكمة تقنية المعلومات والاتصالات حكرًا على قسم تقنية المعلومات؛ ومن خلال مشاركة الإدارة العليا يمكن تخصيص الموازنة وتحديد الأولويات لضمان توافق استخدام تقنية المعلومات والاتصالات مع المهام والمشاريع التي تختص بها وزارة الإعلام.

وتقوم وزارة الإعلام بتشكيل لجنة تسيير العمل للتحول للحكومة الإلكترونية للإشراف على التطورات التي تطرأ في مسيرة تحقيق الأهداف الوطنية لخطة التحول للحكومة الإلكترونية. وفي الوقت ذاته ستعنى هذه اللجنة بتحديد المشاريع الرئيسية في مجال تقنية المعلومات والاتصالات في وزارة الإعلام ومتابعة تقدمها، ولن يقتصر عمل اللجنة على اعتماد خطة التحول للحكومة الإلكترونية فحسب، بل ستعنى بمراجعة خطة عمل وزارة الإعلام.

إضافة إلى ما سبق، تقوم اللجنة باعتماد تشكيل لجان فرعية وفِرَق لتنفيذ بعض المشاريع والمبادرات، وتقييمها كما هو مفصل في قسم التطوير المؤسسي أعلاه.

1. تشكيل لجنة تسيير العمل بالحكومة الإلكترونية في وزارة الإعلام يترأسها معالي الدكتور وزير الإعلام وعضوية سعادة وكيل الوزارة وعدد خمسة مدراء عموم وثلاثة مدراء بما فيهم مدير شبكة عمان الإلكترونية (الجهة المسؤولة عن الجوانب التقنية في الوزارة).

وذلك كجزء من المرحلة الأولى ضمن الأهداف الوطنية للتحول للحكومة الإلكترونية؛ إذ ستقوم وزارة الإعلام من خلال هذه اللجنة بالإشراف على تطوير وتنفيذ الخدمات الإلكترونية والمشاريع المتعلقة بتقنية المعلومات والاتصالات.

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

وستجتمع اللجنة شهرياً أو فصلياً لمراجعة واعتماد المبادرات، والمشاريع، والأنشطة المتعلقة بكل من الحكومة الإلكترونية، والخدمات الإلكترونية، وتقنية المعلومات والاتصالات.

2. وضع خطة معتمدة للتحويل للحكومة الإلكترونية في وزارة الإعلام.

وتقوم اللجنة بمراجعة هذه الخطة واعتمادها ومراقبة تنفيذها؛ إذ ستكون مرجعاً عند اتخاذ القرارات الاستراتيجية وتطوير المشاريع الأساسية.

3. الموافقة على تشكيل فريق/ فرق للتحويل للحكومة الإلكترونية.

وتوافق اللجنة على الفريق/ الفرق ذات العلاقة وذلك لتطوير وتنفيذ الأهداف المختلفة، ويقوم الفريق بموافاة اللجنة بالتقدم الحاصل.

4. إجراء تقييم لمخاطر الخطة لوزارة الإعلام

وكجزء من عملية التحويل للحكومة الإلكترونية، فإن من المهم إدراك المخاطر الكبيرة التي تصاحب تنفيذ هذه الخطة بما يساعد وزارة الإعلام على فهم هذه المخاطر وطرق التعامل معها؛ إذ تؤثر بعض استراتيجيات تقييم المخاطر على نتائج تقديم الخدمات الإلكترونية ومشاريع تقنية المعلومات والاتصالات.

5. وضع خطة لضمان استمرارية الأعمال في وزارة الإعلام

وإذ تتولى الجهة تنفيذ مهام وإجراءات عمل وتقديم خدمات للأفراد والجهات الحكومية الأخرى، فإن على وزارة الإعلام أن تكون مستعدة لمتابعة تقديم تلك الخدمات الأساسية. وإن جودة ومدى توفر منخفضين- في الكوارث والحالات الطارئة.

6. تطبيق نظام جديد لتقديم تقارير عن سير العمل.

وجود مثل هذا النظام مهم لتقديم تقارير عن مدى التحويل الحاصل للحكومة الإلكترونية للجنة تسيير العمل في وزارة الإعلام؛ إذ سيتتبع هذا النظام التقدم الحاصل، والتكلفة، وعدد الخدمات التي تم تطويرها إلخ. كما يقدم تحليلاً مفصلاً للبيانات والإحصاءات.

خطة التحويل للحكومة الإلكترونية- وزارة الإعلام

4.2 تقديم الخدمات

ستقوم وزارة الإعلام بوضع الخطط التي من شأنها تطوير خدمات ذات جودة عالية وتقديمها للقطاع الحكومي وعامة المستخدمين.

وسيتم تشكيل فريق لتطوير الخدمات الإلكترونية من أجل رفع مستوى الخدمات التي تقدمها وزارة الإعلام للقطاع الحكومي ولعامة المستخدمين، إضافة إلى فريق آخر للمحتوى الإلكتروني يعنى بمراجعة المعلومات المتعلقة بوزارة الإعلام وضمان صحتها، وهي تلك المعلومات التي يتم نشرها في كافة قنوات التواصل المفتوحة مثل: مركز الاتصالات، والموقع الإلكتروني، والتقارير العامة، والصحف.

وفيما يلي عرض مبسط لسبعة (7) أولويات مهمة لتقديم الخدمات:

1. **تحويل المعلومات الأساسية إلكترونيا** : وهو تحويل المعلومات الأساسية الخاصة بالأفراد مثل (إجراءات العمل) من الصيغة الورقية إلى الصيغة الإلكترونية .
2. **التوقف عن طلب سجلات شخصية خاصة بالأفراد**: وبدلا من ذلك تقوم الوزارة بتلقي المعلومات الشخصية الأساسية لكل مستخدم من سجل الأحوال المدنية بشرطة عمان السلطانية من خلال البوابة الرسمية للخدمات الحكومية الإلكترونية.
3. **التوقف عن طلب سجلات تجارية** : وبدلا من ذلك تتلقى الوزارة المعلومات الأساسية العامة حول السجلات التجارية من وزارة التجارة والصناعة من خلال البوابة الرسمية للخدمات الحكومية الإلكترونية وهي البيانات المتعلقة برقم السجل التجاري والأشخاص المخولين بالتوقيع وغيرها من البيانات ذات الصلة .
4. **تحويل طريقة التسجيل الورقية إلى طريقة إلكترونية** : تقوم الوزارة بتقييم معاملات التسجيل التي تتم بطريقة تقليدية وتحويل أكبر قدر ممكن منها إلى عمليات تسجيل إلكتروني وذلك من أجل تطوير تقديم الخدمات الإلكترونية ، ويتم هذا التحويل عبر مراحل متدرجة، مع الأخذ بعين الاعتبار أنه في بعض المراحل يتم تقديم الخدمات ورقيا وإلكترونيا وبالرسائل النصية وغيرها حتى تكتمل عملية التحول تماما.
5. **تحويل إجراءات طلب الرخص إلكترونيا** : تعمل الوزارة مثل باقي الجهات الحكومية الأخرى على تحسين وتسريع إجراءات طلب الرخص إلى تصدر من الوزارة .

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

6. تحويل إجراءات الدفع العادي إلى دفع إلكتروني : سوف تقوم الوزارة في التحول إلى دفع إلكتروني عبر بوابة الدفع الالكترونية ، باستخدام بطاقات السحب وبطاقات الائتمان وسوف يؤخذ ذلك في الاعتبار تدريجيا عند تحول كل خدمة من الخدمات إلى التنفيذ بالطريقة الالكترونية .

استخدام التطبيقات المتعلقة بذوي الإعاقة : لضمان فرص متساوية للاستفادة من الخدمات الحكومية الالكترونية وكل ما يتعلق بالتعامل الرقمي لجميع أبناء المجتمع بمن فيهم الأشخاص (ذوي الإعاقة، وكبار السن) فسوف تراعي الوزارة الدراسة التي قامت بها هيئة تقنية المعلومات فيما يتعلق بسياسة النفاذ الرقمي والضوابط المتعلقة بها .

4.3 الكفاءة والفاعلية الداخلية

هنالك مجالان رئيسان يجب أخذهما بعين الاعتبار من أجل تحسين الكفاءة والفاعلية الداخلية:

1. إدارة إجراءات العمل (توثيق إجراءات العمل، ورفع مستوى الخدمة، وأتمتة الأعمال)
2. إدارة تقنية المعلومات والاتصالات (كل ما يتعلق بتقنية المعلومات والاتصالات من بنية أساسية وأعمال وإدارة وسلامة معلوماتية)

توجد العديد من سبل رفع كفاءة وزارة الإعلام وفعاليتها الداخلية، ولكن تم تحديد ستة (6) أولويات لضمان تحقيق أهداف المؤسسة.

التفاصيل كما يلي:

- 1- حصر وتوثيق إجراءات وخطوات تقديم الخدمات : تقوم الوزارة بتوثيق خطوات تقديم الطلب وإجراءات الخدمة التي تقدمها وذلك للحصول على أرشفة كاملة للإجراءات الحالية ، وهذا يساعد بدوره على فهم كيفية تطبيق القوانين والأنظمة والية اتخاذ القرارات في الوزارة ، وقد بدأت فعلا في عمل هذه الأولوية اعتبارا من 24 ديسمبر 2012م .
- 2- إعادة هندسة الإجراءات والأعمال (في المهام الأساسية) بهدف تقديم خدمات إلكترونية تتسم بالجودة : بعد تحديد المهام الأساسية للوزارة ، تتم مراجعة الإجراءات المتبعة لتنفيذ المهام الأساسية وتبسيطها وإعادة هندستها من أجل تقليص الزمن للأفراد .
- 3- تثبيت الأنظمة المناسبة لأجهزة الحاسب الآلي والطابعات من أجل ضمان جاهزية المكتب وذلك للموظفين الذين يعملون في مكاتب فقط : ويوجد حاليا لدى الوزارة عدد من الحواسيب والطابعات ، ولكن الوزارة تحتاج إلى شراء وتثبيت أنظمة حواسيب وطابعات إضافية بهدف استكمال البنية التقنية واستبدال بعض الأجهزة وسوف يتم دراستها وموافاة الجهة المختصة بتكاليفها .

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

- 4- **تفعيل البريد الإلكتروني في المخاطبات مع المستخدمين** : ويتحقق ذلك عبر قيام الوزارة بإنشاء حسابات بريدية إلكترونية للمراسلات الرسمية مع المستخدمين ، وفي هذا الجانب يوجد لدى كل جهة في الوزارة بريد إلكتروني من خلال نظام تبادل الوثائق المتواجد لدى الوزارة ، وسوف يتم مراجعته ليتوافق مع النطاق العام المحدد في الخطة.
- 5- **تحويل المهام الأساسية للوزارة بطريقة إلكترونية** : فعلى الرغم من وجود تطبيقات حالية في مجال تقنية المعلومات والاتصالات ، إلا أنه ينبغي تحسين التطبيقات من أجل دعم المهام الأساسية للوزارة ، وذلك لتحقيق التواصل الهادف إلى إنجاز العمل بصور سريعة ودقيقة .
- 6- **تطبيق نظام توثيق إلكتروني** : تقوم الوزارة بتطبيق نظام توثيق إلكتروني من أجل تحسين كفاءة الوزارة ، ولكن سيتم مراجعته ليتلاءم والتحول الإلكتروني في تنفيذ جميع المعاملات سواء بين الحكومة والفرد أو بين الحكومة والقطاع الخاص أو بين الحكومة والحكومة .

4.4 الالتزام باستخدام تقنية المعلومات والاتصالات

يعد الالتزام باستخدام تقنية المعلومات والاتصالات عاملاً مهماً لضمان مضي الوزارة ، قدماً في الطريق الصحيح خلال مسيرة التحول للحكومة الإلكترونية في السلطنة ، ويتجلى الالتزام باستخدام تقنية المعلومات والاتصالات عبر ثلاث مجالات وهي :

- 1- **تبنى مبادرات مركزية** .
 - 2- **والالتزام بضوابط تقنية المعلومات والاتصالات** .
 - 3- **ومتابعة آلية التقييم المرتبطة بنتائج التدقيق وأمن المعلومات والتوصيات المتعلقة بها** .
- وتعد المبادرات الأساسية مهمة للوزارة ، إذ أنها تمكنها من التواصل ومشاركة المعلومات والبيانات مع الجهات الحكومية الأخرى والمستخدمين ، ولضمان تماشي الوزارة مع خطة التحول سيتم تنفيذ المبادرات المركزية التالية :

- ربط الموقع الإلكتروني للوزارة، بالبوابة الرسمية للخدمات الحكومية.
- الالتزام بإطار المعايير التقنية للحكومة الإلكترونية عند استخدام تقنية المعلومات والاتصالات.
- استخدام اتفاقية رخص برمجيات (مايكروسوفت) التي وقعتها هيئة تقنية المعلومات .

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

- استخدام بوابة الدفع الإلكتروني لإتمام جميع عمليات الدفع الإلكتروني .
- استخدام مراكز تجميع البيانات المشتركة وتبادل المعلومات في حال توفرها مستقبلاً.
- تخزين التطبيقات وقواعد البيانات الخاصة بالوزارة في مركز البيانات الوطني التابع لهيئة تقنية المعلومات لالتزامه بمعايير التعافي من الكوارث.
- استخدام خدمات الاستضافة الآمنة الخاصة بهيئة تقنية المعلومات وخدمات أمن المعلومات.

إضافة إلى ما سبق، توجد أولوية مهمة للالتزام بضوابط هيئة تقنية المعلومات المتعلقة بمجال تقنية المعلومات والاتصالات:

- الالتزام بإطار المعايير التقنية للحكومة الإلكترونية: وهو وجوب التأكد من أن كافة المشتريات المتعلقة بتقنية المعلومات والاتصالات من أجهزة وبرمجيات وتطبيقات مطابقة للمعايير والممارسات المثلى التي يحددها إطار المعايير التقنية للحكومة الإلكترونية.

4.5 التطوير المؤسسي

بعد نقل مديريات من وزارة الإعلام إلى الهيئة العامة للإذاعة والتلفزيون أصبح لزاماً أن تقوم الوزارة بتقييم إمكانياتها والإجراءات المتبعة لديها وتحسينها حتى تتمكن وزارة الإعلام من التحول للحكومة الإلكترونية على نحو فاعل ، وفي هذا السياق تتضح أربعة (4) أولويات هي كالاتي:

5. بناء هيكل تنظيمي جديد للوزارة
6. وضع استراتيجية تشمل خطط للجوانب الإدارية والمالية والإعلامية والتدريب
7. تطبيق نظم إدارة الجودة
8. تطوير الخدمات الإلكترونية

خطة التحول للحكومة الإلكترونية- وزارة الإعلام

Appendix 2: Consent Form

The impact of internal communications as part of the eGovernment transformation in the Ministry of Information in the Sultanate of Oman

INTERVIEW CONSENT FORM

This form provides information about the research. One copy of the form will be kept by you and the other by the student researcher. Please read through all the details carefully.

I am a DBA student at Nottingham Business School (NBS), Nottingham Trent University. As part of my studies, I am required to conduct primary research. This research seeks to identify the following:

- 1. What factors influence the impact of internal communications across organisational levels within the Ministry of Information (MOI) in Oman?**
- 2. What is the Omani eGovernment Transformation Plan, and what impact does it have on internal communications in the MOI?**
- 3. What insights do the findings offer other Omani ministries adopting the eGovernment Transformation Plan, and what are the implications for their internal communicational systems?**

This research will focus on the Ministry of Information to gain an overall understanding of its internal communication system and this system's role in enhancing the interaction between managers and employees, specifically given the impact of adopting the eGovernment Transformation Plan. This study aims to identify the types of communication channels within the MOI and analyse their impact, exploring any challenges that could inhibit successful internal communication. If the internal communication system is found to be efficient, with a positive impact on the workplace environment, the study will consider whether the MOI's example can be followed by other ministries in the public sector.

For this research, you are being asked to participate in an interview lasting [approximately one hour]. You will be asked a series of questions about your own experiences, and your responses will be recorded. During the interview, please inform me if you would rather not answer some of the questions posed.

You have the right to withdraw at any time without giving a reason. If you wish to withdraw, you should contact me and ask for your data to be withdrawn from the study by [April 15, 2017]. Due to the nature of this research, extracts from the interview may be used in my work, but all names will remain anonymous. Furthermore, all recordings will be destroyed after submitting my research to NBS, and all information collected about individuals will be kept strictly confidential (subject to legal limitations).

Upon completion of the interview, you are free to ask any questions you may have about the interview or the research in general. My contact details are provided at the bottom of this document in case you wish to follow-up on any of the issues raised during the interview at a later date. Participation is voluntary and greatly appreciated.

Please read and confirm your consent to being interviewed for this project by initialling the appropriate box(es) and signing and dating this form

1. I confirm that the purpose of the project has been explained to me and that I have had the opportunity to ask questions about the research.

2. I understand that my participation is voluntary, and that I am free to withdraw my participation and the data I have provided at any time without giving any reason and without any implications for my legal rights.

3. I give permission for the interview to be digitally recorded on the understanding that the recording will be destroyed at the end of the project.

4. I agree to being named in the study.

5. I agree to take part in this project.

Name of respondent

Date

Signature

Name of student obtaining consent

Date

Signature

Contact details:

To reach the researcher, Hanan Al Kindi, please use the following:

0096894004414 (Sultanate of Oman)
0012024122898 (Washington, DC, United States)
Email: hanan.alkindi2013@my.ntu.ac.uk

Appendix 3: Interview Questions

Dear Hanan,

You have done a great job! I have looked at the questions; they are very clear and specific. I have only few comment regarding the structure of the questions not the content (see my comments on the hard copy). I think you are ready and you can start your interviews once you get the approval from your supervisor.

Best wishes,

Fathiya Al Rashdi, PhD

Assistant Dean for Undergraduate Studies

Assistant Professor, Department of English Language and Literature

College of Arts and Social Sciences

Sultan Qaboos University

Tel: +968 24141655

Mobile: +968 99856552

Appendix 4: Interview Questions (Arabic)

أسئلة المقابلة

1- ما هي وظيفتك في وزارة الإعلام؟

أ- هل يمكن أن تصف صيغة عملك والمهام التي تشغلها؟

ب- منذ متى وأنت في هذا المنصب؟

ج- ما هي خلفيتك المهنية، خبراتك والجانب التعليمي؟

د- عادة في عملك من هم الموظفين الذين تتواصل معهم داخلياً؟

2- كيف يتواصل الموظفون داخلياً في وزارة الإعلام؟ - مع إعطاء الأمثلة

أ- ما هي أنواع القنوات أو أدوات الاتصال التي يمكنك الاعتماد عليها؟ ولماذا؟

ب- ما هي الأجهزة التي تستخدمها في التواصل بوزارة الإعلام؟

ج- كيف تصف اتجاه الاتصالات بين الموظفين من مختلف الإدارات؟

د- هل تعتقد أن اتجاه الاتصالات الداخلية بين الموظفين فعالة؟ لماذا؟

هـ - في رأيك، ما هي الطريقة الأكثر فعالية للتواصل مع:

• زملاءك (هل يمكن أن تعطي مثالا)

• المدراء (هل يمكن أن تعطي مثالا)

• المديریات الأخرى والمكاتب العليا (هل يمكن أن تعطي مثالا)

3- هل يمكن أن توضح إذا كان الموظف يتلقى التغذية الراجعة؟ هل يمكنك أن تعطي مثالا على ذلك؟

أ- هل تعتبر التغذية الراجعة مشجعة للموظفين في وزارة الإعلام؟

ب- ما هي الأدوات المتوفرة أو المتاحة لإعطاء وتلقي التغذية الراجعة؟

ج- هل زمن الاستجابة والرد للتغذية الراجعة تعتبر معقولة بمعنى سريعة أو بطيئة؟

4- من وجهة نظرك، هل الاعتماد على الحكومة الإلكترونية للاتصالات الداخلية أثرت على:

• سرعة العمل؟

• الروتين اليومي؟

• التواصل بين الموظفين والمدراء؟

ب- هل تلقيت أي تدريب في كيفية التعامل مع نظام الحكومة الإلكترونية؟ إذا كان الأمر كذلك، ما هو نوع التدريب؟

• هل تشعر أنك كنت بحاجة لهذا التدريب؟

• كم مرة حصلت على التدريب؟

• هل تشعر أنها كافية؟

ج- ما الذي تجده أكثر تحدياً حول استخدام الحكومة الإلكترونية للتواصل داخلياً؟

د- ما الذي تجده فعالاً حول استخدام الحكومة الإلكترونية للتواصل داخلياً؟

هـ - هل غيرت الحكومة الإلكترونية نوع الأدوات التي يستخدمها الموظفون للتواصل داخلياً؟

5- كيف تصف بيئة العمل العامة داخل وزارة الإعلام مع إعطاء أمثلة؟

أ هل تستمتع بالعمل في وزارة الإعلام؟

ب- هل ترى نفسك تعمل هنا لبقية حياتك العملية؟

ج- هل تشعر بالتقدير كموظف في وزارة الإعلام؟

د- هل تشجع بيئة العمل الذكور والإناث للعمل معاً؟

هـ - هل الاعتماد على الحكومة الإلكترونية أثرت على بيئة العمل؟ وكيف؟

و- ما مدى رضاك عن أسلوب الإدارة والعمل بشكل عام؟

6- هل لديك أي تعليقات أو أسئلة إضافية لم ترد في هذه الدراسة المتعلقة بالبحث؟

Appendix 5: Interview Questions (English)

Interview Questions

1- What is your position at the MOI?

- a. Can you describe your tasks?
- b. How long have you held this position?
- c. What is your professional and educational background?
- d. Who do you communicate with (above and below your role)?

2- How do employees communicate internally within the Ministry of Information? (provide examples)

- a. What types of communication channels or tools do **you** rely on? Why?
- b. What devices do you use in your workplace?
- c. Describe how communication flows/occurs between employees in different departments?
- d. Do you think that the internal communication flow between employees is effective? Why/why not?
- e. In your opinion, what is the most effective method to communicate with your:
 - Colleagues? (Can you give an example?)
 - Managers? (Can you give an example?)
 - Other departments? (Can you give an example?)

- f. In your opinion, what is the most common method used to communicate with:
- Colleagues? (Can you give an example?)

 - Managers? (Can you give an example?)

 - Other departments? (Can you give an example?)

3- Could you describe how employees can participate with feedback in the MOI? Can you give an example?

- a. Is feedback encouraged from employees in the MOI?
- b. What tools are provided to give and receive feedback?
- c. Is the feedback response time reasonable (fast or slow?)

4- What is your view on the adoption of eGovernment for internal communications?

- a. Has it impacted:
- speed of work?
 - daily routine?
 - communication with employees and managers?
- b. Have you received any training on the eGovernment system? If so, what kind of training was provided?
- Did you feel that you needed training?
 - How often was the training?
 - Do you feel that it was adequate?
- c. What do you find most challenging about adopting eGovernment for communicating internally?

- d. What do you find most helpful about adopting eGovernment for communicating internally?
- e. Has eGovernment changed the type of tools that employees prefer to use for internal communications?

5- How would you describe the general workplace environment within the MOI?

- a. Do you enjoy working at the MOI?
- b. Do you see yourself working here for the rest of your career?
- c. Do you feel appreciated as an individual employee in the MOI?
- d. Does the work environment encourage males and females to work together?
(provide examples)
- e. Has the adoption of eGovernment affected the work environment?
- f. How satisfied are you with the overall work and management style?

6- Do you have any additional comments that were not addressed above but which are relevant to the research?

Thank you for participating in this study.

Appendix 6 and 7: Extract of Interview – Arabic and English

المقابلة الثالثة :

الاسم : – أعمل منذ عام 2013 في المديرية العامة للاعلام الالكتروني سابقا شبكة عمان الالكترونية – مسؤول عن – خريج كلية التربية لغة انجليزية .

مع من تتواصل داخليا : المديرية تشمل دوائر مثل دائرة المحتوى العربي – المحتوى الاجنبي والنشر التفاعلي – التعامل مع مدير الدائرة لا توجد لدينا أقسام ننتظر أن يتم النظر في مقترح المديرية لإضافة أقسام لهذه الدوائر الثلاث .

اتواصل مباشرة مع الموظفين زملائي ومع مديرة الدائرة ومن مدير الدائرة للمدير العام ، يوجد تسلسل وظيفي ونحن نتبع هذا التسلسل للتواصل ولا نتعداه.

النظام المرسلات نظام تسلسل وظيفي (أرسل فقط لزملائي من هم في نفس رتبتي الوظيفية أما إذا أردت أن أرسلها لمدير دائرة فلا يتم ذلك إلا عن طريق مديرتي المباشرة إلا أنني أشتطيع تتبع الرسالة من خلال الخارطة والتتبع لهذه المرسلات أين ذهبت وما التعليقات التي وردت - نظام مكتبي ، هو نظام ادراي لطلبات الموظفين (على سبيل المثال طلب اجازة – استئذان – طلب تقرير راتب وما إلى ذلك) .

الأجهزة المستخدمة : جهاز الكمبيوتر – الايباد (توفير الاجهزة من الوزارة) استخدام الهاتف في بعض الأحيان خاصة بعد نزول التطبيق الجديد في الهاتف لبرنامج اسمه (مكتبي) أستطيع استخدام الهاتف لانجاز بعض المهام الخاصة بالعمل سواء داخل الوزارة أو خارجها.

نظام الاتصال واتجاهاته كيف تصفه :

اتجاه الاتصالات أصبح أكثر مرونة وسهل ، سواء الموظف داخل في عمله داخل الوزارة أو في الخارج بإمكانه التواصل مع الآخرين بمنتهى السهولة عبر أي جهاز أو هاتفه وهذا بالتأكيد أفضل من النظام الورقي الذي كان معتمدا سابقا والذي كان يشكل بيروقراطية حيث التأخير وتعطل الحصول على الردود في الوقت المناسب بحكم الروتين المتبع في السابق. اتجاه الاتصال أستطيع أن أقول أنه تبادلي ما بيني وبين المدير المباشر لي وذلك حسب نظام الاتصال هو نظام تسلسلي يعتمد على الهيكله الادارية بحيث لا يمكنني تجاوز المدير.. إلا أنه لدينا النظام الآخر وهو يعتمد على البريد الالكتروني الخاص الذي من خلاله أستطيع التواصل مع أي موظف بالوزارة حتى مع معالي الوزير مباشرة .

وأنا أعتقد أن النظام فعال ولا توجد اعاقه (من ناحية المرونة والسرعة)

أكثر التواصل فعالية بيني وبين زملائي : التواصل الرسمي هو النظام الالكتروني المرسلات عبر النظام تكون موثقة وفيها أرشفة -

المدراء : نظام المرسلات الالكتروني ، الدوائر الأخرى لا أتواصل مباشرة معهم انا أرسل لمديري ومديري هو من يتواصل معهم عبر النظام حسب التسلسل الوظيفي لا أستطيع كسر وتعدي هذا التسلسل.

مكتب الوزير والوكيل : فقط عن طريق البريد الالكتروني الخاص ، على سبيل المثال بعض الاحيان يطلب مني عمل من قبل مكتب وكيل الوزارة عبر الايميل الخاص ويكون مطلوب بصورة عاجلة ، أقوم بالرد مباشرة لمكتب الوكيل دون الرجوع لنظام المرسلات الداخلي . لذا تكون هذه الطريقة المباشرة وتكسر هذا التسلسل الوظيفي إلا أنه هذه تحدث لإشياء محدودة لأننا في الغالب نتعامل مع نظام المرسلات .

التغذية الراجعة :

توجد هذه الخاصية في النظام الالكتروني ، على سبيل المثال عندما أرسل مذكرة لمدير الدائرة يظهر لدي ايقونه استفسار إذا كنت أرغب في الرد على هذه المذكرة أما مجرد رسالة عادية .. كما أنني أستطيع تحديد متى أرغب في الحصول على الرد من خلال تحديد التواريخ . وأحيانا تكون مباشرة مع مدير العام والزملاء والتغذية تكون بشكل كبير (النقاش والحوار مفتوح دائما والتغذية الراجعة تكون مباشرة بين المدير العام وبين الموظفين)

عادة ما الحصول على التغذية الراجعة يكون عن طريق المراسلات باستخدام النظام ، نتقدم باقتراحات مثلا عبر النظام وبعدها تكون هناك مناقشة مع المسؤول مباشرة وجها لوجه للنظر في الأمر .

Respondent #3 (R3)

Name:

Specialisation:

Years at MOI: since 2013 (4 years)

Education: Graduate of Faculty of Education (English language)

Professional Field:

Current position: General Directorate of Public Information (previously, Oman's E-network) - responsible for news content and the ministry's internal information.

Who do you communicate with internally?

'The directorate includes departments such as the Department of Arabic Content, and Foreign Content and Interactive Publishing. I deal with the director of the department and I communicate directly with my colleagues and the general director of the department. From the general manager to the department head, we have an administrative hierarchy that we follow to communicate.'

Messaging system and the administrative hierarchy

'I only message my colleagues at the same level as me. If I want to message the department head, then I cannot do so except through my direct manager. I can track the message through the email notification and follow the comments received. The office management system deals with employee requests such as vacation requests, authorisations, and salary request reports.'

Tools Used:

'The computer, iPad equipment provided by the ministry, sometimes the phone, especially after the new application is available for a program called Office. I can use the phone to accomplish some work tasks both within the ministry and outside.'

How would you describe the internal communication system and its directional flow?

'The direction of communication has become more flexible and easy, whether the employee is at work within the ministry or abroad, they can easily communicate with others easily through any device or phone, which is certainly better than the paper system we previously depended on. The old way was based on bureaucracy, and there were delays and disruptions to obtaining responses on time.'

'I can say that there is direct interaction between me and the direct manager. The system of communication depends on the administrative structure, so that I cannot bypass the manager. However, we have the other system of private email through which I can communicate with any employee in the ministry - even with the minister directly.'

'I believe that the system is effective and there is no impediment (in terms of flexibility and speed).'

'The most effective communication happens between my colleagues and I. Official communication is through the electronic system as it is documented and archived.

Communication with departments is done using the electronic system. I do not communicate directly with the other departments, so I message my manager and he contacts them according to the administrative hierarchy. I cannot bypass this sequence.

Communication with the Office of the Minister is done only through private email. For example, sometimes I am asked to do urgent work by the Office of the Undersecretary via email.

Therefore, I respond directly to the agent's office using the internal messaging system. This direct method breaks the hierarchy, but it is limited because most of the time we use the correspondence system.'

Appendix 8: Extract of Generating Initial Codes

RQ 1. What factors influence the impact of internal communication across all organisational levels within the Ministry of Information?

Initial Themes from the Literature Review:

Internal organisational communication, direction/flow of internal communication system, internal communication tools and channels, feedback

Generated Themes from Data Analysis/Interviews:

Interview Question Keywords (Highlighted)	Interview Responses	Main Ideas	Generated Themes and Sub-Themes
2- How do employees communicate internally within the Ministry of Information? (provide examples)	<p>‘I communicate directly with the manager and some other department heads through the electronic system (eGovernment system)’ (R1)</p> <p>‘I communicate directly with my colleagues via email. This is a special email in the department that is not connected to the electronic system. Because my work is related to foreign countries outside the Sultanate, I rely on Gmail My colleagues and I have the same password and we communicate with the same email account’ (R5)</p>		<p>General Theme: tools and channels</p> <p>Generated Theme: electronic system</p> <p>Sub-Theme(s): face-to-face</p>
	‘Correspondence system, personal email, office phone, face-to-face’ (R2)		

	<p>‘I personally prefer face-to-face because it is the most convenient for me. For example, before I send a message over the electronic system, I give him an idea about it before I send out the memo so that there are no misunderstandings. The more clarifications I provide, the easier it is to prevent problems. For example: we had a joint project with a department from another ministry. The manager responsible referred to me as a manager via the messaging system. There was no embarrassment, however, because it was all electronic, so I found it necessary to go and meet him face-to-face and explain the confusion’ (R6)</p> <p>‘For me, correspondence email and telephone are the best ways to communicate with both the staff and the manager. I can send a message via the system and contact the recipient and follow-up with him to see if he received the message. To communicate with other directorates, telephones is used first,</p>		<p>General Theme: tools and channels</p> <p>Generated Theme: electronic system</p> <p>Sub-Theme(s): face-to-face</p>
--	---	--	---

	<p>followed by email according to the administrative hierarchy' (R7)</p> <p>'Electronic system and then the phone'(R8)</p> <p>'The ministry's email system is the most important now for my work because I send news externally' (R10)</p> <p>'The electronic system, which is now more relied on' (R11)</p> <p>'The most important tool used to communicate internally is the correspondence system, which is a desktop system. My normal work depends on external communication because I deal with external parties. There is no other way to communicate except by using the paper system. I use the phone to communicate and email the ministry, and face-to-face interviews (because I meet clients from abroad)' (R12)</p> <p>'I communicate with the general manager and employees using the electronic messaging system and face-to-face meetings because I find it</p>		
--	--	--	--

	<p>important to be able to describe the matter to the employee or manager immediately, so they understand it. For example, depending on the rules of broadcasting, it is important to provide an explanation of the note before sending it to the employee, manager, or general manager. Therefore, I rely on face-to-face interviews’ (R12)</p> <p>‘computer, landline, and mobile phone’ (R13)</p> <p>‘I communicate now using the electronic system and it is one of the best communication methods. I can communicate via messaging and ‘My Office’ for administrative and financial aspects.’ (R15)</p>		
--	--	--	--

Appendix 9: The Award of Best eTransformation Achievement in the Sultanate of Oman in

2018

●●●●● OMANTEL 3G 8:23 PM 18%

< Thread

 هيئة تقنية المعلومات - عُمان @eOman_ITA

المؤسسة الفائزة بأفضل مؤسسة حكومية منجزة للتحول الإلكتروني المؤسسة الفائزة هي: @omaninfo1

The Award of Best eTransformation Achievement was given to .@omaninfo1

#إجادة_إلكترونية - #HM_Award

Tweet your reply