Institutional Perspective of Digital Open Government Implementation

A Case Study from Kuwaiti Ministry of Home Security

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Abstract

Digital open government uses avenues such as online means, websites, etc., to communicate with the citizens. For sharing data and delivering it in the digital open government service, we need digital facilities such as computers, mobile and fixed phones, amongst others, to facilitate access to government information systems with less stress. There is a wide gap experienced by the population and its citizens in terms of communication and services provided by the government of Kuwait. Therefore, the purpose of this study is to offer a conceptual framework after analysing the key practices, enablers, opportunities, and motivators of digital open government (DOG), especially in the context of the Arab countries. Therefore, the context has been explored through applying the institutional theory that would lead to understanding the institutional issues that have generated public and institutional values through DOG in Kuwait. As this research is interlinked with political, social, cultural, economic and technological context, the interpretivist epistemological position is being taken to interpret the overall institutional context of DOG in Kuwait. The qualitative research method has been employed to collect in-depth data using semi-structured data collection tools from professionals and citizens. It has been found that there is uncertainty in policies, lack of professional commitment, and extra-political pressure that negatively impact the overall institutional efforts to generate public and institutional values through DOG. Therefore, this research suggests that institutional collaboration, transparency, trust, public participation, and institutional participation are required to lead toward the public and institutional values of the DOG. The theoretical contribution of this research is that this research applies institutional theory in the context of DOG value generation; consequently, through using the institutional theoretical lenses, this research proposes an institutional DOG value model, which is a theoretical contribution of this research. The practical contribution of this research is that it provides in-depth knowledge for the government to generate public and institutional value from DOG successfully, and this research also identifies the enablers of DOG, among which are included participation, trust, collaboration, and transparency to generate value through DOG successfully.

Observations	Detail
UAE	United Arab Emirates
DOG	Digital open government
GDP	Gross domestic product
ICT	Information communication technology
IS	Information system
IT	Information technology
MOI	Ministry of Information
CMKST	Council of Ministers Kuwait for Science and Technology
MCIT	Ministry of Communications and Information Technology
FOI	Freedom of Information

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CHAPTER 1: RESEARCH INTRODUCTION

1.1 RESEARCH BACKGROUND

States in the Gulf of Arabia such as Kuwait, Bahrain, Oman, Saudi Arabia, Qatar and the UAE are experiencing a fast developmental trend because they are blessed with huge non-renewable resources such as oil, which increased their GDP during the 1970s, hence leading to an enhanced public sector in these states. The rise in GDP has made it possible for the government of each Gulf country to render quality services to its respective citizens in a cost-effective manner to produce better output (Jakka, 2004) to maintain and uphold these changes experienced in the public sector. Therefore, it is necessary to examine the functioning of the governments realistically by investigating the transformations taking place in order to improve on the services provided (Abdulkareem, Ameen and Ishola, 2015). It is worth performing research in Kuwait since it is considered to have the most reputable government system in the whole of the Gulf Cooperation, Middle East and Arab countries (Abdulkareem, Ameen and Ishola, 2015). Technology and digital openness make it possible for governments to now offer their services in a fast, secure, and trustworthy manner (Abdulkareem Mahmood, Azizi and Majedi, 2020). For this to be effective, states are called upon to strategies with modern techniques which might be capable of fulfilling the principles of transparency and fast ways of obtaining information while at the same time reducing slow feedback times from the present government(Islam and Scupola, 2011). This digital open government is built as a requirement for improving ICT (Al Azri *et al.*, 2010).

According to (Al-khouri, no date), the digital open government uses avenues such as online means, websites, etc., to communicate with the citizens. In sharing data and delivering the digital open government service, we need digital facilities such as computers, mobile and fixed phones, amongst others, to facilitate access to government information systems with less stress. At present, there exists a wide gap experienced by the population and its citizens in terms of communication and services provided by the government of Kuwait. According to. (Belanche, Casaló and Guinaliu, 2012), it is of utmost importance to reduce this gap so that the government will be able to provide the services needed for its citizens and make citizens more conscious of what and how they are liable to benefit (AlMaghrabi and Dennis, 2011). This innovation would bring the government closer to its citizens and vice versa because all their queries would be directed through digital technology and consequently able to get immediate feedback (Al-Busaidi, 2012). Though this innovation presents a lot of

theoretical advantages, it faces a myriad of obstacles that require expertise and solutions before the process of implementation commences within every government (Yildiz, 2007; Ashaye and Irani, 2014). Kuwait is the ninth amongst many countries targeted by cybercrimes, with further escalation across significant industries such as banking and immigrations (Al-Khouri, 2013, 2014; Al-Sarem *et al.*, 2019). This has increased the level of awareness, which has resulted in a surge in research surrounding web security in order to achieve successful digital open government implementation(Al Khouri, 2011; Barry *et al.*, 2013; Al-khouri, 2014) . The lack of ICT experts in the Kuwaiti government operating the digital open government system has resulted in a wide range of issues arising from poor web security, such as loss of money and intrusion into privacy (Basamh, Qudaih and Suhaimi, 2014). These issues have made governments hesitate to implement this digital open government and tend to maintain their old manual methods of handling their tasks. The citizenry themselves have no confidence in this digital open government because of persistent experiences of cybercrimes (AL-Jamea, 2012). It is against this backdrop that this researcher found it necessary to examine the system and embark on this study to reformulate the system to be more effective, with high technical know-how, and a system capable of building its citizens' trust towards digital open data (Al Azri *et al.*, 2010).With the advent and rise of the internet, open data, and information systems, government public services data is available online in order to reduce the level of corruption, enabling transparency, accountability, and quick service delivery (Kalampokis, Tambouris and Tarabanis, 2013; Ruijer, Grimmelikhuijsen and Meijer, 2017; Aslam, Muqadas and Imran, 2018). DOG has offered many benefits that are attractive for many countries, such as self-empowerment and involvement of the citizens, accountability of agencies and public, economic development and growth, and continuous learning and innovation by re-use of online data(Waller, Huijboom and van den Broek, 2011). Open data is strongly based on the usage of information and communication technology to create innovation and diffusion. Currently, in open data approaches, researchers are struggling to overcome the barriers regarding how efficiently and effectively open data can be captured, stored, reused, processed, and output (Hielkema and Hongisto, 2013b; Bannister and Connolly, 2014a). DOG enhances citizens' participation in discussion, searching online data and records, learning and awareness about key public services offered by DOG agencies. A study has indicated how a high level of transparency can bring major economic growth because "public reuse of government data is anticipated to provide economic and social value to spur growth, promote a knowledge economy, and help

the public help itself" (Linders and Wilson, 2011). The present study is focused on the implementation of DOG due to various benefits: information is accessible at anytime and anywhere, the greater level of efficiency and effectiveness, enhances the speed of communication, and this increases the level of citizen participation. According (Zuiderwijk-van Eijk *et al.*, no date; Dilmegani, Korkmaz and Lundqvist, 2014; Zuiderwijk *et al.*, 2015). to recent studies, most government agencies could not recognise the significance, value, and benefits of open data (Karabarbounis and Neiman, 2014; Real *et al.*, 2017). Many national and local government agencies have completed their work to specify policies that are helpful to use the latest technologies to use DOG data (Daugherty, 2015). For example, developed countries such as Canada, Australia, Spain, Denmark, the UK, and the USA have developed digital open government (DOG), and their organisations and citizens are using this data for their welfare and economic development (Huijboom and Van den Broek, 2011). Moreover, this study also highlighted countries like the USA, Australia, UK, and Canada that are increasingly focused on enhancing their investment budgets with the purpose of delivering DOG data in simpler, cheaper, faster ways. On the other hand, developing and Arab countries are struggling to formulate the structure, policies, enablers, and other required resources for the formulation of DOG (Elbadawi, 2012; Aslam, Ilyas and Imran, 2016; Mohammed *et al.*, 2021). Therefore, the purpose of this study is to offer a conceptual framework after analysing the key practices, enablers, opportunities, and motivators of DOG, especially in the context of an Arab country. There are some principles that must be followed to ensure the success of digitalisation of DOG, such as data must be free and online, timely and easily accessible for each stakeholder, analysable using various graphs and charts, available without any legal (i.e. license) and discrimination barriers, ensure data publishing with trust and permanence, ensure openness for stakeholders (i.e. input, review, coordination etc.), maintain a high level of accuracy and lower level of cost during the digitalisation of DOG(Elder, 2017).

1.2 RESEARCH MOTIVATION

Recently, with the advent of ICT and other communication technologies such as mobile communications in Kuwait, we have seen the advent of better opportunities that have upgraded the government's trustworthiness and improved outcomes in view of the implementation of a better digitally open government(Al Azri *et al.*, 2010). In addition, (Xiaolong *et al.*, 2021) recommended that future investigations could improve this matter by investigating in more detail the issues related to reliability, security and predictive

information, and ethical consideration in the process of implementation and the risk involved in implementation within the context of Kuwait, specifically, as it is adjacent to the Arab Emirates, which is amongst the fastest developing nations found in the Middle East with respect to the execution of digital open government innovation. State officials were warned by the Head of Government and Vice President of Kuwait that they would be relieved of their duties if they failed to transform to a digital open government before 2015 came to an end(Augustine, 2015). This order has lit a fire under the transformation process of digital open government in Kuwait, but this forced and unplanned action had many unforeseen implications, which made the system fail. The Kuwaiti government is very influential in the whole Gulf region, including Kuwait; its decisions are adopted in the whole of the country, thereby resulting in the adaptation of identical laws(Al-khouri, no date). With this degree of influence the Kuwaiti government possesses, it is possible that they may give further orders to various ministries to adopt an all-inclusive digital open government applied to the entire nation. If a working guide to follow, strategies and monitor procedures is not adopted, this would have implications such as inaccuracies which would consequently lead to lower standards when compared with world standards in the implementation of digital open government. It is therefore relevant to build a model which would incorporate the issues related to reliability, security and predictive information, and ethical considerations in the process of implementation and the risk involved in the final implementation of this innovation in Kuwait. According to (Zuiderwijk *et al.*, 2012), a significant fraction of public sector organisations have implemented the DOG system, but many organisations, especially in developing and emerging countries, are still unenthusiastic for DOG. Most of these studies have stated the issues of required infrastructure and regulations, as well as organisational and financial constraints (Hielkema and Hongisto, 2013a; Safarov, Meijer and Grimmelikhuijsen, 2017b). However, the limited research literature is present to address the micro-level issues such as lower levels of trust, lack of responsibility, lack of data quality, lower levels of awareness, lack of education, no clear digitisation process, lack of resources, and lower levels of participation from each stakeholder are the major issues(Elder, 2017; Ridout *et al.*, 2018). Furthermore, it is also found that the level of technology usage, work complexity, openness to change, level of education, level of awareness, and level of usefulness are very low, especially in developing and Arab countries (Elbadawi, 2012). These studies have also indicated that there is scant literature available regarding how a government can design a clear roadmap to overcome these micro-level barriers, especially in the context of Arab

countries. It is cumbersome because many government agencies opened their data too simplistically, but designing an open database often requires a change in processes, employee skills, culture, behaviour, systems, and organisational structure. (Chan, Lau and Pan, 2007) has indicated that the adoption and implementation of open government are not cheap and easy, but it is considered a resourceful innovation to establish systematic management for public services. According to researchers, limited literature is available that has explored the enablers, barriers, opportunities, and benefits of DOG data, especially in the context of Arab and developing countries (Saxena, 2017b, 2018d). Previous studies have indicated that enablers, drivers, and barriers usually vary from organisation to organisation, culture to culture, and from developed to developing countries (Chernoff, 1975; Bannister and Connolly, 2014a). In the light of reviewed literature, future researchers can investigate what the challenges and risks are in opening the digitalisation process, especially from the perspective of Arab countries like Kuwait. Therefore, the present study aims to uncover challenges, motivators, enablers, and risks in the implementation of DOG, specifically in the context of Kuwait.(Choi and Chun, 2013) have argued that ODG must be considered an open environment that can facilitate both citizen participation and collaboration. For example, if there is a high level of transparency, then this encourages public participation (Manske *et al.*, 2012). For providing the best ODG services, there is a requirement to create cross-institutional collaboration such as education and health, education and economic development, health and economic growth, public services and security agencies (Manske *et al.*, 2012; Shahbaz, Yu and Naeem, 2019). Although there are many studies available on the role of transparency, most of these studies could not attempt to explore how transparency can create and enhance public participation (Naeem, 2019). Both transparency and public participation can generate data for creating institutional collaboration. There is no understanding found if ODG is successful in generating data and then how it can create cross-institutional collaboration. The role of cross-institutional collaboration is important to create and enhance ODG public values. (Chan, Lau and Pan, 2007) has found that transparency, collaboration among institutions, and citizen participation and engagement can foster synergy in ODG. The pressure and expectations of citizens are to improve public services' value with the help of transparency, public participation, and institutional collaboration (Peled, 2011; Kassen, 2019). After reviewing the extensive literature, it is found that there is limited research available trying to connect transparency, public participation, institutional collaboration, and ODG public value (Černiauskas, Dobravolskas and Rapcevičienė, 2014;

Saxena, 2018g), especially in the context of Kuwait. Recent studies have highlighted that Arab countries have many issues which negatively influence the initiatives of ODG, such as low human capital, low awareness and knowledge, privacy and security issues, lack of open data quality, and lack of stakeholder support (Saxena, 2017d, 2018e; Saxena and Al-Tamimi, 2018)The national transformation program aims to improve the global open data index of Kuwaiti publication administration to deliver better public service value. Furthermore, one of the main objectives of Kuwait ODG is to improve the corruption perception index (CPI). Based on the above-given discussion, the following objectives are proposed for this study.

1.3 RESEARCH PROBLEM

It is a challenging task for public organisations to determine such strategic organisational goals that facilitate the organisations in specifying the values through which achievement of such strategic goals can be measured (Baum *et al.*, 2013). The governments are also facing difficulty in defining the equivalents of performance measurements and their association with open data objectives of the digital government in developing and developed countries (Jimenez, Solanas and Falcone, 2014). In 2010, the Kuwait digital open government was ranked at 50th place, but based on the latest knowledge database and the 2016 report of the UN on e-government; it is ranked at 40th place, which indicates the potential to step up. KPI (Key Performance Indicator) measurement is considered very useful in evaluating how public organisations execute their strategic vision of DOG in Kuwait. Through KPIs, governments obtain assistance in measuring and identifying the achievement of and progress towards DOG objectives. ICT infrastructure provides a fertile ground for the development of e-government. It is globally recognised that ICT plays an important role in improving the living standards of residents/citizens(Andersen and Motzfeldt, 2019). Consequently, governments in Kuwait are taking such measures through which they can ensure the increased adoption and utilisation of ICT. To support organisations and citizens in this regard, the Kuwaiti government is providing all tools, equipment and facilities that are necessary for the implementation of e-government concepts (Rouibah, Qurban and Al-Qirim, 2019). Therefore, this research primarily aims to develop a context-specific model for the implementation of open digital government to generate public and institutional value in Kuwait. Incoherent and unstructured efforts have emerged from inadequate soft IT infrastructure (such as standards and regulations) in Kuwait (Aladwani and Almarzouq, 2016). Development and implementation of fragmented digital services and IT solutions, inadequate guidance aiming towards the

adoption and provision of general standards, and siloed actions often result in tangled IT hard infrastructure. If there is a lack of government view about IT infrastructure for the public sector, this will further impede integration amongst agencies, which decreases the level of organisational and public participation in DOG in Kuwait (Gupta and Mirchandani, 2018). To deal with such situations, the Agency for DIGG (Digital Government) focuses on resolving IT infrastructure-related issues within the public sector. In order to successfully reinforce a state of digital-enabling frameworks (such as open-source software, cloud computing, business services and processes, shared data/ICT infrastructure, database registries, and an interoperability framework), the Kuwaiti government should focus on addressing the issues concerning the overall consistency and availability of the data and soft IT infrastructure (Rouibah, Qurban and Al-Qirim, 2019). Understanding the development of general components from a cost-effective perspective usually results in a loss of focus on their value as a basis for the delivery of highly integrated public services and the development of more shared services (Elenezi *et al.*, 2017). In Kuwait, the e-government provided a national report on ICT indicators during 2016. This report stated a variety of facts leading to success in the development of an e-government initiative. In this report on national ICT indicators, comprehensive detail on many ICT domains is provided, including manpower, education, and healthcare(Gupta and Mirchandani, 2018). The facts that are extracted from this national report on ICT indicators are discussed in this section, whereas the details on telecoms infrastructure within Kuwait are provided in the ICT Access and Infrastructure section. When digitalising the public sector, public trust always remains a top priority both as an effect and a driver of such digital transformation (Sharma *et al.*, 2018). Recommendation regarding Digital Government strategies highlights the importance of technology-based on its crucial contribution to creating trustworthy, participatory (Alenezi, Tarhini and Masa'deh, 2015) innovative, and open public sectors (Aladwani, 2013), improving government accountability and social inclusiveness (Al-Mutairi, Naser and Saeid, 2018) state that there is a lack of institutional collaboration in Kuwait; therefore, there is a need to bring together non-government and government actors to make a significant contribution to sustainable long-term growth and national development.

The major objective of the DOG is to promote accountability among the public that can yield better results as far as the balance of power is concerned. Moreover, openness is also a significant element when it comes to modern public sectors, especially when there is a need to be resilient and responsible for changes that are happening drastically (Bizer, Heath and

Berners-Lee, 2011) . In addition, this also ensures that the programs, policy and service delivery is based on the evidence gathered. This topic discusses open government in the concept of digital transformation of the public sector along with the scope and freedom of information (Kalampokis, Tambouris and Tarabanis, 2011a; Tambouris, Kalampokis and Tarabanis, 2017) . First of all, public sector transformation is somehow going to happen, which is why it has become essential in the modern era to observe its fitness as per the purpose which is required institutional efforts to the successful implementation of the DOG in a country. Though there are so many challenges faced in the public sector and efforts are being put into for improving service delivery, there are still limitations that true digital transformation needs to eradicate so the government can implement the concept for the improvement of modern approaches and their effectiveness that can cater to the needs of the community and to the global context as well (Alawneh, 2013). Openness mainly leads to building confidence, collaboration among government institutions and promotes institutional level trust within the ionisation and among the public. Openness is also very significant when it comes to scaling impact. Moreover, it influences the system and promotes people to engage individually and encourage innovativeness even though there are organizational and sector boundaries (Gonzalez-Zapata and Heeks, 2015a). Institutional openness also ensures that the work is based on proper evidence, tested and informed in a better way via peer review. This is how we attain effective institutional coordination among all sectors because it sends myriad lead indicators to vendors, and non-profit sectors, which is based on the institutional setting of the DOG that is directly connected with social-political, legal and social factors of the county (Ramírez-Alujas and Dassen, 2014). Naturally, allies are attracted when they know what the other person is doing, and normally, those who share similar goals or challenges tend to provide strategic benefits to each other through partnering up or collaborating of the DOG system; therefore, the trust, collaboration and participation is also required at the individual level within the public ionisation and among the public which is crucial for the government to successfully implement the DOG in Kuwait. Chances of opportunities are improved through effective collaboration and constructive engagement with the public, and this can help improve the experiences of citizens involved in DOG in Kuwait. When there is the inclusion of community development, collaborative goal and low hurdles for entrants in a public engagement strategy to engage the public with DOB, it tends to reap out best outcomes for the DOG (LeCompte and Schensul, 2010). Digital open government, however, includes the exploration of methods in which skills can be shared, and growth can

be achieved, which required a higher level of trust among public and private organizations on the DOG that would lead toward higher institutional success, which is why institutional perspective has been taken to explore that how institutional collaboration and participation can be promoted for the successful implementation through the engagement of major stakeholders of DOG in Kuwait. For talking about the new digital government, there is a huge opportunity to form the digital infrastructure for the public and use government on an economic and social platform which there is a challenge at the first stage to improving the institutional collaboration and participation for the successful implementation of the DOG in Kuwait. Resultantly, this can open up ways for availing greater services and a better system of administration for the public through the success of DOG in Kuwait.

1.4 RATIONALE

Based on its national digital roadmap, "New Kuwait 2035", the Kuwaiti government aims to drive the digital innovation industry of the country to about KWD 300 million ($988.88 million) this year. This announcement has been made by industry experts at SAP NOW Kuwait – the largest technology event in Kuwait (Elenezi *et al.*, 2017). Kuwait has made heavy digital investment both in the retail and gas, and oil sectors and has successfully pushed its software and smart services market to nearly KWD 293million in 2018. Moreover, the Kuwaiti government has set its Vision 2035 to leverage digitisation in order to improve its position as a cultural, commercial, financial, and regional hub(Sharma *et al.*, 2018). It is estimated that ICT spending by Kuwait's government will grow at an annual compound rate of 10.2% during 2019-24, reaching $10.1billion (USD) by 2024 (Alenezi, Tarhini and Masa'deh, 2015).

A leading analytics and data company, "GlobalData", reported that increasing adoption and utilisation of the latest technologies (e.g., IoT (Internet of Things), cloud computing, big data, AI (artificial intelligence)) will mainly drive this growth in ICT spending. At GlobalData, the famous Technology Analyst Anshuma Singh commented, "Kuwait Government's continued emphasis on the digital transformation of both public as well as private sector services meaning that mobility, cloud computing, data and analytics, and storage will witness high adoption in the coming years" (Carter *et al.*, 2012). Alternatively speaking, the Kuwait government is currently making available enough funds to stimulate both markets' strategic and economic investments. The government has made these investments particularly in areas that strongly influence the economy and are more likely to be technology-enabled startups or

technology corporations. Recently, on 20 January 2019, the Kuwait government announced a fund of amount $200 million, which was the largest government fund across the region(Karabarbounis and Neiman, 2014). According to Kuwaiti Foreign Minister and Deputy PM Sheikh Sabah Al-Khaled Al-Hamad Al-Sabah, the government set up this fund to make an investment in technology corporations, which is essential to keep moving towards a technology-rich digital economy (Al-Mutairi, Naser and Saeid, 2018). For the key actors, who are responsible for modernising the public sector at all government levels (from public sector companies to the ministries and coordinating units), the recommendation will appear more relevant for establishing highly effective co-ordination systems, stronger frameworks, and capacities to make digital technologies more effective for strengthening the trust of citizens and delivering public values in Kuwait. (Briz-Ponce *et al.*, 2017; Pereira and Romero, 2017) stated that in government, the trust level heavily depends on the culture and political history of a country. The recommendation of this research thus can assist the government in utilising technology to become very resilient and more agile and to promote forward-looking public organisations. As a result, this not only improves public trust by means of responsive policies and services and better performance but also mobilises the support of the public for innovative and ambitious government policy. In recommendations of this research, the principles set out support the cultural transformation in public sector organisations from technology usage to more efficient operations of incorporating digital technologies into the process of making strategic decisions and placing these technologies at the centre of overarching agendas and strategies for modernisation and reform of the public sector in Kuwait. Hence, the findings of this research provide guidance for a common mindset and shared understanding of how to get the maximum from, and prepare for, DOG opportunities and technological change in a long-run perspective to generate public value as well as to diminish risks associated with the efficiency of public sectors, quality of delivering public services, social participation and inclusion, multi-actor and multi-level governance, and public trust. All these dimensions reveal how important it is to invest in efforts that enable governments to bring improvements in the ways they design DOG, co-create, and deliver public services via DOG in Kuwait. It is thus suggested that all public organisations be enabled to utilise common platforms and tools because it is very crucial to promote coherent synergies and approaches that result in economies of scale and lead to high quality in public service delivery. To engage key stakeholders, it is important to provide them with platforms and space so that their knowledge can be levered and their creativity can be

harnessed in the service delivery and design process in Kuwait. By doing this, the gap that exists between governments, as well as their constituents, can be reduced through transparency, collaboration, participation, and trust among the public and institutions that can generate public value and institutional structures together in Kuwait. This would also result in delivering and designing public services with a key focus on users` requirements and using open data as an evidence source while designing them. The services are thus more likely to better fit growing expectations and changing demands, and the entire procedure underpins the responsiveness and openness of the Kuwaiti government towards improved public trust in DOG in Kuwait.

1.5   RESEARCH AIMS & OBJECTIVES

The present study aims to understand the extent to which institutional theory can help understand the implementation process of DOG and address the motives, challenges, and best practices of this initiative in the Kuwaiti context. The following objectives will be reached to achieve this research aim,

1. To develop a theoretical framework, this explains the implementation process through the lenses of institutional theory.
2. To review the published research to list the key enablers, opportunities, and challenges of implementing Digital Open Government (DOG).
3. To identify the important factors that can play their role in improving the public and intuitional values together through DOG in Kuwait.
4. To revise the initial theoretical framework in light of the data collection and evaluation of the institutional norms and best practices for implementation of DOG in the Ministry of Interior in Kuwait.
5. To formulate a set of recommendations that enhances public and institutional values together in DOG projects in Kuwait.

1.6   **RESEARCH QUESTIONS** RQ: To what extent does Institutional Theory help to understand the process of implementing DOG?

> **Sub-RQ1**: What are the enablers, opportunities, and motivators of implementing DOG in the context of Kuwait?

> **Sub-RQ2**: How is the implementation of DOG perceived from institutional perspectives (Coercive, Normative, and Mimetic)?

> **Sub-RQ3**: How can public and institutional values be generated together from the DOG project in Kuwait?

1.6.1   Research Process

On the one hand, the research design is viewed as the roadmap the researcher sets out to adopt in order to answer his/her research questions(Saunders, Lewis and Thornhill, 2019). On the other hand (van Moorsel *et al.*, 2015; Montgomery and Ren, 2018), describes research design as an art or science which follows certain procedures when carrying out a study in order to acquire the best results (McCollum *et al.*, 2012). Therefore, any researcher carrying out research requires a comprehensive guide to use in the research process. This study's research stems from bringing out the research questions; from these questions, the research objective is derived. Thereafter, it will describe the sources of data, the method of data collection, and lastly, data analysis. This design is adopted from the work of (Saunders, West and Usher, 2010; Li and Xie, 2012). Three stages are adopted for this research: the introductory stage, the data collection and analysis stage, and finally, the conclusion stage, as shown in Figure 1-1 below. In the introductory stage, detailed background on digital open government is presented, taking statistics from around the world and Kuwait in particular. Also, this stage is made up of the statement of the problem, research questions, and research objectives. The second stage, on the other hand, comprises the collection and analysis of the collected data through interviews. The third stage comprises the conclusions drawn from the results. This stage also requires that the researcher consults with the main Kuwaiti government managers to validate the results. This last stage is a stage that closes the gap between theory and practice. This research follows qualitative interpretative research. The research design is a case study that targets a specific case of Digital Open Government in the Ministry of the Interior that targets employment permits for immigrant workers in the new Chinese trade zone in Kuwait. A purposive sample of 6 participants was approached during

the pilot stage, while a total of 34 participants was to be approached after obtaining ethical approval.
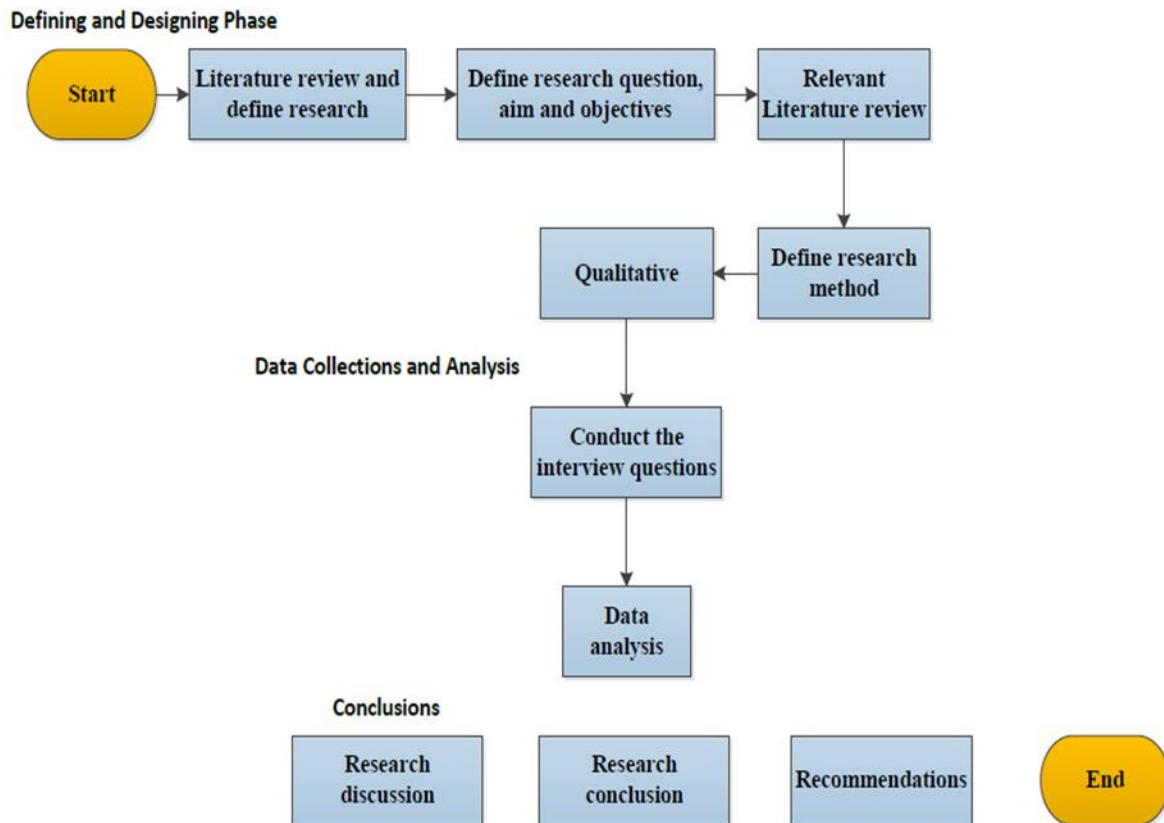
Figure 1-1 Research process **THESIS STRUCTURE**

To achieve the objectives set out by the researcher, the study is structured into various chapters.

- **Chapter 1: Research Introduction:** This chapter comprises the introduction, which is subdivided into the background, problem statement, research question, research objective, research hypothesis, and significance of the study.

- **Chapter 2: Literature Review:** This chapter reviews the published research that addresses the concepts, building blocks, benefits, and challenges of digital open government. This provides the opportunity to emphasise the potential contribution of the study. The background issues on digital open government obstacles are covered in the third chapter. This chapter points out the key enablers, challenges, and benefits of DOG. It also reviews the definitions of DOG and its building blocks. This chapter answer the questions of what the enablers, opportunities, and motivators of implementing DOG are in the context of Kuwait.

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- **Chapter 3: Theoretical Framework:** This chapter highlights research gaps in relation to institutional theory application in the area of IS in general and DOG more specifically. This theory helps in covering the gap in understanding the implementation process as an iterative process that encompasses many institutional/political issues that lead to answering the research question. *How is the implementation of DOG perceived from institutional perspectives (Coercive, Normative, Mimetic)?* Exploring the implementation enablers, challenges, benefits, and risks from an institutional perspective offer a better understanding of the overall implementation process.

- **Chapter 4: Research Methodology:** This chapter gives details on the research philosophy, approaches, designs, and methods. In each category, alternative methods are discussed, and those chosen are justified. The research sample for the semi-structured interviews is explained. Then, alternative research methods and tools are explored, and thematic analyses are being justified to analyze the qualitative data, which is collected through semi-structured interviews. Here, the researcher gives a description of the chosen organizations for the study, the procedures used in the field while collecting data and how responses were gathered based on the interview guide.

- **Chapter 5: DOG in Kuwait / The Research Context:** This study was conducted within the context of Kuwait with respect to Digital Open Government implementation. It also looked at ways to strategies in order to draw up guidelines in developing a good digital government framework for Kuwait. This chapter, therefore, presented the analysis of the results by comparing them with earlier studies in order to validate the results and identify where gaps still exist, which could result from unsuitable methods, unreliable data, and insufficient literature. This section presents the major findings and results of this study. Most importantly, it provides suggestions for a comprehensive model for implementing digital open data in Kuwait.

- **Chapter 6: Results and Findings:** This chapter explains the results of the study and points out the common and new challenges, opportunities, and mechanisms of implementing the DOG process. This chapter reports the results of the primary data, which is being collected through semi-structured interviews.

- **Chapter 7: Discussion:** In this chapter, research findings are discussed along with results from the fieldwork presented in the previous chapter. The focus of this part will be on explaining research questions that are on the basis of research outcomes.

This chapter provides a greater sense of understanding of the research findings by employing institutional theory lenses to explore the issues in the context of DOG in Kuwait. This approach will critically and cooperatively discuss findings of research from a theoretical perspective and help in formulating an integrated model for supporting DOG in Kuwait.

- **Chapter 8: Conclusion & Potential Contribution:** This chapter gives a summary of the entire research, from the identification of the major results to the limitations and the contribution of the study. This chapter also assesses the quality of the results by determining if the study's questions filled the research gap. This chapter also suggests areas for future research. The next chapter will supply a detailed account of the problem in the research area and also deliberate on the literature concerning the process of digital open government.

1.8 LIST OF PUBLICATION

1. Abdulrahman S. Alenizi, Khamis A. Al-karawi, User Acceptance of voice Biometrics in Digital Open Government to improve Security, has been published in the High Technology Letters in Volume 26, Issue 12, 2020.

2. Abdulrahman S. Alenizi, Khamis A. Al-karawi, Cloud Computing Adoption based Digital Open Government Services: challenges and barriers, has been published in the 6th Edition of this ICICT Congress 2021., London.

3. A systematic literature review for understanding the antecedents of the Digital Open Government matrix _Alenizi, A 2020, 'A systematic literature review for understanding the antecedents of the Digital Open Government matrix', International Journal of Electronic Government Research, **16** (1), pp. 1-17.

4. Abdulrahman S. Alenizi, Challenges in Digital Open government development- A Case Study of Kuwait, this paper has been submitted to the International Journal of Electronic Government research (IJEGR).

5. Abdulrahman S. Alenizi, Khamis A. Al-karawi, Effective Biometric Technology used with digital open Government in the State of Kuwait has been submitted to the 1st International Conference on Emerging Technology Trends in Internet of Things and Computing, Erbil, Kurdistan Region-Iraq, June 6-8,2021

2.1 INTRODUCTION

This chapter highlights the key enablers, challenges, and benefits of DOG. It also reviews the definitions of DOG and its building blocks. This chapter offers a partial answer for the first two research questions and an initial answer for the third question. The evidence provided in this chapter is based on secondary research: published papers in top ARE and ICT for Development Journals.

This chapter highlights research gaps in relation to institutional theory application in the area of IS in general and DOG more specifically. This theory might help to cover the gap in understanding the implementation process as an iterative process that encompasses many institutional/political issues. Exploring the implementation enablers, challenges, benefits, and risks from an institutional perspective will offer a better understanding of the overall implementation process.

2.2 ORIGIN AND DEVELOPMENT OF DOG

2.1.1. Open Data & Open Government

These two phrases, open data and open government, are concepts often used in the international agenda., many economies are using online platforms in publishing public data for easy access to stimulate an open government. For Example, The Open Data Initiative in Kenya has been triggered by both innovation interest and the government quest for modernisation. Also, there is also a growing need to investigate whether government services are rendered effectively and accountably(Weinstein and Goldstein, 2012). Many studies carried out in Kenya have found that the implementation of this Open Data portal has not been successful (Litvin, Abrantes and Brown, 2013). The words 'open data' and 'open government' are concepts that are often used interchangeably in the published research. According to (Litvin, Abrantes and Brown, 2013), open data is defined as data made available by the government or government bodies that can be used, reused, and disseminated by any person. With Open Data, both public and other users are free to access any information. Two assumptions about the government are often made when operating with Open Data. Firstly, it is assumed that public agencies are ready to open the process, which involves influences and discourses, while constructive opinions and exchanges are highly

welcomed. Secondly, it assumes that the government is to give up control over certain areas, which requires an extensive change in the public sector (Zuiderwijk *et al.*, 2012). According to the Open Knowledge Foundation (Molloy, 2011), the following are areas where open data is showing significant changes: amongst others, transparency and fairness, involvement, self-improvement, the innovation of new goods and services, better government services, better implementation of policies, and improved knowledge from many data sources. The Open Government Data website (n.d.) states that there are three core reasons existing as to why they deem open government data necessary. Firstly, for transparency: according to this, in any well-functioning democratic system, the citizens have the right to know why and what their government is doing. Citizens should be able to access any information concerning government action freely and with ease and also be able to disseminate it to anyone. By this, we can see that transparency is not only about access but the ability to be shared and reused. Secondly, for releasing social and commercial value, with the increasing use of IT today, data has become a very useful resource for both social and commercial integration because everything we do and search today involves data that is often available regarding the government. The advantage of opening information is to promote the creation of innovative enterprises that can deliver social and commercial value. Thirdly, for participatory governance, most often, citizens in a country encounter government officials only during periods of elections, which often occur only every 4 to 5 years. This open system innovation would allow citizens to be involved in a decision. This last reason is more than transparency because it allows for a full 'read/write' society, which not only allows the citizens to know what is happening in government but also to be able to contribute.

The open government, on the other hand, is known as a government that has a high level of transparency and mechanisms to keep it open for public scrutiny and oversight, with emphasis laid on government accountability. Recently, the definition of open government has gone beyond its basics by including citizens' participation and collaboration in government actions by using advanced technologies (Chernoff, 1975). The key principles for an open government according to the 2009 US Open Government Directive are transparency, participation, and collaboration. Alternatively, (Noveck, 2009) defined open government as an innovative strategy for changing how the government works. With the use of advanced network technology to link government to its citizens and vice versa, open government is a ready solution for this issue. This would result in more democratic, robust and effective institutions. (Heller, Kyriacou and Roca-Sagalés, 2011), in his turn, looked at this issue

across different dimensions, such as information transparency, wherein the public can have access to information on the government concerning its functioning. Secondly, the public has the freedom to see open data and large data scales, which constitute freely accessing avenues with information on supply, budgeting, state election records, outcomes of various meetings, and accountable political budgets. Other issues with respect to open data and large-scale data include the participation of the public in the government's activities by engaging in implementing government policies and delivery procedures. These activities include the adaptation of web-based Digital online applications by the government, building software, and giving reactions to Digital service delivery. Citizens also participate by giving suggestions on budgetary issues, giving opinions in meetings and giving feedback on all electoral activities. Lastly, his view was also on issues on accountability, which gives the public the right to hold the government representatives accountable for any act in the course of carrying out their assignments, e.g. anti-corruption mechanisms such as auditing, ombudsmen, conflicts of interest, and influence peddling safeguards. (Adu, Dube and Adjei, 2016) suggest that defining open government is somehow complicated due to a variety of existing definitions and new definitions still emerging. However, the main elements for considering its definitions should focus on transparency, citizen participation, and collaboration depending on the context.

2.1.2. Definition of Digital Open Government

Since last few decades, a movement has surfaced all over the globe, both in developing and developed nations, pushing for transparency and openness in the government sector and aimed at bringing governments much closer to societies and maximising citizen accountability, innovation, and participation, amongst others (Davies, 2012). This movement, unlike many other initiatives, focuses on the online release of public data, for example, day-to-day datasets that public agencies produce for recording design and operating and implementing public policies. These datasets are then published on government websites so that they can be easily accessible to the public and private sector, civil society and citizens. Though this movement has a strong economic rationale in the form of public taxes that are used to fund the public datasets in order to make them available to civil society and taxpayers, the final justification is reliant on ensuring that the right citizens are actively involved in knowing how the governments perform (Zuiderwijk-van Eijk *et al.*, no date;

Ohme, 2014; Zuiderwijk *et al.*, 2015; S. and Tiffany, 2019).Globally, this movement and initiative are recognised as DOG (Open Government Data).

A formal definition of DOG is "datasets that government creates and manages in cooperation with its public agencies and makes them freely available to third-parties to be shared, modified and used and are in machine-readable and open licenses formats" (Heusser, 2013). Due to these characteristics, DOG has succeeded in gaining strong advocacy and support from different international organisations, civil societies, and governments of different nations, specifically for focusing on promoting global democratic values such as collaboration, participation, and transparency (Lathrop and Ruma, 2010; Yu, 2012) technological innovations (Heusser, 2013) great business opportunities; and efficiency in delivering public services (Huijboom and Van den Broek, 2011).

2.1.3.   The Revolution of DOG

Transparency, the idea of open government, was optimised to derive its theoretical concept. For this purpose, we need to appraise its development first and foremost. The idea of leading to open government is not a novel concept in general; rather, it has been in use since historical times in different contexts, including anti-corruption, freedom of information, and transparency (Chan, Lau and Pan, 2007). As stated by Thomas Jefferson in 1789, if people are required to trust their government, it is likely to keep them well informed (Yagoda, 2010). With the advent of the American Revolution, public information came up as a radical idea and concept (Yu and Wu, 2009). During the course of the 20th century, a number of historical occurrences, including the Watergate scandal, moved the idea towards the public eye from the open government. Demand constantly went on rising from the public for transparency through better information from its government. This is the sole cause that made the government more advanced and efficient. This approach caught the public sector to modernise following 1980 that gained fame as the new public management (J Fishenden and Thompson, 2012).

The new public management refers to an approach aiming to consider elements such as autonomous agencies, decentralisation, or customer orientation belonging to the private sector for integration with the public sector to build a viable public administration (Larbi, 1999). Since the middle of the 1990s, the idea of open government came into being with the espousal of e-commerce (Evans and Campos, 2013). The Internet, since its growth in the late

1990s, brought a great alteration in the outlook of public administration as well as the government in a dramatic manner. The literature provides evidence on open government that resulted mostly from (Coglianese, 2009) Open Government Directive (Thorhildur, Avital and Bj Arn-Andersen, 2013). Three principles caught the attention of Obama regarding the possible working of open government.

Firstly, based on novel communication technologies, the government ought to be transparent in providing information to the citizenry about the functioning of the government (Kassen, 2013). Secondly, the government ought to be participatory, augmenting public engagement and thus endorsing government effectiveness as well as bringing improvements in the quality of decisions adopted. Lastly, the government ought to be collaborative (Cassidy, Barry and Van Egeraat, 2009). It is obligatory that executive departments, along with agencies, ought to deploy innovative tools, developing systems as well as methods to create an environment of coordination with each other at all management levels of government, business, non-profit organisations, and personnel from the private sector (Data, 2009). In history, the idea of open government was discovered in political theory hundreds of years ago, and traditional use of that term focuses on open source, data, innovation, or standards in opening up a new method for the management of the top bureaucracy (Harrison, Pardo and Cook, 2012; Manske *et al.*, 2012; Sayogo, Pardo and Cook, 2014).has stated that the term "open government" was purposefully used in the USA in the 1950s during the debate on political accountability and transparency from the perspective of the Freedom of Information Act. After extensive discussion on the Freedom of Information Act in the USA, this Act was adopted and implemented there in 1966 (Relly and Sabharwal, 2009). After this, the term "open government" has been critically discussed and expanded in the context of open-source data and technological innovations. The term 'open government' remains abstract and unclear due to limited exploration of theories (Rabaai, 2015). According to(Harrison, Scahill and Sheridan, 2012; Manske *et al.*, 2012; Sayogo, Pardo and Cook, 2014), even the term open government remained an abstraction and discussed for many years, but its accurate, acceptable, and generalisable meaning is still under construction.(Hood and Heald, 2006a) (p. 25) has described the term 'open' as data available for transparency. On the other hand, openness may also be known as the availability of online information and open interactions with interested citizens (van den Braak *et al.*, 2012). Generally, government agencies or institutions have three major driving factors to launch open data initiatives: efficiency, transparency, and innovation. Many researchers and practitioners have stated that open data

is one of the main factors to enhance accountability and transparency (Hielkema and Hongisto, 2013a; Susha *et al.*, 2015; Safarov, Meijer and Grimmelikhuijsen, 2017a; Saxena, 2018b). Both transparency and accountability are major facilitators of the Freedom of Information Act. Open government data can be known as data sets that are derived from political or socio-economic sectors such as the economy, education, transportation, health, climate, and technology (Davies, 2012).

(Gonzalez-zapata and Heeks, 2015) Have described the multiple perspectives of the term open government, open data, or government data. For example, government data means the government is the largest holder, user, collector, or producer of services data and information related to citizens, businesses, and organisations. However, a particular concern in government data is about the limitation in the use of data within public sector organisations or agencies (Paraušić *et al.*, 2014; Chilisa and Kawulich, 2015). On the other hand, open data methods are not limited to any sector or specific boundaries. Open government has explained the benefits that are creating attraction for many countries, such as self-empowerment and involvement for the citizens, accountability of agencies and public, economic development and growth, and continuous learning and innovation by re-using online data (Ruijer and Meijer, 2020). Open data is strongly based on the usage of information and communication technology to create innovation and diffusion (Ozdemir, Johnson and Whittington, 2016). Currently, in open data approaches, researchers are struggling to overcome the barriers regarding how efficiently and effectively open data can be captured, stored, reused, processed, and output (Grimmelikhuijsen, 2012). Finally, the open government believes that the given data or information should be transparent for taking optimal decisions, and stakeholders of data should act to make it fairer and more transparent. The only particular concern is to be exploiting new ways to empower the general public individually and organisations collectively in the processes of open government(Lathrop and Ruma, 2010).

The basic concept of open government is focused on ensuring that government agencies' data is accessible to every citizen of that country (Shim, Lee and Yoo, 2016). Most of the previously offered definitions on open government are focused on access to online information for transparency purposes only, but the open government is not limited to only transparency because it is increasingly focused on the importance of participation in the decision-making process from all the stakeholders of that system (Tintin *et al.*, 2018).

(Lathrop and Ruma, 2010) have stated that open government does not merely mean that citizens can gain access to given online information, but that they may contribute in various significant ways. It is also found that there are various stakeholders such as software developers, journalists, and citizens, who indirectly or directly interfere in the execution and implementation of open government databases across the world. Open government means information and data from supply-driven (responsive and reactive disclosure) to demand-driven transparency proactive knowledge exchanging (Mitra-Kahn *et al.*, 2016).

Moreover,(Vleminckx *et al.*, 2015; Bremers and Deleu, 2016)have described the open government as systematic management of public services data to enhance collaboration, participation, and transparency among government agencies and the general public. Here, transparency is seen as an ability to scrutinise the government given information and decision-making process, while participants can be described as an opportunity to contribute to decision-making processes (McNutt *et al.*, 2016). To date, the concept of open government has become more complicated and diverse, indicating significant ties to communication technologies and information (Lathrop and Ruma, 2010). Another study has explained the concept of open government as a governing and online knowledge sharing culture that enhances greater accountability, openness, responsive and efficient government services, and participation in service design and policymaking (Manske *et al.*, 2012).The literature indicates a scarcity of integrative definitions of open government. During this hunt, six authors were identified that endeavoured to find a definition of open government-related terms(de Mendonça, Maciel and Viterbo, 2015). The Organisation for Economic Co-operation and Development (OECD) comprehends open government on the lines of an explicit as well as receptive government (Riu Pedro Lourenço, Piotrowski and Ingrams, 2017). Research conducted by (Geiger and Lucke, 2012) established that open government comprises participation, transparency, and collaboration on the part of the state against 3rd parties, including businesses or other citizens. Further, it was argued that the association of open government could be matched with DOG based on using the information as well as communication technologies (Susha and Grönlund, 2012).

(Hilgers, 2012), by adopting an altered approach, defined open government in the light of practices that integrate external knowledge with the political as well as administrative process. The use of new communication and information technologies provide support to this integration (Liu, 2016). To obtain a lucid and complete comprehension of the given open

government term and its possible utilisation for prospective analysis, pertinent articles can be consulted to unveil the core dimensions of open government (Safarov, Meijer and Grimmelikhuijsen, 2017b).The term open government refers to leveraging information technologies with the aim of generating a collaborative, participatory dialogue between citizens and policymakers (Wahid *et al.*, 2015). In mid of the 1990s, the adoption of DOG led to the emergence of the latest open-government movement. The development of the DOG Act 2002 focused more on establishing such initiatives than did the Paperwork Reduction Act 1995 and Freedom of Information Act 1966 (McDermott, 2010). The focus of DOG was to disseminate the information and deliver the services via the Internet (Dawes and Helbig, 2010). Public policymakers are nowadays focusing on the availability of all government transactions online so that transparency of the government information at all levels can be ensured (Gant and Turner-Lee, 2011).

The subject-related dimensions highlight the functions of open government along with its mode of working(Saxena, 2018a). All dimensions of the subject related to the government regarding open government as a permanent procedure. However, the functional dimensions indicate extensive differences (Kassen, 2017). Both directions are exposed and eye-catching; one authors' group regards open government as an instrument to effect government working, whereas other authors regard information as well as technology as the functional dimensions (Kucera and Chlapek, 2014). On teleological dimensions of open government, definitions provide a homogenous picture. Linked with this background, a compact definition of open government emerges as below: Open government takes inspiration from multilateralism and socio-political processes, which are ignited by collaborative, transparent and participatory actions of the government as well as administration (Kucera and Chlapek, 2014). To come across these circumstances, integration of citizens with social groups is vital to assimilate them into the political process using the wheels of advanced information as well as communication technologies; these will result in improvement of the effectiveness as well as efficiency of government as well as administrative action (Klaus, 2016).

The step of DOG towards adopting a utilitarian technology approach is shown through the extensive spread of the digitalised data(Chun *et al.*, 2010). The focus of most recent research on the utilisation of IT includes accessibility issues but is less focused on engagement of the general public and policymakers and advancing the goals of open government. The utilisation of the unidirectional DOG model has decreased with advancements in technology (Neumann

et al., 2019). The focus of new initiatives is to enhance proactive citizen collaboration and partnership along with transparency and openness. In the latest initiatives, the implication of technology is directed more towards cooperation between citizens and government. The rise of social media and Web 2.0 not only facilitates social interaction but also accelerates the government more towards fulfilling the goals related to transparency, civic participation, and collaboration (Pyrozhenko, 2017). The Directive at the federal level established three goals, including collaboration, participation, and transparency, and attempts to charge federal agencies with implementing various steps to achieve these goals(Orszag, 2009). According to the memorandum, the agencies are instructed to "publish government information improve the quality of government information create and institutionalise a culture of open government, [and] create an enabling policy framework for open government" (Orszag, 2009)(pp. 2–6). Thus, the concept of open government could be primarily understood as information transparency (Xu *et al.*, 2019). Similarly, the open government conceptualisation originally entailed the establishment of legal standards for the government`s responsibility to share and the people`s demands to know (Ahmadi Zeleti, Ojo and Curry, 2016). Open government-related discussions mainly focused on addressing how constitutional rights to know could be realised and specified practically (Hothorn and Everitt, 2006; Jetzek, Avital and Bjørn-Andersen, 2013; Jetzek, Avital and Bjorn-Andersen, 2014) . Interest in open government discussion has changed with the passage of time. When the concept of open government is traced, few perceivable footprints can be observed. Pay attention to the following citation: ""'Open government'' used to carry a hard political edge: It referred to politically sensitive disclosures of government information. The phrase was first used in the 1950s in the debates leading up to the passage of the Freedom of Information Act. But over the last few years, that traditional meaning has blurred and has shifted toward open technology(Yu and Robinson, 2012).No doubt, a technologically overloaded stance has raised the open technology conceptualisation; the aforesaid observation reveals two key drivers of open government: technology and politics (Karabarbounis and Neiman, 2014). The Opposing party and the citizenry in the US demand the release of more information; consequently, Lyndon B. Johnson`s administration passed the "Freedom of Information Act". In the mid-20th century, the open government was mainly involved in guaranteeing constitutional rights to know and releasing government information publically on request (Townsdin, 2018). Nowadays, open government has become conceptually more complicated and diverse, showing significant ties to ICTs (information and communication technologies).

As(Harrison *et al.*, 2011; Manske *et al.*, 2012) remark, ''*while the idea of open government traces back through hundreds of years of political theory, contemporary use of the term draws on the concepts of open standards, source, data, and innovation in proposing a new approach to the management of the federal bureaucracy*''.

In addition to this, the open government focuses on the need for citizen involvement in solving wicked, complex issues (Kornberger, Pflueger and Mouritsen, 2017). Openness, in turn, implies encouraging citizen engagement. Nowadays, efforts of open government are not only information-focused but also aim to maximise the understanding of citizens about the complications of policies along with their involvement in policy deliberation(Evans and Campos, 2013), which enables the government to extensively serve highly desirable social outcomes(Harrison *et al.*, 2012).

Moreover, (Lathrop and Ruma, 2010) say that ''open government now means government where citizens not only have access to information, documents, and proceedings but can also become participants in a meaningful way.'' In addition to this, "open government conceptualisation tied more to demands for transparency in political governance and collaborative relationships that characterise contemporary technology innovation'' (Harrison, Pardo and Cook, 2012).

According to (Lee and Kwak, 2012; Ohemeng and Ofosu-Adarkwa, 2015), citizen engagement occurs when the open government reaches its phase of higher maturity, which proposes evolutionary phases such as from "data transparency" to "open citizen participation" to "collaboration" to "open engagement".

Though it is expected that open government will generate economic and social value through public usage of government data, open government at the higher maturity phase may face greater challenges and increased managerial and technical complexity (Dawes and Helbig, 2010) propose that there is a possibility for open government data to remain a myth. They further add that benefits may not be automatically generated by publicising data, and that open data would not lead to open government. Moreover, open government is also facing various challenges regarding citizen participation efforts (Loukis *et al.*, 2016). For example, creating understandable and easily usable information for citizens to effect participation is quite expensive and needs extra administrative capacities, which may alter the original information (Evans *et al.*, 2013). Currently, the trend towards further open government is

likely to swing between transparency and secrecy (Lourenço, Piotrowski and Ingrams, 2015). Furthermore, evaluating efforts of open government may not properly reflect what extent constitutional rights to know should be guaranteed practically (Masi *et al.*, 2007). The latest studies have reported the risks and challenges associated with efforts of open government and have selected specific themes such as open data (Dawes and Helbig, 2010; Janowski, Pardo and Davies, 2012) All these values, along with expected outcomes of DOG, are strongly associated with three convergent streams: (1) open data, i.e. focusing on technological perspectives of data release (Rui Pedro Lourenço, Piotrowski and Ingrams, 2017) open government, i.e. an emerging governance model and socio-political movement which aims at promoting a higher degree of civic participation and transparency by disclosing sub-national or national governments' information (Lourenço, Piotrowski and Ingrams, 2015); (3) government data or the role of PSI (public sector information) in delivering public services (Figure 2.1). According to this conceptualisation, there are four key perspectives through which DOG can be approached. From these perspectives, the purpose and nature of DOG related barriers, benefits and drivers have driven bureaucratic (associated with GD), political (associated with OG), technological (associated with OD), and increasing focus on economic development (Dawes and Helbig, 2010). All these DOG approaches and meanings have generated different implementation outcomes and design policies across the globe (Gonzalez-zapata and Heeks, 2015).

2.3   ENABLERS/Building blocks of DOG

Everybody Researchers have pointed three different and convergent streams that have shaped overall DOG, while every stream has different purposes and origins and has enriched recent public data releasing initiatives:

government data, open data, and open government (Figure 2-1) (J. Fishenden and Thompson, 2012). After observing three streams, the researcher reflects in this section on how these streams originated from and were preceded by enduring initiatives in order to better explain their meaning and current direction (Yagoda, 2010). Moreover, it is argued that there exist some other interpretations regarding the associations between driving forces and precedents of DOG. This section further aims to provide more historical evidence to explain how DOG, in actuality, has developed so far.
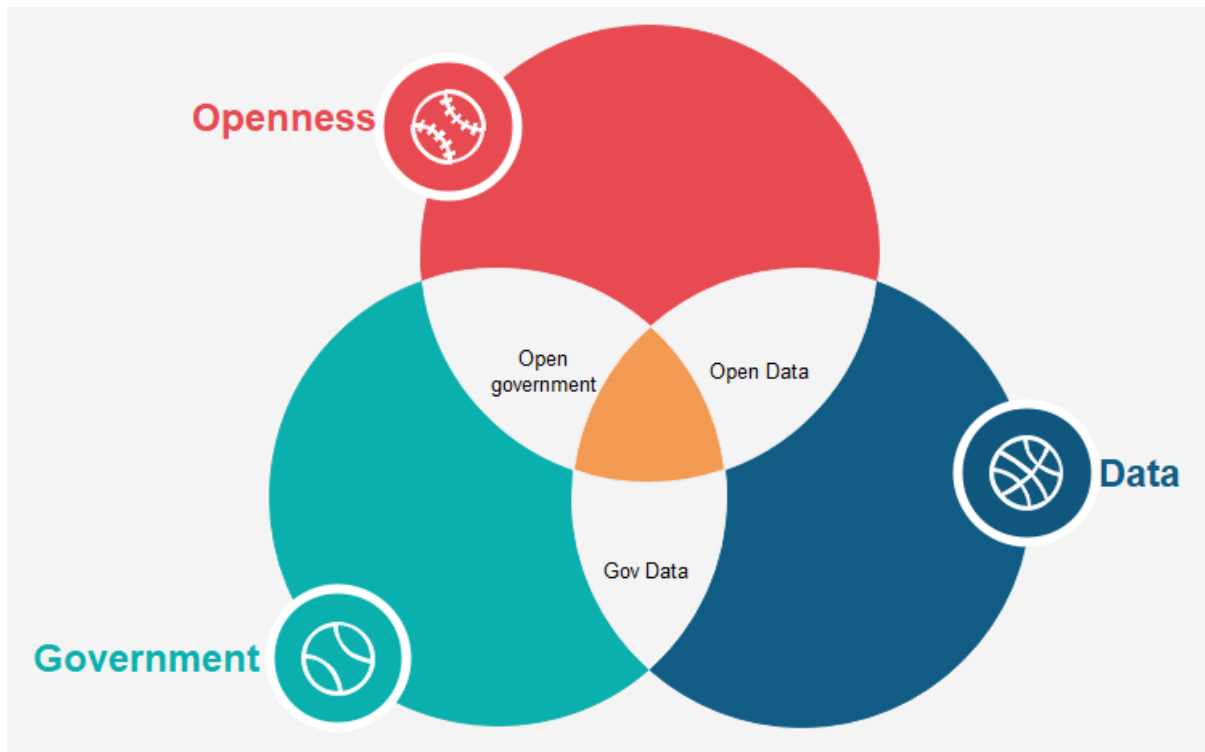
Figure 2-2 Building Blocks of DOG (Gonzalez-zapata and Heeks, 2015)

2.3.1. Open data

The Open Data initiative is the first stream that represents the technological aspect of DOG (Office, 2012; Yu and Robinson, 2012). This technology-based stream publishes data through the Internet (which is also applied across a variety of disciplines). The basic rationale of Open Data (OD) is to allow the utilization of datasets, but without obtaining further permissions (Kalampokis, Tambouris and Tarabanis, 2011b). This runs parallel to the technical principles that (Berners-Lee, 5AD) have proposed. In addition to reflecting on procedures of online data disclosure (sophisticatedly linking online published raw data with these datasets in light of interoperability frameworks), this stream also reflects on the political position of rights and civic society`s monitoring role in controlling public data. Areas such as the private sector, public sector, international organizations, civic society organizations, and many others have been extensively applied to this approach on a wider scale (Alawneh, 2013). This stream also covers technological advances around private or public data management, thus incorporating particular licenses, platforms, systems, formats, or other methodological aspects that are associated with the full availability and accessibility of datasets. Consequently, the OD initiative (along with advocates of PSI) has provided an intense focus on technologically

developing DOG (Gonzalez-zapata and Heeks, 2015). Amongst other aspects relevant to Open Government Data (DOG) initiatives, data disclosure techniques are most important.
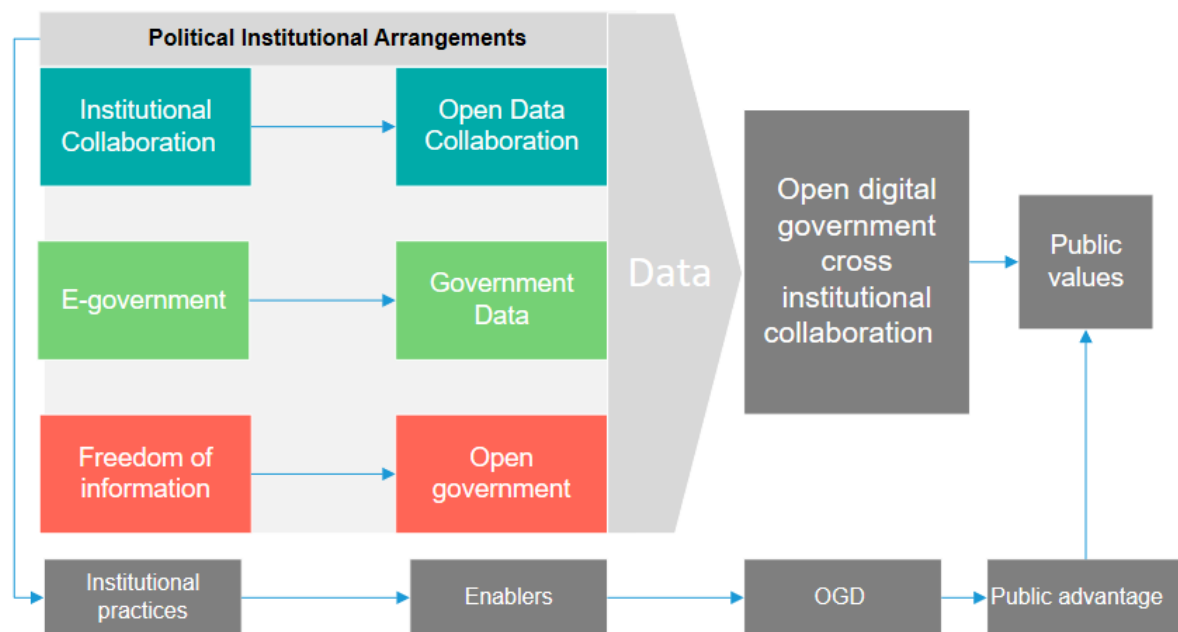
Figure 2-3 DOG trajectories (developed by the author)

2.3.2. Open Government

The open government initiative is the second stream that better represents the political roots of DOG. This stream reflects on how public data disclosure plays an important role in civic participation and transparency processes. Over the last two decades, civil society has demanded more transparent, more participatory, and closer governments because traditional governance frameworks have been intensively eroded (Ramírez-Alujas and Dassen, 2014). In order to increase civic participation and transparency, the open government initiative emphasises opening up decision making and public service delivery to civil organizations and citizens(van den Braak *et al.*, 2012) OG, with a focus on transparency and openness due to having its philosophical roots in FOI regulations, took its specific shape in 2008 under Obama's directive and proclaimed a totally new governance relationship between the American government and its citizens on the basis of principles of civic engagement and transparency (Data, 2009). International organizations and CSOs are taking a greater interest in introducing openness practices to the public sector. Consequently, the OG concept is quickly spreading all over the globe. As a result of increasing political momentum, many governments have started to share best practices as well as having defined standards for OG

initiatives(van den Braak *et al.*, 2012). This movement, so far, has been shaped through the OGP (Open Government Partnership) – an international entity with 80 or more members that aims to promote OG standards and public policies for countries to be applied at sub-national and national levels by enacting OGP plans (Manolea and Cretu, 2013). In this particular context, OG (and thus DOG) initiatives are acknowledged as interventions within political spaces (Davies and Bawa, 2012). DOG has, thus, to be viewed in light of relations between politicians, technicians, citizens, and communities with power (Ramírez-Alujas and Dassen, 2014).

The OG initiative has improved DOG by promoting the citizen`s right to access public data and a high level of openness as well as collaboration between public bodies and civil society. Due to having a strong political background, OG has provided political platforms for the development of DOG policies. This key innovative practice has shifted state-society relationships to a new dimension by increasing access to government data. In many countries, the development of OG on the basis of OGP action plans served as a political platform for DOG. Moreover, many countries assume political commitments for the implementation of DOG movements as a core component of their action plans. OGP has, in fact, been acting as an optimistic force in institutionalising and spreading DOG all across the globe and constantly requests each member country to promote accessibility of data held by the government in open layouts to facilitate further OG strategies and policies. This indicates that DOG is the most important pillar of the OG initiative.

2.3.1.1 Freedom of Information

This is the historical base of OG that has its roots in the FOI (Freedom of Information) Act, whereas FOI regulation is visualized as a source that ensures that public data is easily accessible to governed and civil society (Zuiderwijk *et al.*, 2012). In other words, it is a prime responsibility of the government to disclose public data that has not been traditionally accessible to civic society, either by reactive (government should release public information on request of civil society) or proactive (agencies release public data actively without requests from the civic society (Wyld, 2009; Lips, 2013). The role of FOI laws in making the governments highly transparent and accountable is very important, as they consider that public information has the potential to exercise civic control on the performance of the public sector(Carter, 2014). FOI laws, in practice, affect an agenda that regulates civil society`s rights to access government data(Evans and Campos, 2013). In the 18th century, the FOI

movement firstly commenced in Sweden and then spread across Western countries with the aim of maximising the empowerment of civic society in claiming rights to freely access government data and monitor overall government performance (Al-Busaidi, 2012). The undemocratic post-war regimes all over the globe and long history of secrecy within public affairs resulted in political momentum, according to which access to government data was a major public right (Zuiderwijk *et al.*, 2012).

FOI regulation, in a political context, only determines formal procedures and rights to access government data without making any particular provision regarding the means by which and how data is presented and manipulated. Much of the data that FOI regulation has disclosed is accessible to civil society in the form of formatted documents (such as doc, pdf, etc.). The process of converting datasets present in these formats into manipulable and meaningful forms is time-consuming. Also, it reduces the risk of this being done through different procedures and objectives than what the source has defined (Zuiderwijk *et al.*, 2012). Open datasets, with regard to DOG, represent the level, i.e. accessibility of government data.

The political basis on which the OG stream is developed comes from Right to Information (RTI) movements and FOI regulation. Consequently, the OG stream focuses more on the right of citizens to access public data. In transparency, both social and legal advances introduced particular rights, permissions, and procedures to be undertaken so that public data can be accessed in practice (Heusser, 2013). Much of the literature on DOG and OG recognises that FOI laws are a part of a basic institutional framework in light of which DOG can be implemented (Fumega and Scrollini, 2014).

2.3.2 Government Data

Government data, finally, represents a bureaucratic aspect of DOG, in which governance practices are included reflecting on how to manage government data by public agencies (Heusser, 2013).

2.3.2.1 Precedent of GD

In the public sector, implementing and using digital technologies is the most important aspect of data management. This is what (Heeks and Carter, 2006) simply regarded as the "use of ICTs in the public sector". DOG primarily aims at using ICTs to modernise public service delivery with the objective of improving its efficiency, quality, and effectiveness at operational, tactical and strategic levels, crossing the scope of action of the entire public

sector (Heeks and Carter, 2006). The roots of developing DOG solutions are found in the NPM (New Public Management) ideology that focuses on giving public service delivery effective and efficient expressions in the public sector (Bonina and Cordella, 2009). To successfully use and develop these kinds of DOG systems, it is necessary to develop such data management practices as they can develop better socio-technical IT related solutions and give a relevant role to data management practices in DOG systems (Heeks, 2006). Being at the core of all DOG solutions, much of the efforts of NPM are concentrating on maximising efficacy and efficiency of public service delivery but rarely focus on other democratic dimensions such as more equal and better civic participation or state-society relationships (Zuiderwijk *et al.*, 2012). According to its neoliberal view, NPM views citizens as core service consumers rather than political individuals. Whatever the case may be, DOG focuses on radically incorporating ICTs in PSI (Public Sector Information) management and plays an important role in managing public data and values of the public sector(van den Braak *et al.*, 2012). Development of Government Data

As the public sector is the single largest holder, user, producer, and collector of information regarding public service delivery, citizens, or organizations (Heeks and Bhatnagar, 1999), therefore, data management is considered as an important element of public management models. Moreover, data is one of the most powerful resources for all levels of staff as well as for all kinds of public activities such as executing functions, managing resources, provision of public services delivery, and measuring performance. That is why managing public data strongly and directly influences the efficiency and effectiveness of government (Janssen and Joha, 2011). This movement has been reinforced through specific legislation regarding a reutilization of public data (e.g. dedicated data management strategies or FOI). This can be best exemplified through the cases of the PSI Directive and Europe that has strengthened the public agencies to legally manage the public data (Janssen and Joha, 2011).

Organizational power and public value enclosed in government data have led to creating various issues regarding public data governance practices. The public sector, for example, traditionally views the data in terms of concealment and secrecy, as a means to share either power or destructive practices (bribery, nepotism, corruption, leakage etc.), and where to keep the data hidden from the public eye (Yu and Robinson, 2012; Kroll *et al.*, 2017) . Furthermore, the poorly standardised formats and quality of data have reduced the likelihood of constraining and reusing potentially relevant information emerging from manipulated raw

data (Braunschweig *et al.*, 2012; Zuiderwijk, Pirannejad and Susha, 2021). In coordination with PSI advocates, the GD movement has bureaucratically emphasised developing DOG, with a particular focus on politically and technically measuring the public data. Moreover, the rationale behind reducing bureaucracy is to sustain the roles awarded to standards, quality, and value of DOG – though not always practically implemented. Data management practices that are required to manage the disclosure of public data push DOG further as an important managerial innovation.

2.4   Benefits of DOG

The idea of open government is to ensure more information for the people about the working of government to ensure people's participation in governance. The concept is inspired by the open-source program movement, whereby the users have access to contribute towards the development of software (Estermann, 2018). Similarly, the citizens of an open government have access to information about the government, its workings, and its proceedings so that they can effectively participate in the governance(Janssen and Joha, 2011). The advocates of open government information cite numerous advantages, such as that it is participative, democratic, transparent, and collaborative (Grimmelikhuijsen and Feeney, 2017). They also argue that these must be the political values underpinning the democratic process in a country. The discussion below highlights how transparency, collaboration, and participation are related directly to democratic theory and how it is related to administrative efficiency.

2.4.1. Transparency

(Hood and Heald, 2006a) described transparency as the most appropriate way to make the government more democratic, more efficient, more legitimate, and less corrupt.(Robertson, 2008). observed that FOI (Freedom of Information) spread as a practice and an idea all over the globe over the last few decades, and now even authoritarian countries such as China are embracing transparency. Simultaneously, transparency is also facing much resistance from those government bureaucrats who adhere to many convenient traditions. According to (Soderland *et al.*, 2010), transparency is overvalued and is able to generate expected benefits through no means. In this regard, O'Neill (Welch *et al.*, 2012) proposed that transparency not only erodes trust but also undermines governance. Similarly, other sceptics mention its unintended consequences and opportunity costs (Bannister and Connolly, 2014b).Though these debates on transparency imply various assumptions, lack of sufficient normative

bedrock often result in confusing conversations, "dialogues of the deaf", instead of a constructive deliberative engagement. This paper aims at filling this research gap through the development of a comprehensive model for the evaluation of transparency. We can avoid the dichotomous and categorical nature of conversations by introducing a "meta-level" measuring map, which can be utilised for the interpretation of transparency debates as well as for the guidance of assessment of particular transparency arrangements. Instead of making the calculative evaluation, our framework provides a solid base for interpretive government transparency evaluation (Frecks, 2015). Considerable variation in contexts (demographic, institutional, cultural, administrative, and political) within which "transparency" is usually constructed is a key problem during the transparency assessment. Transparency is developed in authoritarian and democratic countries (Rodan, 2004), in consensual and adversarial political cultures (Gaxie *et al.*, 2014), in states with a limited or highly developed civil sector having strong media and NGOs(Eric W Welch, 2012) and for low-educated or highly information-savvy and educated populations(Janssen *et al.*, no date; Bannister and Connolly, 2014a; Steffek, 2016). Max Weber(Clegg, 2002), through their writings on "managing the organisations of industrial era", provides an idea regarding what approach should be adopted to address the question about "how the organisations can be made more productive". We can summarise these perspectives through the terms "control and command orientations" and "mechanistic". Follett (Caldwell and Crippen, 2015), through their work, highlighted what factors were missing or what was undermining the organisations` ability to acquire higher performance - specifically, they duly considered the human element in the organisation. Charlie Chaplin captured the reality of both types of observations in Modern Times and highlighted the lack of effort required to tweak the environment at the workplace whilst neglecting the human aspect of the organisation. (Berry, 2007), however, does not restrict her analysis and observations of government reform to the appropriate synthesis of humanistic and mechanical perspectives. (Berry and Fagerjord, 2017) refers to "more than incremental changes a fundamental redoing of program design, application of technology, and business processes". From this statement, it is obvious that organisations, particularly government agencies, do not perform in a vacuum, i.e. they are not closed systems. Now, the organizational performance is influenced by reactions and actions, both from outside and within the environment, on which these organisations have only limited at best control. The slower pace of change previously allowed for a slow response, what she called "incrementalism." Nowadays, the organisations operate in an environment with faster growth

in complexity and faster speed of change, which generates the need for changes within the organisations so that they cope with and survive in a rapidly evolving landscape.

The relationships among these three factors, transparency, information, and democracy, are key elements of the concept of open government information(Zhao *et al.*, 2018). The availability of information to the public is essential for the democratic competencies of basic democracies as open information formulates opinions, preferences, participation in decision making, and testing choices for the public (Bank *et al.*, 2014). In the absence of such information, the citizen is not able to have his effective say in government as is his right. It is also impossible for citizens without information to hold the government accountable for its actions and to formulate their collective will(Yang, Lo and Shiang, 2015). Where the authority for decision making is delegated by the citizens, it is essential that transparency is ensured for providing the continuing basis of consent (Coglianese and Nash, 2009). Therefore, transparency describes the extent to which the data is made available by the government to the public and the extent of access available to data on the part of the public because this enables the public to participate in decision making. The Freedom of Information Act (FOIA) has enabled federal agencies in the US to negotiate between the right to know and the legitimate necessity of protecting certain information for security reasons. The routine and voluntary disclosure of audits, budgets, executive actions, and policies provide a basis to citizens for assessing the administrative efficiency of the government and presenting their demands before the government about public services, which it is the duty of government to provide to them(Fung, Graham and Weil, 2007; Fung and Weil, 2010; McNutt *et al.*, 2016)observe that it is worth noting that transparency brings in numerous advantages for citizens of a democratic republic. Increasing transparency enables the citizens to participate in the decision-making process of the government. (Fung *et al.*, 2010) also suggested establishing public accounting systems that would enable participation for citizens by providing continuous feedback and broader evaluation of services provided by the government(Henninger and Fritz, 2018). Transparency not only ensures that accountability is fostered and the performance of the government is improved but that it also serves other ends such as enhancing the legitimacy of government as (Charalabidis *et al.*, 2016) indicated: transparency increases the willingness of the public to accept the government over them. Further, it is also imperative for accepting institutional structures such as that it clarifies the structure of authority over people, indicates the actions which different institutions can and

cannot take, makes it evident that people can participate in the decision-making process (Hoskisson *et al.*, 2012; Sayogo, Pardo and Cook, 2014).

2.4.3. Collaboration

The governments have increased their reliance on ICT (information and communication technologies) in the last two decades for delivering services through digital tools and websites. This is called DOG, and the phenomenon has arisen at the same time that some leading metropolises such as Singapore, New York, and Seoul have utilized ICT for promoting the participation of citizens in the decision-making process (Lee and Kwak, 2012). Further, this is also intended to compel government agencies to take decisions related to citizens as close to them as possible. This usage of ICT involves using digital tools such as LISTSERV, e-mails, online discussion boards, and online chatting to enable the citizens to raise public issues, provide feedback, and discuss policies with each other. The e-participation is defined by Macintosh as using ICT for broadening and deepening political participation. (Medaglia, 2012) provided similar definitions whereby they emphasized the opportunities brought about by ICT for enabling citizens to actively play a role in government decision-making. (Newman *et al.*, 2011; Harfouche and Robbin, 2015; Hall and O'Dwyer, 2017)observes that ICT includes a public opinion as a compelling force in policy discussion in a comprehensive and systematic way. The comparison between traditional participation and e-participation of citizens shows that greater participation is achieved through e-participation compared to traditional participation, which ensures interactivity, effectiveness, efficiency, and transparency (Long *et al.*, 2018). Unlike participation and transparency, collaboration has not usually been related directly to democratic political theory. Instead, (Magalhaes and Roseira, 2017) argue that collaboration is a type of democratic participation that is different in various significant ways from traditional deliberative and participative practices, which usually happen in instances not connected with decision making. Even though there are advantages of ensuring the incorporation of diverse opinions in government action, collaboration can also give rise to deflective views (Bates, 2012; Sheikh, Atun and Bates, 2014). Nevertheless, this is still important for bringing together different expertise from different decision-makers to devise innovative solutions. The approach regarding collaboration is found in recent public administration theory as it is regarded as a process of operating and facilitating multi-organizational arrangements for remedying the problems which cannot otherwise be solved (Piotrowski *et al.*, 2009). Collaboration is helpful for the

government to address those problems for which an easy solution is not available as collaboration involves holistic thinking.

Just as for participation, collaboration can also potentially increase the government's effectiveness, but it does so by taking into account expertise, discipline, impartiality, resources, and time to reach public decisions as public resources which are distributed throughout society(Chatfield *et al.*, 2018). Collaboration requires different sectors to work in coordination with each other, acknowledging that complementary information is possessed by citizens, who can be utilized for solving public issues, and that collaboration can be employed for building social capital. New technologies greatly influence the collaborative approaches, which give rise to permeable networked structures enabling people to connect with each other and with different organizations or institutions.

However, criticism has also been levelled against collaboration in the literature on public administration (Evans and Campos, 2013). For example, the argument of the hollow state has been levied due to reliance on third parties, thereby highlighting the governmental flaw of distancing itself from the services which it provides to the public. Further, accountability issues may also arise by holding new participants responsible for governmental actions. The understanding is also limited with respect to the effect of collaboration on the outcomes of the program, and the assumption generalized is that there is always more desire for collaboration. Nonetheless, there is a desire for more collaboration to the extent that it can reach its potential and move towards effective problem-solving. Therefore, as with participation and transparency, collaboration is also a means for achieving an end. Hence, the emphasis is not on participating for the sake of participation itself but for the sake of inviting experts who possess experience in problem-solving so that more information can be collected and more solutions developed(Saxena and Muhammad, 2018).

2.5   THE PUBLIC VALUE IN DOG

The discussion above shows that participation, transparency, and collaboration are best regarded as policies that enable citizens to enact different roles. Therefore, citizens do not collaborate for their own individual sakes but for their collective (SHBIEL and AHMAD, 2016; Nicholls *et al.*, 2019) . By desiring government to be transparent, the citizens do not desire individual goals but collective ones, as information is sought to be transparent so that governmental actions can be scrutinized by the citizens and the outcomes of governmental

actions can also be scrutinized. Similarly, participation merely for the sake of participation is an alienating and empty exercise as citizens should participate in a fruitful manner to bring about collective action in a meaningful manner (Hitz-Gamper, Neumann and Stürmer, 2019). Collaboration is only effective when participants are contributing with their expertise. The policies developed as a result of collaboration must be enacted to achieve the desired result (Twizeyimana and Andersson, 2019). Besides, it is also important to point out that increased participation or collaboration may not necessarily bring about fruitful results. Instead, care should be taken to determine the ways whereby such processes can be undertaken. Therefore, in the presence of such difficulties, the mere availability of statistics on how frequently the participation opportunities have been made available should not be taken as equivalent to open government information (Rui Pedro Lourenço, Piotrowski and Ingrams, 2017). When there is meaningful participation, transparency, and collaboration, it is due to the people's interest in pursuing their objectives. The question then arises as to what those objectives are. The following sections of this discussion will try to construct a "public value" framework as an avenue to determining the value of governmental activities from the perspectives of multiple stakeholders and not just from the perspective of the citizens.

2.5.1 Public value in public administration(Moore and Price, 2015; Vernon *et al.*, 2018).

introduced the public value perspective and observed that decisions are made by administrative organizations which are inevitably political in nature. He also argued that the administrative authorities must ensure the best possible manner of making decisions by including the public in the process (Chatfield *et al.*, 2018). He said that just as private organizations create private value as a result of their decisions, the public organizations or even the government should make such decisions that make public value so that value can be transferred to citizens. By public value, (Chatfield *et al.*, 2018) implied benefits for citizens from governmental decisions. This public value should generate equitable and fair production and distribution and meet the expectations that the citizens hold about public institutions. This perspective ensures that effectiveness and efficiency measures are not necessarily related to principal ways of assessing the government services or programs (Magalhaes and Roseira, 2020).

(Moore and Price, 2015) puts it eloquently that politics can never be excluded by any concept, be it that of politically neutral competency, program evaluation, policy analysis, or customer satisfaction. The final arbiter of public value is politics in the same way as private

consumption is that of private value. It is a collective judgment to consider whether the governmental activities are creating value for the public. Nevertheless,.(Schmidthuber, Stütz and Hilgers, 2019) did not outline a systematic method to analyse the public value. Since financial metrics such as profit, efficiency, and productivity may not be conveyed wholly in this regard, analogous methods must be found for analysing and assessing public value. For addressing this problem, they did it in the context of ICT investments. The public values will be synthesized with respect to open government, and subsequently, the discussion is made with respect to consideration and assumptions regarding the usage of such a framework for open government.

2.5.2   Impacting Public value
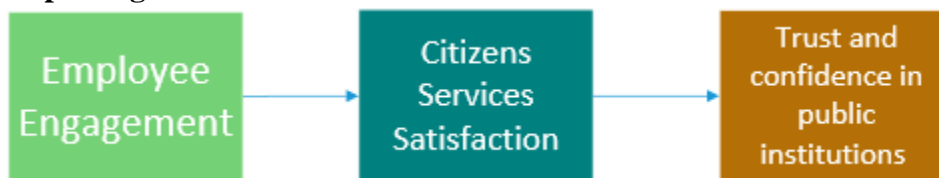
Figure 2-4 Public Services Values (Ruvalcaba-Gomez *et al.*, 2019) Generally, public value solicits our

consideration for the individual as well as societal interest developed as a result of specific institutional forms along with actions pertaining to government (Ruvalcaba-Gomez *et al.*, 2019). These interests can be talked about extensively, but on limiting the usefulness, the analysis of public value must focus on specific stakeholders' groups along with their interests. Value and its distribution among numerous stakeholders will experience variations in the light of stakeholders' respective interests as well as the government' expectations. Some of them will benefit from the government action, while some will experience harm (Gasco-Hernandez and Gil-Garcia, 2018). Previous literature, as well as government declarations linking OG initiatives encompassing the citizenry as an inclusive category, has ignored or missed the effect of the variability of interests on the distribution of benefits among stakeholders. At the same time, each government action is treated by us ass offering potential values to different stakeholders' groups inside and out of the organization. Additionally, (O'Flynn and Wanna, 2008) indicate three values of public services, which will be discussed in the coming section of this chapter (see Figure 2.3).
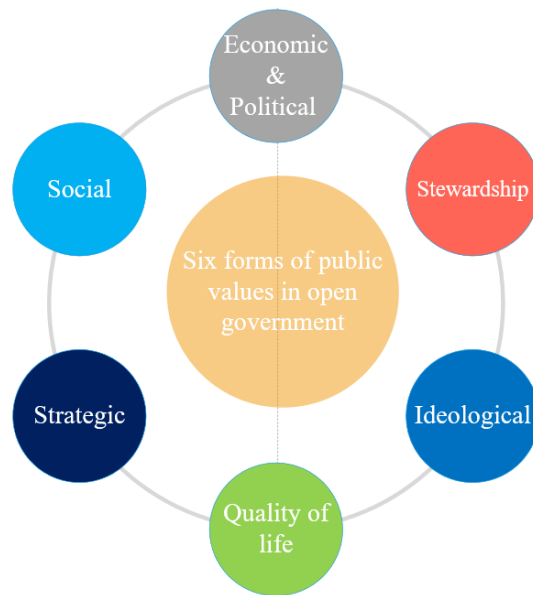
Figure 2-5 Types of public value in open government Adapted from (Charalabidis *et al.*, 2018)

The rationale of the public value foundation seeks reliance on creating the link between government action as well as the multiple forms of public values with the accrual. Public value and its types differentiate between the intrinsic value borne by the government as per societal asset and practical value associated with government actions as well as policies that is able to bring specific benefits to groups, individuals, and organizations directly (Anselmi, Zarone and Brunelli, 2017). Generally, the classification of public values can be made using six forms that apprehend the government results according to their respective interest.

– Political – impacting influence on an individual or a group as a result of government actions/policy, or their prospective role in political affairs, impact on political parties, or prospective future for public office.

– Economic can impact the current or prospective income, asset values, obligations, prerogatives, or characteristics of wealth or risks associated with the above.

– Social – impacting family or societal relationships, social status for mobility, and self-identity

– Strategic – influencing economic or political scenario at personal or group level or state of opportunities or goals, as well as resource utilization for the purpose of innovation or planning

– Quality of life-impacting individual as well as household health, state of security, and satisfaction, along with general well-being

- Ideological – impacting belief system, moral commitments, or ethical actions, aligning government actions or policies and social outcomes with stance on beliefs or ethical positions (Yiannakoulias *et al.*, 2020).
- Stewardship – influencing the public's view about government officials to ascertain their public trust, truthfulness, and lawfulness as truthful stewards or protectors of the value attributed to the government (Millard, 2018).

Out of these, the first five forms are outcome-based, pertaining to the practical private interests of groups or individuals. The remaining two forms pertain to intrinsic and societal as well as democracy-based outcomes. The public value assigned to stewardship finds results of high integrity (comprising fairness as well as equitability), receptiveness, and legality of government, advancing augmented trust as well as satisfaction with the government as a whole (Chatfield and Reddick, 2020). Moral along with ethical beliefs or preferences bring the ideology of public value into alignment with government actions. For value impacts, seven forms are identified, and advancement is made to consider issues pertaining to value creation. Value-producing mechanisms make it possible to produce value; means are specified by identifying such mechanisms or paths that lead government actions to produce multiple public values. The public value enunciates that actions that lead to generating transparency, contribution, and collaboration relate to the said value generators group. Collectively as a set, the value generators reflect:

- Efficiency – acquiring augmented outputs or goal accomplishment utilizing the equivalent resources or gaining similar outputs or set goals with low consumption of resources
- Effectiveness – cumulative increase in the quality of the desired outcome
- Intrinsic enhancements – to bring change in the environment or circumstances surrounding a stakeholder in behaviours conducive and valued for their own sake.
- Transparency – provides data access to information leading to the actions attributed to government officials or operational activity of government programs that augments accountability as well as exercising impact on government
- Participation – the rate of recurrence and strength of direct participation while making decisions on government actions, operations, or policies or selecting officials.

- Collaboration – frequency or period of activities wherein stakeholders participate and share responsibility as one set or share decision making for the authority position in relation to government actions, operation, and policies.

To clearly understand, one has to find a connection between a value-creating mechanism and value type that explains the value production phenomenon from one or many as adopted by the government (Gil-Garcia and Sayogo, 2016). For instance, an IT-based investment that places licence applications, as well as renewals online, may raise efficiency along with effectiveness and create public value strategically or financially for stakeholders who rely on utilizing such licenses, while the government may take participative, transparent, or collaborative actions and operationally leave potential effects that enable a citizen to originate substantive socioeconomic, political, or strategic values as well as intrinsic value connected with the government. For instance, when a citizen is furnished information with transparency on the environment, this activates a value-generating mechanism that enables the citizen to develop several sorts of value (Sundberg, 2019). In that case, when a citizen is provided information on emissions of toxic chemicals in the vicinity, he/she may think about life benefits socially or quality-wise for his/her family as well as the community, but may also develop high trust in the government agency's stewardship that furnished this information. However, it is a possibility that other stakeholders may cultivate negative public value from the same information. The same citizen, on learning about toxic chemical emissions, may think to take legal action against the business that is found allegedly guilty, and stakeholders of that business may develop negative public value. There is a probability that many may later see positive and strategic political value on discharging the information as it is going to meet open government requirements while others may perceive political impact negatively. So, determining the value associated with the government action warrants analysis of perspectives of multiple stakeholders to identify and comprehend both positive as well as negative effects. Information obtained following the analysis helps to analyse open initiatives and enable more cognizant decisions to be taken by the government.

2.5.3   Assessment and Structure of Public Value

The public value-based framework takes on an assumption about the value created as a result of government action, best determined through the perspective of the citizens obliged. For the sake of history, the increased spending of government on IT warrants an evaluation of the value created as a result of such expenditures in the form of expected returns(Freeman and

Park, 2015). As per private organizations' practice that reflects return in the form of financial or economic metrics, it can be assumed that public managers can better justify expenditures made on IT in the form of value attributed to citizens.

Formulating originally the public value-based framework, Moore's view was evaluated on the basis of five case studies by the Center for Technology in Government and its staff members comprising the team of co-authors functioning in collaboration with public managers liable to explain IT investment in the two separate cases of developed countries. Every case study resorted to examining benefits derived from IT investment and probable mechanisms consequently generated. The discussion above brought into consideration the association between specific business goals set by the organizations, IT systems enforced, and variations in performance, as well as public returns. Subsequent to this, a conceptual framework was produced that sought to 1) characterize public return in the form of value reflected by citizens as a result of IT investment, 2) identify the mechanism generating public value that proves supportive to producing value. The types of public value were envisioned to establish a basic (if not complete) set of classifications explaining benefits falling towards citizens as a result of government IT investment. Based on past experience, it has been stated that the OG initiative relies on information technology. Our research team focuses on this public value-based framework and watches its updated application on open government. The six types of the public value are formulated on the basis of the above discussion on the basis of the original creation and the seventh incorporated (quality of life); see Figure 2.5 below.

The public value-based framework finds its roots in the analysis of specific groups of stakeholders (Tshering and Gao, 2020). This is mainly due to the fact that the benefits, as well as costs, of government action, vary among citizens interest-wise for a specific government program. This holds good in the context of open government, which covers an extensive category of citizen stakeholders, watchdog organizations, civic advocacy, and entrepreneurs who rely on government data for utilization in business-recognized businesses and so on (Zavattaro, 2019).

Step: 1	Describe the initiative	Title , Purpose , Supporting strategic goals , Program or policy area , Tactics
Step: 2	Identify and prioritize stakeholders	Identify a full list of initiatives stakeholder by rating
Step: 3	Identify and rate the public value	Identify the type and level public value the initiative is expected to create for each of primary stakeholders
		Public value is expressed in term of: economic value, social value, political value, strategic value Quality of life value, ideological value, stewardship value
Step: 4	Identify the mechanism of change	For each stakeholder and mechanism describe how the expected value will be deliver
		Change mechanisms include impact on, efficiency, effectiveness, intrici enhancement, transparency, collaboration, participation
Step: 5	Summarize the public value assessments	Establish as summary assessment for the imitative for each public value type across all the primary stakeholders
		All summary assessments are populated into the portfolio review
Step: 6	Review open government public value portfolio	Review public value assessments across all imitative to inform decision making
		Does open government portfolio, taken as a whole, optimize our resources, and capabilities while meeting Gov mission and delivering maximum public value to all stakeholder

Figure 2-6 Steps in using the public value assessment steps: Adapted from (Lobo and Whyte, 2017)

The digital government project, in many cases, requires major changes in the processes and structure of the organization. These kinds of changes, though, are not directly associated with technology. However, they are necessary in order to acquire maximum benefits from digital government projects(Benjamin and Potts, 2018). Considering an organization`s compatibility is important even when an organization needs no significant changes. For example, the authority of the project manager, the extent of communication channels, and the available budget are factors that may influence digital government projects and their outcomes. For success, there exists no "recipe". However, its probability can be increased through different

combinations of resources and abilities and enabling the project to meet its deadline and achieve its targets (Freeman and Park, 2015). For example, if an organization considers outsourcing its entire IT function, it may not face an all or nothing proposition. In this case, it is best to arrive at the middle ground where some operations or applications have to be internally developed while "outsourcing" other operations or applications, therefore significantly changing the organizational structures, capabilities, and/or business processes in order to resolve an issue by implementing digital government projects(Abu-Shanab and Bataineh, 2014).

2.6 CHALLENGES OF DOG

2.6.1 Technological challenges

Lack of compatible IT framework and infrastructures among agencies and public administrations has been one of the major technological issues delineating the diffusion of digital open government initiatives; these have been considered difficulties. (Abu-Shanab and Khasawneh, 2014) assert that security is a crucial obstacle to using digital open government services. Therefore, this section illustrates some of the main barriers faced by the digital open government from a technical point of view. Innovation barriers are clearly a key factor that is blocking effective technological change in the open division, and this has been a significant focal point for a technological change being adopted. The ongoing research tends to see the issue from alternate points of view and centres on interoperability and access to information. The main technology is said to be the way that the public sector keeps on being grieved by a maturing and obsolete IT foundation. Specifically, a few investigations have noticed that most digital governments spend a huge part of their IT spending budgets on the support of current IT frameworks. To start with, a customary database framework is not appropriate to deal with the mass of information gathered from unstructured sources. Second, digital governments need to embrace a suitable specialized framework to oversee much information. As digital governments are as of now confronting the test of contributing and modernizing the IT frameworks of open organization, they are defied by different specialized arrangements and settling on the mix and best ones to embrace is turning out to be progressively complex. A number of researchers have featured that the issue of satisfactory frameworks – ready to store and oversee large bodies of information – turns out to be especially important with regards to brilliant urban communities, as gigantic volumes of information are at the centre of the administrations rendered by the Web of Things (IoT) in

which regular items and gadgets are interconnected. The issue of interoperability is not new, as researchers contend that since the start of the technological change, digital governments griped that frameworks were excessively occasionally interoperable, and the foundations were lacking integration. Be that as it may, as new advances keep on developing, the administration is turning into a developing issue the mix of the immense measure of information and the interoperability between various IT frameworks; this is progressively very significant for a fruitful technological transformation. An ongoing report by the World Bank focuses on the way that the absence of interoperability can prompt interruptions in the system, poor information trade, and problematic performance. Consequently, interoperability is a top need today as digital governments attempt to coordinate administrations across divisions in order to improve viability just as effectively. Regardless of whether the idea of interoperability is regularly utilized in a specialized framework building sense, managing the specialized issues of connecting up PC frameworks, the term can likewise allude to a more extensive viewpoint considering social, administrative, and hierarchical variables that sway framework to framework execution. Right now, it is detailed that digital government inquires about spotlights on 'digital government' and notices an absence of spotlight on 'governance'. Taking an administration view can help to understand that executing interoperability requires tending to issues on various fronts, all the while, the greater part of which are not innovative (for example, protection or hierarchical difficulties). As the new technological improvements related to the technological digital open government are more information-driven and data-centred than at any other time in recent memory, another significant specialized barrier that the writing is tending to see is identified as the entrance to information. This is a principal precondition to create their latent capacity benefits, on the grounds that the greater the digital government information that is accessible as open information, the more noteworthy the ability to add to strategy advancement through Enormous Information analysis. For example, as individuals constantly produce conduct information that turns into a significant asset for strategy researchers to base their approach choices on, digital governments are investigating the utilization of a mix of information-based prescient examination and social economics. In any case, to use these open doors that the blend of conduct experiences and enormous information can offer, digital governments expect access to very broad dependable information about public sector behaviour. Information challenges are additionally highlighted as exceptionally significant by various partners met by scholars that have investigated the early selection of simulated intelligence in the open sector. All computer-

based intelligence frameworks require huge informational indexes to prepare in a dynamic fashion. In this way, information lies at the core of simulated intelligence capacities, and as they are still at the exploratory stage, there are no huge informational indexes accessible as yet. General information challenges incorporate database sizes being excessively small, with the absence of information. Connected Information, condensed as Striking, which comprises the coordination of the three significant innovative improvements (open information, connected information and huge information), is currently confronting comparable difficulties of the principal open information initiatives. If it was just a specialized issue, qualities, for example, protection, ought to be viewed as barriers that must be survived. In any case, from an administration esteem point of view, the issue raises principal challenges, including legitimacy, ethics, and policy-driven issues that should be routed to shield the connection among digital government and citizens.

2.6.1.1 IT infrastructure

(Baheer, Lamas and Sousa, 2020) agree that IT infrastructure is not only a common challenge faced by the implementation of digital open government systems but also influences users' adoption of digital open government services. IT infrastructure is the use of WAN network (Internet, Extranet, Intranet), technical components, like computers, technical components, such as computers, workstations, and servers, as well as operating systems, databases, servers, workstations, and LAN (local area network) (Nekhoda and Kuklina, 2020). Convenient and appropriate information sharing of digital open government and the establishment of new communication channels can be enabled by exploiting and enhancing adequate networking(De Tuya and Schurr, 2017). In this vein, it stresses the public sector IS integration. However, a lack of integration and centralisation is recognised by several researchers who have recognised the inability of integration and centralisation as the major challenge to networking in relation to the government. Furthermore, the IT infrastructure may suffer a setback of lack of hardware and software, resulting in poor IT infrastructure, common in developing countries. This often hinders the success of digital open government projects. Therefore, for citizens to fully reap the benefits of digital open government services, governments need to ensure stable technological infrastructures

2.6.1.2 Security

One of the most important aspects influencing the adoption and acceptance of digital open government is security(Dwivedi and Williams, 2008). There have been several types of research addressing security concerns as an obstacle encountered by government services around the globe from both users' perspectives and the government(Saxena, 2017c; Clavin *et al.*, 2020) defines security as the securing of data, systems information and against intentional or accidental alteration or divulging and copying without authorised access. Therefore, information security refers to a subjective belief that there is a probability that their private data would not be scrutinized, manipulated or stored in the process of storage or transit by unauthorized parties, in a manner complying with their confidential expectation. Hence, the major objectives of information security are integrity, provision of confidentiality and availability, collectively known as the CIA triad or CIA security model(Green, 2016).

2.6.1.3 Availability

The most important challenge to the success and adoption of digital open services by both public administration and their stakeholder's counterparts is the lack of accessibility or availability of digital open government initiatives(Adu and Ngulube, 2016). It is important to know the meanings of these concepts in order to distinguish between the two terminologies. Availability is defined as the number of digital services (e.g. renewal of Digital driving licenses, tax payments, issue of marriage, birth, death certificates) available for citizens; availability is considered an indicator of government Digital services available anytime, i.e., 24/7 (Criado, Sandoval-Almazan and Gil-Garcia, 2013; Wynarczyk, Piperopoulos and McAdam, 2013; Sharma and Gadenne, 2014) stated that the adoption and implementation of digital open government could be enhanced through integrating various factors, such as availability and accessibility. Similarly, availability is important due to its crucial effect on service quality that promotes users' adoption of digital open government services. On the other hand, a lack of these two important factors could end up in the failure of digital open government efforts (Klapper and Singer, 2017; Mergel, Edelmann and Haug, 2019). generally agrees that the impediments to digital open government are a lack of lack standard architecture, experience and technically skilled staff, which affect the accessibility and availability of the digital open government services for the users negatively. While the

discussion points out availability as a top criterion for digital open government adoption and success, user accessibility for open government services is also important.

2.6.1.4 Accessibility

Accessibility refers to the process of gaining access to different online government information and services using multiple Digital channels, e.g. accessing Digital websites using laptops, PCS, kiosks and internet-enabled devices like smartphones (Pethig, Kroenung and Noeltner, 2021). Hence, regardless of residence, religion, location, or disabilities, Digital channels provide a platform for government services and information to every user. The focus of accessibility is, therefore, the interaction within the digital open government system, on the same note, state that accessibility is an integral component to improving Digital online and offline interaction and communication. Furthermore, the efficiency and effectiveness of the implementation of systems and technologies can be enhanced properly due to accessibility. (Yang, 2017) postulated that service accessibility is a significant factor in the establishment of "user-centric" digital open government services. From the above discussion, it is the responsibility of the government to provide and improve accessible and available digital services to stakeholders around the clock and from any location to ensure this, and the government could provide Digital free Wi-Fi services to its citizens in designated locations to increase availability and accessibility of digital open government systems.

2.6.1.5 Website design

Government website in recent years has emerged as the key gateway or channel for the delivery of digital open government services and Digital online communication to citizens (Sebastian *et al.*, 2020). Digital web design is a critical contributor to citizens' readiness to use services like the digital open government; researchers suggest (Amuso, Poletti and Montibello, 2020). Recent studies have pointed that a standardized, well designed and presented digital open government is a major element of ensuring the satisfaction of citizens citing that security is a paramount feature that must be encapsulated in the DOG site to guarantee citizens' security; otherwise, without it, the website remains questionable. Thus, elaborate security features and instructions, policies, automated backups, and password tips, among other security features and steps, would impact significantly on an end-user's website perspective. One of the key concern areas from the above discussion, therefore, should be a

well-organised, attractive, suitable and secure digital open government Digital website designed to influence its positive adoption by citizens.

2.7   HUMAN ASPECTS

As far as human aspects are concerned, the literature review revealed that a lack of IT skills and awareness are the two predominant obstacles to open government initiatives. This section seeks to explain these two terms briefly.

2.7.1   Awareness
The information on the understanding and the advantages of digital open government is, in most cases, limited to the general public (i.e. users) (Zuiderwijk-van Eijk, Janssen and Dwivedi, 2015). The findings of Klaus' (Armingeon *et al.*, 2008) research pointed that one of the obstructions of successful adoption of digital open government initiative is lack of awareness which can be defined as the users' understanding of others' activities that provide a context for their own activities (Marlow *et al.*, 2017). A lack of awareness of the existence of a digital open government or information related to its use and benefits can significantly contribute to its failure and hence prevent citizens from participating in the DOG initiatives. In view of this, governments globally need to consider conducting attractive campaigns promoting the benefits of new open government services, particularly targeting new potential users for new technological launches such as cloud computing to deliver its services. More emphasis on campaigns like workshops, seminars, posters, and emails are targeting the elderly citizen who generally seems not to have experience of ICT and can potentially benefit from such new ventures to encourage them to embrace digital open government initiatives.

2.7.2   Computing Skills

The two key IT skills related to the digital open government services adoption are information security literacy and IT literacy in the adoption of digital open government systems. According to Roy, (Norris and Perkins, 2016) the adoption of digit open government is influenced by the citizens' level of literacy relating to computer Digital systems and open data information. Accordingly,(Xiao, Jeng and He, 2018; Feng and Jiang, 2019). add that possession of IT skills is an integral factor for the successful adoption of IT adoption of digital open government technologies. On the other hand, the lack of these skills is a major barrier to digital open government initiatives in developing countries (Verma and Gupta,

2015). IT illiteracy can be defined as a lack of the ability to harness ICT due to a lack of computer knowledge and education or lack of baseline knowledge related to secure Digital online practices (e.g. privacy, security policies, and strong passwords). It is the government's obligation to provide the citizens with basic computer, security, and internet skills to enable their participation in open government data projects. Regarding this, Whitmore, (Whitmore, 2014) opined that to prevent the emergence of two distinct categories of the "information-rich" and "information poor" in the society, training for citizens is paramount. IT skills development could include education in schools and universities as a component of the digital open government system, media programs on digital open government use, training modules on digital open government, security skills topics and entrenched in school curriculums, and any other method that could encourage citizen acceptance of new technologies as far the government is concerned.

2.7.3   Social challenges

The writing on the reception of digital government has been centred for quite a while around technological and hierarchical issues. Even more, as of late, alongside the conversation of public sector' trust, the consideration changed to extensively characterized cultural variables to clarify the absence of digital government adoption (Portisch *et al.*, 2020). By and large, numerous researchers are currently concentrating on the public sector side, as the low degree of public sector' selection of e-taxpayer driven organizations is viewed as one of the most pertinent barriers in the digital government evolution. The supposition was that if the public sector had the option to access e-taxpayer driven organizations, the advantages of digital open government would naturally arise. In any case, it was contended that this sort of forecast failed to consider the public sector's inclinations for the norm of customary taxpayer driven organizations. There is a wide and open conversation in the writing around which public sector propensities serve as inhibitors of digital government use. Right now, researchers are split between those concentrating on the precursors of obstruction, as exchange costs, esteem, the assessment of associates, sunk costs, misfortune abhorrence, and vulnerability, and those are concentrating on the precursors of inactivity, which incorporate propensity and progress costs (Fitz, Hauer and Steinhoff, 2015). The social and conduct factors that clarify the low degree of reception of digital government benefits, in any case, differ across countries. Likewise, it has been noted that the various degrees of digital government execution among developed and developing nations are regularly due to social contrasts, as opposed to

economic or innovative development (Marlow *et al.*, 2017). The social and behavioural factors are responsible for explaining the behavioural factors for the level of services adopted by open government. At the same time, these services and their adoption varies depending upon the countries and the practices in those countries. It can also be observed that the implementation of digital government is still going through the phase of development in different developing countries and still needs more work to be done (Ruijer and Meijer, 2020). This work would help in better implementation of this structure and also would help in overcoming the cultural differences observed in the process except for influencing the overall process by a number of economic or technological developments in the process. Social effects are not technological barriers relating to the implementation of digital open government but rather the social effects impacting the use of new open technologies in different societies. Some of the social challenges include language, culture, income and education. Culture will be illustrated in this study.

2.7.4 Cultural Challenges

Culture is a significant factor related to the adoption of IT and has an important influence on its acceptance from the citizens' view in different countries (Wukich and Mergel, 2015). Cultural barriers in developing countries must be overcome to successfully implement digital open government services. There are several elements engraved in cultures, such as religion, beliefs, and people's behaviour and values. Culture can further be categorized into three main subsets: security culture, national culture, and organizational culture. It is prudent to clarify what is meant by security culture regarding the subject of this particular study which refers to the behaviours and customs of a particular society that influence their security practices (Attard *et al.*, 2015). One of the key obstacles to digital open government participation is citizens' resistance to change. So, to change the IT culture and to resolve the challenge faced by their citizens, governments must endeavour to develop knowledge and social lives in relation to IT. In as much as cultural changes are dynamic, the government's strategies and plans must be considerably attended to. Consequently, citizens' positive influence towards the benefit, use, confidence, and beliefs towards the new open government technologies can be realised.

2.7.5   Financial Challenges

Even with very good plans and strategies, public administrations need to discuss formally and mitigate the challenges for effective and efficient digital open government projects (Saguy and Sirotinskaya, 2014). It is further argued that this does not suffice for the implementation of digital open government initiatives to be successful due to the high costs associated with the implementation and maintenance of ICT systems which is a funding dilemma in open government initiatives (Kopec and Sheldrick, 2020). Therefore, scholars agree that a lack of financial resources is the primary barrier to the implementation of digital open government. In particular, developing countries experience this challenge as budget deficiencies are the primary obstacle in investing in a digital open government system. Funding for digital open government projects includes the cost of maintenance, training of staff, the cost of system hardware and software, among other costs that may prevent harnessing information technologies by governments. The Digital open government initiative is a long-term project. Therefore, governments must guarantee long financial support periods to avoid funding challenges (Kornberger, Meyer and Höllerer, 2021). The literature on digital open government delves into a range of obstacles hindering the adoption and implementation of digital open government services, from political issues, poor leadership, and management to the digital divide, leadership, legal and organizational issues. However, in this study, and particularly in reference to the acceptance and security factors involving the use of innovative technologies in a digital open government set-up, the aforementioned obstacles are the key critical factors that hinder the sustainable implementation and success and the citizens' intent of adopting digital open government services. High failure levels are thus experienced, especially in developing countries, due to challenges and difficulties they face in implementing open government services in Kuwait. A lack of budget coupled with a high cost is the most significant barrier in the delivery of digital services and implementing open government initiatives. Currently, governments, therefore, use the advantage of ICT developments in digital open government services delivery and implementation as a way through which to mitigate prior challenges in Kuwait. Cloud computing is an innovative technology that could provide a paradigm in enhancing digital open government initiatives and ensure citizen satisfaction. The following section provides an illustration of the new technology in Kuwait. Albeit those economic and finance-related variables, particularly after the budgetary emergency, have been an undeniable barrier to developing goal-oriented technological digital open government advancements in the previous decade, they are not

shrouded as widely in the evaluated writing. Rather, these are all the more regularly inferred or secured by the previously mentioned hierarchical (such as the absence of staff or abilities) or technological issues (such as the absence of foundation), which are caused straightforwardly by budgetary constraints. Just a few of the researchers found, who talk about finance-related requirements legitimately, give increasingly explicit bits of knowledge. For instance, Meijer, in his investigation of an ICT-based advancement in police work, contends that budgetary issues become an obstruction for development as of now at the thought age and thought choice stage: numerous thoughts are being created for open division improvement, and just a predetermined number can be grown further. Budgetary boundaries are particularly conspicuous when branches or divisions with their own spending limits need to get aggregate activities financed. Further, Martin found that assembly of economic assets is seen as a significant test by the DOG people group, particularly given the post-finance-related emergency story of open shortfall decrease through open spending decrease, which commands the administrative motivation. (Kundu, Balakrishnan and Jamalizadeh, 2013), In their examination of digital government execution in the UK and Sri Lanka, indicated that budgetary issues could be as significant a barrier in developed nations as in developing ones, yet they rely upon reluctant digital government officials more in the latter. Notwithstanding, even in these articles, budgetary boundaries are not examined as broadly as innovative, social, or authoritative ones. For the most part, their impact is by all accounts considered too clear to even consider investigating inside and out. A number of budgetary barriers have also been observed when it comes to different branches and departments where the budget is designed collectively for funding different projects. It is a significant challenge to design the strategy for keeping mobilizing the financial resources without obstructing the overall process. Although a public deficit might be observed in spending the expenses on the implementation of digital government, this depends upon the willingness of different developed and developing countries in adopting this change and overcoming the barriers in these extensive technologically advanced market sectors. It is important for organizations to adopt the cultural changes and be able to strengthen the organizational structure more effectively.

2.8 PROFESSIONAL ETHICS IN IMPLEMENTING DOG

A broader discourse of professional ethics related to academic research has been highlighted in the extant literature. For example, Benjamin (Addicott *et al.*, 2011) describes professional ethics as personal values of moral behaviour expected of a professional. Ethics entails a kind of belief system that distinguishes between what is right from wrong. Hence, ethical behaviour corresponds to generally accepted norms. For instance, almost everyone would agree that lying is unethical or unacceptable behaviour. In information technology, software piracy, which is the making of illegal software, is generally perceived as unethical. (Bauböck, 2019) defines ethics as a concept defining the moral spectrum upon which decision making between humans is made. In general, ethics can be described as systematic reflection related to the moral consequences of the decisions taken, which can be placed in the context of the occurrence of harm to those who are affected by these decisions. Others have defined it as standards of ethical conduct, right versus wrong (Chiang *et al.*, 2016). In this context, the concept is restricted to the role it plays in the adoption of open government. Central to this study has been the role of the government in providing services using the internet by use of information communication technologies. (Zuiderwijk *et al.*, 2012; Zuiderwijk-van Eijk, Janssen and Dwivedi, 2015; Dwivedi *et al.*, 2017). have investigated the increased role of government in the provision of internet services, alongside information communication technologies. The term 'professionalism' as far as digital government is concerned is one that is broad and not limited to computer and information ethics only but covers managerial ethics too. Those charged with citizens' data, or with the responsibility of distributing or transferring citizens' information, have the responsibility of ensuring that such data is channelled to the right recipients, without any additional mediators in the process of data transfers and ensuring there are no misuse or leaks from any end or nodes (Scassa and Conroy, 2015). It is, therefore, the sole responsibility of digital open government managers, and the ethical measures put in place to understand and know the data that needs to be sent, to which destination, and ensure that data privacy is maintained at all nodes (Lee and Jun, 2021). The internal relations between various administrative units (along with the relationship between the private and public sectors) dictate security and the efficiency of data handling within the system. The professional ethics concept would be blurred within the public sector with the existence of loopholes within internal and external networks resulting in the depreciation of confidence and trust between various units and bodies. Therefore, true

professional ethics can only be achieved when digital open government managers and officials comply with technology ethics, managerial ethics, and cyberethics (Croft *et al.*, 2015). The use of or access to information in networks requires a very high level of degree of protection, which often presents a challenge in Internet usage. (Van Zoonen, 2016) stated that ethical aspects generally focus on the professional features which enable a citizen to scrutinize the government's procedures and privacy policies. This literature shows a general view of the matter and an understanding of the fairness of such procedures. Maintaining those professional ethics depend on the clarity with which the procedures and policies are implemented. Internal relationships between various administrative units (as well as the interaction between the private and public sectors) dictate the efficiency of security and data handling within the system. Trust and confidence depreciation will occur if there are loopholes within the external and internal networks between different bodies and units. Hence the concept of professional ethics is blurred within the public sector(Borgesius, Gray and van Eechoud, 2015). Thus, to achieve true professional ethics, government managers and officials must comply with technology ethics, cyberethics, managerial ethics and technology ethics(Rubinstein and Petkova, 2019).

2.8.1   Ethical Factors

Straightforwardness and ethics in the utilization of information likewise become basic issues with the move towards simulated intelligence and different advancements, expanding the need to grow new ethics systems around calculations that help dynamically. This is a key test that administrations need to manage, as it can turn into a genuine boundary of their advanced change, for the most part, because a fruitful reception of new innovations requires the public sector trust and certainty. The issue of trust in digital government is not new, and there is broad writing talking about the reality that the public sector, despite everything, does not confide in utilizing the web administrations and digital government applications, and this effect a full selection of digital government services. Trust in e-taxpayer driven organizations is positively a perplexing relationship as it incorporates many convoluted issues, yet it is one of the hugest obstructions of a fruitful advanced change of digital governments. The current writing concentrates, for the most part, on the specialized parts of technology, albeit ongoing exploration likewise examines the components and issues that impact trust in digital government from citizens' perspective. Even though the writing on trust in e-taxpayer driven organizations is immense, a few researchers have as of late examined the issue of public

sector's trust explicitly associated with the intensity of calculations and non-human decision making. There is a developing consideration about calculations settling on choices and anticipating public sector' conduct. Breaking down autonomously and beginning to gain from their surroundings, propelled calculations may present oblivious predispositions by barring a few people, for example, the individuals who have the least and no entrance to innovation or disregard people dependent on their race. The broad utilization of simulated intelligence is, as of now, turning into the best quality level in criminal equity in different countries. An inability to receive such an ethics methodology can turn into a genuine barrier for the fruitful execution of artificial intelligence, with its related advantages. Hence, the test would be to make sure of a system that encourages and energizes development, yet which likewise keeps up imperative open trust and confidence. Ethics are responsible for rapidly influencing the overall structure of the organization. This would help in utilizing all the available resources of the organization more effectively and in fulfilling the demands of the users more effectively. Ethics are also responsible for identifying the risks involved in guiding the managers in making the right decisions at the right time. In some cases, the reforms required might impact the traditional values in which the standards of organizational culture are determined. Moreover, it is also important to identify the accountability mechanism for the organizations and to identify the fundamental mission to achieve public service interest in the most effective manner. Although there might be several consequences faced resulting in the implementation of the modernized organizational culture, this would also influence the efficiency of the performance generated by this organization. To clear the potential confusion, it is important to identify the economic challenges identified by the organizational structure and how the ethical standards are responsible for indicating the positive performance of the organization.

2.9   CHAPTER SUMMERY

In this chapter, we have presented a short explanation of the basic concepts necessary to contextualise the work presented in this thesis. First, this chapter points out highlights the key enablers, challenges, and benefits of DOG. It also reviews the definitions of DOG and its building blocks. This chapter offers a partial answer for the first two research questions and an initial answer for the third question. In this chapter, the Origin and Development of DOG have been discussed, including the open data & Open Government, the definition of Digital Open Government, the Revolution of DOG. In addition to explaining the enablers/Building blocks of DOG that includes the open data, Open Government, and Government Data. Furthermore, the benefits of DOG have been discussed, which is comprised transparency, participation and collaboration. The Public Value in DOG has been explained in this chapter also, which is including the Public value in public administration, Impacting Public value, and the assessment and Structure of Public Value. Moreover, this chapter discussed the Challenges of DOG that included the technological challenges, human Aspects, and Financial Challenges. Finally, the professional ethics in implementing DOG have been reviewed in this chapter.

CHAPTER 3: THEORETICAL FRAMEWORK

3.1 INTRODUCTION

This chapter introduces the theoretical framework that guides the data collection journey. It addresses the gap of research on the institutional/political perspective of information system perspective. The literature addressing the implementation of DOG lacks the "process" perspective and assumes that it is a water drop model more than a process with an iterative nature. The current chapter starts with a thorough discussion of DOG's institutional settings. The second section addresses the most cited models and conceptual frameworks used to understand the process of implementing the DOG process. Then it offers a critical review of the most cited theories that were used in the published research. The last section proposes the theoretical framework that is based on the institutional theory.

3.2 INSTITUTIONAL SETTINGS OF DOG

Generally, institutions are considered as "rules of the game". Moreover, institutions are characterised as a system of meaning, norms and laws and are either affected by or affect the social actors` behaviour. Some of the institutional arrangements in digital government projects may have a direct association with the project; however, others may just influence some of the social actors, some part of the information or certain functions under keen consideration necessary for the implementation of the project (Loi and Di Felice, 2013). Mostly, project managers are unable to control these rules. In most cases, the influence of these rules goes beyond the project managers` ability to decide whether their legislator or superior needs normative or legal change (Altayar, 2018a). Informal and formal institutions, however, may significantly influence the implementation and outcomes of digital government projects. It is important for project leaders to identify innovative ways through which these institutional arrangements can be affected or even transformed (Gupta, Singh and Bhaskar, 2016; Saxena, 2018d).

3.2.1 Political, Social and Economic Context

As the public visibility of those projects is very high - they have broader scope and budgets of millions of dollars - there is a high probability for such projects to be disrupted by various levels of political matters(Luna-Reyes and Gil-García, 2011). Moreover, the economic condition of a state, municipality, or country under which digital government projects are

being executed can also influence their implementation and design (Li *et al.*, 2013). Likewise, project success also depends on socio-demographic conditions such as the digital divide comprising Internet access and formal education, socio-economic status and income of prospective users. Though the digital divide is considered the most recognised gap in capability, it does not solely refer to individual users or citizens (Rametsteiner, 2002). The digital divide also becomes more important when it presents huge differences amongst local government, private businesses, or other key groups in digital government projects. The project success also largely depends on the political support of certain stakeholders and a supportive political environment. The major activity of champions or leaders of such kind of initiative is to garner this kind of support (Ratmono, 2019). It is important to thoroughly understand the context of the project even when the projects do not seem to impose a direct impact. However, it should be feasible to execute the project in the current social, political, and economic environment (Carpenter and Feroz, 2001).

3.2.2 Political aspects of DOG Building Blocks

The overlap of the three streams is (OG (open government), OD (open data), and GD (government data) furnish the conditions to developing and spreading DOG worldwide. Despite the fact that much of the literature has shed light on OG providing a political, institutional foundation to DOG, various political-institutional issues stem from the management of public data or from the manner of deploying technological innovations in the public sector, e.g. public data represents a valuable source for service delivery in the public sector and therefore issues concerning its ownership and meaning significant impact the interest of agencies to deal with DOG initiatives. Moreover, OGC is found in existing institutional structures such as strategies, regulatory frameworks, and culture, which can constrain or facilitate the manner of participation of public agencies in DOG. Nevertheless, OG, OD, and GD all have strong political-institutional roots, and therefore, power and politics play a significant role in the manner of planning, implementing, and operating DOG. Such stages include a set of political elements related to technology, people, and institutional frameworks, which could exert a relevant role in determining the decisions and rationales about the disclosure of public data.

3.3 THE INSTITUTIONALISM OF DOG

DOG represents one of the significant innovations of ICT encouraged across the world in the public sector (Hayes *et al.*, 2014). It has pushed civil society and government to rethink the way of interacting on the basis of social values found in public data. The growing political relevance and advocacy given to DOG by countries in their digital agendas have also increased the interest of academics and researchers to identify the socio-technical benefits and barriers related to disclosure of DOG. Having regard to the progression of DOG, its historical foundations, and its stakeholders (FOI, OG, OD, and GD), evidence shows that there is a strong political basis for DOG (Beszter, Ackers and Hislop, 2015). In the public sector, the DOG becomes a political ICT initiative, and as such, the planning and implementation of DOG and processes of operation may follow the same trajectory as other innovations related to introducing digital technology in governments, managing public information, openness, transparency (FOI acts) etc. (Retallack *et al.*, 2016).

The background literature, which is not made part of the current literature review, also highlights the way politics and political elements influence innovation in ICT generally. In an instance involving DOG initiatives, (Zhang, Luna-Reyes and Mellouli, 2014) adopted a neo-institutional analysis for developing her enactment framework and suggested that the efforts related to DOG will replicate existing routines, rules, norms, and even power relations. She concluded that the most relevant institutions are the political institutions when it comes to explaining the design and implementation of ICT in the public sector. This position is furthered by(Lim and Tsutsui, 2012) , who claimed that DOG is equally dependent on political context, but (Ingberman and Villani, 1993) also expanded on Fountain's work by indicating that DOG can significantly shape the political institutions. From another perspective James,(Eves-van den Akker *et al.*, 2016) observed that initiatives related to DOG are dependent on the socio-political contexts, and despite involving ICT significantly, the DOG depends on legal reforms more than technological innovation. Various researchers indicated that political processes and institutions are of prime importance for the successful implementation of DOG initiatives(Anderson and Henriksen, 2008). Literature also agrees that contextualizing innovation in ICT for the public sector needs to be done with respect to cultural, political, and economic dimensions. Therefore, these elements play a pivotal role in the designing, implementing, and operational processes of ICT. Relevant insights have started to enjoy the limelight as a result of a systematic literature review conducted for the current

research about the politics of DOG in line with aforesaid evidence concerning other digital interventions in the public sector.(Mountford, 2019) highlighted the influence of politics in implementing DOG. Having regard to the US DOG program, few public agencies and civil servants have been found keen on developing and implementing the DOG agenda, which clashes with other political interests, (Nunkoo, Smith and Ramkissoon, 2013) also observed that the resistance across the US government with respect to its collaboration with civil society and the agenda on transparency. The relevance of the analysis is that disclosing valuable public data has the effect of redistributing power which is found in public datasets. DOG strives to become transformative; it can redistribute power from few owners of public data to various such as civil society and others. This process also has the effect of significantly influencing political interests. However, the research conducted by(Chan, Mo and Zhou, 2013; Shang *et al.*, 2013; Wang *et al.*, 2013). did not take into account the in-depth cultural, social, and political reasons and instead focused only on the number of datasets disclosed. Nevertheless, the evidence forwarded by (Yang *et al.*, 2019) reflects the relevance of power relationships among different stakeholders for understanding the environments of local DOG. In line with such reflections, (Saxena, 2017b). showed that initiatives related to DOG are interventions in the political arena.(Davies and Bawa, 2012). also highlighted the intervention in political interests and institutions to understand the DOG in the context of politics, power, and bureaucracy. They also highlighted that initiatives related to DOG significantly influence the relationships between non-state agents and state agents. Hence, a significant role is played by politics and political organizations in the way of developing DOG. (Cloutier *et al.*, 2016) also observed that these days the effect of promoting DOG has been that the role of politics has been downplayed as its focus has been more on advantages and technical issues instead of relationships between power and communities. This analysis leads towards concluding that the present research on DOG has not yet taken into account the fact that political formulations affect the DOG initiatives, all of which are influenced by political, social, and economic institutions. Some research projects also aimed to understand the causal relationship between DOG and politics. A prime example in this regard is the research conducted by Jo Bates on the DOG agenda in the UK. Bates conducted a neo-Gramscian analysis and showed how DOG was enforced by virtue of the transformism process, e.g. the transformation of civil society when some of its members were made part of the DOG agency (Bates, 2012). Her work is helpful in understanding the radical rationales underlying DOG, which are influenced by political elites. This also represents the example of

how the DOG is influenced by dominant institutions. In instances involving the UK, a static political hegemony has the effect of the model of absorption. This has the effect of restraining the participation of democratic views in DOG, and its enforcement is driven by a neo-liberal perspective on public service outsourcing through DOG (Suharty *et al.*, 2016).

 Researchers argued from a political perspective that studying DOG necessitates segregating the OD and OG domains. This study shows that there are political elements underpinning DOG and associated with the OG sphere, whereas the technological elements are related to OD. This has given rise to two different areas with different procedures, motivations, results, and institutional roots. The authors also suggested that the policies regarding OG have blurred the lines between the technologies related to OD and the politics of OG. This analysis fits with existing literature on the origins of DOG and the literature on foundational streams of DOG. Further, it also shows that DOG has political nature or dimension as well, i.e. the utilization of certain technologies is influenced by the politics of the institutions hosting them. The political side of DOG being a socio-technical innovation cannot be ignored from bureaucratic and technical perspectives.(Sánchez-Nielsen *et al.*, 2017)also argued in line with the point of view of (Kornberger, Pflueger and Mouritsen, 2017) that a public value is being created by DOG when the synergistic relationship is underpinned by openness in relation to societal capabilities, resource governance, technical connectivity, generating social and economic outcomes about efficiency, transparency, innovation, and participation. Their view highlights the impact on DOG by institutional forces context, meaning thereby that DOG could deliver public value according to existing political institutions and trajectories. While their view highlights a more holistic perspective of political institutions and DOG, they do not place emphasis on political forces and relationships influencing the synergy, which has the potential for leading towards different agendas, processes of implementation, and impact of delivery (BRELÀZ, Crantschaninov and Bellix, 2021). In summary, the existing literature on DOG highlights the relevance and necessity of understanding DOG in the political context, as stated earlier, that there exists an agreement that political institutions are highly relevant when it comes to DOG. It cannot be doubted that DOG is deeply rooted in political institutions which represent a wide array of political interests, the exertion of power, and the value enclosed in the disclosure of public data. However, evidence also shows that little attention to date has been paid to understand the politically of the institutional setting in the context of DOG empirically. Therefore, this area highlights a valuable and interesting research gap in academic literature. The previous section took into account the connection

between politics and DOG generally, and this section highlights particular aspects associated with institutional forces of DOG, which are deducted from the SLR process. From a political perspective, DOG is regarded as an innovation that has stepped into the political arena affecting the political interests, distribution of power, and existing political institutions in a broad context (Retallack *et al.*, 2016). On the basis of this premise, a set of key topics arise as part of conducting political analysis of DOG, including transparency, openness, the role of public information, empowerment, political institutionalization of DOG, and the exertion of power (Figure 3.1).
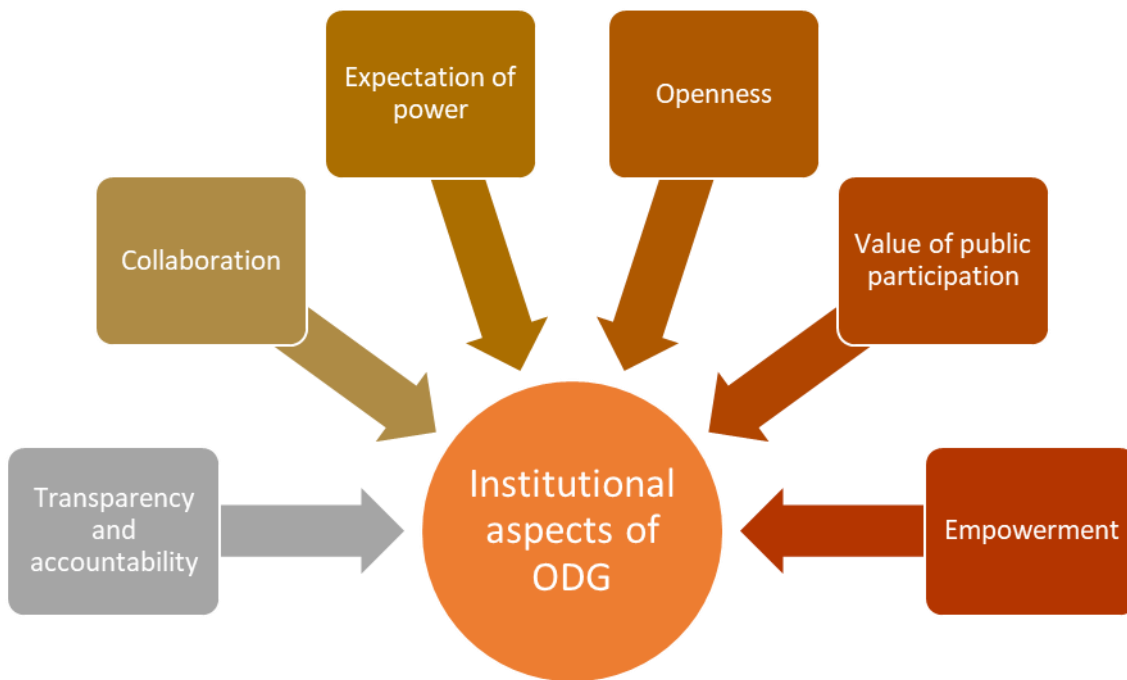
Figure 3-7 Political, the institutional objective of the DOG (Retallack *et al.*, 2016)

Such constructs have been derived from literature for operationalizing the "politicalness" of DOG, and as such, they represent both inductive and deductive approaches for understanding the politicalness of DOG in practice. Initially, such aspects were concluded inductively on the basis of literature on the subject. Later, they were again analysed to understand the conceptualization of the politicalness of DOG. Moreover, further literature associated with transparency or ICT in the public sector was utilized to reinforce some of the conclusions mentioned below according to each analytical theme.

3.4 MODELS OF DIGITAL OPEN GOVERNMENT

The previous sections dealt with several institutional characteristics of DOG, describing the obstacles associated with its implementation and adoption. In this section, a brief analysis of different models of open government is introduced to underscore efforts towards achieving an operational open government platform. Notwithstanding the many interventions at different levels of both academic and governmental publications on open government, the idea remains unmanageable and chaotic. As shown in the figure below, various developmental stages have been described by (BRELÀZ, Crantschaninov and Bellix, 2021). to attempt to help public administrators in implementing digital open government by proposing 'stages of growth', which can be adjudged functional by the use of several websites set up by the government and related digital open government initiatives to provide a description of the model. This model includes four main steps, namely 'transaction', 'cataloguing', 'horizontal integration' and 'vertical integration', highlighting details of their functionalities. These four steps lay out a robust pathway for governments to follow and suggesting at the same time, the related issues pertaining to both organizational and technical aspects.They summarized that for universal access to digital open government, confidentially and privacy concerns must be addressed in order to successfully adjudge a digital open government. (Altayar, 2018b) writes on the overhaul of the maturity models of open government by adopting IT applications with the view to make core activities become better and integrate crucial stakeholders into future investments focusing on digital open government.
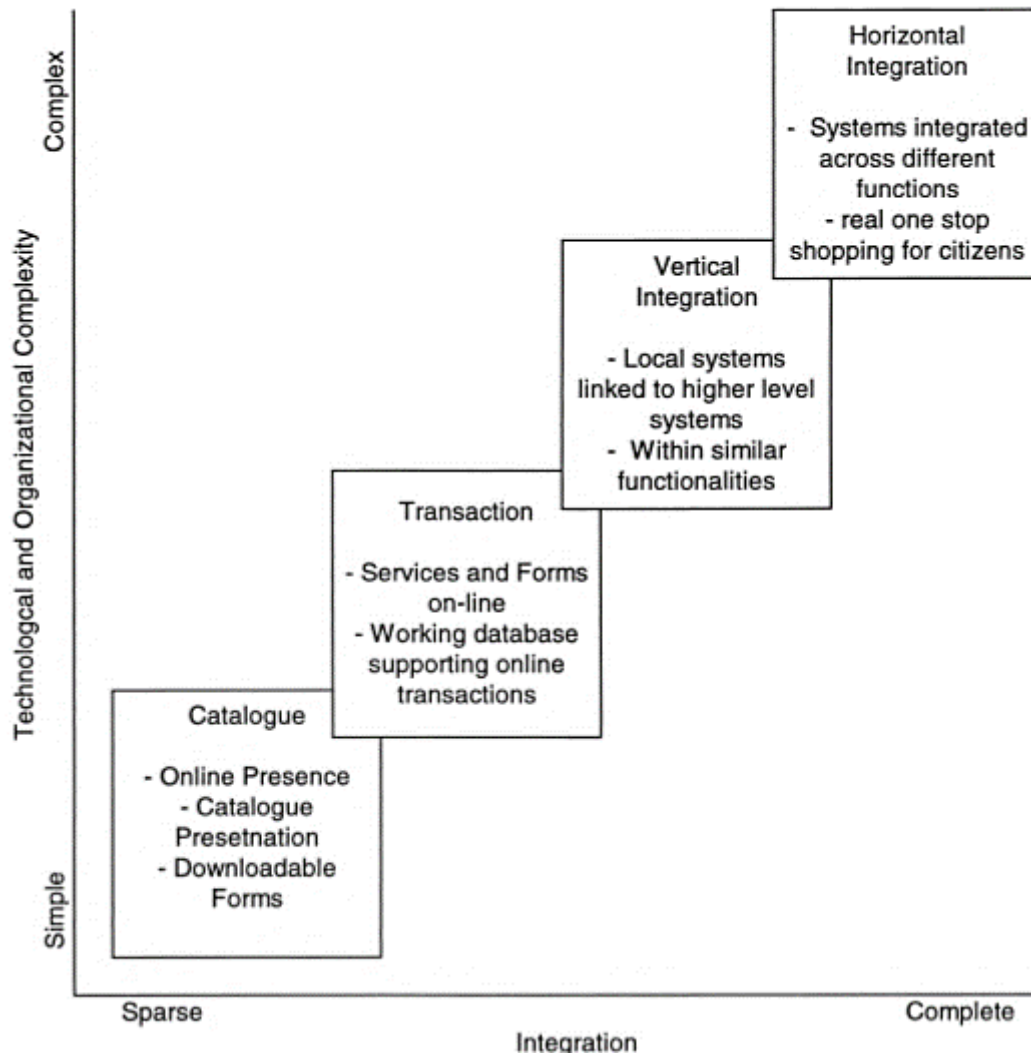
Figure 3-8 Dimensions and stages of DOG development; Adopted from (Layne and Lee, 2001)

(Gupta and Mirchandani, 2018; Saxena, 2018c) also synthesize open government models using qualitative evidence synthesis built on the meta-ethnography approach. Reddick (Reddick and Anthopoulos, 2014) has also developed an open government based on empirical models that focus on growth in local governments. So as to determine the "level of accuracy and correctness" of digital open government, (Norris and Moon, 2005; Ribble *et al.*, 2005) conducted an assessment to investigate three local digital open governments in the United States to determine if they offer value and are precise in relation to understanding the government developmental stages. (Klaus Fichter, 2003; Norris and Moon, 2005; Harrison, 2012), in conclusion, pointed out that the digital open government at the local level is principally based on the offering of information and used for less transactional activities.

Therefore, the models never predicted or described in exact terms the development of open government as far as the American local government is concerned. (Norris and Moon, 2005; Ribble *et al.*, 2005)offered grounded observations in order to address the issues that digital open government practitioners and scholars alike would find very useful (Dwivedi *et al.*, 2017; Marijn *et al.*, 2017) conducted a survey in the Netherlands on business models of 59 digital open government websites. The findings suggested that most of the sites were based on primordial patterns that adopted content provider or the direct-to-customer business models, with very few using business models considered novel. They arrived at the conclusion that the idea of the business model is beneficial and attractive to the public sector due to the complementary role it provides in identifying functional and useful digital open government platforms. (Carter and Bélanger, 2005) merged paradigms from the Innovation Diffusion Theory, Technology Acceptance Model (TAM) and web trust models in forming a "parsimonious yet comprehensive" replica of aspects that impact the adoption of digital open government initiatives by citizens. The study was conducted based on a survey of a wide range of citizens attending a community event. They inferred that trustworthiness, ease of use, and compatibility are the most important predictors of the intentions of citizens to adopt open government service. (Beszter, Ackers and Hislop, 2015) also highlighted a meta-model for digital open government that considers the different nature of contemporary socio-technical paradigm. It covers multiple scenarios of "Digital business models" upon which digital open government strategies can be anchored based on key information, business methods, and communication systems. They were able to demonstrate, using their method based on literature adopted from different subject areas that include informatics, public administration, and business, the potentiality to assist in the reconstruction of the already available experience of open government in the United Kingdom. They equally identified especially models which provide a clear platform on which open government data can progress.

3.5 CANDIDATE THEORETICAL LENSES

3.5.1 Value chain theory

According to Porter and Advantage(Porter and Advantage, 1985), value chain means various activities that may start from accumulations of necessary sources, design products/services, and deliver things to end consumers. (Černiauskas, Dobravolskas and Rapcevičienė, 2014; Rapcevičienė, 2014), value chain creation for a country means a public sector institution that

offers data, information, or services to the citizens of any country. Value chain theory focused on activities that are strongly interlinked, such as raw data, information, documents, analysis, and physical artefacts .According to (Wassenaar and Hendry, 2000), the government open data model must be linked to citizens, constitutional organizations, trading parties, and administrative agencies to create an effective value chain. It is also identified that value chain theory supports highlighting the important activities or processes that may positively or negatively influence the open data given on the open government website. Furthermore, he also provided a conceptual model in which he described primary and secondary activities to create a value chain in open government data. Primary activities are based on creating, processing, and storing information, as well as distributing and sharing information and offering final services. At the same time, secondary actives in open government data are based on designing laws, activities, and rules that can foster and inspire the target population to use this open data freely and easily. (Černiauskas, Dobravolskas and Rapcevičienė, 2014) has given supporting activities such as strategic planning, financial management, and services manager to create a public value chain. (Heintzman and Marson, 2005) have given details of primary and supporting activities that are helpful to create a value chain in public services. See the figure below. According to (Heintzman and Marson, 2005), greater trust in public sector organizations, managers, and given information would create high service chain value and positive attitudes among all stakeholders. It is suggested that offering a qualitative service to construct public goods/services may enhance the growth and competitive development of a country (Černiauskas, Dobravolskas and Rapcevičienė, 2014). Previous studies have identified three main factors that are required to generate a public service value chain in digital open government data. These three factors are trust, service, and people. It helps to generate employee commitment, employee satisfaction, and citizen confidence in the offered services, citizen level of trust in the given data, and citizen level of satisfaction. (Heintzman and Marson, 2005) have offered drivers that are helpful to create commitment, trust, and confidence throughout value chain service, see below.
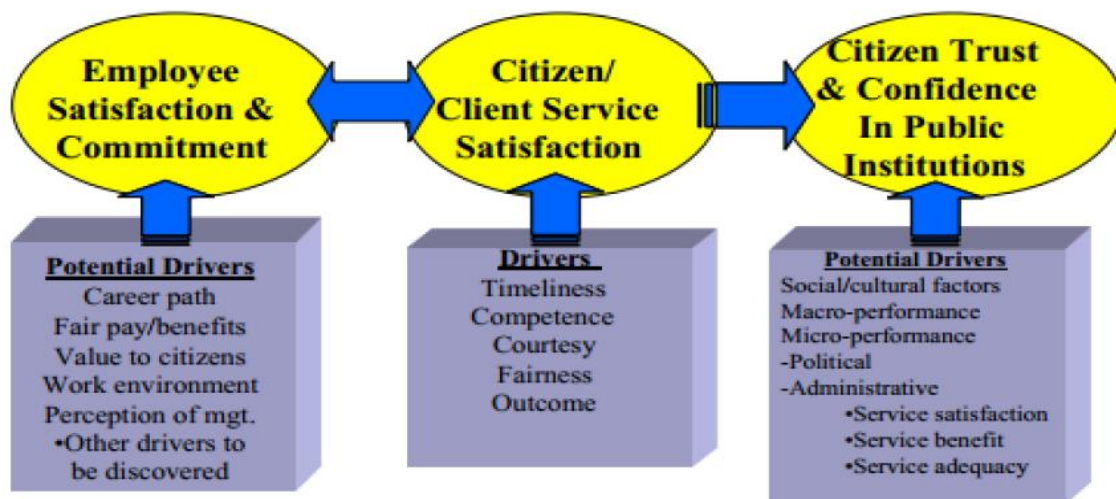
Figure 3-9 Public Service Value Chain Model: Adopted from (Heintzman and Marson, 2005)

Yu (Mulgan, 2008) has divided values into ten dimensions: service values, nation values, organization values, administration values, citizen values, institution values, business values, service chain values, society values, government worker value, but the researcher is unable to provide any guidelines which are helpful to measure these ten dimensions of the value chain.

As it has been shown above that value chain theory is the best to understand the value generation of the digital open government while this theory is not appropriate to explore the barrier enablers and opportunities of digital open government in Kuwait because this theory is only limited to the values are national from the digital open government. Although some studies have tried to explore the dimensions, drivers, factors, primary activities, secondary activities, and supporting activities using value chain theory (Alam *et al.*, 2013), there is no evidence found that illustrates how quality and accountability of the value chain can be ensured before it is accessible to final users. Additionally, the focus of this research is to explore the barrier enablers and opportunities at the institutional level dad would lead towards the successful implementation of digital open government in Kuwait. The focus of the value chain theory is only to understand all the institutions are linked together to generate values for the public and to generate values for the institution, but this theory is not appropriate to understand the institutional setting which created barriers add issues too far the successful implementation specifically in Kuwait, so the value chain theory is being rejected for this research. The present study aims to provide a clear understanding of how value chain theory may help to formulate digital open government design that is based on quality, fairness, accountability, commitment, and satisfaction. Meanwhile, this theory cannot explore

the political, social, technological and cultural factors in the context of the institutions of the Kuwait government, which is why value theory is being rejected for this research.

3.5.2 Multiple Perspectives Theory

Previous studies have identified that a new system or technology may be designed and implemented by analysing multiple perspective approaches (H. A. Linstone, 1981; Doong, Wang and Foxall, 2010) . These studies have indicated the multiple perspective approach is based on three main perspectives: organization-based, individual-based, and technology-based. Organizational view means whether organizational knowledge is available to design and implement a new system. For example, employee skills, how-know, support to processes, openness to change, and readiness to change are helpful to prepare a digital open government system. According to (Richard, 2014; Gonzalez-Zapata and Heeks, 2015b), the change formulation and implementation model has perceived benefits of open government data, critical success factor of open government, current readiness by determining laws and policies to execute open data, perceived barriers in the implementation of open government, and supportive legal, social, and cultural factors of that country. Lewin's three-stage model of change is also helpful to bring and successfully implement the open government system. The three-stage model is based on unfreezing, changing, and refreezing

(Luna-Reyes and Gil-García, 2011). By using the unfreezing stage, government agencies can create awareness and share knowledge about why open data has become necessary to bring economic growth and innovation in any country during the volatile business environment. Unfreezing is focused on unlearning the previous traditional behaviour, practices, processes, outdated skills, and ways of thinking. In the changing stage, positive behaviour, intention to adopt and learn, change acceptance, government agencies and citizens' support, high level of participation and interactive communication become essential (Linstone, 1984b). Finally, refreezing is focused on how successfully open government is launched, and their users are not thinking of going back to their traditional practices. If managers and employees are not ready to provide data in a way that is useful and supportive, then users may not be interested in using this published data. The technical view addresses the perspective about how the new system must address the features of traditional information infrastructure. Furthermore, the technical view highlights how tasks, processes, and technology required must be used to transform data into public services (H. Linstone, 1981). In the perspective of the individual, researchers have stated that there is a gap regarding how multiple perspectives about citizen

trust can impact whether participate or not participate in offered online public services. Additionally, the researcher argued that individual personality-related factors (i.e. disposition to trust and uncertainty avoidance), risk factors (i.e. privacy and security risk), social factors (i.e. perceived ease of use, quality, and structural assurance), and government factors (ability, integrity, and benevolence) might positively or negatively impact citizen trust as well intention to participate in open data.

According to (Linstone, 1984a) technical-based view goals are problem recognition and valid solution, while organizational-based view goals are consensus and disagree, and personal-based view goals are learning experiences. According (Hollink *et al.*, 2011; Kamali, 2018), service quality, service benefit, service impact, service challenges, and service utility of existing and new systems must be addressed to meet the objective of multiple perspective approaches. Moreover, he argued that the multiple perspective approach is helpful to measure the influence of individual, organizational and technological perspectives on the formulation of the new information-based system (Linstone and Mitroff, 1993). These factors may be able to generate a quality-based service that is useful to create public services for individuals, societies, organizations, and a country. These theories provide guidelines on what are the potential threats to open data in the context of organizational-based, security-based, individual-based, quality-based, structure-based, technology-based, and infrastructure-based. After identification and understanding these issues, the information-based system may be designed, which may help to create value chain, service quality, service accountability, service effectiveness, service benefit, service impact, service challenges, and service utility in digital open government data. The Multiple Perspectives theory follows the Kantian philosophy, where multiple versions of truth offer the closest explanation for reality (Linstone and Mitroff, 1993). A mixture of Technical (Causal), Organisational (Census), and Personal (Ego) perspectives represents a rich picture of reality.

- **The T perspective:** Problems are simplified by abstraction, idealization, and isolation from the real world. The implicit assumptions and characteristics include reductionism, reliance on scientific logic and rationality, problem-solution focus, quantification, use of data and models, optimization, and objectivity of the analyst. Jay Forrester's systems dynamics modelling of companies, cities, and the world is an example. The power and success of this technical worldview and its value in yielding remarkable insights and excellent predictions in science and engineering remains

unchallenged. But, as the recent work in complexity science has underscored, it has serious limitations in dealing with complex, nonlinear, adaptive systems. Unfortunately, most real-world sociotechnical systems are of this kind (Linstone, 2010).

- **The O perspective:** The organizational perspective focuses on process rather than product, on action rather than problem-solving. The critical question is "does something need to be done?" and "who needs to do it?" rather than "what is the optimal solution"? Justice and fairness, bargaining and compromise, satisficing, incremental change, and routinization (SOPS) characterize this perspective (Linstone, 2010).

- **The P perspective:** This views the world through the eyes of the individual. While cause and effect is a fundamental paradigm of the T perspective, challenge and response animate P. Each individual actor in a decision process has a unique set of patterns that inform his or her intuition. Characteristics of this perspective include learning, the importance of the self, power and influence, leaders and followers, need for beliefs, creativity, charisma, and fear of change (Linstone, 2010).

The present study aims to develop a theoretical model based on institution theory, value-chain theory, and multiple perspective-based theory. In combined form, these theories would be helpful to analyse the human actions, processes, structures, current practices, presentations, appropriateness, stability, organization-based, individual-based, technology-based raw data, information, documents, analysis, and physical artefacts before the implementation of digital open government data. As it has been discussed above that the multi-perspective theory has different perspectives, while these perspectives are not enough to explore the institutional context of the DOB because the DOB is not only on organization indeed, but also linked with the overall institution of the government, which has many relevant organizations. Additionally, the political factor is the major factor in the implementation of the DOG to generate the institutional and public values, which is not being considered by the multi-perspective theory, which is why this theory is being rejected for this research. The major advantage of this theory is to explore the multi-perspective which has been discussed above, but these perspectives are not specific for example, it has been discussed in the literature that the lack of collaboration, corporation and coordination among institutional elements become a barrier for the successful implementation of the digital open

government in different countries but these collaboration cooperation and coordination link back with the political system of the country and it also linked with the uncertainty within the institution which is not covered by the multi-perspective theory. Additionally, it has also been discussed in the literature review that institutional trust within the institution and public trust on the institution is also a major integral factor for the successful implementation of digital open government in any country while these type of specific perspective is not being discussed by the multi-perspective theory which is why this research is not using multi-perspective theory for this research.

3.6   INSTITUTIONAL THEORY

(Zuiderwijk *et al.*, 2012) states that institutional theory highlights the perceived risk, which may be raised due to using existing data in new technology or initiative. Basically, institutional theory highlighted the role of human actions, processes, structures, current practices, presentations, appropriateness, and stability in open data (Zuiderwijk *et al.*, 2012). According to these authors, institutional theory highlighted the importance of intuitional arrangements such as legal, formal, sociological, and cultural aspects. Institutions are known as "multifaceted, durable, social structures, made up of symbolic elements, social activities, and material resources" therefore, it is important to understand the importance of institutional theory. (Lee *et al.*, 2012) have stated that how new or innovative systems can be developed based on government data and how this open data system may be copied, diffused or adopted by others. This theory provides a sense about institutional arrangements which may positively or negatively influence the purpose of publishing open data (DiMaggio and Powell, 1983). For example, what types of open data must be given in digital open government and what users may expect from published open data. Furthermore, they argued that users might feel the risk to use open data that is not safe or where there is no mechanism given regarding how to use that given open data or where they could not take feedback regarding the use of digital open government for their objectives. There are three important mechanisms that must be analysed before the formulation of open government data in any country. These institutional-based mechanisms are cognitive/mimetic, regulatory/coercive, and normative(DiMaggio and Powell, 1983). These three mechanisms are independent and construct as a base for organizational structuring (Aldousari, 2015). Cognitive/mimetic means copying other models or practices to publish open data, while regulatory/coercive is based on legislative and political practices that may influence organizational practices, whereas normative depicts

some norms that may guide the processes of an organization during publishing open data. According to previous studies, organizations and managers are afraid to publish digital open government because it may raise several questions on the existing structure and which may force new changes or developments in that organization (Yang, 2003).

Moreover, they have stated that the intuitional theory provides the understanding that digital open government may reinforce to transform the existing structure of open data for taking benefits. Some authors have indicated that intuitional theory only focused on how to change organizational structures or current working practices rather than introducing any new technology to bring new changes (Fountain, 2001); institutional theory highlighted all possible challenges that may negatively influence the efforts of publishing government data openly. The process, procedures, policies, and laws of opening data are recognized as incomplete and awkward for people, government, and other stakeholders. It is cumbersome because many government agencies have opened their data too simplistically, but designing an open database often requires a change in processes, employee skills, culture, people behaviour, system, and organizational structure (Angstreich, 1996). Therefore, institutional arrangements must be established in a way that provides support to users. Open data usually requires changes in multiple levels. Therefore, open government datasets must be freely accessible, available, retrievable, comprehensive, searchable, ensure datasets are completely uploaded and opened, comparable, allow connection with other datasets, allow interaction with the data provider, and compatible (Zuiderwijk *et al.*, 2012). These theories can provide a clear picture regarding what factors must be assessed before formulation, design, and implementation of digital open government data in developed countries or in developing countries

3.6.1 Understanding Institutional Theory

The main belief of Institutional Theory focuses on the manner in which the processor structural changes which happen at the top level can be improved by the application of identical changes at the lower level. According to (Fassinger and Arseneau, 2008; Greenwood, 2008), the paradigm of Institutional Theory accepts that all the sectors in an institution are closely related and coordinated. There comes the requirement for any kind of policy change at the higher level to be replicated at the lower level and vice versa. Hence, if a policy change is applied in the accountability and reporting format of lower-level employees, the very same policy should also be applied at the higher-level, for the proper maintenance of

harmony and organisational coherency. Many researchers have critiqued this supposition, saying that the institutions are not fully perfect, making it quite impractical to accept that the changes introduced into the system have to be uniform at every level(A. Najeeb, 2014). With reference to Digital open government, it is different communication and reporting structures and also different levels of accountability occurring at different levels of open government data. This kind of non-uniformity is, however, not fit for open government data, and it is essential to have a proper standard at every level to launch active communication and, hence, the paradigm of Institutional Theory is applicable to Digital open government. The institutional approach used in a study concerning organisations is discussed as organisational institutionalism (Fassinger and Arseneau, 2008) and stresses the behavioural characteristics of an organisation, giving rise to questions like:

1. What do individuals think of their role in the institutional process?

2. What do employees think of their role in the institutional process?

3. How are the inconsistencies reflected at the higher top managers and the lower levels?

(Svejvig and Pries-Heje, 2011) assert that Institutional Theory identifies every individual as an 'actor', with an important role to carry out, which even defines their behaviour. Furthermore, those actors will lose the sense of enrichment and achievement if they do not understand how their role relates to the overall organisational routines and the consequences of their actions over other colleagues' responsibilities. To some extent, the researcher agrees with (Svejvig and Pries-Heje, 2011) and believes that individuals would be more careful with their actions if they get to know that their role affects the financial and reputation standing of the organization. It shows that every individual's position in the organization, along with their perceptive about their own roles, has an impact on the total behaviour and the manner how their role affects the whole organisational process. Studies by(A. Najeeb, 2014) elaborated on the issue related to the social environment to have organisational ties with the citizens, suppliers and other external stakeholders. It was noted by (A. Najeeb, 2014) that, in order to have a fully functional organisation, it is necessary to alter the business process in compliance with external actors, also considering both cultural and social values.

3.6.2   DOG and Institutional Theory

Lately, institutional theory has come to be a very powerful and famous tool for dealing with many issues at the organisational levels (Cai and Mehari, 2015). The theory underlines the in-

depth and stronger characteristics of any form of structure and studies the dynamics which make the structures like the schemes, norms, rules and routines quite well-known as data credibility cannot be ensured protocols for social behaviour (Ritzer, 2004). This can be utilized in any type of research focussing on the figure to have a better understanding of the phenomenon under investigation. Many authors have noted the need for institutional theory. For example, (Lammers and Barbour, 2006) used the applied institutional theory of organizational communication to cover the gap that exists in social research that deals with both microphenomena and macrophenomena. There are several studies that have used an Institutional Theory to study IT solutions. Some examples are the studies by (Currie, Seaton and Wesley, 2009; Sedgewick and Wayne, 2011; Svejvig and Pries-Heje, 2011). Currently, however, the use of institutional theory Digital open government is evolving. (Kerby *et al.*, 2010; Thompson *et al.*, 2014), for example, performed an institutional study of the Digital open government system for the purpose of testing for anti-corruption by using Digital Online Procedure Enhancement for civil application (OPEN) as a case study. (Luna-Reyes and Gil-García, 2011) joined the institutional theory along with dynamic simulation to derive an understanding of the complex Digital open government theory. (Gil-Garcia and Hassan, 2008) also brought out a sketch for institutional theory and open government data. Considering the people's focus on the nature of the research in the context of the current work. The institutional theory was made use of owing to its innate ability to tackle the many elements of socio-cultural atmosphere consisting of economics, politics, morals, legal aspects, behaviour and social life (Scott, 2008). In addition, institutions can rule and compel the behaviour at different levels, from world systems, consisting of organisations, to users of those systems (Scott, 2008). Legal policies and business structures build the foundation for any organisation and firm, and the social environment of the firm and its cultures also have a significant role to play. Hence, it is mandatory to know Digital open government in the context of the institutional theory (Gil-Garcia and Hassan, 2008). In the following subsections can be seen a detailed description of Institutional theory as it relates to the current work.

3.6.2.1 Institutional Isomorphism

Most of the institutions in an organisational field have a legal structure and regulatory actions and deal with external agents or suppliers or agents, and the generation of services and resources uses a mechanism that rules both its external and internal processes (Frumkin and

Galaskiewicz, 2004). This mechanism is referred to as 'isomorphism' and explains the manner in which a legal framework (i.e. a constitution) and the connection of the organisation with regulatory or any other bodies may impact the practises and behaviour of the organisation, or even the actors in the institutional process (Beckert, 2010). The institutional theory addresses basically three types of isomorphism, which are explained in the following paragraphs:

3.7 INSTITUTIONAL FRAMEWORK FOR DOG IMPLEMENTATION IN KUWAIT

Having learnt in the previous section of the institutional theory and the way to use it in IS research, including Digital open government in the previous section, the next section highlights how this theory has been applied in the current study.

3.7.1 Normative Isomorphism

Normative isomorphism indicates the normative mechanism used to keep up the standards and the consistency in an organisation (Boselie, Paauwe and Richardson, 2003; Corneliussen and Rettberg, 2008). relate the normative mechanism with procedures and policies used by managers to enhance professionalism inside an organisation, which consists of the level of experience, education, and training level of individuals that the employees have even before joining the organisation, or the managers should guarantee that employees get these skills (Beckert, 2010). Consequently, in relation to the Digital open government, the normative mechanism would have a series of policies concerning the level of IT education and experience of each individual, and, in any case, if they do have experience with the system, she/he would be expected to have the prescribed level of qualification to match with the normative standards.(Beckert, 2010; Shi and Hoskisson, 2012) (point out that the advantage of normative isomorphism is the fact that it gives the organisation the clause to maintain standards that would reduce internal conflicts. Hence, normative isomorphism mainly deals with the policies and standards ruling an institution's procedures and operations. (Hoffman and Ventresca, 1999) point out that procedures and policies do not exist just to create internal consistency but for the consistency with international standards and norms. Hence, organisations make frequent changes in their economic guidelines and policies, not just for economic considerations but because they are expected to meet the industry norms. Institutions, which are part of a social environment, are expected to follow industrial and societal norms.

Normative isomorphism refers to the themes of a technological gap and the risks linked with privacy and confidentiality, and information trust. While applying the phase of Digital open government, it would be appropriate for the Kuwaiti government to employ qualified, trained and experienced staff in order to have an effective and operational system. This implies that the individuals working in the open government sector and operating Digital online have to be well qualified in their respective profession of public administration or finance, etc. and should have the experience and training in entering and regulating open data, storing, safeguarding, and networking techniques. This means that IT cannot be a secluded unit within the Digital open government (as would be in other organisations), but it is a vital aspect as all the departments are too good knowledge of IT skills. For instance, in the open government infrastructure of the Seoul Metropolitan Government (SMG), the normative pressure of the need for transparency has become the foundation for the reform of the 'War Against Corruption' (Tickner *et al.*, 2014). It was asked by the mayor that each department needs to report according to the given service level, which would then be studied, together with the citizens' complaints and/or other loopholes in the system. This has helped to set higher transparency and corruption open-system standards for the government. In the same manner, the Kuwait government would have to fix certain limits to state Digital service quality Management, the level of transparency and corruption-free service that it intends to offer to the citizens. In case the level of transparency is at a rate of 100%, the errors in the system have to be publicised, as well as the method of dealing with requests and complaints and as to which individuals are responsible for each job. According to (Capurro and Britz, 2010), the delay can happen on the procedures in the process of resolving complaints, unintentionally or even intentionally. When there is a requirement from the government for a high level of transparency in the system, the public must be made aware of the expected delays with the appropriate causes. Naturally, the government would not wish its system to be tagged as flawed by the citizens or even for a delay to happen in its procedures which would lead to the requirement of work with much greater accuracy for enhancing its functions and Digital service management procedures.

3.7.2   Coercive Isomorphism

Political, together with other influences and legal pressures, consists of the chief mechanisms of coercive or regulatory isomorphism(Wawer *et al.*, 1999). Organisations function inside the territory of a country but still may relate to several other countries, and so they are destined to

adhere to the legal rules of that country(s). The legal rules of the country where the organisation functions put down a certain level of transparency, quality of products and services, minimum wages, applied taxes, etc. (Kim, Pan and Pan, 2007; Thomas, Singh and Gaffar, 2013)point out that the most influential pressures are political, and government sectors may be motivated by such pressures. Not often do the political pressures arise from the government, but from an opposing party that has the potential to win the next election and attain power. Hence, all these matters have to be considered while creating the organisational structure for taxation, accountancy etc. With regards to the Digital open government, (Hoffman and Ventresca, 1999; Sandoval-Almazán, Luis F Luna-Reyes, *et al.*, 2017; Gil, Vishwanathan and Hassan, 2019)explain coercive pressures as a strong emphasis on the legitimisation of the external and internal procedures, being united with laws of breach of privacy and transparency, guaranteeing that all communications are put on record as well as reported on time, to bring on an effective Digital service delivery database.

One inference of governing or coercive pressure is to focus on timely, accurate and quick reporting. In a situation where the government intends to shift its work to Digital online, then any kind of error or delay already existing in the manual system must be wiped out because the Digital open government system would later make them transparent. There are many limitations too. The employees in Indonesia have stated that there, the system of open government has aggravated the work pressure of government officials mainly because they are expected to respond quickly to each enquiry and record the response soon after for future use. These kinds of inquiries can be made often, which would replicate the inquiry, making the reports useless. One solution is the improvement of the IT infrastructure system to make it possible to group similar inquiries done from a specific user (or on a specific theme) to be grouped and reported together. It was reported by (Kerby *et al.*, 2010) about a similar issue from the part of the open data officials in Seoul for which the SMG government applied an open network system, which helped categorise complaints, inquiries and service requests made of different sections at different times. The open system had the responsibility for routinely assigning a code to the inquiry, applicable to the service department, and also generating associated links to recognize similar complaints so as to combine similar inquiries together for making reporting easier. This way, the redundancy in reporting in the open government system was greatly minimized.

3.7.3 Mimetic Isomorphism

The term 'mimetic' indicates copying or imitating any other object or human being. Mimetic isomorphism hints at standards and procedures copied from other organisations, which are considered legitimate and successful(DiMaggio and Powell, 1983; Tingling and Parent, 2002). assert that the new organisations which adopt take up structural transformation are quite vague of the legal structure and policies that they use to guarantee that their works are legitimate and successful. This level of uncertainty makes them take up policies that are already in use. Organisations generally mimic the policies from greatly successful institutions or business models, constantly disregarding the inferences of societal and cultural differences. The South Korean open government model, for example, is based on the model of the Japanese, which was set up and adapted to the workforce and social environment of Japan. The application of a very similar model in Korea gave rise to numerous problems, even the lack of IT skills, the heavy workload and anti-corruption policies. There is no major issue of corruption, and data leakage in Japan since there are highly secured networks and the social values are based on high moral principles. There came the necessity to review the accountability and anti-corruption framework of Korea pertaining to the needs of the Korean environment. Therefore, it can be noted that mimetic isomorphism can profit an organisation when the policies are vague and difficult to be followed; but the adopted (or copied) working and structural framework must be altered to the requirements of each individual environment and set of socio-cultural values.

As it was mentioned earlier, the mimetic process allows a passage towards the new Digital service delivery model since the initial procedures often have ambiguities and uncertainties. The Kuwait government can imitate the legal structure implemented by many other successful Digital open governments, concurrently mimicking the technological structure of private institutions in the state of Kuwait. Adopting a technology pattern from a Western country would not prove helpful for Kuwait because of the difference in the levels of infrastructure and technological expertise. Institutional Theory focuses on societal attributes, structure and values; hence, it becomes important to consider the expertise and technological familiarity of the population of Kuwait when applying the structure of Digital open government and the technological model. Those private and Non-Government Organisations (NGOs) functioning inside Kuwait can provide a reference in this regard, as many have applied the Digital system mode for service delivery and communication. Also, the Kuwait

government is not expected to apply similar legal structures, and IT strategies for all its open government departments, i.e. a pilot project could be originated in one or two departments, and the same structure (with appropriate modifications) could be used to all other departments following the effective conclusion of the pilot phase. A number of social factors have to be considered, which can influence a system's efficiency before entering into the topic dealing with the application of Institutional Theory for Digital open government(Campbell and Pedersen, 2007). It has been highlighted in both the current study and the literature that one of the major issues associated with the application of Digital open government at the country level has the human element (Ragin, 2008). There is a human mediator, which is the government official, and this guarantees the issues of corruption, personal gain, errors, or corruption that cannot be completely ignored. Having the techniques of better security and data monitoring can minimize the problems of corruption and fraud, though they cannot be completely discarded(Ragin, 2008) . This increases the necessity for studying the sociological aspect of Institutional Theory for the purpose of finding out the causes which lead to such undesired incidents in the system like corruption and data fraud. According to (Amenta, no date; Pfaff *et al.*, 2014; Plutzer *et al.*, 2019) , the element of personal interest occurs in an organisation where there was a failure to confirm that: (i) policies are properly defined; (ii) the monitoring measure is well-equipped; and (iii) no personal benefit can be derived by breaking the system's policies, which means that it is possible for a person to be convinced by rival organisations to give out (or corrupt) the data of a company (Cañuelo *et al.*, 2012). These intentions must be confirmed in the context of the societal and cultural perspective. The lack of motivation provokes an individual to break the law as well as the policies of the organisation, forcing them to realise the needs of the employees and make sure that they are inspired and reminded of their corporate and social responsibilities while working as a section of the system (Cañuelo *et al.*, 2012).

It is mandatory for the government to tackle the perceptions and socio-cultural barriers about the application of Digital open government. This study states that though the people trust the government's morality, they still lack trust in professionalism and credibility. Hence, it is mandatory that the government implement appropriate measures to expose government intrusions, including the aids to individuals, and a guarantee of the government officials' ability to apply the planned system model. Only if the perceptual hurdles are eliminated would there be a proper readiness to take up the Digital open government system. Previous studies suggested that most of the literature is available on open government and its adoption

in the context of western countries (Grimmelikhuijsen *et al.*, 2013; Real *et al.*, 2017) . However, challenges, trends, issues, enablers, and motivators in the implementation and adoption of open government vary from region to region, culture to culture, organization to organization, country to country, and from developing to developed countries (Aslam *et al.*, 2018).Uncertainty avoidance, lower level of skills, lower level of technological adoption, high level of resistance, lower level of public awareness, lack of quality in data, high data privacy issues, and lower level of legislative procedures are some of the main features of Arab countries. Therefore, enablers, challenges, and motivators cannot be the same between developed and developing countries. The study will explore the challenges in the perspective of implementation of open government then devise the strategies to overcome these challenges. Furthermore, the study will be explored those enablers which can enhance the level of technology adoption in the context of Arab countries like Kuwait. This study will benefit the policymakers of Kuwait by designing the strategies to implement and execute the DOG system after analysing the key enablers, motivators, and challenges (see figure 3-4 of the theoretical framework).
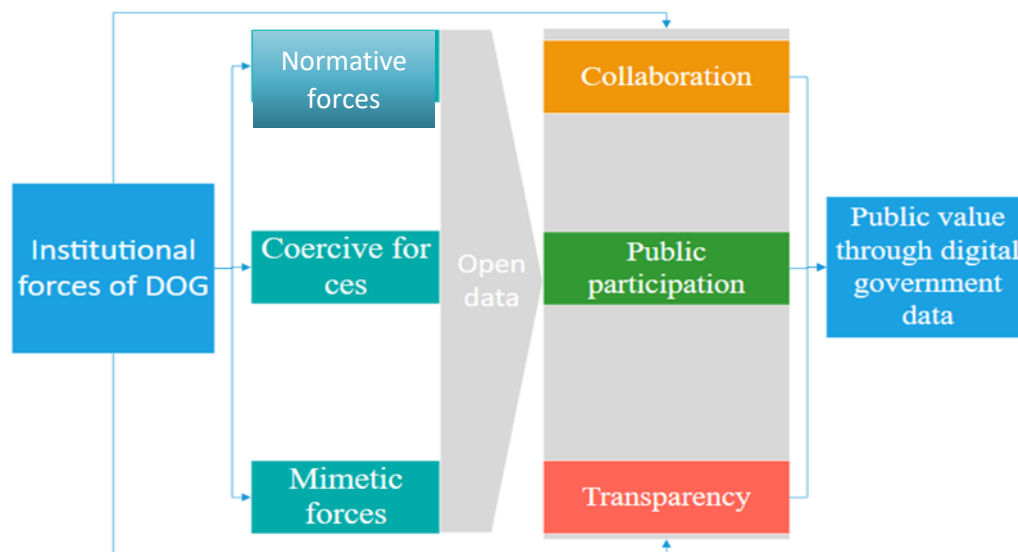
Figure 3-10 Theoretical framework developed by the author

These institutional-based mechanisms are cognitive/mimetic, regulatory/coercive, and normative(DiMaggio and Powell, 1983). These three mechanisms are independent and construct as the base for organizational structuring. Cognitive/mimetic means copying other models or practices to publish open data, while regulatory/coercive is based on legislative and political practices that may influence organizational practices, whereas normative depicts

some norms that may guide the processes of an organization during publishing open data that would help to understand the transparency of data. Mostly, project managers of DOG are unable to control these rules. In most cases, influences of these rules go beyond the management ability to decide whether their legislator or superior need normative or legal change to facilitate collaboration, transparency, public participation. Informal and formal institutions, however, may significantly influence the implementation and outcomes of digital government practices. It is important for political leadership to identify innovative ways through which these institutional arrangements can be affected or even transformed. Therefore, norms and laws surrounding the DOG should be taken into account and transformed, if required, to acquire a favourable and supportive institutional environment to facilitate transparency, public participation and collaboration. These institutional-based mechanisms are cognitive/mimetic, regulatory/coercive, and normative (DiMaggio and Powell, 1983). These three mechanisms are independent and construct as the base for organizational structuring. Cognitive/mimetic means copying other models or practices to publish open data, while regulatory/coercive is based on legislative and political practices that may influence organizational practices, whereas normative depicts some norms that may guide the processes of an organization during publishing open data to create collaboration among institutions.

DOG type of services always prioritizes their users and their genuine experience first so that citizens can develop an interactive manner with the way the public connects with the government. For this purpose, good data and metadata are needed, which also include information based on geospatial aspects regarding the services of government, calculation and rules of eligibility. Constant feedback loops that incorporate public input, ideas, and experiences happen to be very crucial for effective citizen-centric services, and it ensures that iterative changes are happening over the passage of time so that services can be maintained and they are responsive to changing population demands which are required a higher level of public participation. DOG components provide more personalized and accessible services through multiple channels; despite such services being identifiable, many others can be given anonymously. It's critical for individuals to log in until they absolutely need to because it can be very unsettling for people who have had problems with the government, especially people who are vulnerable, which increase the importance of transparency. To ensure transparency, accountability, and appeal ability of judgments, open rules are necessary along with open algorithms and programmatic explaining ability. Moreover, to gain algorithmic transparency,

explain ability, and decision capture must be embedded into systems. Consequently, there is a risk of creating black box decision-making that is not suitable for the public, which is required collaboration at the institutional level. In DOG, there are government rules that are diminishing their application transparency. The concept of rules as code means that human and machine consumable versions of government rules are available (particularly ones that are prescriptive) in law, regulation, and operational policy as well, so this research is an effort to understand the role of current organizational policies and rules to improve collaboration, participation and transparency to successfully implement the DOG in Kuwait.

The authoritative rules are available in the human (legal) language in Kuwait, and people utilizing them, such as departments, must give translation and interpretation that results in digital tools, resulting in gaps in implementation and accountability. During the formation of new legislation, modern agile and digital methodologies are utilized so that rules can be defined, leading to improved rules in the first place that are made from scratch and allows governments to host rules that anybody can use. Rules acting as codes are quite essential when it comes to the digital public infrastructure, casting significant benefits for service delivery, compliance, better regulatory outcomes, and cost reduction all across the economy, thereby enabling better access to justice and transparency of authority and the laws defining and shaping the world. A good example of open infrastructure is open data to the process of placing the majority of government datasets and information online by assuming that there is no personal information included or a security risk involved. Data should, in theory, must provide satisfaction to the needs of developers and institutions as well as end-users that would lead to higher participation and successful implementation in Kuwait that would lead to understanding the inquisitial setting, which is why institutional theory is being selected for this research.

One of the key concepts of Institutional Theory is that structural or process improvements at the higher level can be made more efficient via the implementation of similar types of changes at the lower level as well.(Greenwood, 2008) explained that the Institutional Theory paradigm states that every institutional sector is closely linked and synchronized with each other. Resultantly, any change of policy at the national level reflects at the local level and vice versa. Moreover, as a consequence, if a change in policy is made in the reporting style and accountability of lower-level employees, the higher-level employees should follow suit so that harmony and organizational coherency can be maintained.

There has been a lot of criticism regarding this, claiming that institutions are not perfect, and it is very unrealistic to expect all improvements to be uniform at every level (Chadwick *et al.*, 2011; A. Najeeb, 2014). Varying levels of accountability and different communication and reporting formats are utilized at different levels of e-government. This state of non-uniformity is not needed by e-government; moreover, to build successful communication, there must be a standard for every level. Consequently, the Institutional Theory paradigm is applicable to e-government. (Greenwood, 2008) believe that the institutional theory adopted in this analysis refers to organizational institutionalism, and it mainly puts the focus on the organizational behavioural aspect with questions that are mentioned below:

(1) "What do individuals think of their role in the institutional process for the implementation of DOG in Kuwait?"
(2) "What are the perceptual inconsistencies in the institution?" and
(3) "How are the inconsistencies reflected at the higher and the lower levels in Kuwait?"
Institutional Theory, according to (Svejvig and Pries-Heje, 2011), identifies every human as an "actor" that has a special role, frequently defining their behaviour. Resultantly, (Svejvig and Pries-Heje, 2011) explained that actors inside an institution are not much cautious of their actions and tasks if there is no direct effect on the organization's standing and reputation. Individuals, on the contrary, are more cautious in their activities if they believe there is a direct impact on the organization's financial or reputational standing.

(S. F. Najeeb, 2014) has broadened the topic that relates to the social environment so that organizational associations can be linked with suppliers, citizens, and other external stakeholders in previous studies. Furthermore, (S. F. Najeeb, 2014) claims that an entirely functional organization have its business process modified in accordance with external actors' social and cultural values. On the contrary, (Urquhart, 2010) examined Institutional Theory, claiming that citizens' social ideals and demands impact the social and structural environment of institutions. The major limitation of institutional theory is that this theory is covered only three major elements, which included political, social and answer uncertainty related factors of the institution while it has been discussed in the literature review that participation of the public and professionals, public trust, institutional collaboration and public participation in the digital open government as the critical factors for the successful implementation of the digital open government in a country their far participation, collaboration and transparency are considered also integral part with the institutional theory in this research consequently

this research intended to explore the institutional barriers in a blurs and opportunities through the lenses of institutional theory plus collaboration participation and transparency and institutional level that would help to develop the context-specific framework of this research which provide in-depth knowledge to generate public and institutional values together in Kuwait. According to (Harrison, 2012; Manske *et al.*, 2012), the traditional meanings of DOG are still using extensively, which developed when the role of advanced technology was not very active.

 (Hood and Heald, 2006a) stated that the word "transparency" and "open" is interchangeably used by many studies even when both concepts have significant differences. (Luna-Reyes and Gil-Garcia, 2014; Worthy, 2014)have argued that DOG must be considered as an open environment that can facilitate both citizen participation and collaboration. According (Lathrop and Ruma, 2010), DOG means a system which is fostering access to documents, information, proceedings and enhances citizen participation for services co-creation. It is found that transparent DOG means the openness in both information and data with the purpose to create and enhance citizens' participation and engagement (Fornazin and Joia, 2016). However, it is also found that processes, laws, policies, and procedures of DOG are usually perceived as complicated and awkward (Zuiderwijk *et al.*, 2012). Therefore it is very important to engage citizens for building positive perception and to improve the DOG public value chain(Wassenaar and Hendry, 2000).DOG requires public participation and effective management of many joint efforts. Researchers have stated that DOG leads to transparency to citizens' participation to collaboration to citizen engagement(Lee and Kwak, 2012). However, there is a lack of understanding about how the interlink and connectivity can create among these concepts. It is found that transparent DOG actions, the DOG reactions to new ideas and demands from citizens, and efficiency and accessibility to DOG information and services are the major features of this open system (Mitchell *et al.*, 2014) argued that transparency did not mean that only accurate datasets, but these datasets must be resourceful and useable as per citizenship point of view.

Moreover, they argued that citizen participation and collaboration must be meaningful with respect to citizen inputs and government agencies response towards improvement in DOG (Harrison and Sayogo, 2014). The purpose of this study is to use the VCT in order to construct a research framework that can engage citizens, administrative agencies, constitutional forces, and other stakeholders for improving the DOG public value chain;

therefore, a mix of both the institutional theory and public value chain theory is being adopted for the theoretical framework of this research.

3.8 CHAPTER SUMMARY

This chapter introduces the theoretical framework that guides the data collection journey. It addresses the gap of research on the institutional/political perspective of information system perspective. This chapter starts with a thorough discussion of DOG's institutional settings. The second section addresses the most cited models and conceptual frameworks used to understand the process of implementing the DOG process. Then it offers a critical review of the most cited theories that were used in the published research. The last section proposes the theoretical framework that is based on the institutional theory. This chapter discusses in detail the Institutional Settings of DOG, which include the political, Social and Economic Context, political aspects of DOG Building Blocks, and the institutionalism of DOG; in addition, the Models of Digital Open Government and the candidate Theoretical Lenses have been explained. The candidate Theoretical Lenses includes the Value chain theory and the multiple Perspectives theory. Moreover, the institutional Theory has been discussed, and it includes the understanding of Institutional Theory and the DOG and Institutional Theory. The institutional Framework for DOG implementation in Kuwait has been discussed with its items which include Normative Isomorphism, coercive Isomorphism, mimetic isomorphism and sociological isomorphism.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 INTRODUCTION

An in-depth literature study linked to the Digital open government and Kuwait research context was presented in chapters two and three, respectively. In this chapter, a description of the research approach employed in this work is presented. Before progressing towards the results chapter, it is essential to know and analyse the steps taken for data collection, the individuals responsible for the process of data collection, and the validity of the data in the context of the study objectives. Consequently, this chapter takes up the task of explaining the techniques used in this study, underlining the main steps utilized for carrying out the research for collecting and analysing the data.(Murphy *et al.*, 2020) had stated that each research relies on some norms of how the world is understood and also of how to derive a proper knowledge of the world. Such norms or assumptions depend on many factors like the research area, the theory under study (Walliman, 2018) and, sometimes, even the viewpoint and perspective of the researcher (Teater *et al.*, 2016). For carrying out the research with the intent of having relevant answers to the research questions, it is mandatory to base the research study on a well-established structure with a proper set of research philosophies and patterns(Authors 2006, Cheng et al. 2014). With this background, it can be viewed that the present work makes use of the methodological research structure depending on "Research Onion" showed in Figure 4.1. It can be seen that the research onion displays the different stages involved in research which includes (i) research philosophies that form the first layer of the onions; where research patterns like realism, interpretivism, positivism, pragmatism, etc. are determined and considered by the researcher in order to mould the research accordingly. In the second layer of the onion comes the different research approaches, and it is here that it is decided if the research would use the inductive or deductive method to carry out the research. The research strategies consist of the third layer of the research onion, where it becomes evident if the research is a survey, experiment, action research, etc. Finally, the fourth, fifth, sixth and seventh layer displays the choices, time horizon, techniques, and procedures respectively.
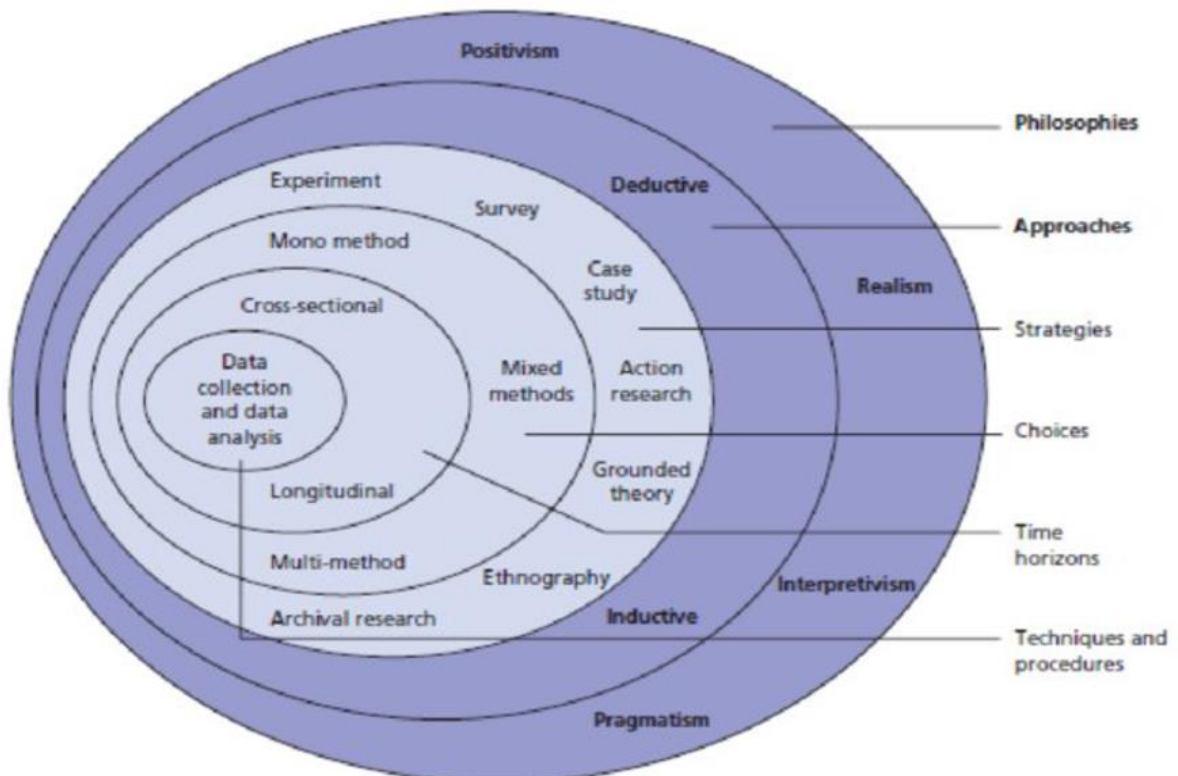
Figure 4-11 the Research Onion (Saunders, Lewis and Thornhill, 2009)

There are certain strategies and research philosophies relying on the framework depicted in Figure 4.1 above, according to which the current work is based, and it is shown in the following sections. Since the topic itself is quite broad, with various researchers giving their opinions and views regarding the same, it is not easily possible to use up a discussion on such a study as the current one. Hence, in the current work, only the key findings that seem to be of importance are emphasised. In doing so, the current work explains the approaches taken for research for the current work keeping a clear distinction between positivist and interpretive research approaches.

4.2   RESEARCH PARADIGMS

A research paradigm refers to "a philosophical and theoretical framework of a scientific school or discipline within which theories, laws, and generalisations and the experiments performed in support of them are formulated" (Cassell, Cunliffe and Grandy, 2017). Paradigms are frameworks constructed on the basis of a belief system dealing with the nature of existence and knowledge. These models are shared with a broader research community and implemented in the form of a guide to help researchers with their approaches for inquiry. The

philosophical attitude used in research helps to fix which approach is best suited for the phenomena to be studied or the objective of the research as to if it involves testing, theory-building or extension (Howitt and Cramer, 2007b). Epistemology and ontology are the two main philosophical factors used to support any research approach (Bernard, 2017). Epistemology refers to the degree to which reality can be determined (i.e. the assumptions made related to the type of human knowledge and of how that knowledge is derived and perceived). Ontology involves the nature of reality regardless of the human attempts to perceive it. Both the philosophical attitudes (i.e. epistemology and ontology) are categorised by researchers into different research paradigms, which groups of normally accepted outlooks and basic notions are regarding a set discipline at a given time (Green *et al.*, 2007). A good explanation is given in the following subsections of the two distinct paradigms that are the foundation of a research process. This paves the way to the last justification for the paradigm utilized in connection with the current work.

4.2.1 Interpretivist

Interpretivist research aims to detail the manner of how people experience social phenomena, intending to derive empirical conclusions based on the experiences and specific phenomena (Arthur and Bode, 2014). The interpretive approach intends to understand the experiences and phenomena under research investigation instead of using mathematical calculations to begin certain relationships (Elder, 2017). According to interpretivism, an investigator is a fellow of a social group where he/she is a social actor having important parts to play in its creation and progress intending to obtain meanings of its relations. The background of this philosophy is based on the intellectual notions where individuals aim to derive an understanding of the social world around them. Reality is, in fact, viewed in relation to its descriptive qualities. The basic principle of interpretivism is the fact that 'truth' is subjective and that there is no singular reality and it relies on the scenario or the observer. This shows that there is no scope for any kind of personal interpretation on the part of the researcher for understanding the data (Williams and Vogt, 2011). It is understood that the researcher has a fairly big role in interpretive research, in the way that must derive the meaning from the data they have collected, interpret and discuss it in the context of the other related data. Relevant to social research, the supporters of the interpretive paradigm declare that sociology concerns the matters related to and behaviour of the human minds because of which it is not appropriate to utilise statistical tools to study the relationship between compound variables

since this kind of relationship is not direct (Coolican, 2018). Consequently, the supporters of the interpretive support paradigm as well as test the aptitude of other research paradigms to tackle complex phenomena. Another way to understand the principles of interpretivism is from the people's perspective, as participants' lived experiences of the phenomenon or topic of study (Lidbury *et al.*, 2021). When it comes to the context of data collection, the interpretive prefers a methodology that allows a comprehensive investigation into human behaviour which can produce valuable intuitions into the social thoughts of the investigation. With regards to in-depth and descriptive research, it offers a good range for study participants to publicly share their opinions, ideas, knowledge and fix their roles. Consequently, the most commonly used methods for data collection in the interpretive approach are that of observations, interviews and study of existing texts (Guba and Lincoln, 2005).

These techniques confirm that there is an adequate and appropriate dialogue created between the researcher and the selected sample to establish an expressive reality in a cooperative manner. Hence, qualitative studies are characteristically reliant on the interpretivism paradigm (Bradford and Wolfe, 2013). Research that is supported by interpretive principles should, therefore, clear the research question and establish an analysis of the decisions and explanations made by the investigator in the research process.

A written interpretation that makes persuasive arguments should be illustrated as well as a complete assessment of the influence of the results. Another factor to be incorporated is the ethical and political considerations which can be derived by confirming the matters associated with confidentiality, protection of privacy, confidentiality, informed consent and voluntary participation. Just like other paradigms and research models, there has been much criticism on the interpretive model also, which should be studied to evaluate the shortcomings of this approach. According to (Donley, 2012), the interpretive paradigm includes the principle of 'ethnography', and the research becomes more complicated and hence quite difficult to simplify for a larger audience. When elements like societal mindsets and cultural matters are evaluated in the data analysis, the related culture restricts the applicability of the results, which means the researcher cannot state assuredly if the results have the same degree of applicability on the outside of the target section.

It was noted by, (Donley, 2012)that the approach does not consider changes that would have happened in behaviours and societies with the passing of time, and it presents a restricted picture of the society or even of a set of people. The scholars put forward a third criticism

that the validity and accuracy of data can be affected by connecting the personal or human factor in data collection and analysis (Onwuegbuzie and Leech, 2004). The control of explicability and generalisability of a given study is a vital matter that also marks the research epistemology.

The type of research which uses the positivist approach can be both generalised and reproduced when based on a theoretical basis, which consequently impacts data collection and analysis. As for the interpretivists, they could be searching for the chances of having a relationship or a social perception irrespective of the point if it is generalisable or replicable. The feature of this approach that allows it the chance for discovering an individual phenomenon and enhances knowledge about social procedures and methods of interpretation, simultaneously giving it new knowledge and meaning derived from such investigations, in fact, makes it give an integral role to knowledge. This is the fundamental element for having this research. No objective is present for group research depending on these philosophical perceptions because reality shows that there are interactions in the acceptance of these methods. It was, however, stated by (Bell, Bryman and Harley, 2018) that it is still quite mandatory that researchers consider the philosophical rifts while considering the inferences on their research from the beginning. In the following subsection, there is a description of the positivist approach to research.

4.2.2   Positivist

A scientific model of viewing a research problem is used in the positivist approach, where the researcher searches for numeric data (Carey, Colaresi and Mitchell, 2012). According to (Neuman *et al.*, 2011), the positivist style of approach is an organised paradigm of carrying the research, where the researcher has a general knowledge of the direction of the study. Hence, there is a very little amount of uncertainty. (Walliman, 2010) notes that uncertainty becomes unnoticeable based on the approach taken in the positivist paradigm. Positivists are those social scientists who view reality from the lens of fact that are thought of as tangible while supporting the "scientific" method to the enquiry. They use the "natural scientist's" technique to study the current research problem and are highlighted by pronouncing research questions in the manner of hypotheses and creating apt equations to find the authenticity or validity of the hypothesised phenomena. A set of hypotheses is usually constructed before starting the procedure of collecting primary data and all statistical techniques and identifying the key performance factors and indicators. Also, the results of the data are patterned and

contain a boundary or separation from the researcher, unlike in the interpretive approach, where the data outcome is not certain and may stray away from the primary inquiry and focus of the study (Boreen, Arnold and McNeill, 2005). Positivist researchers contribute to the notion that it is possible to derive a complete knowledge of theory through proper research depending on observations and experiments. In such a case, knowledge and concepts result from experience and are construed by rational deduction. A particular outcome is achieved by the authority of positivist assumptions associating research: the idea that the only way to carry out research is to follow a scientific model (Quinlan *et al.*, 2015). The characteristics of positivist research are:

- The experiment is the main approach of the scientific method, which means an attempt to identify natural laws by immediate manipulation and observation.

- Positivists are empiricists, which refers to the concept that observation and measurement are the principal factors of all scientific endeavours.

Positivist principles stress realist ontology, suggesting that besides whatever humans are aware of, there are other real-world objects too, and so, there exists an objective reality (Creer *et al.*, 2010). This attitude has a representational epistemology that accepts the fact that humans are aware of this reality and uses symbols to illustrate and express it in the correct way. With the awareness that reality exists away from the individuals' awareness of it, the positivist paradigm gives an objective reality with the help of which researchers can relate their claims and fix the truth. This paradigm has the characteristics of predictions and the control of variables affecting a phenomenon, involving the creation of theories or preconceived ideas concerning the relationships between the variables adding to the phenomenon under study. It states that the theory of cause and effect can be considered as the foundation to foresee and manage natural events; as such, patterns can be seen.

Empirical verification also means that the world's perceptions can also be depended on to give the researcher's valid data. A study relying on the positivist paradigm can prevent a subjective bias if a methodological pattern of rules is pursued as the achievement of objectivity can be shown. The positivist paradigm naturally has its share of criticisms. As, (Chevalier and Buckles, 2013) put it, the foundation of the positivist approach is the false notion that it is possible for humans to change their subjective reality in order to derive an objective effect. For instance, if employee motivation is studied in association with

management practices, then it is understood that management has an impact on employee motivation, where in reality, the fact could be that employees are influenced by the job security, salary package or any other such positive factor. Even in a situation where there is no direct link between the tested variables, the positivist researcher imagines one and builds his study based on this, which would be, consequently, defective in many ways. Assert that a detailed and diverse approach is essential for understanding basic realities and human concepts, which is impossible with the use of only the statistical tools coming from positivism.

4.2.3 Critical

The critical paradigm becomes the bridge between action and research. It helps the researcher to move one step forward into the field of action, where the researcher tries to influence his subject of study. Whichever type of approach it may be, positivist or interpretivist, the researcher's role is that of a simple observer having no impact on the research environment (Choudrie and Dwivedi, 2005). In critical theory, the researcher needs to think of their own role in the context of the lives of people (Ahern, Leavy and Byrne, 2014). They should have a critical mind about social practices and obtain a critical action study to derive necessary changes in values, norms and beliefs in relation to the cultural and social; which would make the researchers more critical about their own practices as well as of the others while attempting to use their theories into practice.

The major axes of arguments and counterarguments are the research methods, the practice of theory and research philosophy (Hesse-Biber, 2010). Those researchers who use the critical paradigm consider that knowledge can be perceived from many angles, which include culture, history, social and political, and so, many realities can result in each category. In the critical paradigm, it is possible to analyse and interpret even quantitative data to identify reality and to make a political decision concerning compulsory intervention(Chapman, McNeill and Mcneill, 2005).

The researcher should not be neutral, instead be an active political player, trailing the positive change in society. Subsequently, researchers have started to concentrate on the research process instead of the methods and results. There are many result-based and practical shortcomings of the critical paradigm. Firstly, concerning the environment, for example, the organisation management practices and behaviour, is quite a long time taking the job, which

results in the research process being quite elongated, without a surety if it is possible to obtain the required change of mindset (Leeper, Walker and Yang, 2010). It is yet another fact that researchers do not have the ability to exercise freedom and change within the environment, which, in turn, restricts the use of this approach (Rugg and Petre, 2006).

4.2.4 Justification of the Interpretivist Paradigm

The research questions and the diverse issues that the current study intends to take up have led to the use of the interpretive research paradigm. Irrespective of the methods employed, the basic philosophical norms of the research can be easily explained in association with the research paradigms highlighted above. The work currently undertaken is intended to search and analyse some critical issues like professional ethics, information trustworthiness and the risk that supports the application of Digital open government in Kuwait. In order to have answers to the research question, it is essential to have the support of in-depth data so that there is a deep knowledge of the concerned issues. This involved the formation of thoughts and outlook of Kuwaiti users in the context of Digital open government. Interpretivism provides the view of searching on an exclusive phenomenon and supplementing knowledge regarding social procedures and techniques of interpretation while deriving new knowledge and meaning from the phenomenon under study (i.e. DOG as concerning this research). Interpretivism stresses the meaning, and it makes use of the methods of data collection and analysis, which are detailed and inductive so that it is possible to obtain rich analyses, which can adequately support the research questions. Techniques that are more common in the data collection and analysis concerning this study because of the fact that it gives quite a complete portrait of the opinions and experiences of the participants and the generation of detailed information (McCaffrey, Hanson and McCaffrey, 2010). Some devices utilized in this paradigm involve qualitative questionnaires, in-depth interviews, participant observation and review of prevailing documents, which can help in describing the context or connection of the variables considered, along with the interactions between such variables in the concerned context. Interpretivism allows getting a better understanding of the overall situation (Walker, 2010). The critical and positivist are in contrast that they are not quite appropriate for the study at present. It is mandatory to recognise perceived risks, which the structured questions cannot determine, but the quantitative questions and analysis are not appropriate. Also, the researchers refer to the government aiming at government organisations and general users for extracting data collection; as such, it is to prevent critical action scene, process, where the

researcher may be from the side of a government system. Thus, the role of the researcher is limited to be an information mediator or observer; hence, a critical paradigm is not applicable.

4.3   RESEARCH APPROACHES

Many common research approaches are discussed in this section; with a qualitative approach used here in this study to understand the professional ethics, the trustworthiness of information and the involved risk in the context of DOG in Kuwait and other methods have been taken into consideration.

4.3.1   Quantitative Research Approach

The quantitative research method associates itself with the positivist paradigm, involving the obtaining and conversion of data into a numerical structure to generate statistical calculations and hence come to related conclusions (Baum *et al.*, 2013). It is quite typically linked with positivism. The important contents of a quantitative study involve the following: Researchers who use a quantitative approach lookout to collect statistics and empirical data, "where the data is in the form of digits and numbers" (Boydell *et al.*, 2014), and the presence of a vivid plan of action is essential together with certain pre-defined instruments and materials for the collection and analysis of quantitative data. Also, objectivity is important in quantitative research, which means that the behaviour, attitude and presence of the researcher should not have an impact on the results, like changing the context of the study or even influencing the participants to behave in a particular way. Objectivity also gives an opportunity for the critical examination of the methods and final conclusions for bias, if any (Walliman, 2011).

Any external factor which may influence the outcome of the research has to be controlled, for example, by making use of a multiple-perspective strategy in order to authorize the findings (Lancaster, 2005). Similarly, the quantitative method involves deductive reasoning, which is based on moving away from the general attitude towards the very particular characteristics of the phenomena, which makes it a top-down method. The study taken up here uses an inductive approach. Hence, the result themes are based on derived material (Zhou, Nunes and Liu, 2013). The strength of the conclusions depends mainly on if the prior statements, the conditions and the findings are valid enough.

Finally, the individuals that are involved in quantitative research are the representatives of a big section of the population, which allows the researcher to make certain reliable derivations about a wider group. The matter of how far generalised statements can be made would rely on the number of participants in the research, the way in which they are selected, and if they portray a larger group (Creswell, 1999). Overall, the quantitative approach has been usually noted for its systematic and logical leanings towards the data collection process and study, together with the use of explicit questions and statistical study for better levels of accuracy and precision.

4.3.2   Mixed Research Approach

This approach is a mixture of qualitative and quantitative methods. This approach holds several research paradigms in its course of data collection, reduction, and analysis. According to (Crowther and Lancaster, 2012), a mixed approach, which has received much attention from scholars, gives the space to resolve issues using both qualitative and quantitative methods. There are shortcomings in both the positivist as well as the interpretive paradigms; the advocates of the mixed methods approach state that these shortcomings can be overcome by the adoption of a mix of the two approaches, which would mean that the final results would not be the outcome of any one approach (Bliss *et al.*, 2010). It can be thus, said that this approach states the fact that every research methodology has its respective drawbacks and can be complementary to the other if they are used in the form of unity.

Using a mixed-methods approach, it is possible to carry out a large-scale study, where narratives and words depending on qualitative information can be mixed with numerical data, hence raising the generalisability of the study findings. Certain common characteristics of this approach are: Firstly, the flexibility to utilise complex approaches to reply to the research question (Bryman, 2016). Secondly, the transformation of quantitative into qualitative data, and vice versa (Maxwell, 2010). Thirdly, it allows triangulation by joining multiple research practises inside one study for carrying out a mixed study pattern of the phenomenon being studied (Fassinger and Morrow, 2013). Fourthly, triangulation may constitute several data sources, using many researchers, and study various perspectives to examine and understand the collected information while using multiple methods to approach the research problem at the same time (Currall and Towler, 2003).A particular reason for not using mixed methods for the present research is that the study is already supported by certain previous studies of (Welch and Feeney, 2014), who have built a strong link amidst the independent variables of

professional ethics, information trustworthiness and risk with the dependent variable of Digital open government acceptance and adoption in Kuwait. Hence, it is not mandatory to get into another discussion about the matter if these variables impact the adoption and level of performance of Digital open government services. This research intends to take up a detailed inquest into the existence of this relationship, why people do not trust the ethics or credibility of Digital open government officials, and the riskiness of disclosing their open data through Digital open government services. Only qualitative inquiry, like the ones taken in the current study, can answer this kind of question.

4.3.3   Justification of Qualitative Research Approach

When it comes to doing studies connected to psychology, social sciences and human behaviour, qualitative research is preferred (Neuman *et al.*, 2011). The qualitative model of inquiry depends on the interpretive paradigm and makes use of the social constructivism archetype, which gives enough importance to the socially built nature of reality (Bryman, 2008). Steps in this method are data collection, recording and analysis while trying to explain the main topics of study and of their relevance to humankind. This approach helps the researchers to derive a much better and rich knowledge of people's experiences (Dubinkina, Goosse and Sallaz-Damaz, 2011). Below are some of the reasons that make qualitative inquiry a suitable approach for the current study: Qualitative research is a socially constructive method, which is not dependent on a pre-determined theory. This approach identifies the problem clearly in order to help the investigation be carried out through a theoretical lens (Dubinkina, Goosse and Sallaz-Damaz, 2011). Here, data is obtained in a textual format, where the data is collected and documented by observation of and interaction with the subjects under study, where there may be detailed interviews and focus groups. The derived information is not always transformed into numerical form(Creswell and Creswell, 2005) since data collection happens in real-time, which includes tones of voice, gestures and expressions in the form of response to the researcher's questions. However, such is not the case with a quantitative inquiry, in which case, the questionnaire is either sent through email or distributed as hard copies to be collected later.

The researcher does not really get the experience of the participants' reactions as they receive the questions (Kauff *et al.*, 2002). The qualitative research also permits the participants with a degree of freedom, allowing them to give expressions to their views and also give back answers related to experiences and examples. According to (Zhou, Nunes and Liu, 2013),

qualitative research, which takes a bottom-up method, is 'inductive' in nature. In the inductive pattern of research, in the very beginning, direct observation is done, which is later lessened down to create a set of events or occurrences, which allows the study to create a tentative theory. Depending on the behaviour of this study, it would be appropriate for researchers to suggest patterns and themes before carrying out the data collection process and consequently compare the collected data with the formulated patterns and themes.

4.4 RESEARCH DESIGN

Having explained the use of a qualitative research approach in the context of the current study. The next section deals with the different types of qualitative analysis techniques to figure out the most appropriate and feasible one for the current study. The qualitative research approaches that are commonly used are:

4.4.1 Action Research

Action research is a mix of the critical and interpretive paradigm (Ralston *et al.*, 2010). During the first phase of action research, the researcher examines the problem as well as its causes by performing primary research. During the second phase, in order to tackle the affiliated problems, an action plan is made, citing the responsibilities of employees and of the management, if it is an organisational problem which is considered. The researcher, in the third phase, works along with the supervisors and the top managers to carry out the action plan and then make sure if the problem has been resolved. The disadvantage concerning this approach, as noted earlier, for the participant is that most of the organisations are not flexible to be participating in the action research. Moreover, it is felt that the action research approach is motivated more by pragmatic than academic goals, which shifts the focus of the researcher towards practical scenario building than covering up the theoretical and literature gaps (Marcén *et al.*, 2013).

4.4.2 Ethnography

Ethnography, which is the evaluation of societal ethos, culture, and human psychology, usually depends on people's observations resulting in a written account of participants and location. The process in ethnographic research is such that researchers pay attention to all that is said concerning a phenomenon and get involved in incessant interaction over a long time period to familiarize them with the subject matter and to be in a better stand to evaluate how behaviours are affected by different variables (Bryman, 2008).An ethnographic approach is

mainly applied in cultural studies, where subjects are in need, or they may be in a state of trauma or other similar issues. (Rafedzi and Abrizah, 2016), for instance, used the ethnographic approach to analyse the behavioural changes in prisoners who return to society, especially if they can manage in their new environment after having spent a major part of their lives in prison. The ethnographic approach can be said to have two main disadvantages. Primarily, it requires a vast amount of time to be spent on preparing individuals in organizations or societies so that they can accept a detailed study. Secondly, ethnographic studies have a longitudinal feature, and it is essential to carry out periodic observations to comprehend behavioural improvements and/or changes in time (Schwandt, 2001). The subjects for research are generally individuals who have not gone through any major behavioural change (within the context of the study), and hence, the approach does not come in the range of the current study. The ethnographic approach also calls for a longer time span, which is impossible at this stage.

4.4.3   Grounded Theory

The grounded theory relies on data collection and observation, where the analysis is secondary, and it makes use of an which is the direct inverse of the positivist approach, since the result of the findings are naturally dependent on a single question, though, at most times, no distinct question is framed before the research. (Corbin and Strauss, 2014) say that the researcher obtains his data relying on a developed understanding of a literature gap, reviews the questionnaire, collects more data, and goes on to repeat the whole process in a continuous cycle. In this type of approach, the primary research creates the situation for added primary research. When the primary research is finished, all the data is encoded, branded, and common themes are recognized to create a general theory of application (Howitt and Cramer, 2007a). A prime reason which prevents the usage of the grounded approach for the current study is the fact that it uses a longitudinal approach, where the researcher is expected to be constantly involved in the process of data collection, reviewing the whole questionnaire every time some new data is obtained. The constantly ongoing procedure of data collection, coding, and analysis indicates that this approach is complex as well as time-consuming (Creswell and Tashakkori, 2007). Apart from this, the grounded approach relies on information acquired during the course of the study. Contrarily, the present research has been supported by the support of other studies in the area of Digital open government adoption, and so, the

fundamental grounds for the current study were stated before carrying out the primary research.

4.4.4 Justification of Case Study Design

"A strategy is a plan of action to achieve a goal". A research strategy is a plan on how to answer the research question or problem. Looking into archives, documents and ethnography are examples of approaches that can be used. The researcher has chosen to use the case study method, based on the change in Schibsted as the case.(Yin, Shi and Yan, 2014) defines a case study as "an empirical enquiry that investigates a contemporary phenomenon (the "case") in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident". In other words, it is the opportunity to explore, describe and develop in-depth, meaningful context knowledge and understanding about real-life events.

The case study has often been used to document and analyse processes, commonly evaluating implementation processes (Yin, 2015) . This has therefore been a natural choice of strategically researching change management and implementation processes. States that despite the widespread use of case study methods, it has been given little attention in social sciences. Some of the principal strategies used in qualitative research, however, are action-based research, narrative, and case study (among others). Understanding complex social and personal situations and processes demand a holistic approach. This approach allows detailed descriptions of situations and an in-depth understanding of people involved, feelings and interactions (Gagnon *et al.*, 2010) . A case study makes it possible to observe and analyse circumstances as a single, integrated whole.

The case method is said to be appropriate for describing, explaining, predicting or controlling processes associated with a variety of phenomena at the individual, group and organizational levels (Gagnon *et al.*, 2010) . "The main advantages of case study research are that it can produce an in-depth analysis of phenomena in context, support the development of historical perspectives, and guarantee high internal validity, which is to say that the observed phenomena are authentic representations of reality". (Jackson and Piette, 2015) describes that a case study can be time-consuming, low on external validity and that it is not generalizable for the population. Moreover, one of the research methods strengths is that it creates suggestions for future hypotheses and future studies.

The case study method is widely discussed, as some see that it is not a part of scientific development since it cannot be generalizable. (Flyvbjerg, 2006) describe that there are five misunderstandings about case study research and that it is not generalizable is one of them. He concludes that social science may be strengthened by a larger number of quality case studies, as it is necessary for certain important research tasks in social sciences.

Choosing the case study method is to have a narrow focus on humans and their interactions, and not numbers and large quantities. This is arguable what makes this research internally valuable to the organisation it is written for. The researcher also argues that it is a suitable method in terms of looking into the field of change. How people perceive and behave in relation to change is varies from organisations, departments, culture and what people you are surrounded by. Hence the only way to research how people relate to change is through the case study.

This research highlights the challenges that face by the Kuwaiti government to develop smart solutions for the service provision. Recently, the Kuwaiti Government has built a free trade zone in collaboration with the Chinese government. This in-progress project will be operated by multinational corporations that recruit international employees from all over the world. Such a huge number of employees will be served by digital immigration and security checks services. The scope is narrowed down toward an on-progress project in issuing employability security checks in the new Chinese free trade zone in Kuwait. This zone will be operated by multinational corporations that recruit international employees from all over the world. In the methodology section, the researcher listed a number of participants based on their contribution to the project. The key stakeholders of this project are top officials who lead the digitalisation of governmental services, IT managers, front-office employees, and end-users. However, the researcher will focus more on the best practices to enhance the benefits and overcome challenges during the implementation process. So, he will focus on the operations and provision actors, not on the end-users, as 34 participants are targeted through phone interviewees due to their direct contribution to the service provision. The first-year plan was to review the literature to map the key stakeholders such as government officers, corporate public relations representatives, immigration front-office employees. The published literature refers to the lower level of motivation to use, a lower level of training and development, a breach of privacy and security, lack of awareness, and low level of investment, and other cultural challenges associated with the implementation of DOG. The second research

objective was to build a theoretical framework for the implementation process of DOG based on exploratory research. In doing so, a road map to overcome the challenges of implementation offered and techniques to institutionalize such efforts will be elaborated. After the collection of the primary data, the final research framework has been developed on the basis of fieldwork.

This research follows the interpretative philosophy to understand and interpret the stakeholders' view of the implementation process and try to understand the institutional practices and critical success factors during the process. As clarified by (Bowling and Ebrahim, 2005), information systems implementation includes issues of trust, resistance to change, organizational change, and organizational culture. Such concepts curry different meanings and perceptions. There are published papers on the implementation of open government where the issues of transparency and controllability have been addressed. Further explanation of the research strategy has been provided to satisfy the reviewer. However, this research does not address the use of ICT in developing countries, rather than the successful implementation of DOG with a case study context. The researcher cannot set assumptions whether the research context is developing, emerging, or developed. But the nature of the implementation process cannot be tested. So, the researcher followed the interpretative approach. Also, this study follows a qualitative research approach to get the participants' perceptions and helps understand their individual and group attitude towards the implementation process and their Regulative, Normative, Cognitive practices(Chui, Farrell and Jackson, 2013). The IS literature referred to three data collection methods (i.e. interview-based methods, observation-based methods, and narrative-based methods) to understand the research problems in the context of implementation processes. The present study will conduct face-to-face semi-structured interviews with the key stakeholders to investigate the implementation process (Gentles *et al.*, 2015; Seidel and Urquhart, 2016). A purposive sample of the project front office, IT managers, and immigration officers will be approached to conduct the phone interviews.

Table 4-1 Selected types of the participants

Types of the participants	Detail	Numbers
Ministry	Ministry of Interior (MOI)	5
	Council of Ministers Kuwait for Science and Technology (CMKST)	5
	Ministry of Communications and Information Technology (MCIT)	5
General public	Citizens (C)	23

DOG presents a complex open data system that incorporates the trio of institutional themes and leads to motivations, attitudes, benefits, and challenges.

4.5 DATA COLLECTION

It is essential to have collected appropriate data for a study that has to set up a new base and cover a knowledge gap. For the latter, the researcher has to primarily analyse the previous work done in the related field and continue from there. The primary and secondary data collected together would form the research. Some of the common primary data collection methods are explained in this section, and those which are used in this study are also clarified here.

4.5.1 Questionnaire

The strategy of creating a questionnaire is used in both quantitative and qualitative types of research. When the researcher intends to derive answers to those questions which are not easily available in any literary sources (Denscombe, 2010b; Denscombe *et al.*, 2014), a questionnaire can include both narrowed and descriptive questions. A survey questionnaire that has a quantitative method dealing with numbers in the analysis would not be used here. The selection of the qualitative type of questionnaire in the current study has happened since

it helps the researcher to get detailed responses to the questions. The participating individual offers in-depth answers to questions, which sufficiently helps the detailed understanding of the study. The questions for the qualitative questionnaire are readied in advance. The restricted is restricted with his interactions with the participant, and hence there are lesser occurrences of bias (Saunders and Bezzina, 2015). In the current study, a qualitative questionnaire is conducted with Digital open government citizens.

4.5.2 Participant observation

Participant observation is the method where there is no direct interaction or communication of the researcher with his subjects. Instead, he just views their activities for the collection of relevant data. Studies related to children's learning procedures and the way in which they get involved in activities allow the participant observation approach to data collection (Denscombe, 2010a, 2014). The researcher takes down appropriate notes as to what the subject has done and the related circumstances in the manner of a narrative, which is later coded with any one of many data analysis techniques. Because of its difficulty in repeating the study for checking its reliability, participation observation has not been used.

4.5.3 Focus groups

A focus group refers to a group-based technique, where the researcher becomes the mediator in a conversation amongst a group of participants. (Bryman, 2008) explains that the advantage of this approach is that the participants are more comfortable in sharing views in a group-based setting and not individually. In the focus group, the respondents who share similar experiences or interests are put together in such a way that they can share as well as acknowledge the experiences of others. This way, the mediator can simultaneously understand the different views related to the same topic as well as recognize the contradictions that may be between these views in a case where there may be several different perceptions. It is a mandatory requirement for focus groups to have enough participants at a single time, which was a difficult factor to attain for the current research. Scheduling and arrangements became impossible for this research, and so, focus groups were not made use of.

4.6 EXECUTING FIELDWORK AND COLLECTING DATA

The fieldwork part of the research was executed by the researcher with a pilot study for refining the interview regarding questions, location, time taken, and for updating the research protocol as essential. The following sections describe the pilot and fieldwork studies.

4.6.1 Pilot Study & Outcomes

Before starting the data collection process, the researcher conducted a pilot study to test the suitability of the selected methodology before a broader scale study is implemented. The study was executed from 1st March 2020 to 20th March 2020. With respect to this, a pilot study can be defined as a small-scale section of a larger planned one, executed as a replica.

A pilot study investigation, as explained by (Everitt, 2006), tests the feasibility of processes and methodologies to be used later on a bigger scale or to look for probable impacts and associations which might turn out to be worth following up on in the proceeding studies. Pilot studies are defined as the best means of assessing the practicability of a large, costly full-scale research and can also be considered as a necessary prerequisite. They are executing a pilot before the main research study can improve the probability of that study's success and potentially useful for avoiding doomed main studies. Resultantly, identifying a small-scale context is essential where the data can be produced by means of a replica of the study design selected for the larger study. It implies that this study needs to be executed in an office or institution dispensing public services, a public service agency, and on the part of the KUWAIT government.

For the pilot study, the selected locale needs to have employees who have knowledge of DOG services and their use and who are available to the researcher. It was not feasible to dedicate more resources and time to its execution since it was merely a pilot study. Since the researcher was not a permanent resident in the UK, the travel concerns were also to be considered for both types of studies.

With respect to the abovementioned considerations, the ideal location for the pilot study was chosen to be a Kuwait government organization. The perfect fit was found to be Kuwaiti Cultural Bureau in London regarding the abovementioned requirements. The goal of this study is to make sure that obtain relevant data from participants and that the questions designed for the interview are easily understandable. Moreover, the researcher should find this useful in collecting data, acquire useful information and practise their skills of

interviewing. The place of conducting interviews was Kuwaiti Cultural Bureau. The findings of this pilot study were:

1. Useful information was found from the study regarding professional ethics, information credibility, and perceived risks relevant to DOG and supported a limited understanding of the subject of research

2. The interview questions had some limitations that need some modifications so that the questions and aims of the research can be put into perspective. For example, some questions need to be re-worded or re-phrased to make the meaning clear, while some of the new questions were also added

3. In some areas, the technique of interview needs to be developed by the researcher, for instance, the interview introduction process, and the management of the process as well as duration

4. Since the interviews were conducted at the place of interviewee's work during their office hours, the interviews were disturbed. Resultantly, the majority of the interviews organised for the fieldwork were conducted outside of office hours in a coffee shop

To sum up, pilot study feedback was applied to modify and enhance the instruments' clarity and to further develop some characteristics of the interview guides. Moreover, it also helps in the design and development of the data collection process prior to the phase of primary data collection, aiming to avoid errors.

4.6.2 Qualitative Questionnaire

Before the interviews were conducted, getting a sense of the views of the citizens with respect to the professional ethics, information credibility, and perceived risks of using DOG services were important. For choosing participants, the study used purposive sampling. When a qualitative questionnaire was carried out, the same principles of executing the interviews were implemented. The supervision team reviewed the questions of the qualitative questionnaire written in English until the final version was confirmed, then the researcher translated I to Arabic. The translation validity was assessed by two native speakers of English and Arabic who made sure that both texts meant the same thing. Since the participants speak Arabic, the qualitative questionnaire was conducted in the same language. The researcher began the process by meeting the citizens face to face at the chosen location. Next, the study's scope is discussed with the participants, after which they were asked for their

opinions about different features of the research. After that, the process of translating the transcriptions to English began to keep the credibility of the interviews intact. The participants were asked for their consent through a consent letter which explained the purpose of the research (Appendix 3 for participant information sheet) and appendix 2 for the consent form. The following part elaborates on the way the researcher conducted this fieldwork and is further divided into two sections:

4.6.3 Interview

Interviews are one-to-one communications with a participant (Sebastian *et al.*, 2020). The basic feature of difference between an interview and a questionnaire is the fact that the researcher gets involved in a direct, face-to-face conversation with the participant, which intends that it is possible to have an interview either through a video call or in-person where immediate responses can be derived immediately succeeding the posed questions, unlike in the questionnaire approach, where the questions are sent through email at a particular time, and the responses come in much later. According to (Franks *et al.*, 2010; McCaffrey, Hanson and McCaffrey, 2010), interviewing participants is the most effective strategy for gathering descriptive and comprehensive responses, as the researcher can frame questions differently to make them clearer to the participant. In addition, the researcher can repeat the statement back to them to understand more fully what the participants mean and what they intend to say.

There are many pros and cons when using interviews, as listed below. The pros are as follows: Firstly, Suitable for a researcher who conducts an in-depth or details study. Secondly, there is no equipment that the researcher needs to conduct interviews. Thirdly, Flexibility, one of the advantages of the interview is that the researcher can control the interview and ask questions according to the flow of conversation. Fourthly, participants have the chance to speak about their ideas. The cons are, first, time-consuming to conduct interviews secondly; It is not appropriate for a study that requires generalization about the population. This approach is well suited to the current study, and therefore, it was employed to collect data from the organizations' managers and citizens.

For this study, data was collected through semi-structured interviews. The language used to write the interview questions was English, and the feedback was given by the supervision team, leading to the shaping of the final interview.

Later, the questions were translated by the researcher to Arabic. The validity of the translation was then checked by employing two native English and Arabic speakers to ensure that both texts mean the same. Since the mother language of the interviewee was Arabic, all interviews were conducted in the same language. The DOG services managers were contacted by the researcher, who then set up the interviews with relevant people, for instance, the members of IT departments, business analysis, and project management team. For this purpose, site visits, telephone calls, and email correspondence. The interviewees were then informed about the interview time and date. A consent letter was delivered to them that guaranteed the confidentiality of the information gathered. The Informed Consent Letter was then signed by all interviewees (refer to Appendix 2). The participants were asked for their permission so that the researcher can identify them in the current study. The interviews were recorded through a recorder in addition to the written notes. Nevertheless, in cases when the interviewees expressed their refusal to be recorded were respected, and only written notes were used to record their answers.

The researcher, when the interview ends, summarizes the problems under discussion and provides the interviewees with the chance to add or correct anything to their responses. All the interviews, after completion, were transcribed and translated into English. The validity of the translation was then checked by two Arabic and English native speakers to ensure that the meaning of the texts remains the same. The duration of an average interview was 40-50 minutes. Since the chosen method was semi-structured, the interviewer prepared some questions before the interview was conducted, and others surfaced during the interviews.

4.7 SAMPLING

The most important element in any research is the data collection; if the collected data is inaccurate, the impact would be on the study (Best *et al.*, 2009). Both primary and secondary approaches constitute data collection, where a combination of the two methods is employed. Secondary research has an important role in offering back background information to primary research by revising the prevailing literature. The secondary study helps to gather secondary data with great ease, which allows the researcher to use a focused method during data collection.

For the purpose of this study, secondary data was derived by extracting information associated with the chosen study by referring to journal articles and scholarly books, online

resources, and even conference papers government documents. The collected data was prearranged to start a comprehensive literature review associated with the practice of Digital open government in Kuwait, and particularly the matters related to professional ethics, information trust, and risks.

4.8   PURPOSIVE SAMPLING

Purposive sampling is the method where participants who adhere to a certain criterion are selected or are selected purposively(Sebastian *et al.*, 2020)

This method makes it different from a random selection technique, which guarantees the selection of an unbiased and diverse group of participants. In order to meet the needs of the study taken, it was essential to understand the situation with relevance to the context, from the viewpoint of the administrators and users, or managers of Digital open government. For this purpose, a purposive model of people employed at the Ministry of Interior (MOI) (5 participants being selected), the Council of Ministers Kuwait for Science and Technology (CMKST-5 participants being selected), and the Ministry of Communications and Information Technology (MCIT-5 participants being selected) were chosen.

University students and other individuals (a total of 23 participants) were also chosen to obtain citizen data because of the need to confirm the Internet and the overall literacy in the selected participants. The themes that highlight the progress of the interview questions were achieved from the results of the literature review, which are represented in the following sections. These themes moulded the development of the questions for addressing research objectives. The theme of envisioning the Digital open government was presented in their studies by (Yaghoubi, Kord and Shakeri, 2010). People's perceptions and visions become the foundation of their responses, even if they are motivated or not by it, or even if they consider it either productive or unproductive.

4.9   THEMATIC ANALYSIS – RESEARCH QUALITATIVE ANALYTICAL PROCESS

The evaluation process is not complete without the perception and views of the subject with respect to utility, relevance, and experience associated with the use of DOG. It is crucial to use a systematic process that supports: (1) using a framework, structural or theoretical principles whereby the qualitative data is used to identify the themes; (2) developing themes naturally that augments the results from the qualitative data. Thus, it further provides

intuition and improves the ability to identify other significant characteristics that were not considered initially. Therefore, the overall research question will be answered through the findings.

Some of the past research work, including thematic analysis, identifies different qualitative analytical methods (Nadin and Cassell, 2006). According to.(Burnard *et al.*, 2008), the deductive approach includes using a predefined structure, framework, or theoretical concepts for identifying themes within a dataset and hence apply a predefined structure on data, after which the interview transcripts are analysed. However, this approach has significant bias and hinders the themes from emerging, which are not considered in a predefined theoretical concept or framework and is hence inclined to forget 128 other themes which may surface. In contrast, the natural surfacing of themes is enhanced by the inductive approach (Fereday and Muir-Cochrane, 2006). No predefined structure, theory, or framework, by extension, is imposed or assumed on the data set. In terms of the existing research, a qualitative analytical method – thematic analysis – which encompasses the advantages of thematic was considered. A chosen but not comprehensive list of prior work that selected the thematic analysis encompasses studies by (Sakaguchi *et al.*, 2008; Burnett *et al.*, 2018). There are two primary categories of the thematic analysis concept: the inductive and deductive approach. (Burnard *et al.*, 2008) state that each of these approaches can be implemented in different ways. In the following section, data analysis steps are described.

Keeping the thematic analysis principles and techniques in mind, as mentioned above, the analysis of exact transcripts of the qualitative questionnaire and interviews was done. The analysis considered general approaches to analysing qualitative data. The data analysis process begins with transcribing the recorded interviews into written form. Next, since the majority of interviews were conducted in Arabic, the researcher translated the interviews into the English language. Two native speakers of English and Arabic were selected to evaluate the credibility of the translation by making sure that the meaning of the texts was the same. Subsequently, each interview transcript was checked and read in detail to reduce the errors as much as possible while augmenting the understanding of the views which the interviewees expressed. The researcher then developed tentative tags to capture the significance or meaning of each theme or idea. For instance, in this study, one of the identified themes was the perception of DOG because interviewees provide their perception about the subject under consideration and if their involvement with DOG led them to develop any enhanced abilities

to achieve their professional responsibilities. After this, the next step includes idea or code aggregation and categorization, which are like the unified themes for all translated transcripts, after which all transcripts were analysed to extract common themes. Next, the screening of theme tags was done, and all transcripts were coded for theme categorization. According to (McGrath and Pistrang, 2007), on the basis of the standard methodological process of qualitative data analysis good practices, the team of advisors carried out the "credibility checks" with the perception of validating the generated codes. Meanwhile, the components of bias are minimized.

Coercive		Normative		Mimetic	
(Addressed Concepts)	Interviews / participants	(Addressed Concepts)	Interviews / participants	(Addressed Concepts)	Interviews / participants
Motives:		Motivations:	1. Specialist Systems	1. Successful delivery of services	1) Researcher.
1. Politics & gulf direction.	1- Business Analyst	1- National strategic decision-making support.	2. Data Engineer.		2) Director of Research Program (Academic and researcher usually have visited interest in completing the project).
2. Well been of citizens	2- Business Process Analyst		3. Microsoft SQL Database Developer	2. Efficiency and effectiveness in public administration (the effectiveness include the getting services s required while efficient meaning is getting service in a timely manner when it's	
3. Citizens satisfaction	3- Network Manager.	2- Successful delivery of services.	4. Microsoft SQL Database Administrator		
4. Less complain.	4- project manager		5. Oracle Database Developer		
5. Innovation.	5- ERP system analyzer	3- Efficiency and effectiveness in public administration.	6. Oracle Database Administrator.		3) Quality guarantor.
6. Effectiveness	6- ERP system developer		7. Database Integration Developer		4) Support Analyzer.
7. Participatory democracy.	7- ERP system administrator	4- Support and source of innovation.	8. Web Application Developer		
8. Standardization and benchmarking practices. (This include the	8- Director of Information Technology	5- Participatory	9. A technical analyst for ERP systems		5) Team
	9- Director of				

government standard of service delivery)

9. Policies, regulations, and procedures.

10. Accountability and transparency.

Development

10- System Analysis Manager

11- Network Security Engineer.

12- Project Manager – SAP

13- Data Center Supervisor

democracy.

Challenges:

1. Infrastructure.

2. Innovation.

3. Resources.

4. Normative mechanism.

5. Security& privacy.

10. Technical Information Security Specialist

11. Information Security Crimes Investigator

12. Internet Risk Analyst – Breakdown.

required)

3. Participatory democracy

4. Accountability and transparency

Leader.

Table 4-2 Lenses applied to data

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Hence, the important questions posed to both the organization's employees and citizens intended at gaining acknowledgement of the perception of individuals regarding Digital open government services and structure and their personal views on the same. According (Janssen and Zuiderwijk, 2012; de Rosnay and Janssen, 2014)public sector organizations have implemented the DOG systems, but many of them are doomed to fail, especially in developing and emerging countries. Studies such as, (Hielkema and Hongisto, 2013a)have stated the issues of required infrastructure and regulations, as well as organizational and financial constraints. However, the limited research literature is present to address the micro-level issues such as lower level of trust, lack of responsibility, lack of data quality, lower level of awareness, lack of education, no clear digitization process, lack of resources, and lower level of participation from each stakeholder are the major issues (Bertot and Choi, 2013). Furthermore, it is also found that the level of technology usage, work complexity, openness to change, level of education, level of awareness, level of usefulness is very low, especially in developing and Arab countries (Elbadawi, 2012).

These studies have also indicated that there is scant literature is available regarding how government can design a clear roadmap to overcome these micro-level barriers, especially in the context of Arab countries. It is cumbersome because many government agencies are opened their data too simplistically, but designing an open database often requires a change in processes, employee skills, culture, behaviour, system, and organizational structure (Zulkarnain, 2014; Thohari Suhardi, 2016) has indicated that the adoption and implementation of digital open government are not cheap and easy, but it is considered a resourceful innovation to establish systematic management for public services. According to researchers, limited literature is available that has been explored the enablers, barriers, opportunities, and benefits of DOG data, especially in the context of Arab and developing countries (Saxena, 2017a). Previous studies have indicated that enablers, drivers, and barriers are usually varied from organization to organization, culture to culture, and developed to developing countries. In the light of reviewed literature, future researchers can investigate challenges and risks in opening the digitalization process, especially from the perspective of Arab countries like Kuwait. Therefore, the present study aims to uncover challenges, motivators, enablers, and risks in the implementation of DOG, specifically in the context of Kuwait.

4.10 DATA ANALYSIS

Since the data related to the study were derived using archival analysis and semi-structured qualitative interviews, the outcome data is also, naturally, qualitative (Bryman, Becker and Sempik, 2008), comprising of the perceptions and opinions of the respondents on the topic of acceptance of Digital open government in Kuwait, considering the matters of professional ethics, information trustworthiness, and perceived risk. Here, a qualitative data analysis approach was called for. Since qualitative data has a descriptive nature, it is not possible to analyse it with statistical tools, and hence, the researcher must do a comprehensive review and inspection of the data to derive any meaning from this data. There are several ways to do the qualitative analysis, from which 'thematic analysis' was selected for the current study. The use of the thematic analysis calls for a very precise study and coding process, which is detailed in the next sub-section. In this stage, the gathered data is analysed for the purpose of concluding beneficial statements from it. Stake (Ceulemans, Molderez and Van Liedekerke, 2015) said that analysis basically adds meaning to the data and turns it into information that can be understood, represented, and utilized for different purposes. (Yin, Shi and Yan, 2014) believes that when a case study is analysed, data should be coded and, after giving an explanation for conducting a study, to learn about the relationships. Codes are claimed to be labels or tags that are linked with units of meanings to the information that can provide useful information to the researcher at the time of their study. There were two iterations conducted for this study so that the meaning of the conceptual framework could be deduced, and new findings can be found that emerge from the data that is available (Fereday and Muir-Cochrane, 2006). Twostep process is explained in the following section whereby, at first, processes of coding are followed by what I designed for the events of CA that are specified in the study. The above chapter explains the issues regarding the data collection process planning for this study. The research study considered the important ethical issues, and the study protocol design used in the study was justified. It explained the protocol of the research study, involving the field notes, interviews, interview guidelines, objectives of the research, and questions of the qualitative questionnaire, and the pilot and main studies were also elaborated. For this study, three organizations of the Kuwaiti government were chosen – Ministry of Science and Technology, Ministry of Interior (MOI), and Ministry of Communications and Information Technology (MCIT) – piloted in London's Kuwait cultural

bureau. This chapter also lays the foundation for the data analysis, which is explained in the following chapter.

4.11 THEMATIC ANALYSIS PROCESS

In the previous section, there is a brief description of thematic analysis. This section explains, in short, the device of thematic analysis and the way it is used in the present study. The logical sequence of thematic analysis can be seen in Figure 4.3. The ground of thematic analysis depends on general categories and codes derived from the collected data, and hence, the researcher should collect as well as portray a large amount of information to produce enough themes (Ghor *et al.*, 2019).

1 • Emerged themes from literature

2 • Development of questionnaire

3 • Collection and reduction of data

4 • Generation of themes

5 • Synthesizing of literature

6 • Plan of action
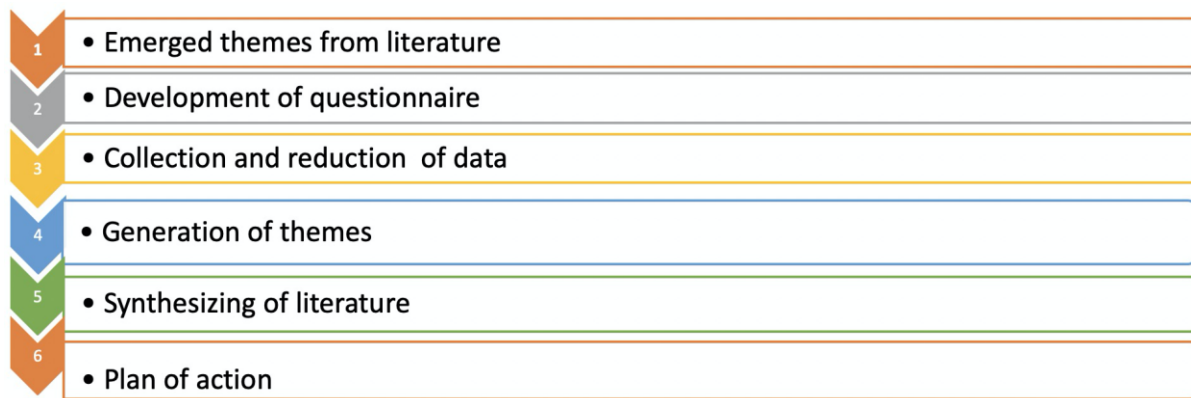
Figure 4-12 Sequence Flowchart of Thematic Analysis(Ghor *et al.*, 2019)

4.11.1 Themes from Literature

The primary limit of thematic analysis is that related themes should be recognized from the secondary data derived from published reports, secondary sources, and journal articles. These themes act as the foundation for the development of the questionnaire, unlike in the grounded theory approach, where the identified themes in primary research help as the themes for future primary research too (Boyle *et al.*, 2008). Highlighted are the themes identified in the literature. These themes are selected since it is associated with the current study, which concentrates on professional ethics, information trust and risk in Digital open government. The intention of the

researcher is to answers his research question. The other themes are not selected since they are not in the scope of the current study.

4.11.2 Data reduction

Of all, this is one of the most important stages of thematic analysis since it helps the researcher in shaping the descriptive results that are derived in a way that they can be contrasted and compared (Bergmann *et al.*, 2012). The comparison of descriptive results, which include personal and narrative experiences, cannot be done with the comparison of quantitative data in a similar way. Hence, it is essential to have data reduction for making the data comparable. First in the procedure is the coding of answers; here, the researcher browses through the responses to figure out all the keywords and codes in the data. (Table 4-2) below is an instance of the way data is coded

Table 4-3 Example of codes

Response	Main Codes	Secondary Codes
What is to be feared is that e-government employs a virtual environment. All data is stored in bits and often it becomes difficult to track any fake data, or desecration or loss. I'm not sure how good or prone our government systems are in tracing data loss and protecting it.	- Difficulty in tracking fake data - Difficulty in tracking data loss	- Fear of virtual environment - Uncertainity with system credibility

4.11.3 Example of data coded

It can be seen in the above example that the respondent fears data loss and is unsure if a Digital open government system can confirm data security. Hence, a real-risk code of data loss is created, and a perceived-risk code of uncertainty about system credibility. This shows that apart from real risks, there are also perceived risks, which can be due to the citizens' absence of awareness of Digital open government data systems. The next stage is the keyword generation, where unities between the responses are noted. The process of coding of responses offers a general idea of the subject that the response corresponds to, and the keywords provide a comprehensive picture of the nature of that response. And so, when the keywords are joined with the codes, the responses are classified into themes, where some may even overlap. For instance,

the code of data loss can come up in various situations. Use of the main words of the virtual environment, or professionalism, or viruses, gives a detailed awareness of the response.

4.11.4 Themes generation

After having generated both the keywords and codes, it is possible to identify the relevant study themes, which enable to address of the primary research questions. According to (Xing *et al.*, 2014), similar codes can be joined together to construct a more general code that covers all the features of the associated theme. For generating themes, it is essential to resort to the research objectives to have themes applicable to the aims of the study.

4.11.5 Literature synthesizing

In this stage, the themes are studied with regard to the theoretical basis of the study. Here, the researcher returns to the literature review to understand the importance of each theme and the influence that it has on the area of research (Marcén *et al.*, 2013). For instance, one of the themes underlined in the current present study is the 'technological gap,' which refers to the gap between the actual standards and the people's prospects about the levels of data privacy in Digital open government. This theme is contrasted and compared with the themes noted in other studies to state a detailed and complete connection between the subject and the theme.

4.11.6 Action plan

Quite different from the grounded theory, where the researcher settles by framing a generalized theory, the thematic analysis concludes in an action plan for the concerned individuals. With regards to the current study, the planned structure, parallel to the action plan, is needed for policymakers and government officials, intending to improve the outlook, standards, and general adaptability of the Digital open government system in the Kuwait state.

4.12 CRITERIA FOR EVALUATING THE QUALITY OF RESEARCH DESIGN

Qualitative research uses a carefree method for the collection and analysis of information, and hence, it is a reason that it is vulnerable to discrepancies and errors (Zhou, Nunes and Liu, 2013). (Northcote, Reynaud and Beamish, 2012) claims that a comprehensive and well-conducted study is futile if it cannot answer the core research questions and does not defend the generalisability and authenticity of the study results. It is essential to frame evaluation principles to direct the

research pattern, confirming that the results reply to the research questions and the research questions handle the problem statement.

At the design phase of the research study, quality must be ensured. Even though the criteria regarding this have been extensively debated by qualitative scholars, the ulterior goal is to ensure the quality of the research. In the words of (Onwuegbuzie and Leech, 2007), quality means goodness, rigour, legitimation, truthfulness, or integrity. In a qualitative study conducted by (Lincoln and Guba, 1985), whereby they examined a set of potential criteria that could be implemented, the word trustworthiness was used. From this study, they found out the usefulness of trustworthiness and the benefits associated with it in terms of convincing the target audience to focus on the essentials.

As there is no such similarity in positivity and philosophical assumptions of this study, the criteria for that has been put forth by (Lincoln and Guba, 1985) is quite suitable. There are four major components related to the adoption of trustworthiness that is illustrated and explained in the table below, along with the tactics applied for each of the components.

Table 4-4 Trustworthiness of the research

Criteria	Tactics for each criterion as per Lincoln and Guba (1985)	Implemented Tactics in this research
Credibility	- Engage continuously in a prolonged manner - Observe persistently - Debrief peers - Triangulate properly - Gather referential adequacy materials - Use checks on members - Use checks on members	- Sources of evidence include archival data and interview transcripts - Interview transcripts reviewed by participants ensured the accuracy of the interviews. - Dissertation manuscripts were reviewed by the advisory committee. At the time of development, the study was put forth in several academic forums.
Transferability	- Data collection which is of descriptive nature - Sampling is done in a purposive or theoretical manner.	- Conceptual framework implementation for a contribution towards transferability of findings.
Dependability	- Utilize methods that overlap - Utilize replication based on step-wise process - Leave a trail for audit	- The decryption of steps that are included in the study design and conduct, which left a trail for audit in this dissertation.
Confirmability	- Triangulation is essential - Practice reflexivity	- Data collection from several sources ensured triangulation. In addition, the trial for audit was found to be helpful in this dissertation.

4.12.1 Credibility

(Cassell and Symon, 2011) state that the findings must be supported by valid evidence obtained from trustworthy and reliable sources. It is not possible for the researcher to simply reach a conclusion depending on personal views of the primary results alone; the outcome must be valued for their authenticity and credibility by means of comparing and also contrasting them

with previous findings. The researcher can suggest reliable research findings only when there is a good link between previous findings and current ones.

In the words of (Graneheim and Lundman, 2004), credibility means the confidence in the data and how it is presented, analysed, and how it addresses the issue. Moreover, credibility answers questions that ask whether the sources of data fulfil the analysis, interpretations, and formulation of the inquirer to be authentic?

Peer debriefing was adopted as one of the methods for ensuring credibility, which means that other professionals were reached out and interacted with in order to know about their interest in debriefing (Lincoln and Guba, 1982). Peer debriefing could be defined as the process that links the interactions of faculty with members that have participated in the dissertation committee. In addition, (Lincoln and Guba, 1985) stated that review of the research from an academic committee is essential in a way that it confirms the reduction of potential aspects of exploration that remains understood in the mind of the researcher. This study has been under the review of the PhD committee of the University of Salford, and it has been put forth on several events within the time of its progression. There have been presentations right from the proposal phase of the study to the completion of data analysis.

Triangulation was one of the other methods adopted for enhancing credibility. In this method, different sources of data are utilized within a case study to enhance the intensity of credibility. This tactic proved to be quite beneficial for encouraging the inquiry's convergent lines through several of the evidence sources. Six different sources were adopted in this case for the collection of data which are observation, social media content, online documents, interviews, archival data, and physical artefacts.

One method that has been adopted in the research for enhancement of credibility is referred to as member checks. This mainly involves the transfer of data and its interpretation to the groups that have participated; however, it should be before the final draft that is to be published (Lincoln and Guba, 1985). Every participant was sent a copy of the transcript, and their feedback was taken to verify the accuracy of the findings. For this purpose, a person from a sub-department of the university and myself attended the presentation. The other member who came was asked for his feedback for improving the accuracy of the findings.

4.12.2 Participation

The rise of internet technology and its widespread reach to the masses has given rise to a debate among political scientists about the changes which the internet can bring in political and social participation by citizens and whether the engagement of citizens would be facilitated by the internet or whether online participation would highlight offline inequalities or broaden them. Its aim is to provide support to the concept of active citizenship so that it can actually be materialized by enabling the government to take decisions as close to people as possible and with their involvement. One stream of research emphasizes the significance of enhancing IT capacity, including the establishment of IT infrastructure and providing training to employees so that they can efficiently use the IT infrastructure (Gant *et al.*, 2004). Analysts also stress the role played by financial resources as enhancing the IT capacity requires a considerable amount of financial investment (Hall, 2008; Alawadhi *et al.*, 2012)observed that budgetary resources influence the opportunities for implementing e-participation. The political factors have also been considered by analysts, (Åström and Grönlund, 2012) argue that particular institutional designs have been observed to have influenced the online participation of people Colombo (Anduiza, Cantijoch, Gallego, *et al.*, 2010; Karabarbounis and Neiman, 2014; Medaglia and Zheng, 2017; Wang, Medaglia and Zheng, 2018) observed that those municipalities where the orientation is centre-left tend to rely on e-participation more than do the others.(Zheng, Xiao and Zhao, 2013; Janssen and Helbig, 2018) evaluated the effect of type of government on offerings of e-participation and found out that municipalities with a major form of government encourage e-participation more than the other municipalities. Additionally, research has shown that different municipalities with higher e-participation levels and efficient moderators had improved the standard of online debates (Anduiza, Cantijoch, Colombo, *et al.*, 2010). A better economic and educational environment is encouraging for citizens to involve themselves in e-participation (Zheng, Schachter and Holzer, 2014). However, despite the attempts of researchers to explain the offerings related to e-participation from different perspectives, e.g. financial resources, technology, economic environment, or political structure, few analyses have evaluated the impact of motivation or willingness of administrators to expand the opportunities for e-participation. (Panopoulou, Tambouris and Tarabanis, 2010) observed that the commitment of the government is the key element for the success of e-participation. (Gant *et al.*, 2004) observed that the development of e-participation is also dependent on support from public

administrators. However, there is also a dearth of empirical analyses regarding the impact of administrators' willingness concerning the opportunities for e-participation. The capacities and resources of government are unlikely to be effective in relation to e-participation initiatives in the absence of support and willingness of administrators. There is a need to frame and address research questions regarding the willingness and motivation of public administrators towards the offerings related to e-participation. It is only by researching the motivation of public administrators in Kuwait concerning the offerings of e-participation that the opportunities for e-participation can be exploited. It is evident that the prevalent usage of the internet has given rise to various possibilities around political and social participation which were not previously possible. (Castells, 2011) observed that a new communication system has emerged because of internet technology, i.e. a self-mass communication system. The traditional mass communication technologies were unidirectional in nature, whereas the internet is multidirectional in nature as it enables individuals to interact with each other and enables the flow of information from all sides (Castells, 2015). Multidirectional communication has the potential for deeply modifying the existing relationship of power.

The benefits of the internet in terms of affecting the participation of citizens in social and political processes can be divided into four categories: it enables people to swiftly gain information on public issues (Anduiza, Cantijoch, Colombo, *et al.*, 2010); it reduces the amount of social pressure, thereby facilitating the engagement of people in the political process, e.g. it enables the individual to sign a petition on a political issue privately with the comfort of using his computer from home (Anduiza, Cantijoch, Colombo, *et al.*, 2010); it enables individuals to encourage their friends and family and their colleagues to participate in the social and political process; and it enables activism at global level by contacting several people simultaneously, thereby reducing the time and effort involved in the process (Norris, Engelgau and Narayan, 2001; Fligstein and McAdam, 2012; Adams, 2014) observed that the internet had linked activists from various countries together and, as such, has reduced the time and effort required for networking. As such, it has given rise to new possibilities of mobilization through networks of transnational advocacy across the globe. A prime example in this regard is that of the Occupy Movement, which arose in the context of the Arab Spring; another prominent example in this regard is that of the Spanish Indignation Movement. Different efforts have been exerted into

uncovering the gaps in e-participation by taking into account the resource approach. There are two types of studies that need to be differentiated here: statistical studies and descriptive studies. For example, the reports by the Pew Research Centre (Nunkoo, Smith and Ramkissoon, 2013) and by the Oxford Internet Institute (Dutton and Blank, 2011) represent the descriptive studies. Both the reports arrive at the same conclusion: that the income and education level of individuals dictate the level of e-participation among British and American citizens. (Nunkoo, Smith and Ramkissoon, 2013) argued that the well-off and well-educated are more likely than others to partake in online civic life. Nevertheless, the role played by these socio-economic factors is not yet entirely clear when their influence is studied in statistical studies. For example, (Krueger, 2002) observed that no significant statistical evidence was available in respect of the impact of education on the e-participation level of citizens. His research shows a negative relationship between income and e-participation. (Best and Krueger, 2005) observed the same socio-economic profile for online and offline participation, i.e. the well-educated and well-off participate more than those who are not so fortunate. (Hansen and Reinau, 2006) also arrived at the same conclusion. However, (Anduiza, Cantijoch, Colombo, *et al.*, 2010) differentiated between three types of e-participation (e-petition, e-contract, and e-donation) and found that education only has a positive impact on e-donation, whereas income does not significantly influence any of the three types of e-participation. The researchers also have mixed conclusions to offer in terms of the impact of the age gap and gender on e-participation (Best and Krueger, 2005). Although there exists some consensus that those who are interested in political activities do participate in e-participation (Gibson, 2005; Anduiza, Gallego and Cantijoch, 2010) , nevertheless found that the internet drives participation on the part of those people who are otherwise less active in political participation in the traditional sense. On the basis of the model of the Athenian polis, the earliest type of democratic government was also participative in nature: it involved citizens engaging in the process of decision making directly through deliberation and discussion about civic affairs (Elenezi *et al.*, 2017). This is distinct from the representative government as in participatory democracy, and the individuals are required to be more knowledgeable with respect to each other's interests and underlying perspectives (Abu-shanab, 2015) so that they can deliberate in an effective manner. Exchange of opinion takes place in different ways. Moreover,(Kimball and Ross, 2011) writes that the relationship between public and democratic government is established with the help of discourse in the public sphere,

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i.e. by virtue of social intercourse, which happens among people when they discuss common problems in public fora such as at salons, coffee houses, and opinion journals. In a communitarian democracy and its relevant analogues, such interactions take place in gatherings that are neutral or at good places where citizens meet up together to discuss issues that sustain community life and so that civic commitment can be built (Saxena, 2018g). The assumption, regardless of venue, is that there is equal influence by all citizens over decisions that need to be taken and that they are better able to influence when they are individually autonomous (Kornberger, Pflueger and Mouritsen, 2017). Public participation in the process of including the public's perceptions, needs, concerns, and values into the corporate or governmental decision-making process has been discussed by (Wirtz and Birkmeyer, 2015). The decision of administrative agencies is regarded as legitimate when it is realized that this decision is taken in the light of the people's opinion (Afful-Dadzie and Afful-Dadzie, 2017). The participation on the part of the public in such processes has the effect of giving the badge of legitimacy to the decisions of the administrative bodies (Chatwin and Arku, 2018). Having regard to this, it is also important to mention that social equity is the basic fabric of public administration, and public participation is the means of achieving an administrative end that would otherwise not be possible to achieve (Tyler, 2017). Public participation is also regarded as the source of benefits to the public at large due to the inclusion of the public in the decision-making process (Cruz Meléndez and Zamudio Vázquez, 2017). Further, by taking into account different perspectives, a more informed decision can be taken by the public authority. By taking into account the view of those who frequently come across an issue, it would be possible for bureaucracy to devise strategies against such issues effectively (Afful-Dadzie and Afful-Dadzie, 2017).

(Norris, Fletcher and Holden, 2001) was considered as the pioneer writer who worked on political involvement through the internet. She not only highlighted the enhancement in socialization and political involvement with the help of the internet but also brought to attention the discrepancies and issues associated with this continuous development of information technology. This concept was also discussed by Murdoc & Golding in 1989. Studies regarding political involvement mostly describe both kinds of results for the factors that are linked with e–involvement. Some studies suggest that with the development of the internet and ICT, a person's related information such as salary, sex, and degrees are not further required (Krueger, 2002),

while the others found contrary results. They consider them valuable for political indulgence through the internet (Best and Krueger, 2005). The two paradigms are united only on the problems associated with computerized abilities. Different researchers have proposed that if a person has specialized abilities in information technology, he is more able to be involved in internet-related activities (Anduiza, Cantijoch, Colombo, *et al.*, 2010). It is also observed that very limited studies are being done on socialization through the internet and social supervision, and it is needful to work on these topics in the future (Gibson, Lusoli and Ward, 2005).In reference to the topic, the purpose of the article was to work on this area and further identify the reason that affects the person's participation in digital media, politically and socially. The study conducted by the Spanish National Institute to study the usage of ICT during 2011 identified two different types of e–indulgence:

- Observing/explain their point of view through the internet
- Writing/being personally involved in digital public dealing

To further explain this, we need a focus on "Resource theory's" latest version (Verba, Schlozman and Brady, 1995). According to this theory, the indulgence of the individual is explained in four different means: personal/social/financial, political/behavioural, dealing with other people, and school of thought and political references. It is observed that most of the studies are done on abilities relating to the internet, but few works are done to know about the role of groups and school paradigms. That is why this paper will consider not just conventional interest-related assets and computerized abilities but also, in addition, informal organizations and the online advancement of open organizations.

Offline indulgence: political researchers of the assets school of thought remained interested in assessing residents (Mc Carthy, Cassidy and Tuohy, 2013), focusing on activities that depend on social and political support. These can be characterized as those activities that are expected to impact government activities either straightforwardly through developing or enforcing the laws or by nominating people to make laws (Verba, Schlozman and Brady, 1995). This literature will describe the reasons that only some people participate in these kinds of activities. This is best explained in both conventional studies (Kaase and Barnes, 1979) and current studies' (Ekman and Amnå, 2012) resource approach. This theory focuses on the

approach that political and social interests take to acts that need something in response in the form of time, desire, or cash. This is the reason that people who have more resources indulge more in such activities rather than the people who have limited resources (Mc Carthy, Cassidy and Tuohy, 2013). This concept stands opposite to the previous researchers that consider hardship and loss are the reason behind political and social indulgence (Firestone, 1974). Moreover, this study also makes prior researchers more valuable with the concept that not only those people indulge in such activities that gain any kind of benefit from doing so, but also those who have some motivation but could not get any direct result from the plans. Subsequently, the "resource theory" focuses light on the concept that all the concerned assets lie in society (McCarthy and Zald, 1977). Social and political indulgence can be better explained through four different types of assets, which are mentioned below.

The first form of assets is related to the person's own self or to the demographic variables such as age, sex, degree, salary etc. These factors describe the person's status in his society and his interactions with other people. It also alludes to the level at which he is able to get information and the required ability to indulge. It means if the person has more assets, he will be able to get more information. According to this, salary is mostly considered as the main reason for indulgence, which is why all of these can be determined as bonuses (Barros, Paula and Leiva, 2009), and only those who have sufficient amount and time can be involved. According to this, (Milbrath and Goel, 1977; Ruedin, 2007; da Silva *et al.*, 2020) observed that individuals who have high socioeconomic status are more involved in politics as compared to the lower middle classes. Further studies on this topic reinforced these findings and also gave evidence for future studies, indicating a positive relationship between indulgence and salary, qualifications, age, locality, and marital status (Armingeon, 2007). It is also important to mention that recently a few studies have discussed the current orthodox theory, such as a book written by (Krishna and Walsham, 2005) in which he describes a number of studies that are continuously demonstrating the fact that individuals with low socioeconomic status show the same level of interest in political activities ass the people of the elite class, in fact sometimes they are indulging more than them (p.9). (Krishna and Walsham, 2005) also reported that the differences in the association between money and indulgence could also be described through an increasing tendency towards voting and increased value of studies.

The second form of assets is linked with the political thinking and behaviour of the individual, as they portray a person's views and priorities regarding social matters that also affect the ability to indulge (Armingeon, 2007). Specifically, indulgence depends on the person's political school of thought, his information regarding political matters, self-worth(Pattie, Seyd and Whiteley, 2003), personal responsibility as a resident, school of thought (Foote *et al.*, 1978).The third form of assets is based on the association of the individuals (group of peers and contacts). Most of the time, association and political allegiance is formed through fellow persons: e.g. participation in marches, strikes etc. People know about such things through a group of people they know or by contact with associations or the society in which they are living. That's why a person's links with these associations form their political thinking and paradigms. This can be better described with the help of the "Social Capital Approach". This theory mentions that the individual's linkages enhance confidence that also involves more people and their indulgence (Knack and Putnam, 2000).The fourth and the last form of assets describe indulgence with the help of two major factors, paradigms and political conditions. Especially, indulgence is enhanced if the government provides equal chances to the citizens to explain their point of view regarding policymaking. (Eisinger, 1973), divide the political system into two categories, open and closed, based on the feasibility of the political environment. (Koopmans and Kriesi, 1997) observe that indulgence becomes more obvious if the government does not rely on a single one, but everyone has an equal chance to participate. This enhances the effecting number and increases the indulgence level. Moreover, current studies have identified that the thinking paradigm also affects indulgence.

The development of digital media and its increased usage enables political researchers to talk about the differences that come with this in regard to relationships and political indulgence, and especially to know about that is helpful for the residents to participate. It also helps to know if is there any difference between online and offline dealing or how is it affecting them. (Rose, Flak and Sæbø, 2018) identified that e–indulgence could be characterized as the augmentation and change of support in cultural popularity based and consultative procedures mediated by data and correspondence advancements (ICT), principally the world wide web. It intends to help dynamic citizenship with the help of the most recent innovative improvements, expanding availability and accessibility of investment to form an advanced, reasonable, and productive society and

government. It is obvious that increased usage of the web has opened up incredible opportunities for social and political cooperation that were previously unrealistic. It is possible then to have correspondence at different levels and the ability to improve already built relationships (Castells, 2011). The benefits of digital media usage can be explained through four key factors:

1. It helps the individual to get more easy and speedy information regarding social matters
2. It helps in involvement in political activities without social influence. A person can start an appeal from his own home regarding any hot issue.
3. People can also empower other people by spreading information through using their organizations, such as Change.org.
4. Digital media enhance activism at the worldwide level and supplement the present social collection of aggregate activity.

(K. Newton and Norris, 2000) identified that personal contact with politicians of various nations minimized the budget of interaction and administration and found the development of new forms of transnational support organizations all over the world, such as the "Occupy Movement".

Different kinds of efforts are being undertaken to identify the holes in e- indulgence inside countries based on the asset theory. Two different sorts of studies are being differentiated here: descriptive research and statistical analysis. This can be explained through two different models, "Arab Spring" & "Spanish Indignation Movement (also called Los Indignados or Movimiento 15M) and made known to the world of primary studies by the "Oxford Internet Institute" (Dutton and Blank, 2011). Both of these give the same findings: that in American & British national, the political involvement of residents is linked with salary and degree level. (Nunkoo, Smith and Ramkissoon, 2013) also described "people who are more educated and belongs to elite class are more prone to social activation, political indulgence and public involvement both online and offline" (p.1), but the role of these financial matters is not obvious under statistical analysis, e.g. a study conducted by (Krueger, 2002) observed no specific proof through statistical analysis regarding the role of degrees on indulgence. (Anduiza, Cantijoch, Colombo, *et al.*, 2010) identify three major kinds of e-indulgence (e-contact, e-request, and e-donation) and find that only knowledge has an important and constructive outcome for e-gifting, while salary makes no difference for any of the three sorts of online indulgence. Moreover, the evidence on the

presence of sexual orientation and age differences in e–indulgence is also mixed, while there are some pieces of evidence indicating that those intrigued by governmental issues are using the internet (Anduiza, Cantijoch, Colombo, *et al.*, 2010). A detailed investigation of e-indulgence requires an audit and update of the conventional assets approach to joining with digital assets. (Van Deursen and Van Dijk, 2009), identify that people require four new sorts of aptitudes to completely utilize online knowledge and facilities: (I) working abilities to work on new media, (II) official abilities to deal with new media, (III) instructive knowledge to look and pick appropriate data, and (IV) key aptitudes to gather data for accomplishing a specific objective. In this situation, digital media require more concentration. Studies are indicating that they are the most significant component to clarify e-indulgence (Anduiza, Cantijoch, Colombo, *et al.*, 2010). Consequently, the higher degree of internet makes an individual more able to participate through the internet. Analysis on the resources approach has concentrated on the incorporation of advanced abilities as a secret weapon to define e-indulgence, while few works have been done to improve other assets, e.g., people's political intrigue commonly developed by perusing/viewing political news, offline information, when the chance of online data/news is not considered. Similarly, online interpersonal organizations as an asset for social and political investment through the internet was not studied properly in "resource theory", as opposed to the developing research which contemplates the impacts of internet-based life upon residents' political indulgence (Effing, van Hillegersberg and Huibers, 2016).

(Hong and Nadler, 2012), the American national electoral system and find that citizens paid little consideration to candidates on the internet, although they made the maximum effort on digital media. Little evidence is available on the impacts that digital growth may exert on the indulgence of people on the internet. Consequently, an individual living in a region where online systems for residents' political support will be available easily is more in a position to take an interest in political activities than one living in the areas where such participatory online instruments are not conveyed. (Saglie and Vabo, 2009) research can be seen as rare; they investigated this issue and observed a fragile effect of the work done by the government to involve more citizens in the usage of the internet. Moreover, it is important to mention that the United Nations has been reviewing governments worldwide through a survey to discover the degree to which they are encouraging their residents to participate in dynamic procedures. This data can be summed up in

the purported E-Participation Index that assesses (I) the online supply of data to the residents from the government, (II) online correspondence with partners, and (III) the degree to which online correspondence directly affects law (Saxena, 2017d). Finally, just as with transparency, public participation also has the potential to assist contemporary governments to address problems of legitimacy about their decisions. The action by the government is regarded as legitimate if it has the support of the public (Gasco-Hernandez and Gil-Garcia, 2018). Participation and its impact on decision making are varied according to who is participating, how information is exchanged by participants, how decisions are made, and the relationship between participation and decision(Zhu *et al.*, 2017). Additionally, it is also important to mention that the UN has conducted a worldwide survey of governments in order to assess the extent whereby governments facilitate their citizens to partake in e-participation. The information in this regard has been summarized in the shape of the 'E-Participation Index', which evaluates: the information provided by the government online to its citizens; communication with stakeholders online; and the extent to which online communication directly attracts input from the public (Gershtenson and Plane, 2011). Hence, the e-participation index value of a country shows how effectively it has attracted its citizens towards the decision-making process compared to other countries. Therefore, the aim of the current research is to highlight the elements which influence and shape the e-participation of an individual. In order to achieve this, the researcher takes into account not just traditional resources but also internet-oriented resources. Further, the researcher also explores the role and issues that play a role for citizens towards e-participation and the steps taken by the governments to encourage citizens towards e-participation in Kuwait.

4.12.3 Transferability

It mainly defines as the process whereby identifying whether findings are transferrable from one context to another. This gives a level of fittingness to the comparison of different contexts with each other (Scapens, 2004). The concept of level of fittingness is also associated with external validity. The devices used in the study should be precisely defined and explained so that the readers and interested researchers get a clear idea of the process through which the data was obtained and analysed. According to (Northcote, Reynaud and Beamish, 2012), research transparency intends that similar data can be formed later with the use of the same data sources and approaches.   So, any ambiguity in the research type minimizes the total academic ground of

the research. In the words of (Ng *et al.*, 2015), critics often claim that a single statement never provides a good result to generalize. No case is studied to imply other cases. There are arguments by (Macintosh and Scapens, 1990) stating that single case study generalization hinders the rigour of qualitative research. Moreover, authors such as (Merriam, 1988) argued that single case studies provide an in-depth understanding of the analysis. More specifically, suggestions made by (Lincoln and Guba, 1985) for strategizing the limitations of transferability in such a way that they can be reduced are followed in this research. The case that was selected for this study was carefully aligned with the study objectives.

4.12.4 Dependability

Dependability, in the words of (Lincoln and Guba, 1985) , means the dependence of instability and other phenomenal or design changes on the factors. Moreover, dependability has been defined by (Graneheim and Lundman, 2004) as the extent to which changes occur in data over the passage of time, and such changes affect the decision of the researcher during analysis. In the same way, when we talk about the case study, (Yin, Shi and Yan, 2014) claimed that the ulterior objective is to reduce the errors that are creating biases in the study. In other words, this trustworthiness makes sure whether the investigator follows the processes that are followed by the first, and if that happens, he will attain similar outcomes. Yet another way to say is that the research data should conform to the core study questions. In situations where the collected data cannot justify the research questions, the research tries to justify the validity of the research outcome could be questionable. A prerequisite for dependability is known as procedure documentation that helps other investigators to apply the same settings that have been applied in the previous studies. With the help of this prerequisite, the investigator can be able to create a roadmap that other investigators can follow if they want to attain similar outcomes. This procedure is also referred to as an audit trail (Ribeiro and Scapens, 2004). A database is created with NVivo® in order to enhance the dependability of this study. The database is integrated, and all the data is put into it so that it does not get scattered and can be easily managed. A detailed approach whereby every step is mentioned throughout the research is presented. Therefore, it can be utilized in the form of an audit trail.

4.12.5 Conformability

It was asserted by (Tracy and Hayashi, 2010) that no study could be 'good' unless it puts something extra into the current literature. Hence, researchers need to recognize the contributions that the research would add to the already prevalent knowledge base in the respective area of study. Would the research tackle a theoretical gap or make systematic associations between different components marked in the literature, or would it defend the realism of existing theories? The research should use relevant instruments for data collection and analysis to fill in the gap in the existing literature and knowledge (Zhou, Nunes and Liu, 2013). This is also claimed as biases in research by (Yin, Shi and Yan, 2014). In consequence of this, filtration of the subjective lens is done by the researcher to interpret the data. To minimize the concerns relating to biasness, there are two strategies recommended by (Macintosh and Scapens, 1990). The first one is to provide the feedback of all the interpretations to the participants, and the second one is through including a research team with cross backgrounds which will help in reducing biases in the study. I presented my viewpoints to my PhD advisory committee related to different interpretations. Furthermore, they have also put forth too many other audiences (academic and non-academic) as well. Nonetheless, my consideration aligned consistently with the suggestions made by (Lincoln and Guba, 1982) related to triangulation to reduce biases in research. This will not just provide the base for improving credibility but also the confirmability of the study as well. Another way in which confirmability can be enhanced is through an audit. (Lincoln and Guba, 1982) claimed that mainly an audit for verifying confirmability is a process of certifying the existence of data that supports each of the interpretations, and it should be consistent with the data that is available. In this study, I attempted to attain confirmation at each phase of the research in regular meetings with supervisors and presentation of work at annual reviews each year, and I have presented the outcomes of the study to PhD committee members at the University of Salford and other academic peers and sought their feedback.

4.12.6 Practicalities

During the research design and methodology stage, few factors are associated with conductibility and feasibility that needs to be accounted for by the researcher. Such factors are termed practicalities by (Mason and Handscomb, 2002). Practicalities such as skills required for the research, resources that are available, and the accessibility of data to the researcher are included.

For this study, a sub-department of the University of was contacted for access to the research site. Their services were discovered by me via the university's newsletter, and contact was made through email. At first, meetings were held with the focal person of the department, whereby every person's collaboration viewpoints were discussed. At last, that focal person contacted the locals from the city and made contact with them and allowed me to interview them as participants.

4.13 ETHICS AND CONFIDENTIALITY

(James *et al.*, 2016) claimed that ethics is essential when it comes to conducting a study that is why it needs to be followed by the researcher. Human rights, as well as intellectual property rights, need to be protected so that participants do not feel insecure or uncomfortable during the interview. To properly ensuring the implementation of human and intellectual property rights, the University of Gulf applies a very detailed process of ethics board approval. For this study, I completed my application through their ethics board, and after acquiring the approval, I conducted my study and gathered data as per my needs. For confidentiality, the name of the organization was not included in the publication as well as the presentation. Moreover, the confidentiality of the participants was also taken care of, and no names were included; therefore, participants felt safe and comfortable with providing the data. Further, only titles of the participant's names were used in order to identify their genders.

4.14 CHAPTER SUMMARY

In this chapter, a description of the research approach employed in this work is presented. Before progressing towards the results chapter, it is essential to know and analyse the steps taken for data collection, the individuals responsible for the process of data collection, and the validity of the data in the context of the study objectives. Consequently, this chapter takes up the task of explaining the techniques used in this study, underlining the main steps utilized for carrying out the research for collecting and analysing the data. In this chapter, the research paradigms have been discussed including, the interpretive, Positivist, the critical and the justification of the Interpretivist Paradigm. Moreover, the main components of the research Approaches are explained; the main components are the quantitative research approach, the mixed research approach and the justification of the qualitative Research Approach. Furthermore, the research

design, which includes action research, ethnography, grounded theory   and justification of case study design, have been discussed in this chapter. The data collection methods are also discussed in this chapter, and three are different types of data collection such as questionnaire, participant observation, focus groups. In addition, the executing fieldwork and collecting Data which consists of the pilot Study & Outcomes, qualitative questionnaire, interview, and the sampling. This chapter also includes purposive sampling, thematic analysis and the process of research qualitative analysis and data analysis. Moreover, the thematic analysis process includes themes from literature, data reduction, an example of data coding, themes generation literature synthesizing, and the action plan. Finally, this chapter includes the criteria for evaluating the quality of research design and ethics and confidentiality.

CHAPTER 5: RESEARCH CONTEXT OF DOG IN KUWAIT

5.1 INTRODUCTION

This chapter presents data out of the archival analysis and initial pilot study of six interviewees. It presents one of the research objectives, which is exploring the current status of DOG implementation in Kuwait. In doing so, an overview of DOG implementation practices in Gulf countries has been presented. The status of entrepreneurial Middle Eastern countries such as Saudi Arabia, United Arab Emirates, Qatar, Oman, and Bahrain is presented. Sections 5.2 & 5.3 discuss the common challenges and opportunities of DOM in these five countries. Later, section 5.4 build a transplant from developed countries to be able to evaluate the extent to which Kuwait succeed in the implementation process. Section 5.5 offers a complete guide for the research context and the case background by analysing the political, economic, and demographic progression of the state of Kuwait.

5.2 DOG IN GULF COUNTRIES

Open government data is defined as government information, which is freely available for use and can be distributed or shared with people without any kind of restriction. United Nations (Une and Nakano, 2018) conducted a survey over 5 Gulf countries that confirmed that governmental data were free to access archives or citizens. The digital open government business model has been popularized and adapted across the Arab Gulf of country, where it has attracted the attention of the Middle East and the Gulf Cooperation Council region. However, it is not the case for Kuwait, where it presents a different situation whereby open digital systems are formulated and designed specifically to understand the Kuwait situation. The systems designed should be tested for their transparency and agility before being enacted. Despite the government of Kuwait having resources such as information and applicable digital systems in communication technology, they have failed to apply them in their systems. The failure of change by the government has made its citizens refuse to change in new methods of digitization of information. Due to this phenomenon, analyses have proven that many people have neither accepted nor made it aware to the public for public acceptability. Furthermore, in the Middle East countries, they receive little or no support system to incorporate the expectation of others, citizens. However, Arab countries are reaching the levels of other countries while some countries in the Middle East

lag. The governments of Arab nations are taking the initiative of reaching out to their citizens by creating forums and platforms for dialogues and conversations. The dialogue forums on policy strategies, processes, and system designs are divided into four categories (Lindquist *et al.*, 2013). However, the citizen-neutral governments do not accommodate the participation and expectations between the government and its citizens. Furthermore, governments with citizenry awareness have been limited to fully satisfy their citizen's expectations due to insufficient resources of systems. On the other hand, citizens-focused governments are able to fully satisfy their citizen's wants and needs by motivating research schemes that focus on giving what the people want, need and desire since they place their citizens at the centre of strategy and plan-making dialogues. This segment outlines the GCC's plight in DOG, emphasizing the policy's scope and nature embraced by the GCC constituents. As earlier underlined, DOG covers different categories of data concerning accidents, hospitals, educational institutions, financial and economic data, fiscal data, and ecological data, among others. (Attard *et al.*, 2015). Apart from that, concerns about data that might be in possession of unauthorized parties, like subsidiary agencies that may be connected indirectly to the government, such as data associated with public transport, climate/pollution, childcare education and congestion/traffic, are a concern. The GCC was founded in 1981 and is a regional political, economic and intergovernmental entity with the aim of fostering regional collaboration in the diverse domain. Members' countries including Bahrain, Oman, Saudi Arabia, Qatar and Kuwait. The Kingdom of Bahrain is situated on the Persian Gulf's shores on an archipelago. The Sultanate of Oman is based within the Arabian Peninsula on the south-eastern coast bordering Kuwait, Yemen, Saudi Arabia, and the United Arab Emirates. Kuwait borders Iraq, which is a crucial nation as far as international relations are concerned. Qatar shares its borders with Saudi Arabia in the southwest of Asia. Saudi Arabia, located in the western part of Asia, borders Iraq, Jordan, Qatar, United Arab Emirates, Bahrain, Yemen, Oman and Kuwait. In terms of oil reserves, Saudi Arabia is an important destination. Lastly, to the southeast of the Arabian Peninsula, the UAE borders Saudi Arabia and Oman. Table 5.1 outlines the GCC region's major indicators. Open Data (Barometer, 2013) ranks the United Arab Emirates at 52; with Saudi Arabia ranked at 59; The Country of Bahrain ranked at 61, while Qatar at 64. Global Open Data Index(Development *et al.*, 2018) figures rank Bahrain in position 78th while ranking Qatar at 86th, Oman takes the 66th position, Kuwait ranks at

position 93rd; while UAE is placed at position 98th while Saudi Arabia is ranked at position 103 of 122 nations (Ma and Lam, 2019).

(Borglund and Engvall, 2014b) note an ambiguity on the actual nature of OGD, where a debate whether OGD envisions information, data, record or document. Information is defined as the interpretation of data, while data is defined as a unit representing "information". There is an acknowledgement of functionality possession of data as compared to information that lacks functionality. In addition, the open data movement has defined "data" as "the information that is dealt with" while OGD is defined as openly available government data (Borglund and Engvall, 2014b).

Table 5-5 Key indicators for the Gulf Cooperation Council World Bank(Saxena, 2017c)

Year: 2015	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	United Arab Emirates
GDP in US$ million	32,221	112,812	70,255	166,908	646,002	370,293
Population in millions	1.38	3.89	4.49	2.24	31.54	9.16
Gross enrolment ratio, primary, both sexes (%)	NA	104.2	110.3	NA	108.7	106.7
Gross enrolment ratio, secondary, both sexes (%)	NA	93	100	NA	108	NA
Mobile cellular subscriptions (per 100 people)	173.3	218.4	157.8	145.8	179.6	178.1
Internet users (per 100 people)	91	78.7	70.2	91.5	63.7	90.4
Merchandize trade (% of GDP)	65	77	70	68	58	134

Indirectly, "information" and "data" have been used interchangeably. The interchange is acknowledged in the current study, and later on, as it was realised, DOG of GCC edges towards "data" other than "information". Moreover, this concept tends to follow the non-sequential models and DOG's non-mutually exclusive (Sieber and Johnson, 2015). A unidirectional arrangement of data might exist in relation to these models whereby governments adopt a conventional approach of data provided through the internet (also known as the "data over the wall" motif); there could exist.An attempt was made in the present study to fix the (Kuwait) GCC nations in these models besides giving a summary of the four models.

1. Over the wall data – Open data publishing by the government: The key fundamental and rudimentary pillars of DOG come into play in this framework. Therefore, DOG plays the

role of a unidirectional connector originating from collector/ data owner (government, non-profit organization or a community organization) to the developer community organization, private sector or citizens). In such a setup, access to data sets is given by directly downloading whole data sets easily accessible in known formats or through a software interface (API is an example of an interface facilitating access to data). Moreover, a portal or a displayed list of files providing various tools to filter, visualize or map data may be available. Lastly, there is very limited freedom available to users for feedback other than a few reports about casual errors.

2. The exchange code of the Digital Government's role as open data activist Promotion of development by the government of internally important products established to provide open data. Again, app contests (application designing) are conducted by the government to promote activities (Juell-Skielse *et al.*, 2014). Governments carry out such competitions since open data resources require such promotions. Furthermore, the development and refining of applications related to the government are needed and mentoring of a "civic entrepreneur" to address problems faced by citizens (Johnson and Robinson, 2014). Moreover, the government endeavours not only to clear merely the error or bug reporting but also user involvement in data used in this model. The developer community in this set-up is the end-user, be it in the civil society or the private sector, for example, civil/citizen hackers or social entrepreneurs who develop applications related to government frameworks and data. Consequently, participation is limited to those with the required technical know-how and support in this setup.

3. Civil issue tracker – information from users to government: The third phase of the advancement of DOG. The citizens contribute and participate towards OPD in this model. The citizens broadcast local challenges (for example, casualties, accidents and pollution); disasters (like fires, floods and drainage problems). This is a significant model due to the increased engagement and participation of users being able to provide consistent information concerning the challenges and problems encountered locally. The government, in this way, is more informed on the challenges faced by citizens and mitigates appropriate action to resolve the challenges.

4. Participatory open data; Is a highly advanced and developing phase of DOG in all sectors. It encourages a mutually participatory and benefitting dual relaying of

information between citizens and government. In this setup, citizens' contribution to OPD is amalgamated into policymaking. On the other hand, the government is expected to fill demand-side approvals existing data as well as but for designing the when, how and why of subsequent data collection. The utility and quality of data sets are enhanced through this bi-directional linkage. Hence, there is a continuous co-creation of unprocessed data between the citizens and governments. This is suitable for DOG, which guarantees optimum involvement of users, as government fulfils services effectively and efficiently. The next sub-section investigates DOC in GCC nations' prospects and challenges at length. As would be understood, all the GCC nations are classified in the initial model explained earlier as data over the wall.

The following sections explain the current status of the abovementioned Gulf countries to build a guide of best practices for the implementation of Kuwaiti DOG.

5.3 SAUDI ARABIA

As highlighted, the concepts governing the implementation and adoption of DOG in Saudi Arabia are innovation, participation, and transparency (Ayanso, Chatterjee and Cho, 2011). There are 6,744 resources and 319 data sets between the period of 1990 and 2013, with some exceptions over the covered period. For example, some of the data sets are available from initial periods and others for a limited irregular period. A typical example is the data set available between 1998 to 2013 for exports by broad economic segments, but for haemodialysis patients and artificial kidney centres by health sectors covering only 2010 to 2012. Different public access is gained for data sets from the portal concerning various public services across different sectors, among them trade (internal and external), labour market, energy and water (Hardy and Maurushat, 2016), energy and water (Huijboom and Van den Broek, 2011), population and housing, agriculture and fishing, financial, accounts, industry and monetary affairs, health and social services. Therefore, various government agencies and ministries use this open format portal to publish these data sets. Further, provision of utilizing the data for reports, research, developing web and to provide feedback as well as smartphone solutions and applications. The data sets can be available in different formats (for example, .xml, xlb, .jpeg, .xls, .jpg, .and .xlsx). Users are urged to contribute towards available data sets (Bates, 2014). Most importantly, to

note, however, that the data sets are raw in format and unprocessed, requiring more refinement to yield substantial information. I, Saudi Arabia, is characterized by a "Civic issue tracker" and "Data over the wall" relating to the framework propagated by (Saxena, 2018f).

5.4   UNITED ARAB EMIRATES

These concepts championed by the United Arab Emirates as it implements and adopts DOG policy relate to ideals of attaining citizen participation, transparency and e-readiness (Borglund and Engvall, 2014a). Among the key advantages of this portal is because it creates an avenue for statistical analysis. This portal enables data sets relating to consumer prices, transport, foreign trade, labour force, gross domestic product, social, energy, health, law, education, environment and housing covering from 2004 to 2014.   However, exceptions are observed. For instance, "energy" data sets are dated from1980. A page in the portal provides an array of connected plots across different indices (environment and socio-economic indicators, among others.) provides a clear socio-economic and understanding data set interpretation (Charalabidis, Alexopoulos and Loukis, 2016). Moreover, the DOG portal gives a corresponding view, United Arabs Emirates being a major contributor to various nations evaluating various parameters (human development index, ease of conducting business, economic freedom and gender inequality index, economic freedom index)

(Ciborra, 2009). Download data is available freely, involving a series of statistical parameters (Conradie and Choenni, 2014). Pre-specified indicators reports are available for download; hence, the portal creates an opportunity to visualize reports and analyse data sets. Nonetheless, the portal experiences challenge as well. Users are restricted from contributing to the available archived data sets, which are unprocessed and raw, in as much as there exists a link to access the metadata, which seemed broken at the time of writing (Elbadawi, 2012).

According to (Saxena, 2018f), United Arab Emirates' DOG can be categorized as "Data over the wall".

5.5   QATAR

 DOG policy in Qatar is controlled by the principles of fostering trust in the government by citizens. Furthermore, the government encourages DOG policy to enhance a better relationship to

increase citizen's public decision-making. As for participation, it is expected that if the OGD policy is espoused, public services delivery would be better. Accessibility of DOG in Qatar to citizens is possible due to an authentic citizen identification number needed to access data sets (AlRushaid and Saudagar, 2016). DOG data sets relate to a country's major statistical data, including sustainable development. The portal promotes users' feedback and responding complaints and queries within 15 days. Moreover, a responsible fee is levied in case a user may wish to access unclassified information. The availability of data sets is in the form of computer-readable formats, which is downloadable for use and re-use. "Data over the wall" classification is a perfect description for Qatar according to (Sieber and Johnson, 2015) model.

5.6 OMAN

The foundation of Oman's DOG policy is founded on transparency, collaboration, public trust, improved governance and participation accessible through the portal (Gonzalez-Zapata and Heeks, 2015a). Public agencies and ministries are urged to publish and release the official data sets, available to users for free. The data sets entail different forms such as education, public utilities, mosques, housing, employment, fisheries, charity, heritage, national account indicators, land grants, child-care centres, seminars and workshops conducted in the Sultanate, among others. Data sets can only be accessible in two formats (MS Word and PDFs). Like the rest of the GCC nations, DOG data sets in Oman are unprocessed and raw and only readable in Arabic with numerical digits in English. This, therefore, is a crucial limitation in assessing and evaluating Oman's DOG, particularly for a non-local user. The data set moreover covers a limited period from 2000 to 2013 hence require regular updating. Users are restricted in contributing to the data sets but may contact government authorities for more details which unfortunately are clearly missing. In respect to the classification indicated in the previous segment (Sieber and Johnson, 2015), Oman's OPD is considered "Data over the wall".

5.7 BAHRAIN

 The principles of ushering efficiency and transparency are the foundation of Bahrain's DOG implementation (Hardy and Maurushat, 2017). DOG data sets are substantial and including data relating to socio-economic indices, census, climate, health, education, technology, energy, gas and oil, power, hotels industry, justice, transport, security, among others (Huijboom and Van

den Broek, 2011). Bahrain's DOG portal also layout other publications (technology, health, tourism, labour force, transportation, communications, water, electricity, among others)

(Janssen, Charalabidis and Zuiderwijk, 2012). Bahrain's DOG delivers statistical indicators across different frameworks like money growth, Freedom of trade, Labour Freedom, Happy Planet Index, open government Index, among others. Bahrain's DOG data set covers from the year 2000 and beyond. There is inconsistency in the data set and missing archival data covering various time frames. For instance, GCC nations' economic freedom indicator covers periods from 2006 to 2011, while the value of starting a business indicator cover between from 2009 to 2014. Hence no regular updating of the data sets. Downloading the data sets are permitted in various formats like MS Word, MS Excel and XML (Johnson and Robinson, 2014).

Furthermore, commercialization and sharing the data sets is urged. A different section is defining major terminologies used through the DOG portal provided on the glossary, which is unavailable in all other GCC counterparts (Juell-Skielse *et al.*, 2014). This portal promotes response and feedback from users and making requests in the event of complaints (Gov, 2015). Nonetheless, users are restricted to contribute to the already available data sets. Bahrain's DOG is best described as Data over the wall.

5.8   COMMON IMPLEMENTATION CHALLENGES & RISKS IN GULF COUNTRIES

It is apparent that GCC nations have embraced teething problems at the implementation stage. According to (Sieber and Johnson, 2015), all GCC member states were classified under "Data over the wall" because users, to a substantial extent, are not involved in the DOG implementation. Thus, the recipient of data is inactive users, which discourages participation and engagement. Furthermore, there are no regular data set updates available in raw formats. Hence, interpretation demands a thoughtful statistical explanation and probing. Furthermore, data sets are predominantly accessible in Arabic with limited English versions and so, making it difficult for non-locals to understand and surmise conclusions. In as much as the data sets cover vast fields such as education, health, economy, census, finance, social policy, and so on, there is a lack of uniformity in the period. Besides, the information is not up to date, and the archival data was not covered in the DOG portal. Seemingly, GCC nations are non-committal in data sets participation at this moment. It is particularly true to Qatar that it demands a valid identification

to access the DOG system. Similarly, Kuwait lacks proper DOG policy; hence it considers DOG under other topics with a narrow scope. There is a lack of proper personnel managing DOG implementation to guarantee real-time updates of DOG data sets. In most of the GCC constituents, users were deterred from registering complaints with authorities and contributing to the data sets. Hence, the very basis of launching DOG flops due to hampering citizens' participation servery. Finally, DOG in GCC can be accessed in restricted formats with restricted reciprocated maps. Most importantly is the question of confidentiality which excludes correct DOG implementation among GCC countries. Users are discouraged from contributing towards data sets due to privacy concerns and leakage of key information shared via the internet. With widespread dangers of cybercrimes and infringing on privacy is eminent (Kshetri, 2014). There are many cases where user's information, including credit card details, are exposed when making transactions over the internet, posing great risks to user's confidentiality and information. There are numerous incidences of privacy, theft and data loss in the course of an online transaction. Hence, it's the government's responsibility to uphold privacy at all costs. Such concerns may be related to DOG implementation as far as GCC is concerned. Thus, users may shy from sharing private information via the internet. Users may as well find it impossible to register their concerns and grievances concerning the challenges they encounter in their locality. Therefore, while the implementation of DOG in the GCC requires increased users' participation in contributing to the available data sets, users' privacy should be respected to ensure sustainability in the DOG platform usage. In summary, users' confidentiality and private information should be assured when dealing with an open government portal.

5.9 COMMON IMPLEMENTATION OPPORTUNITIES GULF COUNTRIES

Complete DOG implementation may yield to informed citizenry offered with information concerning public interactions. Corruption would decrease as transparency in public functions increases. Secondly, there is an expectation that with the right DOG implementation, increased citizen participation and engagement would be realized. Citizens would participate better in the decision-making process (Attard *et al.*, 2015). Thirdly, there are expectations that the absolute implementation of DOG across GCC would enable the GCC region to recognize economic power progress towards revenue generation and costs reduction (Jun and Chung, 2016). Lately, due to the drop in oil prices, the GCC region has been hatching modalities to front the economy

in other non-oil ventures, and completed DOG implementation would be in line with keeping the master plan. Fourth, although it is imperative that the implementation of DOG considers the need for continuous and constant data sets updates, it is imperative to institute a powerful information technology infrastructure to provide real-time data sets to solve civic issues promptly. Furthermore, citizens' participation in civic engagement through decision making and policymaking should be encouraged. Fifth, international relations may be enhanced by proper DOG implementation in the GCC by the provision of more information on the investment opportunities and strengths in the region. The GCC nations may boost their commerce and trade regionally and internationally. Sixth, the possibility of conceiving novel solutions to real-time challenges is made available with the Big Data transformation, and DOG data sets is a key step to controlling major Data Analytics that would greatly assist in "nowcasting" through invoking prediction and sentiment analysis. Several openings in the GCC region with DOG implementation due to attempts to pave the way for an innovation-based economy exist.

5.10 LESSONS DERIVED FROM DEVELOPED COUNTRIES IN DOG IMPLEMENTATION

Countries such as Denmark, Australia, Spain, the USA and UK have made tremendous strides in the implementation of DOG (Huijboom and Van den Broek, 2011). Australia provides openings to the user, mashup, analysis, feedback and tool development for applications for others to utilize via the OGC portal (Hardy and Maurushat, 2016). Citizens are encouraged to share experiences via the DOG portal through the designated blog. In addition, the DOG portal enables users to take part in new data sets. This is a potential opportunity that DOG implementation can take advantage of by providing users with a subscription facility in a timely manner. The United Kingdom and the USA are at the forefront in relation to the total number of online data sets. For example, the United States has produced more than 193,990 data sets across a vast range of spheres, including housing, energy, climate, health care and manufacturing, among others. Users' contributions are welcomed, with explicit procedures laid down and updated over a specific period. Additionally, users are welcomed to endorse any app. The DOG platform in the UK creates opportunities for technical users to come up with important applications from the raw data that can be used by others. In addition, the portal encourages feedback and comments on data sets and responds via the blog. There is a likelihood that DOG implementation in GCC can be enhanced by facilitating a blog for users to air their views both in English and Arabic. A

support team responding to suggestions and queries in a timely manner is important. Denmark's DOG platform is a perfect example of widely acclaimed timeliness and coverage. Furthermore, it is approximated that with the completion of DOG implementation by 2020, the Government would save approximately 45m US dollars per annum on administration costs (Digital Open Government Guide, 2016). Germany's DOG platform encourages citizens to join hands in search of data-driven solutions to challenges Germany's Digital Infrastructure, and the Federal Ministry of Transport has produced a €100m mind that encourages upcoming business concepts in various spheres. This provides a great learning point for GCC, whereby an independent public agency should monitor funding and IT infrastructure for the implementation of DOG. Open Data Strategy Council exist in South Korea alongside a properly instituted "Mechanism for Dispute Mediation" with a calling centre line for the users. The GCC constituents can develop a similar strategy by refurbishing DOG data sets by one call to the user. Italian users are permitted to upload data sets in the DOG portal. Similarly, Spain encourages users to contribute. Any citizen opting to receive the information through email is encouraged to subscribe to the portal. Besides the normal features, Spain's DOG portal enables an "Actuality" segment wherein news and facts about the Open Government Data is published in various media is covered. Additionally, an "Impact" segment displaying success stories of projects is available. Spain's DOG portal is available through LinkedIn and Twitter. This supplies another learning point for the GCC constituents to take advantage of social networks to propagate and disseminate DOG data sets and other important information.

5.11 THE STATE OF KUWAIT

The State of Kuwait is the official name for the county commonly called Kuwait. The State of Kuwait is in the Middle East and is considered a small country in Asia. The geographical area of Kuwait is 17,818 sq. km. The State of Kuwait lies on the northwest side of the Arabian Gulf. It shares borders with Iraq and Saudi Arabia, as shown in Figure 5.1 (Central Intelligence Agency, United States., 2014). The population of the State of Kuwait is 2,788,534, comprising 31.3% Kuwaiti, 27.9% other Arab, 37.8% Asian, 1.9% African, and 1.1% other that includes European, North American, South American, and Australian (Central Intelligence Agency, United States., 2014).

Figure 5-13 Geographical location and map of the State of Kuwait Source: Google Images

5.11.1 General Background

The constitution of Kuwait clearly specifies, Article (2) that Islam is the religion of the state and that Islamic law (Sharia) is the main source of legislation. It allows "absolute freedom" of belief and freedom of religious practice in relation to fixed customs, which stated that it does not go against public order or morals. As stated in Article (1) of the constitution, Kuwait is an Arab State and Article (3) establishes that Arabic is the State's official language. The English language, however, has been taught in schools from early levels, and it is spoken widely as a second language. Kuwait City is the capital of Kuwait State. The name 'Kuwait' is derived from the Arabic word 'Kut', which means a small fortress. In a historical context, this area was termed 'Qurain', which comes from the word 'Qarn', meaning a high hill. The country's name gives strong proof to the prominence of its role as a strategic place for commerce, trade and control of navigation through the centuries. The history of Kuwait goes back to a thousand years, though the modern country is fairly new, which commences at the close of the 17th century with the entry of various tribes from other parts of the Arabian Peninsula.

5.11.2 The foundation of the State of Kuwait

The State of Kuwait has a rich history. The State of Kuwait was a protectorate of Britain from 1899 until independence in 1961. The Al-Sabah family are the hereditary rulers of Kuwait. In

1990 Kuwait was invaded and occupied by Iraq for seven months. During the Iraqi invasion, Sheikh Jabber Al Ahmad signed a treaty with the United States of America (USA) to protect and liberate the state of Kuwait. Kuwait was liberated on 26th February 1991 (Chwastiak, 2015).

5.11.3 Economic Situation of Kuwait

The State of Kuwait is considered a high-income country due to its crude oil reserves. This is estimated at 102 billion barrels and is considered more than 6% of the world reserves. Petroleum accounts for 89% of government income. This income allows Kuwait to provide high-quality health services to its population (Chwastiak, 2015). Kuwait has membership amongst the Cooperation Council for the Arab States of the Gulf (CCASG) and of the Organization of Petroleum Exporting Countries (OPEC). Crude oil is the main means of income for this confederation system, enriching the territory of its countries in many degrees. Oil fields were first exploited in the 1930s, and since its independence in 1961, Kuwait economy has been dominated by its oil, making up around (90%) of export revenues (Une and Nakano, 2018). The Kuwaiti Dinar, which is the Kuwaiti currency, has the world highest-valued unit of currency. In its latest International Comparison Program Database, the World Bank(Imran, Quimno and Hussain, 2016) ranked Kuwait 2nd out of the 6 GCC countries (after Qatar) and the 6th world richest GDP per capita. There was an unprecedented rise in the oil prices during the period from 2000 to 2008, when it went from under $25 per barrel to around $150 per barrel due to the production cuts by OPEC in the Middle East and the greatly increased demand in emerging economies like India and China, driving up the price of oil to its record heights ever. But quite soon enough, at the end of 2008, a major recession that hit worldwide regulated the demand for energy, which, in turn, sent the prices of gas and oil into a quick downfall. The oil prices hit a bottom of $40, which caused a major crisis in many oil-producing countries. The economic recovery, which started in 2009, sent the prices back to over $100, but still, the price of oil kept hovering between $100 and $125 until 2014, during which it fell again due to the interference of many global economic factors (Manoharan and Melitski, 2019).

5.11.4 People and Society

Kuwait's Public Authority for Civil Information (PACI) evaluates that the country's total population to be 4,409,354. Figure 5-2 estimates the number of native Kuwaitis to be 1,344,107

(30.5%), which is outnumbered by 3,065,247 non-Kuwaitis, accounting for almost (69.5%) (Wong, Snell and Tjosvold, 2016; Almuraqab, 2017). The Kuwaitis' gender ratio (1.04%) shows almost an equal balance with (49%) males and (51%) females. Of the expatriates, however, the gender ratio shows a notable difference with (67%) males and (33%) females respectively, which affects the total population gender ratio with (61%) males and (39%) females respectively (Saxena *et al.*, 2018). Islam is a major religion (76.7%) of the total population, but Kuwaiti society is enriched with diversity and tolerance. Most of the population is Sunni Muslim, with the Shia Muslims making for a significant minority in the State. Amongst the GCC countries, Bahrain and Kuwait are the only two countries that have a Christian population too. Though Arabic is the official language of the State, English is also widely spoken.
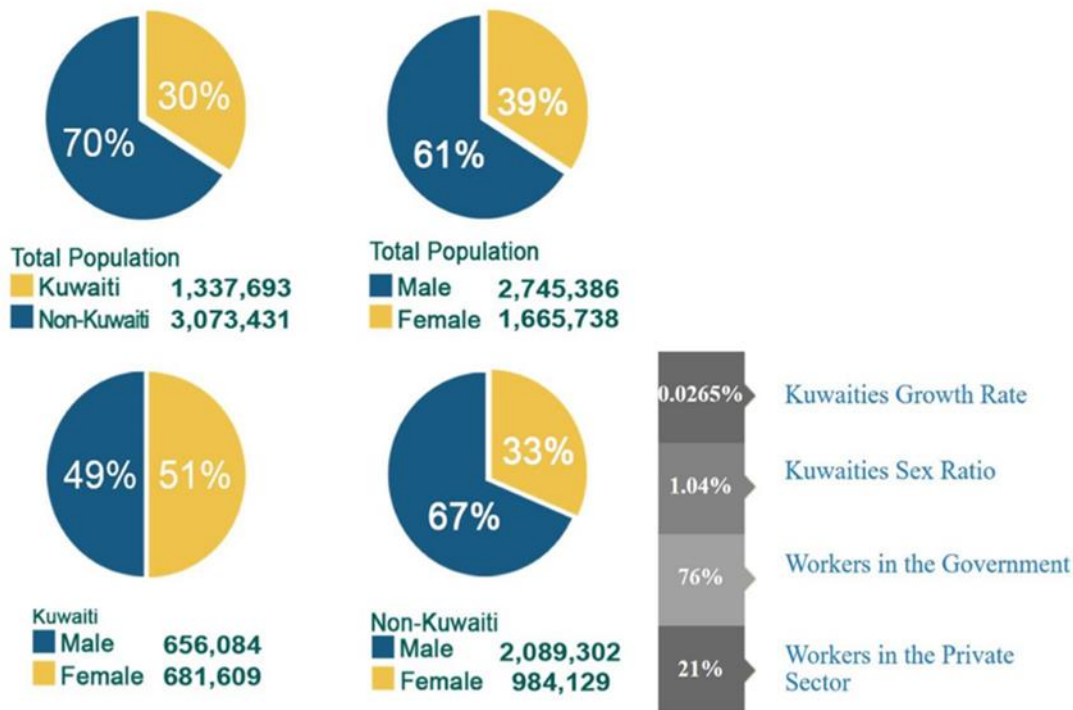
Figure 5-14 Kuwait Population Statistics(Ghor *et al.*, 2019)

5.11.5 The Public Authority for Civil Information

The primary objective of this agency is to grant a unified identity to all expatriates and citizens, as well as to create a united national bank of civil information. This site has many parts, of which the first gives a brief explanation of the authority and its main aims. There are several Digital

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services for individuals like that of such as Civil ID status, Civil ID renewal and Civil ID validity. There is a service that gives relevant information for changing the residential address, correction or alteration of name, change of personal photo, and any others. The site gives details of the required documentation, where the services can be done, also of the scheduled fees. Along with these, there is a link called Statistics which gives statistical data of the population of Kuwait.

5.12   CHAPTER SUMMARY

As it is very common that Kuwait is an oil-rich country, and the economy of Kuwait is based on oil, and the current government started to invest in the digital infrastructure of the country because the government is trying to shift their economies from an oil-based to the business based economy. The government one moment introduced vision 2035 to shift the country economy from oil-based to business based. Therefore, the government is investing in the digital infrastructure, which is why the open digital government is the foundation of the digital structure of the country which is why the government have started many digital open government projects in Kuwait, but the government is still facing issues to improve the trust of the institution and trust of the public to use the open digital government system for the public services. At the same time, the government is also facing institutional issues to create a digital collaboration of the public institution to improve the institutional values in Kuwait.

CHAPTER 6: RESULTS AND FINDINGS

6.1 INTRODUCTION

The current chapter includes the discussion on findings from study work carried out with DOG citizens and three Kuwaiti government organisations, as well as analysis outcomes from employees` perspectives of selected organisations for current research. As motioned above in Chapter # 5, a total of eight specialists from targeted organisations was interviewed, including network engineers, IT consultants, IT professionals, policymakers, data-mining analysts, business analysts and other personnel who are well-familiar with the DOG concept. Before conducting every interview, the researcher made a high-level, rich discussion with interviewees in order to refresh interviewees` memory, instead of sending semi-structured questions to them prior to interview time. This discussion was conducted with the aim to highlight the research aim and study scope and to determine the need for professionals and policy makers who are responsible for implementing DOG platforms. While conducting interviews, the researcher adopted a semi-structured approach in order to conduct a direct assessment so that the issues can be fully explored that were raised during the interviews. Basically, the aim was to provide interviewees with an opportunity to express their feelings towards the implementation and design of DOG on the basis of their professional/personal perspectives and views. Interviews were recorded so that sanctity of collecting qualitative data can be preserved. Before analysing the conducted interviews, a detailed discussion was made on qualitative analytical methods adopted for current research. The discussion included detailing how to apply it to examples and outcomes of past research, which has adopted this framework.

6.2 QUALITATIVE DATA ANALYSIS

In the next step, identified themes were integrated to develop relationships between them. The most relevant themes were collected to create a relatively small set with the aim to capture the essence of descriptions provided by interviewees. This facilitated the understanding of meanings of emerged themes from codes. In addition to these emerged themes, the theoretical framework was also screened that was utilised in this research. Interpretive and descriptive reporting methods were used to present key findings of each theme. See a comprehensive detail in the given below sections.

6.3   RESULTS OF THE ANALYSIS ON THE BASIS OF ORGANISATIONAL EMPLOYEES'
**   VIEWPOINTS**

This section outlines the data gathered from workers of the targeted organisation. The researcher divided this section into sub-sections in accordance with emerged themes under every interview question.

6.3.1   Perceptions about DOG

While starting each interview, the interviewees were asked how they perceive DOG; also, whether the implementation of DOG has enabled them to effectively fulfil the responsibilities they have as professionals. Through this question, an idea was obtained about interviewees` general attitude toward DOG.

The third interviewee answered this question as:

> *"In KUWAIT, the DOG is less effective than regular government. Currently, it seems that it would take longer to realise the full capacity of DOG. In Kuwait, you see that DOG is yet not implemented effectively because people always feel hesitation while adapting to change. It is, however, expected that perception of the general public about DOG will get change with the passage of time and shortly, they will start to embrace this concept once their awareness about DOG increases."*

In addition to general opinions, many interviewees highlighted that performing their role in an effective manner would not be possible until the citizens are not allowed to participate in the advanced DOG system (CMKST_3, MCIT_1, and MCIT_4). One interviewee (CMKST_3), for example, commented that

> *"inaccessibility of DOG facilities to citizens is a major difficulty that we are currently witnessing in Kuwait. In order to realise the full potential of DOG, it is important to increase proficiency level of people and ensure that every citizen has easy access to DOG".*

In the same line of reasoning, the interviewee (MCIT_2) commented that

> *"improving awareness level of people about DOG system and making the utilisation of DOG facilities easy for citizens would, in turn, facilitate us in effectively doing our jobs. Otherwise, the system would become non-functional because of a huge gap in citizens` knowledge about this notion of DOG".*

While expressing their views from this perspective, the interviewee (MCIT_3) commented

"The major factor due to which people hesitate to embrace DOG is that much of Kuwaiti population is still unaware of benefits associated with DOG, for example, how it is value-added for them. For those individuals who seem to understand the functionality of the system, inadequate trust regarding how their provided information is utilised and proficiency level of professionals who are responsible for handling DOG system is a key concern" (MCIT_3).

The majority of interviewees, however, hold a positive perception about DOG, but they are claimed the three is the centralized agreement of the government and political leaders. Interviewees (CMKST_3 and MCIT_3), for example, expressed their views as DOG is a useful government form that increases overall accountability of professionals, i.e. they could be enquired by the citizens. Interviewee (CMKST_4), more specifically, commented that,

"when DOG in its full potential becomes realised, and people start to embrace the concept, only then does it becomes possible to approach the government officials to hold them responsible for any decision or policy they make and which somehow influence them. The awareness that people can openly express their opinions about government officials without fear may contribute to the significant increase in responsibility and accountability in government".

"I think strict laws of the government discourage the professionals from taking decision for improvement"(CMKST_4).

"Too much law enforcement discouraging create an environment of fear among citizen and professionals to participate in the implementation" (MCIT_1)

Another interviewee stated,

"DOG is a very useful type of government because it offers high transparency, but too many strict laws shows the way of extra control of the traditional government" (MCIT_5).

On the *b*asis of interview responses, two interviewees MCIT_5 and MOI_3, appear slightly conflicted with one another in terms of their positions. MOI_3, for example, rejects the concept that DOG equally works all over the world because of differences in citizens` participation in and access to DOG. According to MOI_3,

"The effectiveness of DOG can be increased by reducing the huge gap in easy access to DOG facilities. There is also need to improve awareness level of DOG facilities as well as incentives to motivate citizens to utilise it."

"Our employees don't have the required skills to participate in the digital government, so we required training (MOI_3).

This participant considers DOG as a more beneficial form of government for all, but they offer the best skills development program for the employees. He acknowledges that DOG is more effective as compared to traditional one but if the citizen and employees are aware and skilled to use the system. (MCIT_4) commented that

"by bringing appropriate balance between DOG facilities and citizens, it becomes possible for DOG to prove that it is more competent than traditional government approach. With broader internet penetration and increased awareness level, we can bring the benefits associated with DOG to the front in near future" (MCIT_4)

"We don't have advance technological collaboration with a public and private organization to share, create and generate data for and from the citizens and organization" (MOI_3).

"We need the advance technological infrastructure of creating digital collaboration at the national level "(CMKST_2).

"our citizen required awareness and skills" (MCIT_1)

"Our management don't encourage the public to use digital government system" (MCIT_5).

On the basis of inferences drawing from the above-mentioned submissions by all interviewees from selected three organisations in the context of the first question asked from them – how they perceive DOG, we argue that though some of the interviewees showed their concern about various factors limiting the wider acceptability of DOG at the current moment, a common consensus can be observed about its overall benefits. For example, the huge technological gap that exists between the services that DOG provides and DOG user is the major factor that required great attention. The notion of DOG in itself is not an issue, rather it is the users` structure of the mind, and their awareness level about how DOG adds value to them is an issue. Acting as an effective channel for the provision of information is the most important benefit that DOG promises. Implementation of an effective DOG system in Kuwait is currently facing challenges in the form of societal and technological obstacles, but these hurdles cannot prevent its overall implementation in KUWAIT.

6.4   THE TRANSFORMATION FROM TRADITIONAL GOVERNMENTAL SYSTEM TO **DOG**

"Transformation from manual to DOG system" is a theme that seeks to outline the challenges, complications and issues that the government, as well as other associate departments, might encounter while transforming from a manual government system to DOG.

While shedding light on various dimensions of DOG as well as its implementation, the interviewee (MOI_3) commented,

6.4.1   Policies Ambiguity

"Since the traditional form of government is purely based over manual procedures thus encounter multiple problems that can be overcome through the implementation of successful DOG across Kuwait".

MOI_3) further asserted that

"DOG due to its technology and people-dependent nature cannot be regarded as an inclusive solution in KUWAIT.

(MOI_3) highlighted as

"Need to put the strategies to backup information in place whenever DOG facilities become temporarily down. DOG will smoothly run its operation only when citizens become well-aware of its full potential and the DOG platform becomes stable, however, having effective backup strategies in place is always required.

"Shifting of manual government to DOG system would inevitability increase the responsibility, accountability and better sense of structural reform and would improve the delivery of government services too" ((MCIT_5).

In this context, the interviewee (KASCT_2) asserted as

"complete transformation of manual government to DOG is a complex procedure as it involves the complete renovation of main government structures".

(KASCT-2) further highlighted that.

"There is an intense need to complement DOG implementation with amendments and alterations in forms of policies, transparency and service delivery" (KASCT-2)

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"smooth service delivery through DOG can only be ensured when there are effective policies in hand that guarantees the delivery of high-quality services and improved transparency". It may take longer to build trust amongst citizens for increasing and effective usage of DOG" "(CMKST_5).

"There is a lack of trust among the employees and management to fully implement the digital government" (KASCT_4).

"Management is afraid to accountability which makes slow the implementation of digital government" (KASCT_7).

We don't have a clear plan to know how, why, how much and when we can create collaboration with the public and organization.

The views of Interviewees (KASCT_7 and KASCT_4) appear consistent with those of (MOI_3 and KASCT_2). Common opinion amongst their responses is that transition of the old manual form of government to modern DOG is a challenging and quite risky procedure that requires institutional trust among the political leadership, organisational leadership and employees to facilitate the process. To reduce this risk factor, it is important to employ qualified professionals for the implementation of improvements and change information technology (IT) security framework. KASCT_4, specifically, commented as follows:

'risk factor involved in designing and implementing DOG in KUWAIT can be mitigated by recruiting qualified and requisite professionals for DOG infrastructure management. Ideally, recruit those people who are experts in computer networking, database management, data mining and ICT. Such people are capable of identifying the issues on time along with offering probable solutions immediately (KASCT_4).

Interviewees (MICST_4 and MOI_3), on the other hand, asserted that implementation of a modern DOG system could not offer promising reform and facilitate citizens in accessing public services unless and until security and safety parameters are not guaranteed. MICST_4, for example, commented that.

"overall acceptance and implementation of DOG could be facilitated by ensuring the security and safety of potential DOG users". Generally, people are sceptical while providing personal information; however, this risk factor can be reduced by taking their security and safety into consideration".

Though some interviewees raised this criticism, none amongst them have completely rejected the fact that DOG is a viable substitute for the traditional form of government that is largely based

on manual operations. Moreover, all interviewees showed mutual agreement on the opinion that the transition of the old manual form of government into modern DOG is a difficult proposition. In addition, to consider the citizens` perceptions and views at large, effective stakeholder discussion and engagement from all involved stakeholders is also required while designing and implementing DOG. The opinion that appears common in all responses is that the transformation of manual government into DOG should be complemented with an absolute overhaul of related policies, delivery of quality services and transparency.

6.5   THE ADOPTION LEVEL OF DOG

"Adoption level of DOG" is a theme that seeks to ask the interviewees about their recommendations on whether DOG should be adopted throughout the government system in Kuwait or should be limited to some departments of government. The interviewee (MOI_5) undertook the assertive position and observed no hurdle to DOG implementation across the entire government system. He warned that.

> *"a group of specialists must be recruited to carry out DOG implementation because these experts can properly evaluate all associated merits and demerits of different aspects of DOG. This will ensure an easy intro organizational and political conflict resolving and quick fault tracing without influencing overall operation".*

Interviewee (MCIT_5), in this context, asserted that "*DOG adoption across entire KUWAIT government would make it possible to monitor all government operations and resolve issues of non-functional, poor government through central point*". Interviewee (MCIT_2), however, acknowledges that

> *"Guaranteeing benefits to government and citizens through the adoption of modern DOG platforms is possible only if this system has adequate control mechanism. The control mechanism is required because broader networker nodes make the entire network infrastructure more complicated that supports DOG platforms. Thus, a robust mechanism of conflict resolution between public employees and the public must be in hand while considering DOG adoption to all operations across the system" (MCIT_2).*

While making discussion on the same issue, (MCIT_2) commented that

> *"Having DOG in all services and functions is not sufficient, but confidence is required that DOG will make a significant contribution to each and every sector*

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of the economy. Typically, DOG involves a very high implementation cost; therefore, in the absence of assurance about how much this implementation will be benefited for main economic sectors, it would become impossible to integrate DOG into all operations and functions of government. For this, it is important to prioritise key sectors at first and afterwards analyse their requirements in detail in the context of DOG".

"I believe that there should be best conflict resolution system between public organizational leadership to break the deadlocks on some point to move further" (MOI_3).

"if DOG is implemented across KUWAIT, it would certainly stimulate all other functions relevant to the government system. Since DOG has potential to transform all government functions, therefore, can ensure delivery of high-quality services" (MCIT_3).

In this regard, (CMKST_1) expressed his views as

"Adoption of DOG across KUWAIT would be a wise decision, given that it is well-executed and well-designed so that any possible disappointment can be avoided".

While making discussion on the same issue, interviewees (MOI_8 and MCIT_5) asserted that they had perceived no substantial hurdles if DOG is implemented across the entire of KUWAIT. MOI_8, for example,

"Implementing DOG across KUWAIT would not be problematic due to the compact nature of government structure. Here, it is important to ensure the presence of highly trained and skilled ICT professionals during designing and implementing DOG. Focusing on some government aspects while neglecting others would result in a mismatch of transferred information".

In the same line of reasoning, MCIT_2 proposed that

"Government structure is quite compact in nature, and all sectors are not well technological interconnected with each other through streamlined, and there are not well-managed relationships. Therefore, if DOG is implemented across the board, it will inevitably produce added advantages, but it required technological coordination and clear organizational policies at first stage".

*Interviewees (*MCIT_2 and MOI_8) expressed their views as

"To what extent DOG platforms should be integrated into government structure is not the issue, but the issue has pertained to quality of DOG implementation".

From these interviewees, it is extracted that in addition to implementing DOG across all sectors in KUWAIT, it is important to ensure the presence of effective response and control measures in place so that any threat that may possibly occur can be addressed. Specifically, MCIT_2 commented that.

> "Spread or coverage of DOG is not the key issue. Here, the main issue is whether the implementation and design of DOG facilities are equipped with response and control measures and is robust enough when faults appear across the system".

> "One size of digital government is not fit for all public organization, so each organization required different nature of access and use of DOG. For example, private sector required access to the public health information of the public we can say that the fashion industry required access to the demographic statistics which is not being done yet" (MOI_8)

" These interviewees, thus, reflect the same position as that of interviewees (MCIT_4 and MOI_8).

> "We don't have access and collaboration with a private organization which reduce the participation and data generated from the public site" (MOI_8).

> "I believe that our public health sector is not fully participating in generating data from the public which could be used by our private industry like insurance, medicine, etc." (MCIT_4).

Based on inferences drawing from the abovementioned comments, submissions and views, it is revealed that the majority of informants are in favour of implementing DOG on a broader scale or across all sectors of the KUWAIT government, but it has been found that there is a lack of public and private organization collaboration to generate data that could be used for both public and private organization. Implementing DOG across the government appears as a wise decision, given that sufficient response and control measures are there in place.

6.5.1 Ethical policies of the while implementing DOG

"Ethical policies DOG" is a theme that focused on professional ethics in correspondence with DOG. This theme seeks to determine the positions of respondents concerning the main ethical issues that probably arise while adopting DOG.

The interviewee (MCIT_3) commented that

"Key professional, ethical problems affect and stem from any e-process. None of the e-process is totally immune from confidential data leakage. Acknowledging confidentiality and privacy issues and attending to them in a timely manner is the prime responsibility of those who run DOG" while discussing this issue",

The interviewee (CMKST_3) expressed his views as

"Professional, ethical issues in case of DOG seem to be centred around confidentiality and privacy issues".

Contrary to (CMKST _2), the interviewees (MCIT_4 and MOI_8) do not perceive professional privacy ethical issues in the case of DOG as confined to only privacy and confidentiality issues. These interviewees highlighted many other professional, ethical issues in DOG, including politeness, the accuracy of provided information, openness and usage of official language. (MCIT_4), for example, they commented that

"Since many years, ethics is a subject that has become a vital component of interactions amongst human beings and same is in the case of implementation and adoption of DOG". "In DOG, the issues such as usage of official language, the accuracy of provided information, openness and politeness have become central points of the professional ethics. This indicates that professional, ethical issues go far beyond privacy and confidentiality alone".

In this regard, three interviewees *(*MOI_8, CMKST_3 and MCIT_4) highlighted that

"people who are responsible for administering DOG should have well-defined professional duties so that professional, ethical issues can be fully addressed".

The common opinion in responses of interviewees MOI_3 is that

"Professional, ethical issues in case of DOG include not only confidentiality and privacy but also objectivity, respectfulness, the obedience of the law, loyalty, accountability, integrity, transparency and honesty".

MOI_(3) interviewees define integrity.

"as an integral part of the professional ethics while considering DOG. It requires the managers to guarantee the consistency in professional outcomes, citizen expectations, principles, actions and values".

"Our privacy and ethical policies are well communicated in our public organization" (CMKST_1)

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"Our politicisation is beyond the ethical policies they put pressure to get the required information" (CMKST_2).

"Our leaders could not develop the ethical procedures and data sharing policies to share the data with the organizational and individual level. I can say political don't follow ethics when they want something" (MCIT_1).

While summarising all responses related to inquiry about professional, ethical issues in DOG, organisational or professional attributes of information accuracy, confidentiality and privacy were identified, along with personal features of politeness, communication skills, integrity and honesty. Additionally, these ethical policies should be followed across the board for a public and political leader that could encourage the public and management as transparency signs in the country.

6.5.2   Accountability and transparency

In professional ethics, accountability is considered a major area; therefore, it was handled explicitly while conducting the interviews. While expressing his understanding about the notion of accountability, (MOI_5) involved answerability to the public, acceptance of any blame and liability in this concept. This is inferred from the statement he delivered,

"Accountability issue is an important component and success of DOG is heavily based on it not only in Kuwait but also in rest of the world. A system, whenever is perceived as accountable, breeds confidence and trust and can go very long in shaping potential users` views about DOG facilities".

The notion of accountability in the context of DOG is related to various issues that may encounter while implementing national policies. According to (MOI_2, CMKST_5 and MICT_3), accountability is an ethical group thus implies both abstract principles and standards of individuals` behaviour.

"In this context, these interviewees commented that "DOG can be successfully implemented in KUWAIT with the help of those individuals who are responsible for managing DOG; also the adoption of some standards of individuals` behaviour is essential in this regard. The general public will be more comfortable if they know the people who are in charge of managing overall DOG operation" (MOI_2).

"Some people are not accountable in our country" (CMKST_1).

"Always lower-level employees are accountable in this system" (MICT_3)

Interviewees *(*CMKST_1 and MOI_2) associated trustworthiness and loyalty with accountability and commented that

> *"Achieving true accountability is only possible when government officers are loyal and truthful, not only to themselves but also to the public" (MOI_2).*

> *"Employees is afraid of accountability which is why they are reluctant to do work with digital government system" (CMKST_2).*

In this context, (MOI_2) also highlighted the feature of patriotism, whereas (MICT_6) in his response referred to the notion of objectivity as an important component of accountability and professional ethics. (MICT_6) submitted that.

> *"Objectivity is a concept that encompasses non-partnership, factuality, fairness and disinterestedness. Guaranteeing information trustworthiness is impossible in DOG unless the personnel entrusted with the management of e-procedures understand their accountability level and are objective".*

In summary, we can say that majority of interviewees appear in mutual agreement on the fact that the concept of accountability in the case of DOG is strongly associated with the professionalism of government officials and employees working in this system; therefore, the government should facilitate the transparency accountability system in the public organization which can facilitate the adoption of digital government in Kuwait.

6.5.3   Information Security

While implementing DOG, information security appears as a key hazard. In order to explicitly address this issue, a separate question was asked about trust and information security issues that may encounter while transforming manual government to DOG.   From a data protection perspective, interviewees (MOI_4 and MOI_1) asserted that system credibility and information security are two important hurdles and challenges that should be overcome for effective maintenance and implementation of DOG. From their organisation perspective, the interviewee (MOI_1) commented that.

> *"Amongst all security related issues, information trustworthiness remains a key challenge for the implementation of DOG across Kuwait". In addition to constituting major challenges, trust and information security are also major expectations of many stakeholders".*

In his response, interviewee KASCT_1) expressed his opinion as:

> *"Individuals, particularly those who are in charge of e-processes, can interfere with sensitive information to pursue their personal agenda." Moreover, individuals may also tamper with critical information in order to intentionally influence government agenda".*

Similarly, the interviewee (MOI_4) commented that.

> *"It cannot be said with a guarantee that the Kuwaiti government will have sound DOG platforms that can neither be hacked nor be crushed. The likelihood of infringements over security and safety of DOG system is an important matter that may put information trust at risk".*

The common opinion that interviewees (MCIT_2 and CMKST_3) expressed in their responses is that:

> *"Security and information trustworthiness are interrelated issues that heavily depend over the risks connected with DOG, like hacking, malpractices or other kinds of intrusion in the area of e-processes" (MCIT_2).*

> *"From their responses, it appears that these interviewees tend to consider that DOG system as a modern way of interaction is not supportive for same trust feelings, which have been developed towards more conventional means of old manual government. According to this opinion, the DOG system will be perceived as inherently not as much trustworthiness channel of interactions between government agencies and citizens as that of old, manual government2 (CMKST_3).*

Similarly to MCIT_3, another participant (MOI_2) stated that:

> *"in order to ensure information trustworthiness within DOG, Kuwait government should formulate a clear pact or agreement between citizens and government and should inform the citizens about the personal data that is provided to government, also informed them what occurs if that personal information is lost, and any other incident occurs" (MOI_2).*

> *"Government does not provide required information to the public which hearts the public that why the government is gaining information from us and why not we have access to the required information as our personal right" (MCIT_3).*

Through hard copy format in which reports were made available, the information transfer in such a format was not accessible and available to everyone. Now that the internet is available everywhere and the technology is so advanced that people can open any website on their

Smartphones, the public sector organizations can publish reports in soft-copy form or digital format on their official websites. This movement has historically been evident during the early days of initiatives related to DOG. So, another area to understand the provision of information was identifying the transfer of information to the forum and whether there were any emergent codes regarding such attributes.

The findings show that ICT plays a pivotal role in the provision of a modern platform for the transfer of information to users in a format that is easily accessible for them. It is one of the cornerstones of the OG initiatives to make information accessible in a format that is not easily accessible but is also easily understandable.

> "*Our department of procurement is significantly involved in working with OG Manager and the lab in a bid to make it easy for everyone to understand and access the procurement process so that start-ups and smaller players can also access the process*" (MCIT_5).

Moreover, it is clear from the statement above that the administration intended the information to be accessible as part of OG initiatives. One practice implemented by them was the development of an online tool so that the bidding process can be seen by everyone. The development of such tools makes it easier for others to access the information. Although the provision of information inaccessible and digital form contributes towards holding the government accountable for the actions and also enhances the transparency of governmental actions, it also generates the bulk of information which can cause an overload of information and resultantly the confusion among readers. Thus, another useful finding in this regard was making the information effective and efficient by using modern tools which can be utilized by citizens for finding particular information:

> *"*The local government is a complicated form of government involving doing a couple of hundred things which are more than what people perceive the local government to be. As such, these activities influence the daily lives of people. It is important that the government is accessible for people so that they can enjoy public services, give feedback, and have their voices heard by their local representatives. Thus, the idea underlying digitizing of local government is to provide a one-stop shop for people to get what they want from the government. This means that the government should be accessible for people, and they don't have to wait for days to have their voice heard by the government*" (MOI_2).*

The IT manager stated that,

> *"We are operationalizing something called [...], which is an online portal. It is continuously evolving and developing alongside, and at the same time, it is providing people with the services they want. Citizens now get an interactive experience online with the city in terms of collecting information or completing transactions. The citizens are also able to develop knowledge by going through the information available on the website." (MCIT_4).*

> *"The digitizing of local government provides an opportunity to cater to a large number of people simultaneously. Thus, the online local government has made it possible for people to access information online about the operations of the Council, the activities that are intended to be undertaken, the upcoming projects, local services provided by the Council, and the online complaints process which required collaboration with other public organization. The idea is to simplify the access to government for people so that they have information readily available to them. It should not be challenging for them to approach their local government to solve their problems" (KASCT-3)*

> *"One initiative that is taken in relation to open government is the development of tools through which citizens can dig out the most relevant information for themselves. It does not affect the minutes of the meetings presented in the report. Instead, it enables citizens to navigate to the most relevant minute. They can quickly jump to the relevant agenda item by using the tool and decide the result. They no longer have to go through the entire minute meeting book in a chronological manner. Instead, they can simply jump to the relevant minute" (KASCT_5).*

The statement above shows that the OG manager was keen on making digital information tools accessible for people. One of the attempts in this regard was a development of an online tool that automatically guides the citizen to different parts of the website. Thus, instead of having to search through different pages of the website online, the user could simply utilize the tool for directly accessing the particular information. Another example in this regard is the development of tools that can be used for extracting minutes from the meetings of the council. This tool can also be used for extracting information from the long reports of the council published online on the website of the council after each meeting. With the help of this tool, the citizens are able to find specific information that is relevant to them specifically.

Table Characteristics of consequences in the information available through the DOG platform and study findings (Source: developed by the researcher*)*

Characteristics of Consequences	In the conceptual framework	In the CA analysed in this study
Immediacy	• The consequences could be immediately effective following the passage of judgment, or it could be utilized with delay (e.g. dismissing the employee due to pressure from the user panel can be done on an immediate basis, whereas voting the representative out could take four years).	Due to social media, the informal sanctions and rewards can be immediately accessed, while the impact of such consequences can take some time when seen in the context of other formal processes.
Nature	The nature of consequences in CA is informal because citizens cannot pass formal consequences. Rewards are informal in nature, e.g. public recognition. Sanctions are informal in nature, e.g. complaints concerning bad performance Exit: Quitting from the organization and selecting another service provider in the industry	The rewards are informal, e.g. gaining support and praise on social media such as in the form of a retweet, likes, follows, and appreciations Sanctions are informal in nature, e.g. mass uproar on social media, online disparagement, etc. Exit instances were not identified as the current research did not involve studying competitive market positions.

6.6 SUMMARY

As it has been found through the data analysis that there is a lack of ethical practises within the institution because there are some political pressures and big figures in the country, they get the data from the professionals without the consent of the citizen. Additionally, the citizens they also afraid of the unethical practises of their information within their country either for the public or privately; therefore, they don't trust the digital open government in Kuwait, which required institutional level efforts to improve the ethical practices within the organisation to successfully improve the public trust on the digital opening government at the same time it would auto increase the participation of the citizen that would also lead to Watson ate the data for the government. This section provides an explanation of the research findings with respect to the consequences phase of the CA process. The researcher first coded the data on the basis of characteristics of the consequences as reported in the literature on the conceptual framework of the study. It is evident from the analysis that the provision of information to citizens takes both the traditional and digital routes. The traditional routes are the ones that are already provided for under the law to be must-available to citizens. However, with the digitization of processes across the world, the digitization of governments is also enabling citizens to connect with the government at all levels. The new findings concerning the DG initiatives are the types of intentional practices of information disclosure through technology. Such practices involve using digital means to provide information to citizens in a simple and easy-to-understand format. This also involves using memes and emojis to dispense information. It has also come to the limelight that ease of access is one of the fundamental features of open government initiatives. Lastly, DOG provides another initiative for citizens that they can reuse the information for developing new visualizations and applications. This enhances the overall accountability of the government would discourage the public administration from facilitating the DOG in Kuwait.

Thereafter, the researcher took into account the emerging codes in data concerning CA consequences. For explaining the findings, the researcher first presented the summary of characteristics of the CA consequences phase and compared them with the characteristics found in the conceptual framework. Thereafter, the researcher provided an explanation concerning each characteristic in Table 6-1 by employing the data illustrating each phase of the CA process. It is also identified that there is extra accountability within the system with discussing the professional to participate for the implementation of digital open government; therefore, there is

a fair punishment and reward system required parallel that could improve the trust of the professional to participate in the implementation of digital open government in Kuwait. It is also identified that social media has been used for the public to raise their concern about the digital open government, but this complaint has been taken very strictly by the government, which is hurting for the professional so therefore there is a balance required to deal with the public complaint and to deal with the professionals very transparently that would improve the participation of the public and professional together that would lead towards the collaboration at institutional level in Kuwait.

6.7   ANALYSIS OUTCOMES BASE ON THE CITIZENS' PERSPECTIVES
In this section, data gathered from the perspective of citizens is discussed. This section is divided into many sub-sections in accordance with the theme of responses to the qualitative questionnaire.

6.7.1   Public Perception about DOG
The aim of this theme is to obtain an idea about how citizens perceive government websites as well as online government IS (information system).   (P_8-10, P_20, P_17, P_25-30, P_15 and P_5) stated that their first experience with government websites was quite good, but it required a long process to gain the required information, so most of the public are not all that educated, and they lack the skill to get the information. According to respondent P_15,

> *"Using government website is quite convenient, and it carries all important information about products and/or services of the government".*

On the other hand, (-24, P_18-19, P_16, P_11-14 and P_6-7) commented that using government websites is not as much convenient as they are expected to be.

Table Accessibly issues of the DOG

Participation	Quotations
P_21	*" My eye side is weak I cannot get the read what they wrote their"*
P_22	*" I am not educated, so I cannot use the website."*
P_23	*"I cannot see properly, so I always ask my son to user the government websites if I need, but I cannot trust him."*
P_24	*" I am blind to how can is using the website so government should offer listing tab on the website."*
P_18	*"My right hand is not working, so how can I use mobile or computer."*
P_19	*"I don't have my hand, so how can I use the government websites."*
P_16	*"I cannot use the compute, so what are the benefits for me of online government services."*
P_15	*"Can you tell me how many people understand the online government services"*
P_6	*"I am sure the online government service only for educated people we have to spend time in offices to get the things done."*
P_5	*"There is nothing to get online if we need a passport. We have to visit the office."*
P_4	*"There is nothing useful on the government website. It is very complicated."*

Similarly, respondent P_2 highlighted that.

> *''absence of logical division amongst different sections of website and multiplicity of key headlines are major limitations that have been observed in government websites''.*

According to respondent P13,

> *''text font in government website is very small that makes it difficult to easily identify search option, also identifying the descriptions about citizens` right is difficult on the government website."*

In this regard, respondent P18 commented that

> *"There is lack of government`s obligations on government websites with respect to DOG functions and e-processes".*

There are many perceptions about the DOG from the perspectives of citizens.

6.7.2   Public Trust

The general attitude of citizens toward the Kuwaiti Government is an important feature of trust that citizens have in DOG, as less trust in the Kuwaiti Government will create distrust amongst

citizens towards DOG. Therefore, including a general question about citizens` trust in KUWAIT government is very important. Many respondents, particularly (P_28-30, P_26, P_20-24, P_15, P_10, and P_1-8), showed little trust in the KUWAIT Government as well as the delivery of services it offers. Respondent P_1, for example, commented that

> *"I have some level of trust in Kuwaiti government and the way it delivers its offered services to people".*

> *"government is too much talking what we can get online from the government nothing" (P_11).*

Moreover, the respondents P_9asserted that.

> *"we perceive both Kuwaiti Government as well as delivery of its services as trustworthy".*

On the other hand, the respondents (P-1) expressed their views as

> *"We trust both KUWAIT Government and delivery of its services only under some conditions, i.e. if Kuwaiti Government provides its services professionally, transparently and according to citizens` expectations".*

> *"I cannot trust the government employee regarding my information" (P_4).*

> *"I don't trust on the political people they just talk, but there is nothing you can get online from the government" (P_2).*

From all aforementioned comments, we can observe a clear difference in respondents' trust at some level. Almost all citizens showed their lack of trust in the ability of the KUWAIT Government and the credibility of its services, at least to some extent.

6.7.3   Competency
This theme aimed at eliciting citizens` views about the capability of KUWAIT government websites in terms of presenting information in a direct and simple manner. From theme responses, it is revealed that respondents (P_21-24, P_18-19, P_16, P_11-14, and P_6-7) do not perceive government websites as capable of displaying information in a direct and simple manner. These respondents also believe that structure of government websites is not as much convenient as it should be. In this regard, respondent P_7 commented that

> *"I personally dislike the way through which government website displays the information. Also, it is not convenient to use due to its complex structure".*

The respondents highlighted that government website encompasses various templates; resultantly, information is displayed in different blocks. In this regard, respondent P_11 commented that

> *"due to multiplicity, the headlines are not systemised or in a logical order that makes it difficult to seek out necessary information".*

Similarly, respondent P_6 criticised the Government website by stating that

> *"unavailability of "News" tag makes it hard for new visitors to search out headlines or other news."*

Similarly, respondent P_7 reported that

> *"finding "Search" tag is quite difficult on Government website".*

Making search options quite visible is very important because the majority of the visitors generally search out certain information on Government websites instead of just online surfing. Respondents (P_25-30, P_20, P_17, P_15, P_8-10, and P1-5), on the other hand, took a lenient position and acknowledged that regardless of its imperfection,

> "Government website still contains all necessary information that is needed for effective service delivery" ((P_14).

Likewise, respondent P_5 commented that

> *"though I do not perceive Government website as a perfect one, however, I can easily find my required information on it".*

According to these citizens,

> *"Terms of Use" tag can be made more visible by displaying it at the peak of the webpage" (P-9).*

While evaluating the Government website, respondents (P_25-30, P_20, P_17, P_15, P_8-10 and P_1-5) concluded that the Government website contains all necessary information, but it is hard to find where are this information can be founded. Amongst various benefits, these respondents highlighted the presence of a directory of government services, a directory of government agencies, a Digital pay directory, government initiatives and projects directory, bylaws and acts, FAQ, news and other valuable pages.

6.7.4   Information Quality

This theme is aimed at determining how the quality of published information over government websites is rated by citizens. In this context, respondents (P_18-19, P_16, P_11-14, and P_6-7) commented that the way the Government website polished the information is clear and simple, however, not qualitative all the time. These respondents highlighted the following key advantages of published information over government websites:

(1): complement the information with relevant images and photographs.

(2) Possibility of listening to certain posts.

These respondents considered the accuracy and simplicity of posts as two main criteria of quality of information.   Respondents (P_25-30, P_20, P_17, P_15, P_8-10 and P_1-5), on the other hand, expressed their opinion as "it is appropriate to measure the quality of published information over Government website through nature and existence of sources on which this information is actually based (i.e. authenticity of provided information), rather than through existence of additional functions (e.g. listening options) and evaluation of text structure. These respondents substantiate the posts over Government websites with high-quality sources.

Respondents P_17, for example, highlighted that

> *"wildlife and environmental directory enclose important information about*
> *environmental legislation, wildlife preservation in KUWAIT, environment health*
> *and Wildlife Fund in Kuwait".*

The same respondent further claimed that this information on the Government website is substantiated that can be verified through reliable sources like the Ministry of Rural and Municipal Affairs, KUWAIT Wildlife Commission, Intergovernmental Panel for Climate Change, UN Framework Convention for Climate Change etc. He considered this information as a high-quality source due to its base over official sources. Additionally, links to the above-mentioned sources are provided on the Government website.

6.7.4.1 Sound information

Based on findings, sound information is defined as the information, which conforms to particular quality standards like completeness and accuracy and contributes not only to use but also to user satisfaction. Moreover, it has a close association with net benefits and system use, more than other influences and criteria of adopting government websites (DeLone and McLean, 1992). Many participants viewed sound information as a condition to provide efficient and timely services. In the text, multiple segments have highlighted how much sound information is important in relation to strategic benefits. Many participants moved beyond the association between information quality and strategic benefits while discussing the association of sound information with organisational performance. According to some participants, sound information may increase DOG services utilisation and may also improve the image of the institution.

6.7.4.2 Accuracy of information

While making discussion on quality of material and information provided on government websites, many participants perceive it as of good standard and accurate and have potential to enhance their business objectives and goals. A significant improvement has been observed in the accuracy and soundness of material provided on the Government website that, in turn, lead to increase users` reliance and confidence over government information. The following quotes show up the perception of one participant about information accuracy and its importance.

> *"A considerable improvement has been observed in level and quality of information that is available on government websites. Since the accuracy of this information could not be faulted, therefore I always find it quite reliable whenever utilise it in order to pursue my business goals" (CMKST_1).*

The government department is making efforts to ensure the creation of reliable and accurate information to fulfil the businesses needs within the economy, and all participants appreciate these efforts. These efforts appear to yield a good image and good results for the government. In this context, one participant recorded his responses as:

> *"We are very satisfied with getting high-quality information from government websites as this information has facilitated us in achieving our businesses goals and moving our businesses forward" (CMKST_2)*

"Since we are well-aware of how much accuracy and reliability of information is important in government, therefore, we focus more on production and delivery of high-quality information through our websites to fulfil our clients` need in their different endeavours" (CMKST_4)

Government officers are focusing on having such quality information that complies with standards of quality and can fulfil the customers` needs. It was pointed out that the Kuwaiti government is concerning much about the bad quality of provided information that is generally linked to government websites as well as its services because it adversely influences business users.

"Conforming to information quality standards is very important because only the information created and provided in this manner will be benefited for our customers. That is why; we are making efforts in this direction" (MOI_1)

From findings, it is revealed that the government is making efforts to ensure the production and delivery of accurate information in sufficient amounts and with enough details so that users can e assist in their relative business tasks. These efforts aim at enabling the users to have comprehensive and detailed information in any area of interest and ensuring that nothing is negligently missing or intentionally kept back. It was observed that these efforts enabled business users to effectively and efficiently execute their tasks by meeting their needs.

"Having sufficient amount of information contributes to make you a perfect organisation able to make appropriate decisions, handle the prevailing circumstances and continuously changing needs of customers" (MOI_5)

"Complete information facilitates us in answering our clients` questions effectively and quickly. It also facilitates our staff in performing quickly so that timely, better and accurate services can be provided to clients" (MOI_2)

Many participants have also acknowledged the importance of sufficient and complete information in the provision of cost-effective and high-quality services to customers. It has also reduced the costs and time delays of obtaining necessary information that is normally obtained by visiting all governmental departments and following the staff of the concerned department. Relevancy, interpretability and objectivity of information published on government websites were key issues raised about product quality because these determine whether the information is useful.

Many participants showed their concerns towards the objectivity of provided information. They believed that the government is making efforts to provide complete information; however, there may be doubt about its unbiased nature. Participants expressed their opinion that the information given out by the government may have been specifically doctored to suit the government's best interest and to project the governments` image. This created the fear that the government is providing information without prejudices, impartiality and bias.

> *"We have confidence in the accuracy of the provided information and will prefer it even if actual information is not replaced with opinions and interpretations of government about the situation" (MOI_4)*

Using product quality with respect to appropriate languages and symbols to improve easy interpretability and understanding is commendable. As the official language within the country is Arabic, that is why information is translated and provide in that language. Through the utilisation of familiar symbols, meanings of sensitive information are preferred to interpret. The purpose behind emphasises such interpretations is to provide the users with the required information at home and make them feel comfortable with that information.

> *"We are well-aware of our societal demands and culture as well as their required information. Thus, we maintain the standards, which are used nationwide and nationally accepted" (MCIT_2)*

6.7.4.3 Relevancy of the information

Some participants also identified the issues related to information generated to help out the organisation in the execution of their business tasks. According to participants, much of government-provided information is irrelevant to their businesses, thus, are not applicable.

> *"The obtained information is often found irrelevant to both our business and to general businesses as well. Sometimes, the government tries to produce information overload through information junks just to filter most relevant information that is costly and time-consuming to many businesses" (MCIT_5)*

The purpose behind designing this sub-theme was to highlight information quality as a service offered by the government website. Through findings, it is also revealed that the majority of participants were concerned more about the quality of provided information as a service in relation to security and authenticity of information source, and the manner information is timely

released. Moreover, the analysis highlighted Information Security as an important precondition for making DOG able. Many interviewees highlighted that it is very important to timely share the information between receivers and service providers in order to fulfil basic security requirements, including integrity, availability, control and confidentiality. Timely and secure information was also correlated with communication ease and cost reduction by many interviewees—some other interviewees associated insufficient security with an increase in users` complaints. Similarly, the interviewees working at managerial posts observed that both receivers and providers of service are sharing mutual responsibility to guarantee that there are sufficient measures of information security in place.

6.7.4.4 Employee's attitude

The study also highlighted the fear of provision of modified, unconfirmed and unauthorised information or unauthorised filtering. The efficiency of sharing information amongst different government departments was also doubted. The possibility of withdrawing valid information or introducing fake information also raises doubt regarding the dependability of presented information.

> *"Attitude of government officers and the adopted information-sharing approach by the government fails in convincing us about the government websites ability to provide dependable and secured information" (P_1).*

> *"We are highly concerned about integrity level of information that we daily utilise in our businesses because our competitiveness within industry heavily depends over it. Therefore, we become much worried on noticing the absence of cooperation amongst different government units and security lapses within information sharing process and other processes" (MOI_3).*

Many participants agree that the provision of secured information is as much important as the provision of information in a timely manner and in its present state is important because it provides quality of information dependability. It has also been observed that the absence of cooperation amongst different government units may lead the processes to slow down and may also cause interruption between the time when the system receives the information and the time when it is delivered to customers.

*"Time is the spirit of our business as we very much rely upon real-time
information about events, but there are issues to get timely information because if
do business, so I know how much it's hard to register a company in our country
and how much hard to find required information " (P_2).*

The purpose behind designing this sub-theme was to highlight users` perception about the credibility of information, provisions that are made to increase effective and easy access to available information and the reputation of the information source. Participants were concerned more with value-added potential, believability and accessibility of information. Users prefer to use that information, which is beneficial, reputable and believable. Regardless of the possibility of system infiltration and unauthorised alteration by unauthorised persons, many participants perceive the information published over government websites as credible and true. Perception about the security of information systems and government efforts to increase information quality convinces the majority of participants about the credibility of source and information.

*"Introduction of modern technologies and government`s obvious efforts have
assured not only us but also critics that information provided by the government
is believable, so the government need to get the private organizational trust to use
the provided information" (MOI_5).*

6.7.4.5 Accessibility

Time features of data accessibility and ease of information attainability are also major concerns. Participants highlight that having access to required information whenever it is required makes the available information more useable. The required information is mostly available and can be quickly and easily retrieved by users most of the time. Government websites should be well-designed with help and guides to improve quick access to and direction of information. Users also found search engines quite helpful in finding fast and easy access to required information.

*"Websites put no restriction on access to the provided information and allow the
users to retrieve the information for their use" (CMKST_3).*

*"Government websites are well designed in order to ensure fast-tracking of
required information" (MOI_2).*

*"I am sure the public is not aware that how much easy to get the information from
public websites" (MOI_1).*

The public organizational official believe that the government website is easy and accessible, but the participant believes that the government had a very long process when we required information even we cannot get if we required anything from the government website. As some participants from the public claimed as

> *"For example, I need my medical record. I cannot get it from the government website" (P_8).*

> *"if I need verification of my degree, there is no way to do this" (P-23).*

> *I applied to Canada for study, and they ask to send my certificate to the universities, but I could not do it timely, so I went to study in UK (P_13).*

Many participants mentioned the expectations they have not achieved and were not satisfied as claimed by the government officials they could not gain on using the information available on government websites. Information of high quality should be helped the users in fulfilling their obligations towards their customers that in turn facilitated in achieving business objectives and targets. Therefore, the participants not agreed that utilisation of provided information was very beneficial as it added value to their businesses and personal use.

> *"We are not very satisfied with high quality of provided information because it realizes our expectations" (P_25).*

According to many participants, the provision of value-added information increases the usage of DOG and enhances customers` satisfaction. Interviewees having no managerial responsibilities highlighted believability and accessibility as key enablers to enhance DOG adoption.

> *"We can increase customer satisfaction through the provision of value-added services. Such services also improve our communication with clients. Provision of credible and unbiased information will also bring numerous benefits both for our clients as well as for our partners" ((CMKST_5)*

6.8   SUMMARY

It has been identified in this section that public perceptions are negative against the dystopian government and create because they believe that their data will be stolen that hurt their trust level in the open digital government. Additionally, it has also been identified that there is a lack of competency of the public and there is a complicated digital open government which make it difficult for the citizen to use online services which required institutional level efforts to make

the system user friendly for them that would lead towards the higher participation of the public. But the most important thing is to improve the public trust in the system that would also lead towards the participation of the public within the system. Additionally, it has also identified that there is an issue of information equality because the citizen claimed that they couldn't find whatever they try to find, but there could be two points need to consider for this the first point is lack of competency of the citizen and the second point is that the complication of the system and the complication of the information which is required by the citizen. Additionally, it has also identified that there is a lack of competencies of employees who are not helping the public to get used to them with the system; therefore, there is also institutional level training and development required for their staff that could lead towards the improve the quality of the services for the public which can improve the trust and perception of the public against the digital open government and create that will lead towards the germination of the values for the public an institution together.

6.9   CHALLENGES TO ADVANTAGES OF HIGH-QUALITY INFORMATION

In addition to recognising the advantages of high-quality information, many interviewees also observed some issues that may reduce the benefits which quality information may *b*ring out. Social and cultural influences are highlighted as key issues amongst all. Additionally, there are many other problematic factors that can limit the benefits, such as resistance towards change and inadequate expertise. For instance, managers from A1 organisation and A3 organisation respectively commented that:

> *"Having more knowledge about DOG is very important for our society. If you inquire the people in the street about DOG services, you will surely find nobody having knowledge about it. In my opinion, raising awareness amongst people about DOG is essential before realising its benefits" (CMKST_1)*

> *"Within our society, connections (Wasta) have an unseen force. Though we have sufficient sources to yield maximum benefits from DOG, however, Wasta makes a significant contribution to hinder DOG initiatives" ((CMKST_4)*

> *"Sometimes inadequate expertise may not allow the citizens to access to DOG services whenever they required them. Insufficiency of in-house technical skills can generate difficulties and may also result in the creation of costly solutions. Employees resistance towards change may also act as an important threat to DOG projects" (MCIT_4)*

Many interviewees viewed social and cultural influences as an important stimulus that may have a different negative or positive impact on the adoption of DOG while public participants are happy with the quality of the information, so we can say that there is a difference in digital government-provided services and expectation of the public from the digital government. From interviewees` responses, it is revealed that some interviewees have started to use DOG services just because their colleges were using them and they have awareness about them, so they are bit satisfied while other raise concern of privacy, quality and accessibility of the service on the website. Other interviewees, on the other hand, reported that they have lack of expertise to utilise DOG services, therefore, have no interest in using or getting help regarding how to utilise these services.

6.9.1   Immediacy

The very first consequence that is discussed in this report is immediacy in the context of the Kuwaiti government. It has been identified that there are issues of the immediacy to contact with relevant authority or individual which is raised by both government department and the public as (CMKST_3) stated as

> *"This mainly checks whether consequences occur immediately after a decision was made or there may have been a delay in such an event. For instance, when a candidate is voted for in or out of the office, it usually takes up a certain amount of time to enact (such as 4-year term), whereas an employee working in a bureaucratic system can be fired on an immediate basis".*

> *"In Kuwait, reward practices related to informal rewards and sanctions by citizens are revealed on social media as they are enacted. This is called a virtual consequence because this type of consequence does not occur physically but virtually. The aforesaid consequences are linked immediately to the timeliness, which is a central aspect of platforms that are enabled by ICT" (MOI_5).*

> *"People rarely acknowledge their level of satisfaction on public platforms when they are satisfied with a product or a service. However, in case of dissatisfaction, they like to publicly shame immediately, which is quite unfortunate as Kuwait centralized political climate is concerned" (MCIT_4)*

The quotation marks demonstrate the government official perspective regarding informal sanctions and the level of immediacy regarding the same via ICTs. There are several participants

who claimed that rewards and sanctions are posted immediately after feeling satisfied or dissatisfied with behaviour, action or city service, while our management and employees cannot get extra rewards on the basis of the public feedback.

> *"there should be public feedback system so the good working employees should be rewarded" (CMKST_2).*

> *"I would like to suggest that the government should allow us to give direct feedback about the different managers and employees that could facilitate the reward and punishment system immediate and accurately" (P_2).*

> *"I would like suggested there should be an ominous system for the employees for their manager that could improve the management behaviour to improve the fair working system in the government" ((MCIT_5).*

> *"I capture care which was parked on the wrong place, and I have reported it online, but the policeman came after five days once the car has gone from there. Therefore, I suggest that there should be an immediate response that could tell us that someone is there to listen to us. Otherwise, it is a waste of time" (P_3).*

The above example of immediate consequence for management and public to give feedback about the employees that could facilitate the reward and punishment system through digital open government system in Kuwait. In addition, there was an instance whereby a citizen had captured a moment with the camera phone related to a parking space misuse and posted it online along with the complaint. It was moments later that other citizens also expressed their disappointment regarding the matter. These platforms give opportunities for immediate submission of such an informal consequence. (Bovens, 2007) claimed that consequences could either be formal or informal in nature. Arguments presented by (Meijer and Schillemans, 2009). stated that citizens of CA have no power of submitting any kind of formal consequences. Their only option is to register informal consequences with their own voice or not put up with it at all. The aforesaid issue was discussed in the literature as well. The following sections include an analysis of informal modes of rewards and sanctions that are present during analysis.

6.9.2   Informal complaints system

In social media as well as in interviews, there were so many instances whereby employees working in city administration are appreciated for their good performance in providing or

handling problems. The following statement shows the recognition of social media usage by a citizen posing informal rewards to city officials.

> *"Getting a compliment on social media by a citizen saying a good job last night once I have seen that one person said appreciate your efforts, which shows how this could be a source of informal reward for the employee but it believes that there should be official plate form to get feedback for each employee individually " (MOI_1).*

This illustrates virtual forums along with instances whereby citizens appreciate citizen engagement opportunities on social media, so if government have an online feedback system about the employees, it will encourage service quality improvement, rewards and punishment culture in the organisation of the bases of the public satisfaction. There was a very interesting instance happened with the government official

> *"one of our garbage collectors witnessed a little girl taking out their soothers, being at an age where she didn't realize their value and in a view that she might not need it anymore, she was bringing it out to discard. The operator, seeing this, came out of the vehicle, took his time to search through it and helped the little girl realize that these things are far more valuable to be thrown in the garbage. Moreover, the interaction between that little girl and her mother was quite amazing. Had it been all fiscally driven, the driver would have been penalized in a way that he was not productive from a productivity point of view. However, if we look from the relationship and service perspective, the operator did an exceptional job, which is why this type of gesture is highly appreciated as we get a lot of feedback on our social media. This means that if this issue was handled fiscally, it would have been a wrong decision. However, not everything should be treated fiscally, which in this case turned out to be a great decision. {Sina: Did you notice this on social media?} This is exactly the reason why this was highlighted. The mother initially posted on social media with an exceptional shot of Eric (the operator) and the kid, after posting it went viral, but there are not government officials who can reward them immediately for such great efforts of the public and government officials (CMKST_3)*

It was indicated above that citizens can use ICTs to pose informal rewards towards staff and city officials. Moreover, it also suggests that comments can also be used to assess staff behaviour that could lead to staff improvement in public offices through evidence bases practice through digital government.

From the above discussion, it became clear the government officials do not have any kind of obligation to formally report to citizens regarding their conduct. With the incorporation of social media in the modern age, the citizens are provided with the opportunity to directly desire information from the government official about their conduct. One of the examples is stated below whereby the government official found that it became necessary to respond:

> *"there was a question asked to me about my attendance in a meeting as to whether I was present in that meeting or not, despite the fact that he already knew the answer to this question. Minutes of the meeting was posted online on Twitter after the end of the meeting, showing that I was absent at the time of the meeting, which I believe was a cheap shot. The main purpose for doing this was to let the person's followers know that he was being questioned for his attendance. Moreover, what they wanted me to answer this question publicly to answer why I was not present in the meeting. Currently, the meeting has now been available to the public, which kind of makes it political. In the same meeting, five of the members left the room, which also adds to the political aspect of the meeting. I was being forced to take accountability, but it was never about this. It was very much difficult (MOI_3)*

In this instance, information that is available publicly is demonstrated in other formal reports to start a debate virtually, but there are not any organizational policies to share these types of information which could become organizational and personal conflict at a late stage. As it is very clear that participation perceives that posting questions publicly on social media means that citizens desire accountability from the institutions, but there is not any platform that can officially use this feedback and views of the public to improve the services. Furthermore, this study also suggests that ICTs are suggested to be used for posing informal consequences to elected officials.

> *"if the citizens are dissatisfied from our service that they were provided with or they are dissatisfied from the response that they got or they hate politics, then nothing can be done formally except they can make our lives a living hell with social media which is getting popular day by day. I have noticed so many people who are not happy with the service talking on social media about their disappointing experiences. There are no options for citizens to take their anger out on the councillors except for voting him out after their four years of service in office, which is the biggest sanction there is for them. Maybe they can go for legal recourse, call the integrity commissioner if there is any violation of conduct, or they can directly complain to the mayor for opening up an investigation. However, even after finding someone guilty except a criminal activity, nobody*

loses their seat for it, and the option would be provided to that person whether to leave the seat or not" (MOI_1).

The above statement was in reference to the manner in which citizens utilize ICTs for informal complaints. From the interviews, the most significant reward for councillors is that their re-election would be in the next election. The citizens can also use ICTs for informal complaints. This will induce a sense of obligation to resolve with the help of virtual debates. Especially in cases whereby citizens complain about their conduct, there is a sense of obligation felt by the government to include the issue in their debate that could lead to a response from social media through comments or blogs that could initiate either in favour or against. It could affect the public trust negatively in the government and political system, and it could move toward internal or external conflict because of the public debate on social media. The statement below clearly demonstrates the difficulty felt due to the incorporation of modern technologies. However, they do sometimes feel the necessity to address an issue faced by a citizen.

> *"To address each and every comment is quite a lot of work for the public office, so we must have public and government open platform where the public can make their complaint. The problem is not by the public putting stories with negative and false information in it, but the fact that people believe in it that effect the public turs on us. It is very complicated to address such as issue and seems like every town has at least one of this type of thing because I've heard from a lot of colleagues over the phone" (MOI_2).*

Virtual consequences are ways in which civic administrators reach their audience and get their feedback, and they can increase the pubic and organizational collaboration to facilitate the implementation of the digital government in Kuwait. There are instances whereby feedback showed lacks in performance which can lead to an investigation if it seemed valid and authentic, but there should be a fair, trained prance and accurate feedback system.

> *When an issue involves performance lack or service lack, managers are more inclined to take it seriously. Every post might not be relevant, which is why the city has the policy to remove if there is no authenticity to the post (CMKST_3).*

> *"the post will be deleted by the city if there is no basis for it, and it violates the social media regulations, so where is the organizational policy for this? Indeed, we don't have it. In case if the post cannot be deleted, the city approaches the user who posted and ask them to refrain from such disrespectful comments, which is unfair for the public and misuse of the power from the government official. In other cases, managers jump on the employees without doing an investigation of*

the news. Therefore, I believe that there should be an accurate feedback system in digital government that could reduce the conflict level and it will also improve the internal and external collaboration (MOI_3).

"In platforms such as Facebook or Twitter, the city is not able to delete a post, where they would contact the creator in order to request them to delete it, which can create another conflict or misuse of the time or authority" (MOI_3).

Summary

It has been identified in this section that there is a complicated system for the complaints and getting feedback from the public, which is delaying the quality improvement of the open digital government and creation. As it has been mentioned by the employees that there is a lack of immediacy to get their managers to take prompt decisions, and there is a lack of feedback within the institutions, which negatively impact the decision making within the institution. Consequently, this research suggests that the government should improve the feedback system within the institution, and there should also be a feedback system to get the public opinion on the digital open government system of creating consequently that would lead towards the improvement of continuous quality of the open government and create. Concluding the virtual consequences aspect, data showed informal rewards and sanctions being used on social media and ICTs, which has now become quite common. Many individuals are now sharing their experiences, positive or negative, on social media platforms and reaching the corporate actors such as administration with the help of raising their own voice.

It has also been mentioned by the professionals that the feedback should be divided as per their objectives, but currently, the institutions have a centralise feedback system which is very complicated to analyse the data to make the final decision for the improvement of digital open government. Furthermore, they can comment and provide feedback to the corporate actors, and in this way, they can learn from the experiences of citizens on how to improve or enhance their services. But there are not any organizational policies to deal with these types of public feedback. Therefore, it would be recommended that the government should offer a digital platform for the public or should offer a digital feedback system that could improve the trust, collaboration and confidence of the officials to deliver the service without any extra fear of the public.

6.10 CHAPTER SUMMARY

The current chapter includes the discussion on findings from study work carried out with DOG citizens and three Kuwaiti government organisations, as well as analysis outcomes from employees` perspectives of selected organisations for current research. This discussion was conducted with the aim to highlight the research aim and study scope and to determine the need for professionals and policymakers who are responsible for implementing DOG platforms. While conducting interviews, the researcher adopted a semi-structured approach in order to conduct a direct assessment so that the issues can be fully explored that were raised during the interviews. Basically, the aim was to provide interviewees with an opportunity to express their feelings towards the implementation and design of DOG on the basis of their professional/personal perspectives and views. Interviews were recorded so that sanctity of collecting qualitative data can be preserved. Before analysing the conducted interviews, a detailed discussion was made on qualitative analytical methods adopted for current research. The discussion included detailing how to apply it to examples and outcomes of past research, which has adopted this framework. This chapter includes the qualitative data analysis, results of analysis on the basis of organisational employees' viewpoints, perceptions about DOG, the transformation from traditional government system to DOG, policies Ambiguity, the adoption level of DOG, ethical policies of the while implementing DOG, accountability and transparency, information Security, analysis outcomes on the base of Citizens' perspectives, public Perception about DOG, Public Trust, competency, information quality, challenges to advantages of high-Quality Information, Immediacy, and the informal complaints system.

CHAPTER 7: DISCUSSION

7.1 INTRODUCTION

In this chapter, research findings are discussed along with results from the fieldwork that was presented in the previous chapter. The focus of this part will be on explaining research questions that are on the basis of research outcomes. This chapter provides a greater sense of understanding towards research findings by employing institutional theory lenses to explore the issues in the context of DOG in Kuwait. This approach will critical and cooperatively discuss findings of research from a theoretical perspective and helps in formulating an integrated model for supporting DOG in Kuwait.

7.2 CITIZENRY GAP

It is observed that there is a prevalent gap between employees and citizens as far as digital government implementation are concerned, which contains output and benefits that are provided to citizens. It has been observed by one of the interviewees that there is no awareness among citizens regarding DOG implementation advantages and positive changes. Furthermore, it is observed that the term 'normal process' was used quite often in the interviews. There are no essential characteristics in digital government that dominate the normal process framework. DOG will only be considered effective if it gives as many benefits as the normal process to improve the trust of the citizen that will improve their participation in DOG. Organizational performance is described by management theorists as comprising multiple factors. Part of it includes the organizational ability, such as that related to harnessing different resources, whereas part of it involves psychological factors such as motivation and satisfaction, which influences the efforts for pursuing a specific objective (Goodale *et al.*, 2012). Much of the research work on e-participation focused on the capacity and resources aspects with little attention to institutional design, transparency, culture, and political structure. Since there is considerable discretion on the part of public managers for structuring the opportunities of involvement, a number of models have emerged to highlight the factors which can be paid heed to while encouraging the involvement of citizens in the decision-making process (Yang and Callahan, 2007). Such models are intended to guide the public managers to increase the participation of the citizen through improve the transparency and trust in DOG.

The normal process basically means the traditional government process. There are indications that citizens might not adhere to the adaptation of the new e-system, and the purpose of government to enhance their communication and services will not be attained, provided the existing societal and government outlook. This perspective holds much importance in terms of implementation, maintenance and future development of e-system. If this project is not able to fulfil its fundamental objective, which is to close communication gaps between citizens and government, then there will be questions raised regarding the funding of this project which might hinder its future growth(US, 2011). It has also been discussed that public managers also need to change their behaviour to encourage citizens to participate in DOG that will lead to increase the public data. (Ganapati and Reddick, 2014) observed that when public managers witness the advantages of implementing a certain action, e.g. open government, they then derive satisfaction from the successful implementation of such initiatives. However, still, there is a lack of motivation of public managers for enhancing e-participation and how such willingness affects the opportunities of e-participation in different jurisdictions. Such information is required for giving a balanced picture of variables that influence the opportunities of e-participation, while it has been identified that public managers are being discouraged by the political structure of the country. This, therefore, highlights the necessity and relevance of research in this regard to highlighting not only the benefits of e-participation but also understand the discrepancies related to the perception of administrators concerning e-participation.

(Ganapati and Reddick, 2014) called for research on elements that affect the willingness of administrators and citizens for engaging in or offering opportunities related to e-participation. Political scientists are keen on analysing the engagement of citizens in political and social activities. This can be highlighted as such activities which have the effect of influencing the action of governments either in terms of making of public policy or implementation of such policy (Milbrath, Portes and Bach, 1965). The literature has highlighted the reasons behind some individuals becoming involved in such activities while others do not do so. The most popular explanation is the resource approach given in traditional literature. This reinforces the idea of political and social participation as an activity involving some costs in terms of money, time, and energy, among other elements. Thus, people who possess abundant resources are likely to engage in activities as compared to those with limited resources (McCarthy and Zald, 1977). This

approach is different from existing theories on the subject, which argued that grievances and deprivation were the forces explaining political and social engagement (Belanche, Casaló and Guinaliu, 2012). Moreover, the resource approach has increased the ambit of existing literature on the subject by taking into account the engagement in activities not only by the ones who are to be directly benefitted by such activities but also by individuals who support such goals even though they are not directly benefitted by it. Thus, the attention under resources theory is drawn towards the fact that resources for participation are found in society at large. There are four types of such resources in society to explain political and social participation. Therefore, in such instances, only those with stable income are able to engage effectively in social and political participation (Milbrath, Portes and Bach, 1965; Milbrath and Goel, 1977; Rosenstone and Hansen, 1993). earlier found out that people belonging to the elite class were likely to actively participate in social and political activities compared to the ones belonging to the lower class. Research in this area has affirmed the positive relationship between participation and individual characteristics such as education, income, employment status, age, marital status, and area of living. Nevertheless, it is imperative to point out that this controversial approach has been questioned by some recent research, e.g. conducted an extensive literature review highlighting the evidence of the fact that democracy is valued equally by those who are living below the poverty line and they also participate in the democratic process as it is not limited to rich people partaking in it only ,(Safarov, 2019) states that the participation in democracy by poor people reflects the support the democratic processes have regardless of the income background of the person, but it has been found that the people who are living in rural areas are not well aware and they lack compatible devices, knowledge, and awareness to use the digital government services.

(Uslaner and Brown, 2005) observed that income inequality also causes lower participation levels. However, people from low-income backgrounds do not differentiate between civic participation and political participation. Different researchers also pointed out the stratification in political and civic participation depending on education, class, and income. Those who are rich have more resources and are likely to incline towards engaging in political activity. The minority groups also see little benefit to derive from participation. This is true in respect of both the ethnic minority and the racial minority. This is because they are part of a dominant culture, and as such, they choose different types of political participation (Rahn and Rudolph, 2005). The division

between urban and rural populations also gives rise to the difference in participation with respect to the two (Paczynska, 2005). Participation also gets affected by the difference in voting patterns and ideological differences. Another concept that is gaining limelight is that of the digital divide. This suggests that the access to digital technologies is not uniform, and as such, the participation in open government is unequal. Access to digital technologies is unequal on the grounds of income, age, education, and (in some countries) even gender. Nevertheless, the researchers do acknowledge the wide reach of ICT enabling more people than before to partake in open government (Willis and Tranter, 2006).

Nevertheless, an updated review of the traditional resource approach is required for deep insight into e-participation for incorporating internet-related resources. That is why different researchers highlighted the fact that specific resources are required by new media to be able to partake online argued that one could not talk about the effect of the internet on political participation if the citizen does not have the skills to find relevant information online , (Huijboom and Van den Broek, 2011) observed that there are four skills that are required on the part of citizens for them to be able to access the public information and services online. Figures from Pew Research Centre showed that there was a notable growth of political activity online on social media platforms between 2008 and 2012 (Nunkoo, Smith and Ramkissoon, 2013). Nearly 40% of the Americans in 2012 engaged in some type of political participation through social networking websites. The evidence is also little on the impact of online public administration on the e-participation level of citizens. Thus, an individual who resides in an area where regional/local/national authorities have profound measures of e-participation citizens would be likely to partake in e-participation as compared to the areas where such tools have not yet been introduced.

There are gaps in terms of trust and knowledge that have been identified among citizens. Every citizen has a different perspective towards government activities and different expectations; thus, such gaps need to be assessed initially so that professional ethics and information trustworthiness can be discussed later. Additionally, it has found that citizen is not aware of the digital government advantages and the use of different digital government services. In addition, the issue of end-users is to be brought closer with the technology experts, government officials, and other participants that can incorporate technological change. This incorporates awareness of the

potential benefits of this new system among employees and the public and the fact that they become in favour of its implementation. There was an employee who claimed that DOG lacks such characteristics that have dominance over the normal process's framework. Therefore, it is crucial for government officials and policymakers to first gain an understanding of traditional government process characteristics, which include the way in which citizens engage, file complaints, provide feedback and ensure that all such characteristics are present in the new DOG system. This means that if these elements are not present in the new system, that it most probably will face failure.

The first type of resource could affect the participation of the citizen. That represents the individual resources & socioeconomic characteristics such as gender, age, income level, education level, and employment status. Such factors highlight the position of a person in the framework of his economic and social relationships and hence determine the extent whereby he is able to access the information and is able to develop requisite skills affecting his participation. Therefore, if an individual has more resources, he is likely to take part in social and political activities. The key resource in this regard has been identified as the income of a person since such participation is sometimes referred to as luxury goods such as by. These include the operational skills so that they can operate the media; the formal skills so that they are able to handle the media; the informational skills so that they can select relevant information; and strategic skills so that they can use the information they are looking for to achieve particular goals. Much of the attention in this context has been paid to the role played by digital skills. Researchers argue that digital skills are the most critical set of skills to explain e-participation. Therefore, the higher the level of digital skills, the higher the probability of an individual to partake in e-participation. While the focus of the resource-based approach is on including digital skills as pivotal resources for explaining the phenomenon of e-participation, little attention has been paid to other forms of resources. For example, the political interest of the individual is generally proxies by his watching of current affairs programs, reading news, accessing information offline, whereas the probability of online news is not taken into consideration. In the same way, the role played by social networking websites as a group resource and its impact on e-participation has also not been looked into.

The second type of resource is associated with political attitudes and views since these highlight the preference of an individual about public issues, which can influence an individual's decision about participating in the democratic process. In particular, participation is regarded as linked with the political interest of a person. It is also related to one's knowledge on political issues, their views about responsible citizens, their satisfaction or dissatisfaction with policy matters, and the ideological position they maintain against or for the government, which also affect their intention to participate.

The third type of resource comprises the group resources such as networks of colleagues and friends. By establishing a network of relevant people, a major part of political and social participation can be developed. This is so in an instance involving boycotts and demonstrations. People get to know about such activities from their network, such as through friends or through professionals in the field in which they are working. Therefore, the involvement of individuals in such types of networks and organizations tend to enhance their political and social participation. The association between networks and participation can be explained from the approach of social capital, which provides that social networks are critical to achieving trust-based relationships among individuals belonging to the same category of interests or profession to foster their participation in like-minded activities. Nevertheless, other authors stress the mobilizing role played by such networks in bringing citizens together to participate in certain activities.

Finally, the fourth type of resource represents the political and institutional environment. There is a high probability of participation to increase when the institutions and government introduce different channels of participation for citizens to access the process of decision-making so that they are also being heard in the process and the decision is taken as closer to them as possible— differentiated between closed and open political opportunity structures depending on whether the access to the political system is facilitated by the institutions. This increases the points of access through which the citizens can access the decision-making process. Moreover, some research shows that an indirect effect is exerted by the institutional environment over participation. Institutional characteristics not only have an impact on the individual's political satisfaction and trust, as it has been found that citizens are not happy with the political ideology, which in turn influences and trust their participation in Kuwait.

7.3 TECHNOLOGICAL GAP

In the last decade, ICT technologies have spread like wildfire. This massive spread of ICT has revolutionized several sectors and industries and is increasingly becoming a daily life routine. Different researchers have highlighted the relevance and significance of ICT as critical for generating wealth, knowledge, and power in modern times. ICT is also becoming a key feature of political and social activities. Therefore, government stakeholders and political parties use ICT as the instrument of gaining attention from supporters and voters. The electoral campaign by (Lathrop and Ruma, 2010) is regarded as the prime example of the intense use of ICT in the political quarter for interacting with electors. With the help of the interview, the technological gap was clearly evident, which resulted in a conclusion of this being a major issue related to the design of the framework and implementation process of the DOG system. Due to its close link with information systems and confidentiality checks on data that is shared and received, the technological gap holds vital importance. Therefore, even a small glitch in the system can influence a great deal on the sustainability and stability of the DOG system. Information gap has been claimed as a major impediment as far as DOG implementation is concerned. Further, it also acts as a huge hurdle in terms of information trustworthiness within the DOG system.

At the same time, more and more people are engaging themselves and inspiring others to participate in e-participation, i.e. partake in the social and political processes. However, it is also important to understand that the diffusion of ICT has been irregular across different governments and different departments of the same government. The inequality related to access to the internet was first defined as the 'digital divide' (Fountain, 2005). Even long before the modern-day advent of IT technology,(Fountain, 2005) had warned about unequal access to future technology, particularly with respect to political participation. This shows that political scientists have long ago foreseen the engagement of most advantageous groups with IT concerning political participation. One of the first authors to explore the online engagement of citizens was (Norris, Fletcher and Holden, 2001), who highlighted the potential of the internet to expand the opportunities for citizens in terms of political and social participation. Although some research indicates that once the gap in the provision of internet services has been overcome, the variables related to socio-demographic such as education, income, and gender become significant indicators of e-participation (Jaeger *et al.*, 2013). (Other authors also highlighted these factors as

significant indicators of online political engagement. Different researchers also highlighted the significance of digital skills. They pointed out that if the level of digital skills is higher, then such persons are likely to engage in e-participation as compared to those with a low level of skills. However, less research has been done on the role of other internet-related resources such as online development of public administration and social networking. Furthermore, the researchers who even attempted to explore these two resources explored them individually without attending to the possibility of their combination. There is a substantial gap in technology and data protection that basically hampers the professional and ethical implementation and operation of the DOG system, particularly sensitive data that cannot be secured within the system. In this study, the knowledge gap was discussed that links with the information and technology management, also highlighted by (Manyika *et al.*, 2013). Outcomes were in compliance with the studies conducted earlier and showed a lack of technical knowledge and expertise that hinders the smooth implementation of DOG. In this context, the aim of the current research is the contributions towards this line of research and further exploring the factors which drive the participation of individuals towards social and political e-participation. The researcher analysed two types of participation on the basis of the survey conducted by the Spanish National Institute of Statistics. These two types comprise: giving opinions and reading others' opinions online on social & political issues; and signing petitions online & taking part in public consultations online. These two factors are explained by the researcher on the basis of an updated version of resource theory (Ubaldi, 2013). The research found that there are four types of resources that underpin participation: political views & attitudes; individual resources & socio-economic characteristics; political & institutional contexts; and group resources. However, in the context of digital government participation, this includes internet-related resources as well. Attention is being focused on digital skills, whereas little is known about the role played by institutional context and group resources. Therefore, the current research not only takes into account digital skills and traditional participation-oriented resources but also the role played by social networks and online development of public administration, as shown in figure 7-1 below.
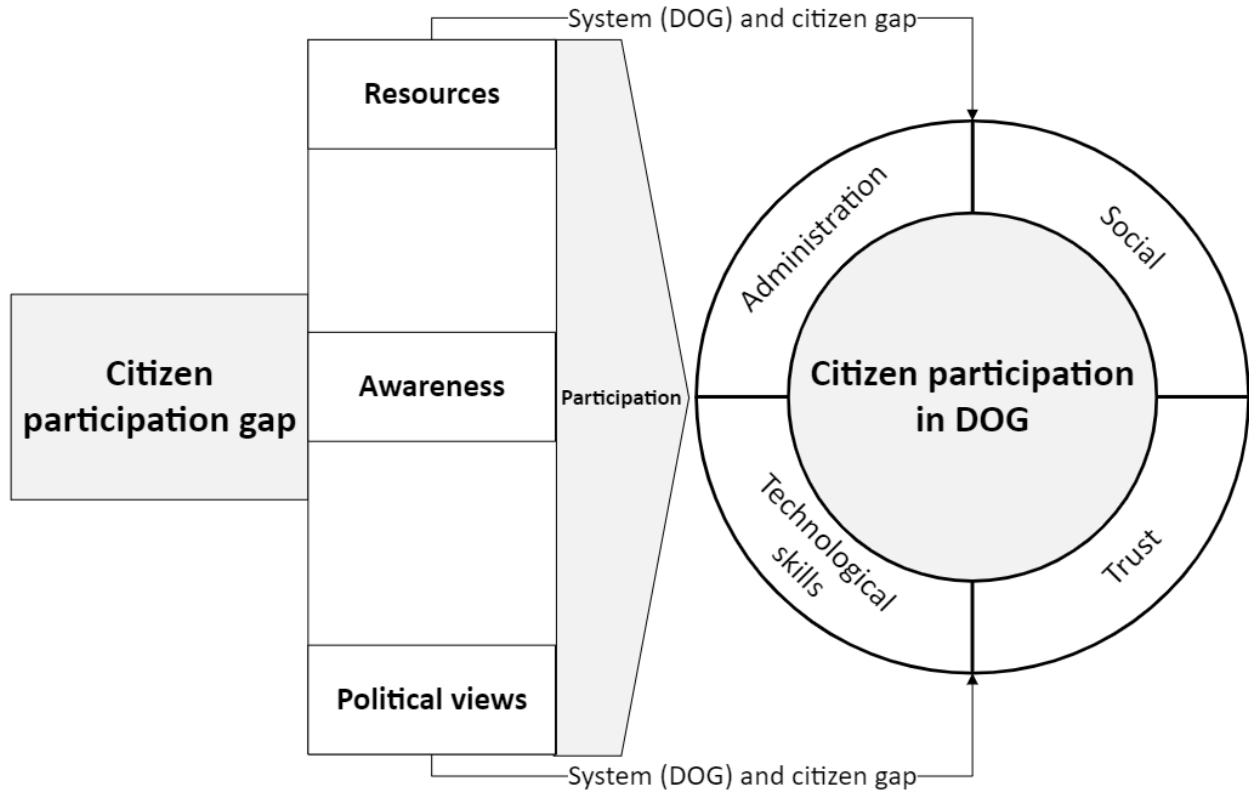
Figure 7-15 Citizen Participation gap in DOG (developed by the author on the basis of fieldwork)

There are several citizens who have shown their concern regarding government officials not being capable of sufficient technological skills that are needed for smoothly performing data transactions, security and other processes that are associated with it. Conclusions are deduced by comparing outcomes from the study with the findings of (Sarrayrih and Sriram, 2015), which stated that the trust level towards the new DOG system had witnessed a decline because of the development of IT infrastructure. This is the reason why the reluctance towards the use of IT systems has been experienced among Kuwait groups in Kuwait though it has become quite advanced.

A solution towards this type of issue is discussed in the study of (Keefe *et al.*, 2013; Barry and Bannister, 2014) regarding cybercrimes and hacking activities. With the evolution of IT structure, cybercrime and hacking have also been developed, and the number of internet crimes has also increased considerably in the past decade that has really taken a toll on data security. This clarifies the anxiety that is felt by Kuwait because of the breach of security of their data and

seeing incapable officials operating the DOG system. Therefore, it will not be easy to identify whether the population has faith in the DOG system or not unless;

1. There is an improvement in the skills of personnel who are responsible for handling the DOG system and tackle challenges that may befall.
2. The level of competency of executives and managers who are included in the process is made publicly available.

Moreover, finding gaps in technology would significantly impact the system's sustainability. Therefore, the issue of the technological gap needs to be addressed before any kind of implementation begins of the system.

7.4   PRIVACY AND CONFIDENTIALITY

This is considered one of the most significant challenges as far as the implementation of the DOG system is concerned. One of the biggest concerns is the inability of the government to provide security to the data and information that includes personal and financial data that can cause serious harm in case of any breach or leak. This is clearly not just associated with a single entity but with the entire country's network.

This is why a significant amount of data will be shared and received as compared to data gathered from a single network or open networks along with various kinds instead of just gathering data from a credit card or a bank. Few citizens highlighted the issues that relate to data management and security. In DOG, the data that is gathered is in huge amounts, which is why it is not 100% sure if the data will leak or not. Moreover, people will be handling the monitoring and managing the DOG system, which exposes it to human error, data leaks (intentional or unintentional), fraud and other risk or confidentiality related problems (C_5).

This topic is basically an extended form of the technology gap because the majority of people are not concerned about the way system will be monitored or managed but the ways in which privacy and confidentiality can be ensured. Due to the weak system of legal and security framework, various issues and concerns related to this system will occur, thus raising the integrity and effectiveness of the DOG system (Wells *et al.*, 2014). This is why privacy and confidentiality must be given priority as key elements of the DOG system model because, in case

of any lack or gap in privacy and confidentiality, the DOG system can be exposed to unavoidable loopholes in the network. Additionally, making improvements in the DOG system is vital for the privacy and confidentiality perspective as well. It has been observed that employees or citizens who have a high level of adherence to professional ethics end up ensuring a high level of data security (MOI_3; C_14; KCST_8; C_17-29). The practical guidelines and instructions that are included in the framework of DOG are there to ensure the security of data and its confidentiality is maintained. According to (Saleh and Alfantookh, 2011), a written account needs to be put forward that contains a comprehensive assessment of methods in which the outcomes can be disseminated to a wide range. Erosion of trust leads the citizens to perform unnecessary games while dealing with government bodies. These "games" - which the citizens play just to outsmart the entire system – replace the "cooperation" and bring about delays and utilisation of additional resources in order to complete a given government activity. It is possible to restore the trust, which can decrease such wastage of resources – with overt changes within administrative practices, such as improve the transparency of administrative operations of government that make a significant contribution to a relatively better "sense" of accountability. This sentiment (Aucoin and Heintzman, 2000) articulated while asserting that "accountability is a cornerstone of public governance and management". (Bovens, 2005), in the same line of reasoning, referred the public to an institution and asserted that public accountability complements public management. (Aucoin and Heintzman, 2000) noted that democracy remains just a paper process if those who are in power are not held accountable for their omissions and acts, their decisions, their expenditures and their policies in public. Still, transparency is noted as a necessary, however insufficient, condition to ensure a high level of public accountability. The understanding rationale for such assertion is easy if one willingly accepts the proposal that accountability has a direct association with power relations between the party demanding accounting and an entity that should provide it.

Theoretically, satisfying at least three conditions is important to suggest the presence of accountability. Firstly, the party asking for accounting may affect how and when the account is actually provided. Secondly, there are diverse symbolic but real outcomes for a failure to adhere to said request. Thirdly, requesting party can use the substance or content of the account to explain the action that can affect the future performance or status of requesting party asking for

the account. Real accountability, in fact, does not completely exist when the request of a party for a certain account is somehow ignored. This is also found true if an explicit need for appropriate corrective action is not materialised once the account has been provided. It is, for example, tough to consider that accountability exists within the parliamentary system when the elected government commands adequate votes either to modify the action proposed to alter its ways or to ignore the demands for reporting its performance.

It is very important to understand the dynamic relations between accountability and transparency. Based on the previously cited statement of British PM, it is suggested that "there is more to it than meets the eye" (Cameron, 2011). To begin with, the majority of scholars referred to "accountability" as a complex, ambiguous, heterogeneous, fragmented and elusive concept having chameleon-like nature. Resultantly, a question arises whether the "transparency" is also attributed to ambiguity? Is transparency is similar to ambiguity? Whether the "transparency" is more ambiguous or less ambiguous as compare to accountability?

Most significant questions concerning potential phenomenological or possible functional relationships between transparency and accountability as two ambiguous and theoretical concepts are far beyond this study scope. Some potential questions generated as a result of the above discussion are, however, important: for example, can different accountability dimensions be operationalized so that their ascertainment can be facilitated by reference to single or multiple transparency dimensions? For instance, can some accountability measures be developed from data regarding the issues such as managerial transparency (decision making), process transparency, or financial transparency? This is attainable with the inclusion of detailed accounts of citizens containing all the threats to their privacy and confidentiality that constitutes managers, contributors and reformers.

The DOG manager was keen on making digital information tools accessible for people. One of the attempts in this regard was a development of an online tool that automatically guides the citizen to different parts of the website. Thus, instead of having to search through different pages of the website online, the user could simply utilize the tool for directly accessing the particular information. Another example in this regard is the development of tools that can be used for extracting minutes from the meetings of the council. This tool can also be used for extracting information from the long reports of the council published online on the website of the council

after each meeting. With the help of this tool, the citizens are able to find specific information that is relevant to them specifically. If a framework is properly documented, it will be able to determine any kind of loophole that can potentially result in data leakage or a threat to privacy. In addition, for securing a database that has all the information, sophisticated protocols and models shall be utilized. There should also be the inclusion of access rights policies that ensure the privacy of data. Furthermore, audit trials should be conducted periodically so that they can monitor the system entirely and identify any kind of threat to the system or database in due time. The higher authorities could be provided with privileged access so that they can monitor the system.

7.5 INFORMATION TRUST

This finding includes two separate dimensions; the first one is a general faith that one has in the information trustworthiness and credibility of websites developed by the government; the second one is the government's ability to offer authentic and valid information whilst maintaining communication records. Actions that government takes to ensure that fraudulent acts and public misleading can be avoided link to the two dimensions of trust within the government's sphere. In this study, the citizens reveal the extent to which trustworthiness is present on government officials, but is decreases if they are incapable of offering valid information every time, and maintain records of information that has been shared, such as financial information, conversations, photographs and data shared & received inside the government network. Especially, indulgence enhances if government provide equal chances to the citizen to explain their point of views regarding the policymaking.(Eric W. Welch, 2012), divide the political system into two categories, open and close, based on the feasibility of the political environment.(Welch and Feeney, 2014), observed that indulgence become more obvious if the government does not rely on a single one, but everyone have an equal chance to participate. This enhances the effecting no and increases the indulgence level. Moreover, current studies identified that the thinking paradigm also affects indulgence.

In Kuwait, the concept of transparent government is to make public data accessible for the general public under an open government project. (Perritt Jr, 1997) writes that government information must be originated at and controlled by public institutions only. There are various opportunities available to upgrade the freedom of government information so that citizens can

easily access the data related to them. The statement of one of the practitioners draws attention that "*the citizens are better able to understand the operations, policies, and projects of the government when they can easily access the information possessed by the government. This also enhances the trust between the citizens and the government.*" However, in order to implement an open government project, it is imperative that legislation is being done to provide access to citizens to information in practice (Birkinshaw, 2010). Thus, Kuwait implemented Public Information Act 1998 and revised it in 2013 to disclose documents even without request. As per the observation and examination of (Ubaldi, 2013), the percentage of people who use government websites has seen a fall due to trust issues. The findings extracted from this study conflict with the aforesaid statement, which means that apart from the decrease of use of government websites, this cannot be deduced that the reason behind this is the trust issue.

Study findings showed that the information available on websites is quite complicated and difficult to understand. Further, the News and Search bar tags were also missing, which added to additional complications for the users. Thus, not only lack of trust in information sources is present, and rather there are multiple elements behind the decreased use of government websites (Welch and Feeney, 2014).. Trust in government is a contested and nebulous notion (Olarewaju, 2006). Some researchers argue against the concept of trust in an impersonal and abstract government and criticize the attachment of 'trust' with the government instead of with a person. Job (Brueckner, 2004) suggested using the term 'confidence' for the government instead of 'trust'. This has earlier been pointed out by (Paxton, 1999). Trust is based on getting what one expects from the other, that the other person would behave in a certain way and that his weaknesses would not be exploited by the other person. Trust in government means that the government will act in the best interest of the people and will operate in an ethical manner. Trust in government represents judgment by the citizens about the responsiveness of their political representatives to the problems faced by the public Search by author, title or year in My Library (Miller and Listhaug, 1990).

(L. G. Newton and Norris, 2000) observed that trust in government represents a central feature of the underlying feeling of the public about the polity of government. Trust in government has also been regarded as confidence in the current personnel of the government, reflecting the trust

therein, having faith in the performance of the government instead of simply in the institutions (Gronke and Cook, 2007).

There is an unclear link between trust in government and political participation in Kuwait. The question then arises whether the people who exhibit a high level of trust in government are likely to partake in the political process. A positive view may state that when individuals see their expectations being met, they tend to actively take part in political participation. However, an equally compelling argument is that people who do not participate are the ones who are already happy with the government as well because they see their representatives doing best for them, so they tend not to participate because they trust the government to do what is best for them. The stream of research suggests that there is no impact of 'trust in government' on the political participation of citizens. Moreover, where there is a lack of trust, it is limited to the current government only and is not against the state institutions or the state as a whole (Gronke and Cook, 2005).
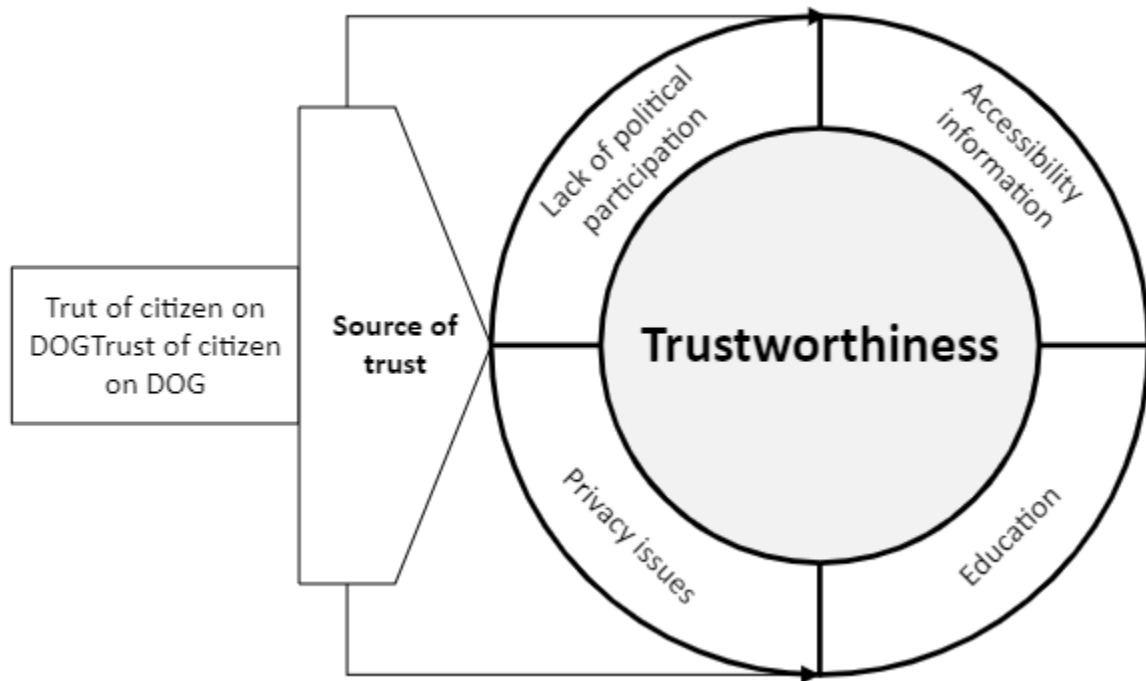
Figure 7-16 Trust of citizens on the DOG and source of trust (developed by the author on the basis of fieldwork)

There needs to an authentic system whereby public share and receive information and such activities need to be recorded so that the administration can monitor properly about what has been communicated and how it is communicated. This clearly explains that an effective framework includes all such activities and elements. This is why information trustworthiness is linked to the previous issue related to the technological gap. To achieve information trustworthiness, properly designed strategic models and systems are needed, which can improve the effectiveness and efficiency of the DOG system (Welch and Feeney, 2014). Further clarifications were presented by (Saleh and Alfantookh, 2011) as a framework to guide and note down steps that enlist all the potential sources and cases of information leak and hack. There are different network layers in the network that results in a rare form of security threat at every level. Thus, in the design phase of the DOG system, threats on every level of the network must be identified, and their prevention and contingency plan must be prepared accordingly so that information trust can be improved. A researcher has observed that the factors underpinning the trust in government in the context of DOG in Kuwait. The factors in this regard included: education, lack of political participation, issues of privacy, and accessibility of the citizen to their information (see figure above). While current studies identified different factors like. (Espinal, Hartlyn and Kelly, 2006) observed in the context of the Dominican Republic that citizens belonging to the middle-income category trusted the government less compared to the poor and the rich. (Gershtenson, 2006) observed that individuals are likely to trust that government more, which is formed by the party of their choice. Moreover, this research is also found that a citizen is also likely to trust that government more, which is formed by the party belonging to the same ideological beliefs as theirs. Thus, support or trust in government is related to different views of government that could impact the trust of the citizen in Kuwait in the DOG context. The focus of this research is on the political participation of an individual and trust in government. This is not because the researcher takes a negative view of other types of trusts and participations but because of the area of interest for the purpose of the current research and the desire to maintain the distinction between different types of trusts and participations. This also prevents confusion between different types of trusts if they are not conceptually separated at the outset. This is being done following the suggestion of different researchers as well (Uslaner and Brown, 2005).Trust in government is also advantageous for a government to attract obedience to its directives, laws, policies, tax collection, and redistribution of wealth. When the people trust their government,

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they are likely to abide by the decision of their government as they believe that their government is working in their interest. As compared to this, when a government faces mistrust of its people, it may find itself in a position where its people are ignoring its directives and are becoming suspicious of its policies which is hindering the advantage of the DOD in KUWAIT. This can also get to the point where the citizens start armed or unarmed resistance against the state, which could also create conflict among citizens against the government policies. Although 'trust in government is not akin to trust in a particular elected government and that the two must be kept conceptually different, but low level of trust can also affect the existing trust in a particular elected government in Kuwait. Therefore, the trust of the citizen could increase the citizen engagement with the DOG in Kuwait as it has been stated by one of the participants as "i*f the engagement of citizens with government is misleading, it gives rise to significant threats for the entire governance system*" (MOI_2). Other participants also highlighted some issues in this regard. Some issues can attract a flood of input from citizens, whereas the other would attract only a handful of feedback from citizens. Excessive input can prevent productive insights from gaining prominence. Thus, excessive participation may become counterproductive to the idea of open government. Such concerns have commonly been raised by academics and public managers as muffling or amplification of certain voices (particular jurisdiction, representative of a single party, or particular professions), populist sentiments (ideas which appeal to many but are mass in essence, mass prejudice), the democratic deficit in open government systems (e.g. the system only meets procedural formalities instead of generating substantial outcomes). One interviewee said that "*the role of government agencies in open government is uncertain*" (CMKST_3). Government agencies are the major stakeholders in open government projects. Therefore, they should encourage the citizen to participate in DOG projects that would also increase the data and institutional collaboration of data instructional purposes in Kuwait. They play the role of a coordinator, listener and at times central actor as well. The role can become complicated when the citizens want the agencies to be listeners, but the agencies start actively partaking as well in citizen engagement in the context of DOG in Kuwait.

Talking about the second dimension of information trust, the following response was attained: The scope and nature of government information that is to be released require determining the content and format of the information. The governments working on open government projects

have therefore made efforts for introducing a standard form of information to reduce the arbitrariness in dispensing of information. For example, in the case of Kuwait, the official website provides standardized and integrated services for the disclosure of information to citizens. There is potential for weakness in transparency and clarity efforts because citizen is not able to access all of this information. The participants of the interview said that there is a lack of realistic guidance concerning Government 3.0 Drive about the type and extent of accessibility issues o the government services. The participants highlighted that government only provides insight into the working of the bureaucracy but does not provide information about how and why agencies work in a particular way. One can differentiate between different types of trust related to government, e.g. trust in the current regime, trust in personnel of government, trust in specific institutions of the government, and trust in specific political leaders. Such trust levels are not entirely distinct from each other and may overlap with each other. Therefore, trust in government can encapsulate different types of trust. It is multiple in nature but does share meaning with other types of trust in government. There may be differences in understanding the concept of trust in a group of respondents. Nevertheless, there are different shades of meanings in the same language.

Trust in government is also advantageous for a government to attract obedience to its directives, laws, policies, tax collection, and redistribution of wealth. When the people trust their government, they are likely to abide by the decision of their government as they believe that their government is working in their interest. This also prevents confusion between different types of trusts if they are not conceptually separated at the outset. This is being done following the suggestion of different researchers as well. As compared to this, when a government faces mistrust of its people, it may find itself in a position where its people are ignoring its directives and are becoming suspicious of its policies. This can also get to the point where the citizens start armed or unarmed resistance against the state. Although 'trust in government is not akin to trust in a particular elected government and that the two must be kept conceptually different, but low level of trust can also affect the existing trust in a particular elected government. The focus of this research is also on the political participation of an individual and trust in government that could lead to citizen engagement in the DOG of Kuwait. This is not because the researcher takes a negative view of other types of trusts and participations but because of the area of interest for the purpose of the current research and the desire to maintain the distinction between different

types of trusts and participations that could lead toward the value generation of DOG for public and intuitions together.

7.5.1   Professional ethics as a source of public trust

There are two differentiated elements in this theme; the first one is professionalism, and the second one is corporate ethics of the government to offer service lawfully and ethically in Kuwait. Professionalism has been identified to be associated with corporate ethics. Thus it is grouped within the same theme. Citizens believe that professionalism is fundamental to professional ethics because if a person lacks the skill set that is essential to accomplish the job, then it could result in errors, putting the data and privacy in jeopardy, which break the trust of the citizen in government. (Manion, 2006) observed in the context of China that the institutions encouraging the electoral contest are better positioned to win the trust of ordinary citizens in the leadership of such institutions compared to non-electing institutions. Low trust in government may still attract a little bit of participation from citizens to keep a check on the performance of the governmental institutions. (Avery, 2006) observed that the lack of trust in government among Afro-Americans gave rise to political protests as they wanted a change. Some researchers took into account the relationship between DOG and trust and found out that the high level of trust in government yielded intense engagement with DOG services, and the ones who were satisfied with such services trusted the government more. It could be that the participant develops the perception regarding the government or may even change it. This means that citizens' dealings with their governments can either affirm their perception about the government or reject it. The evidence in this regard is mixed.

For this purpose, professionalism is connected with the implementation risks of DOG. One of the citizens claimed that implementation and execution of the DOG system could be hindered by the lack of necessary technical knowledge in officials. Furthermore, (Cañuelo *et al.*, 2012; Gilbert-López *et al.*, 2013) believe that there are no assurances towards a 100% error-free system if there are incompetent government employees or have insufficient knowledge about the system, processes or the advanced knowledge about networking and data security that relates to the transitioning of the manual system to DOG system. This induces doubts in the ability of the

DOG system whereas; lacking technical knowledge also provides obstacles in the process of designing, implementing and process improvement of the framework.

Thus, it is essential to ensure that the officials employed to perform such tasks are competent, possesses adequate knowledge and have professionalism so that the DOG system can be implemented in Kuwait. Moreover, corporate ethics is linked to trustworthiness, accountability, loyalty, and transparency. This type of character is highly linked to the context of Kuwait DOG internal risks. Further, it is claimed that if these characteristics are not present in the system, it could result in a lower than expected level of accountability and transparency. Debate on government transparency comes about in two interrelated realms: the political realm and the administrative realm. The political realm focuses on constitutional state and participatory democracy, and the arguments in its favour include "check and balance", "contribution towards a sound democracy", and "right to know". Critics, on the other hand, use the complete catalogue of futility, jeopardy and perversity arguments that usually change the employ critics. However, they mainly argue that transparency not only breeds mistrust but also undermines the public institutions` legitimacy. In this particular realm, the key question is when and how transparency plays a significant role in increasing the "democratic quality" of a state. Similarly, the administrative realm focuses on those managerial concerns that are relevant to the "good governance" concept (Yim, Fung and Lau, 2010). Though the transparency is introduced to stimulate efficient public services delivery and decision making and to reduce corruption, in fact, it may breed myopia, risk avoidance, death of governmental entrepreneurship, and middle of "road thinking", and increases control and compliance costs. In the administrative realm, the core question is when and how transparency participates in the administrative competence of the state.

Both of the above-mentioned realms are strongly interconnected as transparency arrangements contribute to democratic debates might also have outcomes for debates on government administration (Hood and Heald, 2006b). Improving administrative transparency might have various political implications, particularly when apparently technical administrative procedures influence the perception or impact of political leaders or policy decisions. Though permeability of administration-politics dichotomy is well recognised, however still develop different criteria for both realms in order to facilitate the evaluators. In order to interpret the assessments, it is required to consider different interrelations and connections between both of these realms. The

core normative question in the political procedure is that whether transparency undermines or strengthens constitutional democracies .(Bovens, Schillemans and Hart, 2008) highlighted three key-value clusters in this regard, including constitutional perspective, social-learning perspective and democratic perspective. Every perspective entails a different set of criteria to evaluate "political transparency arrangements". The key issue within the democratic perspective is that whether the political transparency arrangements tend to strengthen the position (information) of the general public, where the position of public refers to the electoral role of citizens and their direct involvement in political decision making, policy deliberation and agenda-setting. Democratic perspective resides on the argument that the general public should have the potential to contribute to the public sphere and to know how their elected political representatives utilise their mandates. Alternatively speaking, transparency is important for the engagement of citizens, a requirement for a sound democracy (Piotrowski *et al.*, 2018). In addition, to strengthen the position (information) of citizens, information about integrity and performance helps the citizens to make appropriate decisions during the electoral procedure. The counterargument in this regard is that the general public is unable to process entire information related to their governments in an appropriate manner, which is accessible via the Internet. Moreover, (Roberts and Rosenthal, 2001) proved the idea illusory that is "Wikileaks can strengthen the information position of the public", and claimed that it would yield massive data that would not necessarily be coherent; also, it would make it difficult to process the "information". Such changes may likely be an important part of the pursuit to transform the government with the purpose to improve some values or pursuing the change for some other reasons like devolution, risk management, or better efficiency. According to (Berry and Fagerjord, 2017), government management has passed through an unprecedented global evolution over the last three decades and can observe its scope in both developing and developed countries. As per (Arduini *et al.*, 2013) assertions, every individual who is associated with the DOG system operation must have an understanding of their own duties and obligations towards the general public and administration.

It also does not make it clear that the general public is able and willing to use the disclosed information appropriately. The latest studies highlighted that the citizens frequently use "shortcuts" in order to understand complicated topics and interpretations being formed by "preceding biases". Some democracy theorists, however, argue that instead of undermining,

"virtuous ignorance" more or less strengthen the representative democracy. While studying the issues related to government transparency, it is important to carefully examine the context within which these issues evolve. As mentioned above, future search for necessary changes has to concern with context, particularly when it considers roles, administrative processes and structure of government bodies. The findings of debate analysis concerning participants show that there are different characteristics of ICT compared to traditional face-to-face interactions. Even though the characteristics referred to in the conceptual framework were identified in the data, the nature of such characteristics was different compared to the environments in which ICT is enabled. The virtual debates are also possible without any restriction with the help of ICT.

Unlike debates under the conceptual framework which usually take place in a formal environment, the virtual debates conducted through ICT are informal in nature. Moreover, the virtual debates have a temporary structure that is only confined to the issue at hand. With respect to the content of virtual debates, informal linguistics, such as using informal terms, is common. Moreover, effective visual elements are also being used. Different users can interpret these differently during virtual meetings. Lastly, the archival record of such debates and meetings are automatically generated by ICTs, which can be seen publicly. Theoretically, the citizens can access the evidence of virtual meetings on social media for an indefinite period of time. Such characteristics are contributory towards understanding the accountability feature. In addition, they should work with complete honesty and understand the consequences if they do not behave in an honest manner. As it has been highlighted, the accountability issue is a benefit of the DOG system because, in this case, tracking errors, cases and records are easier as compared to the manual system, whereby tracking took an extremely long time. This asserts that the officials of government need to be very careful during their dealings and present a high level of responsibility and transparency that can lead to quick and easy tracking of fraud or mishap in Kuwait that could lead to the higher trust of the citizen to bring the higher level of the citizen participation and engagement in the context of DOG in Kuwait. This also had the effect of encouraging, enabling, creating awareness and empowering the citizens for actively participating in the policy processes. The public managers stated that the citizens' participation gave creative and innovative ideas to improve services and policies as well as governmental operations. Thus, governance with citizens is an effective avenue of both substantial and procedural rationality.

Procedural reality represents operations enabling direct participation of citizens, whereas substantial reality represents gaining intelligence from the ideas and experiences of citizens that could be used for the future development of DOG projects in Kuwait.

7.6 RISKS OF PREVENTION

This main study objective is to determine fundamental risks that are present during the transition of the manual system to the DOG system. There are perceptual as well as technical risks involved that literature identifies with so many highlighted in this study as well. For instance,(Rabai, Ahmed and Kasim, 2013) determined several external factors that can possibly compromise data security. On the contrary, there are also several internal threats that can lead to system malfunction, including improper handling of data, illegal acts conducted by government officials that can compromise the security of data.

In this study, new dimensions of risks are established. Thus, even though data links are completely safe from any external threat, there are still threats that are present internally. Further, there are also few dimensions of risks developed that has not been developed in the previous studies. Therefore, many participants presented their opinion that there should be a larger budget of DOG that covers entire processes and activities that can result in an efficient and credible government that is highly dependent on its financial resources. However, in case of the absence of such resources, the system cannot be able to maintain the level of security and efficiency of the process, resulting in various serious implications that starts from delay in services to collapse of the entire network and eventually to loss of data. Moreover, DOG has been linked to a core risk factor. An interview responded that there is a virtual environment in DOG. Every information or data is stored in bits, and it often becomes quite complicated to track data that is fake or lost, or desecrated (MOI_05). According to (Townsdin, 2018), even a single error in programming can lead to a zero flag, which means no indicator, even in the situation where data is lost or desecrated. As the entire system is being managed by computers and programs, even a single failure to determine minute errors could lead to significant consequences.

This mainly relates to the internal risk factor, and clearly, there are various errors that are identified after initiation of the system, which means that there cannot be complete assurance as

to whether the system is designed with zero errors. However, it is debatable that both external and internal risks can be mitigated by employing experienced professionals with various skill sets. Both the transparency crisis and digital government institutional trajectories led to the development of these two agendas. The corruption that occurred during the important juncture period results in a political crisis that, in turn, disclose a political path for introducing a transparency framework and digital government initiatives within the country. This contingency has played a seminal role for both of these trajectories: the risk of an unstable political system was there, due to which it becomes important for reforms to have a highly transparent and more efficient public sector. The level of their politicalness differentiates these two trajectories from each other. Digital government, on one side, represented a rich technological, bureaucratic institutional development, whereas transparency trajectory, on the other side, had more political visibility, therefore, appeared much closer to civil society in terms of perceptions on accountability and integrity of regional politics. The crisis had, however, differently influenced all agendas originated in these three cases. The systematic corruption waves that the transparency trajectory had faced acted like a force that drives institutional change. The agenda of digital government, on the other hand, had not faced any challenge in the form of core institutional contingencies, therefore, showed almost the same institutional behaviour in due course. Due to such institutional stability, the present institutional arrangement became enabled to take on transparency initiatives, which, in turn, increased the political dividends of the country. Both agendas, in general, showed a strong dominance of important contingencies (e.g. political crisis), not only to mobilize political forces but also to upgrade the existing institutional arrangements.

Based on the evidence, it is observed that the *data governance trajectory* also represents the same path*:* sufficient advances were made over time to provide such institutional features that are necessary for the satisfactory functioning of data governance initiative and to ensure the availability of an effective institutional framework. Advances were, however, evaded given the critical institutional efforts necessary to change current normative and cultural-cognitive institutions. Regarding the role, many interviewees had reflected on that crisis may lead to upgrading this institutional framework in future for the data governance. This suggested that only a few institutional modifications will be made in the absence of a crisis.

7.7 CONDITIONS FOR BENEFITS AS THE PUBIC VALUE OF DOG

In the light of the discussion above, it can be stated that transparency, participation and collaboration are the best policies for enabling citizens to enact different roles. Citizens collaborate with each other for collective purposes instead of individual ones. The citizens do not desire individual goals when they expect the government to be transparent. Instead, they have a collective goal in mind when they expect the government to be transparent to them so that the government can be held accountable for its actions and for its outcomes (Sampson *et al.*, 2016). Similarly, participation just for the purpose of participation is just an empty and alienating exercise as citizens should participate in a fruitful manner so that their collective action can be fruitful. Collaboration is effective only when participants contribute on the basis of their expertise. (Lodato and DiSalvo, 2018) observed that the policies developed from collaboration should be enacted so that desired results can be achieved. It is also imperative to indicate that increased collaboration and participation does not necessarily give desired results. Therefore, the mere fact that participation opportunities have been given should not be perceived as equal to open government information (Saxena, 2018a). When participation, collaboration and transparency is meaningful, it is because of the interest of people to pursue their objectives. It gives rise to a question concerning the objectives to constructs an institutional framework of DOG public value to determine the value of governmental activities from the perspective of multiple stakeholders besides citizens. The interest in digital governance increased following the failure of New Public Management to create value for the public. This gave rise to looking for an alternative to increasing the simultaneous reach of the government, which was then made possible by digital technologies (Cordella and Bonina, 2012). Several contributions to the field exemplified the ways whereby public value theory is helpful in rethinking the provision of public services through digital means and reconsidering the effect of such developments on public management. Although the concept of public value attracted consensus, the meaning of public value creation in a digital environment is still debatable. (Bannister and Connolly, 2014b) suggested using the taxonomy of using public sector values for evaluating the complex concept of public value and argued about the effect each value has on the initiatives of digital government (e.g. efficiency, transparency and inclusiveness).

(Bannister and Connolly, 2014b) referred to the typology highlighted by (Jørgensen and Bozeman, 2007), which used 72 values inventory that can be used by public sector organizations for generating public value, but there are issues of introducing the new system to the public. Generally, during the design phase of a new system, there are several issues that pertain to its implementation. There are a number of issues that are raised in this study concerning:

1. Level of adoption of the e-system by various departments of government
2. Level of access provided to different authorities, which is also named as a collaboration of the public and private organization.
3. Potential target citizens that are users of the DOG system to get services.
4. Equal participation of the political leadership and citizen
5. Lack of trust of the citizen in the government.
6. Extra accountability fear in the public managers

Different researchers highlighted different values in the shape of a framework to determine the suitability of public services and to determine their efficiency as well. (Cordella and Iannacci, 2010) observed that digital technologies serve the role of enabler and carrier of public value creation. The managerial values can be operationalized efficiently with the help of digital technologies. Such values include accountability, transparency, democratic values and efficiency. The democratic values then include openness, equality and fairness. Although the analysis of the effect of digital initiatives on value creation has generated critical insights into public value creation, it still does not give an account of the intertwined relationships between services and value. Some researchers have also taken an integrated approach towards public value creation by taking into account the capabilities of the organizations, resources and technologies. This is helpful in understanding the complex elements shaping the effect of digital technologies on the production of services, delivery of services, and consumption of services, as well as the value they create. There are different responses recorded in every issue, along with implications that are on the basis of the current scenario whereby the system is implemented. Thus, to acquire maximum advantages from this new system, there need to be certain changes such as the target audience and other factors that are related to the system. From a wider perspective, it has been noted that citizens prefer that the DOG system should be implemented by all departments of the Kuwait government because; It will allow the Kuwait government to

stimulate other functions of the government as well. There are no assurances of benefits that this new system brings if there is no adequate system that can monitor and control its core mechanism; therefore, there is systematic accountability required, which also can facilitate the rewards and punishment culture in the government. Consequently, it would facilitate delivering quality service to the public of Kuwait. Therefore, it could be presented in the cycle as follows.
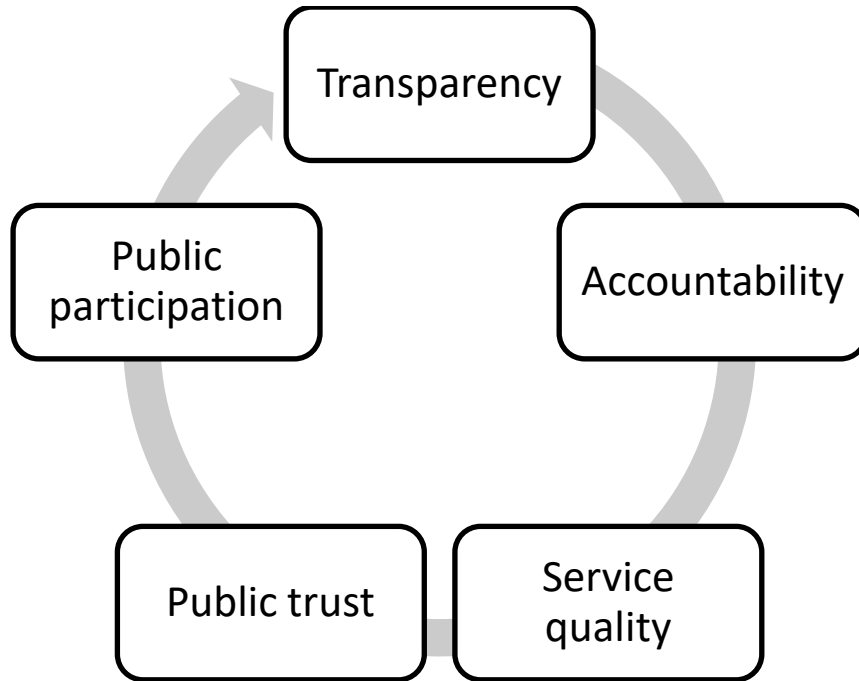
Figure 7-17 Cycle of the enablers of the DOG government (developed on the basis of fieldwork)

Public value can also be created by establishing infrastructure to stimulate public value, such as by developing mobile applications to this effect or increasing online access to the public for governmental data. Public officials can also create public value by enabling citizens to partake in policymaking and value creation. The researchers also highlighted the need to actively create public value in the production and dispensing of public services to ensure better public management. There are a number of problems facing public organizations in Kuwait. Digital technologies enable them to devise solutions to problems facing the public and create value, but they are sterling to facilitate citizen participation, which is a link back to the issues of transparency, accountability and poor service quality, which impact the trust of the citizen in

Kuwait. However, at the same time, the utility of digital technologies can also increase the complexity of the process among the public organization. The public managers are expected to manage and implement a wide range of digital services as part of public value creation to overcome administrative and institutional limitations. Such implementations are part of the value creation journey for fulfilling the goals of digital policy, such as the delivery of services, public engagement, and performance analyses required from the top to bottom level of the government institutions in Kuwait.

The type of value that can create by digital initiatives varies in effect depending on the results obtained thereof. For example, the outcomes of initiatives such as open government are neither guaranteed nor predictable. When such initiatives are analysed individually in the light of their intended outcomes, they do not provide a complete understanding of the way value is created for the public. Further, there is also a lack of clarity concerning the need for organizational capabilities to manage such initiatives in Kuwait. Thus, the relationship between digital technologies, the value they create for the public, and the public value intended by policymakers or public managers is not clear in Kuwait. This approach is conceptualized after discussing 'integrated public value creation in the next section of this chapter.

This is essential for maintaining uniformity and smoothness in the communication of data among different departments and cross public organizations to generate institutional value through the DOG in Kuwait. Therefore, this would not be possible for a system to effectively communicate, transfer and control data procedures if legal affairs are handled as per the newly designed system and the civil affairs continue on the traditional model. Thus, it can be concluded that benefits are attained when there is uniformity among all the systems of the government that is created with the implementation of the DOG system in every department of the government. At first, this system should be tested in few departments, which can be extended to implementation in all the department's once-promising outcomes have been achieved from its implementation in the testing phase. Moreover, it is essential to make sure that every sector promotes the use of this new form of service delivery (Xu *et al.*, 2019). From the responses of citizens as well as interviewees, it was acknowledged that there is a very important advantage that comes from the implementation of DOG, which is the elimination of previous manual procedures that took a really long time to conclude, and the inclusion of DOG considerably impacting citizens' lives.

7.8 DOG ACCEPTANCE AT THE INSTITUTIONAL LEVEL

Even though this is not the major subject of this research, it is quite capable of strengthening grounds that justify the DOG system implementation. This concept refers to the implementation of the DOG system in all the government sectors. It is also possible that the tenet of universality can be observed from the global perspective.

This DOG system has already been employed by various states of France, and they are now planning on its complete implementation (Coate and Schwester, 2009). Further examples are witnessed from England, Denmark and Germany whereby a transformation has been experienced transitioning from traditional government system to DOG system. This clearly asserts that the implementation of the DOG system among all the sectors of government by Kuwait would be a huge step that certainly will bring massive improvement to all the government sectors of Kuwait. This clearly shows that both citizens and organizations are in favour of the universal adoption of the DOG system. If the system is successfully implemented in one department, then it can certainly be implemented in other departments as well. According to observations of one student:

DOG is a universal phenomenon that does not just include the government of Kuwait but the complete territory of Kuwait. There were other interviews supporting this belief and claiming that this type of advancement will be in favour of the government and it will enhance the productivity and effectiveness of corporate as well as societal sectors of Kuwait. Thus, the adoption of DOG cannot just be claimed as the advancement of government but of the entire country; therefore, there is institutional feedback also required for the successful acceptance of the DOG at the institutional level.

7.9 INSTITUTIONAL FEEDBACK

One of the fundamental questions that need to be answered is why such paths occur and what kind of paths is reinforced with the passage of time. Institutional feedback along with the paths develops understanding about the dynamics of positive outcomes that are yielded by staying on a specific path. Under such positive outcomes, incentives are consistent to the extent whereby switching to previous is less feasible and more expensive, until or unless disruptions are crucial to widening the new policy windows. Even though it is punctuated by certain events, paths are kept on the same path. From the evidence, it is clear that paths of three paths are reinforced with the passage of time, as the existence of institutional arrangements and their extent of materialism

vs symbolism, along with the incentives and resources available that are adequate enough to cater to objectives that are highly political; and to conduct current and future initiatives. As far as the digital government policies are concerned, their success and recognition to international and local communities are quite remarkable (Scassa and Conroy, 2015). There was no action taken by different administrations to further make improvements in the digital government of domestic institutions. No awareness was promoted at the top level for improvement because they were found to be operating successfully as per the political objectives. Therefore, the feedback of the institution was taken as the success and reputation of policies that are developed in digital government during that specific time period helped in reinforcing such paths over the passage of time. The data governance path also shows a similar dynamic. In this path, the institutional profession over the years is low, and there is the inadequate political will to include an approach that is comprehensive and manages public data like there is a clear lack of political visibility in the path; which means that the outside the public sector it does not contains adequate political visibility to create political dividends and initiatives. Data governance, in spite of being limited and weak, relies on the sectorial data management practices that are enough to operate basic level initiatives. Upon asking, the interviews voiced their concerns that this path would not be upgraded if there was a crisis in play. Therefore, its level of adequacy gave positive feedback acting as an enhancement of the path, facilitating management practices of basic data and avoidance of cross-sectoral data governance strategy that demands more economic and political resources. Not like these two above-mentioned paths, the transparency path is exposed to corruption cases resulting in institutional change. Instead of being led by a systematic approach to mitigate corruption, there was no prevention of recurrence of such corruption due to the limited strength of the transparency path. Why did the presence of corruption be like positive feedback to Kuwaiti political elites to not incorporate a well-recognized and comprehensive approach to mitigating corruption and assurance of its non-occurrence? From the evidence, it is clear that such paths acted as institutional advances that are aimed towards political dissatisfaction instead of incorporating a comprehensive framework for transparency and information access.   Impact of transparency, digital government and data governance institutional features on DOG:

Table 7-6 Institutional feedback- Author's own elaboration on the bases of data analyses

Institutional Components	Open Government Data			
	Digital Government	Transparency	Data Governance	Level of Institutionalism (Material vs Symbolic)
Regulatory Institutions	DOG reflects the limited regulatory bodies for digital government in the absence of a comprehensive regulatory framework that discloses data, and Directive 005/2012 short-termism that makes initiative susceptible to changes in political preference of digital government from President Pinera to President Bachelet.	The current framework provides facilitation to the political introduction of initiatives that are related to transparency, like a DOG. It becomes complicated in the absence of digital aspects. Directive 005/2012 puts emphasis on the transparency related rationale for DOG.	The absence of regulatory frameworks of data governance is represented by the restricted strength of the DOG initiative and Directive in the governance of data, as well as the symbolic introduction of minimum standards & data monitoring in DOG.	DOG regulatory institutions are highly symbolic, which is quite similar to the institutional features of DOG in Kuwait. DOG reflects on transparency instead of digital government and data governance.
Normative Institutions	In such institutions, emphasis is laid on the digital governance strategies and practices of the short term, which reflects the limited amount of planning that is done on the strategy level of DOG in MDGU, as well as	Reflection of current practices regarding material and objectives regarding transparency is through the incorporation of data management aspects in DOG and the predominant presence of a wide range of processes related to sectoral	Lack of comprehensiveness in practice and symbolism along with data governance objectives reflected the limited data management aspects in DOG and a predominant presence of a wide range of	There is a weak institutionalization among normative institutions overall because of their emphasis on short-termism and sectoral capacities. However, they possess the capabilities to introduce a limited DOG

	emphasis put on the sectoral skills and resources instead of cross-sectoral practices for disclosing data. DOG practices are mainly influenced by the shifts that are observed in ideologies or leadership in politics,	data management.	processes related to sectoral data management.	initiative for a short time period.
Cultural Cognitive Institutions	Similar to the digital government path, DOG has an inherited general underestimation of political complications that are in data of digital technologies. Furthermore, the gap in comprehensive institutional frameworks is present for framing. Project integrity, along with efficiency and modernity, mainly are responsible for governing DOG.	DOG mainly imitates rationales that are dominant so that path can be achieved from this path, whereas political elites believe that DOG that is utilized as a tool for deepening transparency policies and national integrity is like a burden that hinders their capacities and resources. Council for transparency offer a nuanced view on the political and bureaucratic impact of DOG	The lack of awareness of political aspects and data governance from pre-2011 institutions is imitated in the absence of DOG's firm rationales related to management practices for ensuring compliance and quality. It is perceived to be quite expensive, and therefore a delay is expected.	There is a replication of the dominant rationale of valuing initiatives by DOG acting as the political objective's enabler. DOG is mainly accounted as a reward instead of a tool at the top management level. However, there is no anticipation of value in sectoral agencies.
Resources	DOG imitates the political and economic	Same as pre-2011 features, DOG imitates the	From historical data, the political and economic	As far as overall DOG is concerned, there

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	resources so that it can support the initiative that is on short term and encourage modernity, efficiency, and integrity. Resources are associated with rationales and incentives among administrations. There are no resources, either political or economic, available for comprehensive strategies of DOG	political resources that encourage the initiative, but there are certain limitations in economic resources as far as implementation is concerned. Its reliance is on the limited sectoral economic resources that curate and publish DOG.	resources are observed to be on a low level. Therefore reproduction of government path in DOG takes place in the absence of economic funding and central political support that puts emphasis on data governance practices in DOG.	are similar low levels of economic and political resources in terms of three paths impeding the appropriate implementation of DOG. Emphasis is put on the political resources so that political benefits and initiatives are promoted instead of economic resources.
Incentives	Emphasizing digital government implementation for projecting an external political image is imitated in DOG, and dominant incentive boosts the political reputation of the integrity of Kuwait along with modernity and efficiency. Therein efforts are stimulated for shorter time intervals, similar to this path.	Observations showed similar data governance between pre-2011 rationales and current ones because incentives and awareness are not incorporated in the set of data management practices that employ DOG.	Inheritance of similar rationales on data governance from pre-2011 is present in DOG, as there is an absence of awareness and incentives to carry out data management practices for implementing DOG.	From an overall perspective, analysis of pre-2011 institutions, incentives are mainly associated with political reputation and transparency. However, they possess quite sufficient for implementing it on a basic level. DOG incentives emphasize the benefits instead of social outcomes.

Table 7-7 Institutional feedback- Author's own elaboration on the bases of data analyses

From the above-mentioned analysis (table 7-1), DOG is impacted by three institutional paths in terms of rationales, practices, incentives, resources and regulations framing the actions of the Kuwaiti government and other stakeholders that are involved in the development of DOG. Whereas these three paths are not completely reflected in the DOG initiative even though there is a strong exertion on its institutional foundations that offers help to understand the limited institutionalization there is to the date.

The transparency path has influence over the DOG, and it does so by imitating rationales and incentives that are similar to the observed ones during and after the implementation of transparency and information access in 2008. With the incorporation of a transparency framework, strong normative and regulatory institutions are formed in the country, which acted as the foundation of future DOG initiatives of transparency. It also helped in reshaping the culture of transparency in Kuwait because tasks related to transparency were considered a burden by the sectoral agencies. It is because of the cultural perspective of pre-2011 paths that the practitioners of today are influenced to include a similar rationale to DOG: As per MGDU perspective, this was a very effective manner to mitigate passive transparency workload; however, in the absence of a sufficient amount of funding and restrictions in technical support, DOG and other sectoral agencies accounted this as a burden with no sectoral benefits. Indeed, the perception of agencies considered this as they had to disclose information that exposed them to political and technical costs of data disclosure, whereas there was no clarity in sectoral dividends. In consequence of this, the publication of datasets that are relevant in a machine-readable format is restricted to the minimum effort possible, whereas the focus of agencies was towards minimum effort towards complying with regulated passive as well as active transparency. In addition, transparency-related institutions and CSOs are not provided with an adequate number of incentives and political resources that they need to play an active role in the policy development of DOG. Such organizations are limited to introduce the DOG legal initiatives and advocacy tasks instead of collaborating with MGDU to create citizen-oriented initiatives of DOG. Resultantly, DOG relies on the MGDU efforts as a leading unit. The influence of the data governance path over DOG is clear with its offering a limited amount of data management policy and disregarding the relevance of technical procedures to anonymize,

interoperate, exchange and disclose datasets. The limited amount of significance of practices and strategies related to public data management is given by the MDGU and Central Government. Furthermore, the extent to operational adequacy in a restricted environment whereby public data is managed results in disregarding essential practices of data governance for developing DOG in Kuwait. Due to the non-existent cross-sectoral regulation and practices for governance of data, practitioners of data have been in operation under the dominant rationales of resistance for data misuse along with anonymization costs and property rights as far as active and passive data disclosure processes are concerned. Moreover, previous initiatives related to the management of data like interoperability frameworks are not involved in such a setting. DOG has been further sanctioned for data reuse as far as policy decision is concerned due to the absence of data standards in the cross-sectoral definition. Lastly, the influence of the digital government path on the institutional framework is through introducing ICT initiatives and DOG in the country along with the incentives, rationales and resources that are needed for implementation. Institutional development of this path laid emphasis on tactical strategies that are for the shorter time period, restricted economic resources for digitizing the public sector, and irregular political support. With the presence of ICTs historical progression in the public sector, it is quite clear that governments possess tactical visions and deployed ICT projects. However, due to no inclusion of long-term agendas, there was extreme exploitation of technologies by the government political ideologies that are deeply connected to the political prioritization and direct presidential support. This much dependence of digital government institutions on presidential support is due to the similarity of paths in DOG. The features of digital government are reflected in DOG in the restricted approach employed for facilitation of its quick implementation and the limited economic resources and empowerment possessed. There is a constraint associated with enhanced DOG development in Kuwait due to the institutional framework developed for the digital government, and this is mainly done by putting the focus on the political rewards that are for the shorter time period and affects spread, quality and relevance of sectoral DOG publication. It is observed from the evidence that the underpinning ideologies of DOG have shifted from firm political interest to acquire political advantages. However, it does not take into account the operational elements such as activities relating to training and engagement, towards an approach, and collaborative in nature, which should also consider the public and institutional value. Similarly, DOG, like the digital government path, hugely depends on direct political support

because of the huge influence and political standpoint of the top executive level. Due to the absence of formal institutional strength that is capable of carrying out the initiative. Rather than emphasizing over materialization of institutional trajectory in long-run institutions, a strong emphasis on short-termism and symbolism has been observed during the development of all these three institutional trajectories. Systematic efforts were made to incorporate symbolic kinds of institutions like objectives, sectoral practices and values in regulations, rather than to establish normative and structural regulatory institutions. In addition to that, the limited available incentives and resources focused moreover political rewards instead of being connected to wider social outcomes. It has been observed that high preference is given to limited but adequate institutions that concentrate on quick-win initiatives with great emphasis on those benefits that could be obtained from these events by the political elite. However, there is a lack of structural institutions, incentives and resources that are required for such symbolic institutional development for materialising initiatives as well as making them sustainable over the long run. DOG in Kuwait focused more on the development and maintenance of soft, symbolic normative and regulative institutions for a long but experienced great diversity in institutional forms over time. This diversity, however, did not show a clear rationale regarding the politically complex of advanced digital technologies. Resultantly, the appropriateness level of all those digital agendas has been reduced that were developed during the entire study period. Just like other projects, the systematic implementation of digital government across various administrations was not backed up with adequate cross-sectoral funding and political support. Instead of this, it should be implemented as a ministry or an agency that must have high levels of legitimacy, resources and political independence required to take on long-run strategic agendas. This approach, however, has been viewed as insufficient for carrying out cross-sectoral policies within digital government but seemed to be adequate for some main projects that have higher political visibility. Instead of perceiving digital government as a key transformative policy, it was assumed as just a peripheral policy. The lack of cross-sectoral normative and regulatory institutions leads the initiatives to heavily rely upon sectoral resources and capacities, which in turn influences the success of different public agencies. A similar path is shown by the *transparency path.* As a response to international and national pressure, acting out an inclusive legal framework was a key milestone of the transparency agenda. As a result of such an institutional force, the citizens get two-way political support for accessing public data. Regardless of bringing advancement in the

materialization of various transparency practices (including active and passive transparency procedures, independent body and sanctions to keep a check on its compliance), this framework failed in shifting the leading cultural-cognitive rationales over ownership and value of public data due to insufficient incentives and resources. In short, this framework was challenged for not radically changing the dominant transparency culture. This issue can be best exemplified by the bureaucratic, obliged sense that Kuwait civil servants awarded to said framework. Since the political elite has introduced limited incentives to make this framework strong for countering corruption and preventing its possible occurrence, therefore, corruption cases frequently reoccurred over the period of many government administrations. Resultantly, the political elite had never accepted the presence of corruption within the political system, therefore, had frequently overlooked the future occurrence of corruption cases.

Finally, instead of focusing on normative and material regulatory institutions, the *data governance trajectory* focused on developing symbolic institutions. The digital government undertook various initiatives to advance data governance. There were, however, only a few regulatory bodies that monitor their fulfilment, whereas the initiatives heavily relied upon unequal sectoral capacities and resources. Both public agencies and the political elite were not available with sufficient political incentives through which national standards can be developed within data governance, except for the support for advancing digitalization and interoperability of all public services. Public agencies generally operated and managed the data in light of sectoral practices and policies that constrained the progress of data-relevant initiatives. For example, the symbolism that the Kuwait government has awarded to the agenda of data governance had strongly influenced the data-intensive projects. Resultantly, the take-off of weak institutional trajectories has been observed during the entire study period.

7.10 INSTITUTIONAL THEORY FOR IMPLEMENTATION OF DOG IN KUWAIT

Understanding the institutional theory and then learning how to implement it into digital system research, including DOG, is discussed in the previous section. However, in this section, we will discuss how current theory is applied to this study. Recently, according to (Cai and Mehari, 2015) the institutional theory has turned into a famous and impactful tool to study different problems at the organizational level. This theory explains the in-depth and more robust aspects of all kinds of structure, and the dynamics are considered through which structures like norms,

schemes, rules and routines are found to be influential protocols with respect to social behaviour. All types of research that focuses on the social aspect can use the aforementioned for improving the understanding of the subject under study. Different authors stated the effectiveness of the institutional theory. For instance, the institutional theory of organizational communication was applied by (Lammers and Barbour, 2006) for bridging the gap determined in the social research, which was focused around macrophenomena and microphenomenon. Multiple research has also used this theory for investigating IT solutions. For instance, the research of (Teo and Pok, 2003). Nevertheless, evolution in the institutional theory DOG's application is seen. For example, a DOG system was considered for institutional analysis for testing anti-corruption by means of OPEN (Online Procedure Enhancement) for civil application in the form of a case study. Moreover, the institutional theory was combined with dynamic situations by (Luna-Reyes and Gil-García, 2011). Likewise, a roadmap is provided by (Gil-Garcia and Hassan, 2008) for DOG and institutional theory. In terms of the current work, provided the people consider the research nature, the institutional theory was applied due to its ingrained abilities to deal with several aspects of socio-cultural ambience encompassing social life, legal aspects, behaviour, morals, politics, and economics (Weerakkody *et al.*, 2016). Therefore, according to (Gil-Garcia and Hassan, 2008), it is crucial for understanding DOG in terms of institutional theory. The institutional theory will be used to develop the DOG framework in detail in the following subsections as it relates to the existing work.

A fundamental principle of institutional theory pertains to the way process or structural changes happen at a greater level, which can be maximized by applying exact changes to a lower level. The institutional theory paradigm states that an institution's sectors are synchronized and closely linked to one another (Fassinger and Arseneau, 2008). Subsequently, it moves towards the need for changing policies at the higher level, which would be reflected at the lower one. Hence, if there is an implementation of policy change in the format of the report and lower-level employees' accountability, that policy needs to be applied at a higher level for maintaining the harmony and coherency of the organization. This assumption has been criticized by many researchers, claiming that institutes are not exactly ideal. Hence it is not practical to consider that the implemented changes introduced to the system need to be uniform at both higher and lower levels (Chadwick and May, 2003). Regarding DOG, it can be seen as various accountability

levels and different structures of reporting as well as communication followed at various DOG levels. For DOG, this non-uniformity state is not suitable, and it is important to follow a standard at all levels for developing efficient communication and, hence the institutional theory paradigm can be implemented to DOG. (Fassinger and Arseneau, 2008; Greenwood and Meyer, 2008) elucidate that the institutional approach used in the organizational analysis can be defined as organizational institutionalization and is concerned with the organization's behavioural aspects, giving rise to questions in the context of DOG like:

1. What is the perception of professionals and citizens about their responsibility in the institutional process?
2. In what ways are the inconsistencies reflected at different levels to create initial and public values through the DOG in Kuwait?
3. In the institutions, what perceptual inconsistencies are found to achieve the DOG value goals in Kuwait?

The institutional theory states that all individuals are actors who have a particular role to play, which more often than not dictates how they behave. Hence, actors in an institute will not have much awareness about their tasks and actions in the case that their role does not have a direct effect on the organization's standing and reputation. In contrast, citizens are more cautious of how they behave when their public organization's reputation or standing is directly affected by their role. Therefore, it is apparent that every person's position in the system, either public as a citizen or as an employee and manager in public institutions of Kuwait, including the perception of their role, affects how they behave and how the organizational process will be benefited by their role.

The discussion about how the social environment is concerned with external stakeholders, citizens and suppliers, has been expanded by later studies such as that by (A. Najeeb, 2014). For a fully functional organization, (A. Najeeb, 2014) explains that it is necessary that the business process is modified with respect to the external actors, including the cultural and social values. Institutional theory is discussed by (Urquhart and Yeoman, 2010) from the citizens' perspective, emphasizing that it's their demands as well as social values which shape the institutions' structural and social environment, which is why institutional theory is being used to develop the final framework of this research.

The majority of institutes in an organizational field have regulatory agencies as well as a legal constitution, in addition to dealing with agents or external suppliers, whilst services or resources generation has a mechanism governing all of its processes (Frumkin and Galaskiewicz, 2004). The aforementioned mechanism is termed as 'isomorphism', which is referred to as how a constitution and the affiliation of regulatory bodies and institutions can influence the institutions' or actors' practices and behaviour in the institutional process (Wu *et al.*, 2017). Three types of isomorphism are defined by the institutional theory, as mentioned in the following section, to develop the final research framework of this research.

7.11 INSTITUTIONAL MODEL TO FACILITATE THE VALUE GENERATION OF THE DOG AT THE INSTITUTIONAL LEVEL IN KUWAIT.
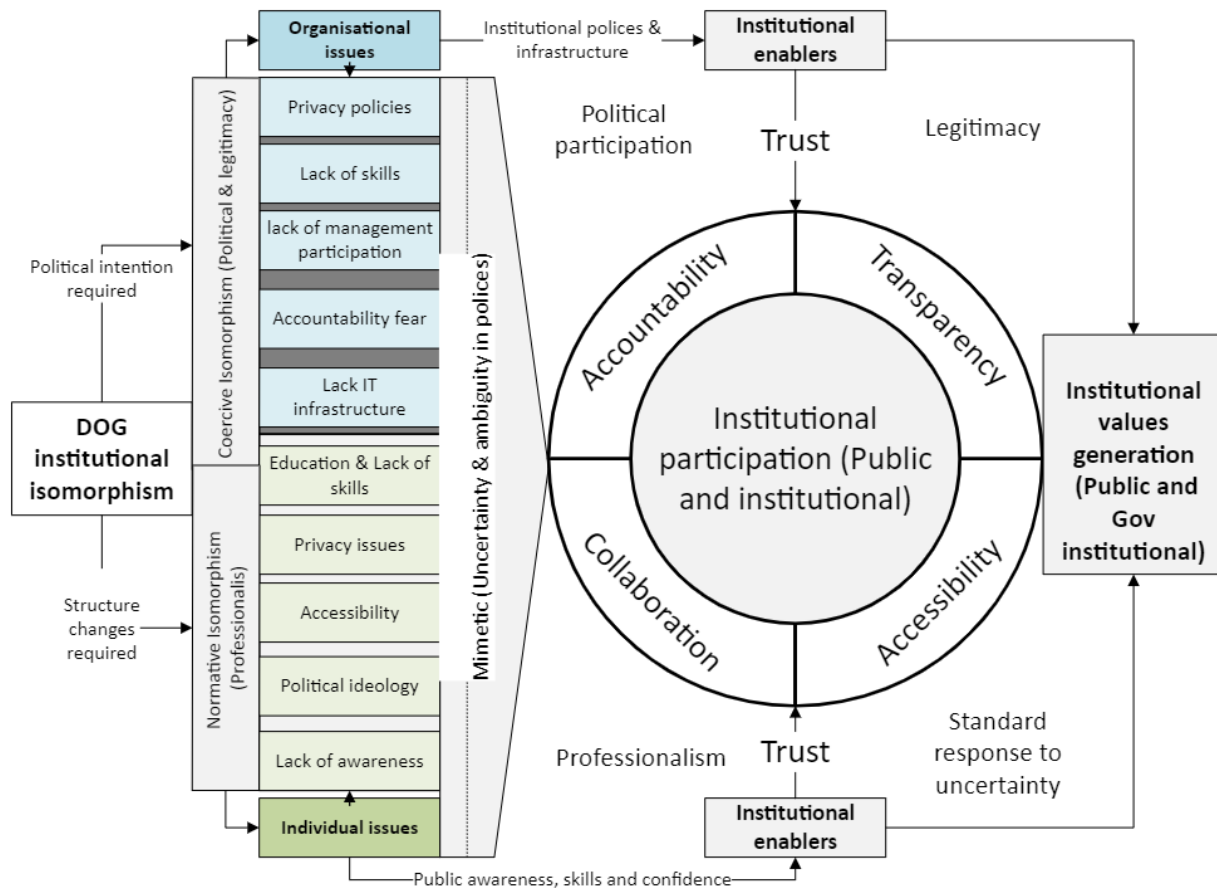
Figure 7-18 Institutional value generation model of DOG for Kuwait

7.11.1 Normative Isomorphism

This term is defined as the normative mechanism that maintains organizational standards and consistency. This type of isomorphism is defined as the theme of a technological gap and the perils regarding confidentiality, privacy and information trust. It is necessary for the Kuwait government to appoint experienced, trained and expert personnel during the implementation stage of DOG to ensure that the system is operational and efficient. This implies that the government sector employees and those who operate online should be highly expert in their related field of finance or public administration and need to be experienced as well as trained in computer data entry, in addition to securing, networking and storing processes. Thus, it guarantees that with respect to DOG, IT cannot be a remote unit. Rather it is a crucial factor, as all departments should be good in relevant expertise. The normative mechanism is associated with the process and policies applied by managers for promoting professionalism in a company (Boselie, Paauwe and Richardson, 2003) states that this encompasses an individual's training level, experience and education gained by employees before they joined the institute, or it should be ensured by the managers that employees gain those skills and provide the required infrastructure to provide their best services to the public. Therefore, the normative mechanism consists of different policies with respect to everyone's IT education level and experience in terms of DOG, and even if they know the system well, they'll have to acquire the specified qualification level for meeting those normative standards to develop the polices to the improve the transparency, accountability and collaboration of the public organization to provide best public service through the DOG.

The major advantage to take normative isomorphism is that the organizations are able to maintain specified internal and external standards of the use of DOG that will sort out the internal organizational issues of the internal organizational accountability and public accountability, according to, hence decreasing internal conflicts. Thus, primarily the normative isomorphism deals with the policies as well as standards governing the processes and operations DOG of the institutions. Processes and policies are usually not designed for the maintenance of internal consistency, instead of for maintaining consistency with standards and norms to promote trust within the government institutions and among citizens that will improve the internal institutional and public participation in the DOG. Therefore, organizational policies and guidelines are frequently changed by organizations, not just because of political and legal

considerations, however also because of being expected to improve the political participation for and within the institutions in Kuwait.

Political participation is regarded as significant for normative as well as instrumental reasons. Assuming that the governments are keen to address the issues of citizens, political participation represents a useful way to engage with the concerns and views of the citizens with their government (Yang and Callahan, 2007). Participation also generates opportunities for citizens to shape policy and politics and hold the government accountable for its policies and steps. Development of policy and recognition of issues and devising the solutions can be done by facilitating two-way communication between the citizens and the government to create collaboration and equal participation in DOG in Kuwait. Participation can also bring about a coalition for the government and enhance the legitimacy of its policies even if the ones who are participating that would lead to institutional level values generated from the DOG. It provides that instead of making participation only about consultation, the government should provide for public exchange so that consensus-building can be done without letting anyone cast a significant one-sided influence. If one seriously takes the view that democracy is imperative and that it is not just about voting but also about other types of political engagement, then different types of participation can be encouraged among citizens (Hynes and Pateman, 1970). Some of the critiques in this regard are equally applicable to civic engagement as well, such as the associational activities by different associations can out-power the citizens who have equally pressing issues but are unorganised and are thus easy to ignore compared to the issues forwarded by the strong groups. Direct political participation, on the other hand, can prevent some problems related to the participation of interest groups as observed by public choice to participate or not to participate. Such non-interested groups can end up dominating the government by creating high level of public participation in DOG in Kuwait.

For instance, according to (Kerr *et al.*, 2014; Tickner *et al.*, 2014) in Seoul Metropolitan Government (SMG) DOG infrastructure, the normative pressure of keeping things transparent acts as the foundation for the War against corruption reform can create transparency in the country that could lead to the higher trust of the management and citizen on the DOG. It was the demand by the participants that the given service level should be reported by all departments, which was later studied, in addition to analysing the complaints of citizens and system loopholes.

Thus, it helps setting up a corruption-free system and transparency standards to be followed by the government. A hierarchy of accountability for everyone and well-defined job descriptions have replaced the hierarchical models and unclear employment roles. Likewise, the Kuwait government should set parameters for defining the corruption-free service, service quality and transparency level it aims to forward to its citizens. Hence, if there is a 100% transparency level, the system flaws should be public, in addition to the process through which the requests, complaints and individuals accountable for all tasks are dealt with. Furthermore, many processes can be delayed to resolve complaints, whether consciously or unconsciously (Capurro and Britz, 2010). When a greater transparency level in the system is required by the government, the public should be made aware of the delays and what caused them. It would not be the wish of the government that citizens see the system as a flawed one or that some processes are delayed because of its employees, resulting in rework or improving the service management processes and operations.

It has been discussed in the technological gap section of this chapter that also includes risks concerning privacy, information trust and confidentiality, which required policies and laws in the country to promote transparency and accountability in the use of DOG. During the DOG implementation phase, it is important for Kuwait to employ trained, qualified and experienced people so that they can ensure compliance with international standards. This clearly explains that people working in government institutions and online must be highly qualified in their professions, which in this case is in finance or public administration, so that they can look after the system effectively and efficiently. Moreover, they should also be familiar with how to enter computer data, how to store and secure it, and what the networking procedures are. This deduces that IT is not an isolated unit, rather an integral one because all of the departments are linked with it.

For instance, talking about the infrastructure of the DOG system, normative pressures such as transparency need to act as the foundation of reform for 'War against Corruption. The participant mentioned that every department must report about the level of service provided by them to analyse it with complaints made by the citizens and other loopholes identified in the system. Their aim was to achieve a system that is free from corruption and transparent while there are rules and regulations required to improve the transparency and accountability level among the

government institutions and among citizens that will improve the institutional trust to increase the participation in DOG in Kuwait. As per the observations of, (Retallack *et al.*, 2016; Sandoval-Almazán, Luis Felipe Luna-Reyes, *et al.*, 2017) is claimed the role of employment that is ambiguous and hierarchical models are now replaced with job descriptions that are clearly defined and accountability that has been proposed on the hierarchical level. These ambiguities are also related the mimetic isomorphism, which will be discussed in the next section. In the same way, the Kuwait government needs to set standards that define the level of transparency, corruption-free service, and service quality that they are envisioning to offer their citizens. Therefore, if the level of transparency is 100%, any kind of flaw in the system needs to be publicly announced, along with the complaints and requests that are made by individuals. In the view of (Saxena, 2018a), there are situations where multiple procedures to resolve complaints needs to be delayed, be it intentional or unintentional. When there is a requirement for a high level of transparency in the system, the delays need to be informed publicly, along with the reasons for its delay. The government will not want their citizens to think of their system as flawed, or employees delay the procedures intentionally because it can then lead to an even much effort to improve service and operations management which will work as enablers of DOG in Kuwait (see figure above).

7.11.2 Coercive Isomorphism

Coercive pressures are defined, in terms of DOG, as a substantial emphasis on the legitimization of external as well as internal processes, which are aligned with laws regarding the privacy and transparency violations and guarantees that there is timely recording and reporting of all communications, for maintaining an efficient service delivery database. One of the implications of coercive isomorphism is to put emphasis on timely, correct and quick reporting within the organization and outside the organization to the political leaders. If the aim of the government is to work online, then It means any kind of delay or error that is present in the manual system needs to be fixed because the DOG system is going to be transparent. However, there are certain cons associated with this. For instance, In Kuwait, employees have claimed that their workload has been increased by the inclusion of the DOG system because the system requires them to tend to each query instantly and the fact that each response is going to be recorded. They claimed that

mostly, they had to respond to similar queries at different times, which makes it quite redundant for them. (Lessig, 1999; Wawer *et al.*, 1999)explains that legal and political influences and pressures make the essential elements of regulatory or coercive isomorphism. Organizations may be working in a single country's territory however might be connected to numerous others as well and are likely to follow the legal procedures of the country they operate in. This is how the level of transparency, applied taxes, product and service quality and minimum wages are set for the organization. Political pressures are some of the most influential ones, and there are numerous motivations behind such pressures in the government sectors. Often, the government is not the point of origin for the political pressures, instead of from the opposition that has the probability of winning the election and assume the seat of power (Kim, Pan and Pan, 2007). Thus, these considerations should be considered when the organizational structure is designed for taxation and accountability. Coercive or regulatory pressure can result in rapid, timely and accurate reporting. If the work is to be transferred online by the government, all errors and delays present in the manual system should be removed, as the DOG system should be responsible for these to become transparent services, but it has been identified that there is extra pressure from the political leaders to implement the DOG which creates fear of accountability among public managers. Therefore, the political leadership should create a participative environment to facilitate the DOG in Kuwait. Nevertheless, there are many shortcomings as well. Employees report that their DOG system has augmented the government officials' workload because of the expectations that the employees will instantly respond to all enquiries, in addition to recording the responses for later use. At various times, similar inquires can also be frequently made. Hence the inquiry is duplicated, resulting in redundant reporting. One way to resolve the problem is to improve the infrastructure of the information technology system installed for enabling similar inquiries that a particular user made to be collectively reported and grouped. DOG officials a similar issue for which an OPEN network system was implemented by the Kuwaiti government, which aided in classifying service requests, complaints and inquiries made at various times at various departments. The open system assigns a particular code to the inquiry automatically, regarding the service department, in addition to creating associated links for identifying similar complaints, which create extra pressure on the employees and the managers keep the employees responsible, which is required empowerment and fair reward and punishment system within the

institutions. Therefore, easy reporting is made possible by looping together all similar inquiries. The redundancy of reporting in the DOG system was subsequently reduced to a great extent.

There is a solution that they can improve their IT infrastructure and enable it to tend to similar queries as by a particular user to be grouped and presented together, but there is also need to improve the public awareness, skills and trust to encourage them to use DOG service their own that will reduce the burden on the institutions and it will improve the participation. In a study by (Safarov *et al.*, 2018), a similar concern was highlighted whereby Seoul government officials reported an issue against which the Kuwait government employed an open network system that helped them in classifying inquiries, service requests and complaints made by different departments at different time periods. The system automatically should assign a particular code to the complaint and links it with other complaints of a similar kind so that similar queries can be attached or grouped together, and they can be easily reported. This helped reduce redundancy to a great extent in the DOG system, and it will promote the transparency and accountability of the service that will lead to a high level of public trust in the services and internal transparency at the organizational and institutional level.

7.11.3 Mimetic Isomorphism

Mimetic is defined as the copying or imitation of another object or an individual. The term mimetic isomorphism is defined as the standards and processes copied from other institutes, thought of as legitimate and successful (Rashed, Karakaya and Yazici, 2018). Mostly, new institutions undergoing structural transformations are not clear about the legal policies and mechanisms they use for ensuring the success and legitimization of their operations. This is what compels them to abide by policies that are being used already. As mentioned before, the mimetic process facilitates a direction towards the new model of delivering service since the beginning processes frequently have ambiguities and uncertainties. Therefore, the Kuwait government can copy the legal structure that other successful DOG practice but should sort out the uncertainty of policies and regulation of the institution that will improve transparency, accountability, collaboration and trust at the internal institutional level and external among the public on the government institution.

As mentioned previously, mimetic isomorphism actually allows a route that goes towards a new model for service delivery to reduce the uncertainty and ambiguity of the policies because there are so many ambiguities and uncertainties at the start. Kuwait government can mimic the entire legal framework from other governments who have successfully implemented the system by imitating from private organizations' technological framework in Kuwait. It would not be feasible for the government of Kuwait to employ a model from a foreign country because there will be a difference in their level of infrastructure and expertise. The institutional theory basically emphasizes societal values, structure, and attributes. Thus, technological familiarity and expertise need to be kept in mind when the technological model and structure of DOG is to be implemented. Private companies and NGOs that are working in Kuwait will be enabled to give a reference in regard to the implementation of the DOG system for communication and service delivery. Furthermore, the government of Kuwait is not inclined to employ similar legal frameworks and IT strategies for every department. For example, they can use the same project for pilot testing and then decide whether to adopt the same for other departments or not, subject to its successful completion. For Kuwait, it is not advantageous to implement a technological model imitated from a western country because the infrastructure and technological expertise differ vastly in both areas. An institutional theory emphasizes attributes, values and social structure, and it is hence significant to consider the expertise and familiarity of Kuwaiti people with technology when the DOG structure and model is being implemented. Non-government and private organizations working in Kuwait will be capable of giving a reference regarding this, as a lot of them have implemented e-system mode to deliver services and communicate. Furthermore, the Kuwait government does not need to apply identical legal structures and strategies regarding information technology for all the departments, i.e. one or two departments can initiate a pilot project, and the similar framework (with necessary adjustments) can be implemented to other government departments after the pilot phase has been completed successfully. Data leakage and corruption is not necessarily a problem in Japan because of the social values based on high moral values and highly secured networks. Therefore, the anti-corruption and accountability mechanism needs to be revised in Kuwait as per the needs of the country's environment. Hence, mimetic isomorphism is seen to be advantageous for an institute when the policies are ambiguous to follow. Nevertheless, the copied working and structural mechanism should be adjusted in accordance with specific socio-cultural and environmental values. According to

(Campbell and Pedersen, 2007) it should be understood that different social factors can influence the system's effectiveness before taking part in a discussion regarding the implementation of institutional theory in the context of DOG. (Ragin, 2008) states that the current study and the literature highlights one of the key factors regarding the application of DOG at the national level, found to be the human element. A human mediator, if present, makes sure that the components of corruption, errors or personal gain cannot be neglected. (Ragin, 2008) further explain that data monitoring techniques and improved security can decrease the number of corruption and fraud cases. Nevertheless, such cannot be completely eradicated.

Thus, this increases the need to understand the institutional theory's sociological aspect for identifying the causes that led to undesirable situations such as corruption and fraud. The component of personal interest occurs in an organization where the institute has failed to guarantee that(Wiley *et al.*, 2005) : (i) clearly defined policies, (ii) violation of the system's policies will not result in any personal advantage, for instance, an employee can be convinced by the rival institute to corrupt the data of a company, (iii) well-equipped monitoring measure (Cañuelo *et al.*, 2012). To address barriers and perceptions on socio-cultural aspect is quite essential for government in the context of DOG implementation. In this study, even though the population believes in the morality of their government, still there is a lack of trust in their professionalism and credibility. Therefore, it is essential for the government to act on it and ensure that the officials are capable of implementing the proposed model of DOG. When perceptual barriers are eliminated, only then the DOG system can be implemented in a true sense. The government needs to consider the perceptions and socio-cultural hindrances related to the application of DOG. The current study addresses that, in spite of the population believing in their government's morality, they still do not completely trust their professionalism as well as credibility. Hence, it is crucial that measures are taken by the government for publicizing interventions, encompassing the advantages to people, in addition to assuring that the government officials are able to apply the proposed system model. The true willingness for adopting the system of DOG will only come when the perceptual hindrances are removed.

7.12 INTERNAL AND EXTERNAL PRESSURES TO IMPLEMENT THE DOG IN KUWAIT

In this study, an integrated model is designed to adapt the DOG system in Kuwait that is on the basis of thematic analysis and Institutional theory framework. See the figure above for details. Normative pressure, in the words of (Shi and Hoskisson, 2021) , is defined as a thing that allows the organization to retain its set standards, mitigating internal disagreements. As a result, normative isomorphism is mainly dealt with the norms and standards that regulate the operations and procedures of an institution. Policies and procedures, according to (Hoffman and Ventresca, 1999), does not ensure internal consistency. However, they maintain compliance with international norms and standards. As a result, there is a constant change in public perception, which required policies and procedures, not solely for economic reasons, but also to conform to industry standards. Institutions must have respect for societal and industrial norms because they are part of that social environment.

Risks related to privacy and confidentiality, and information trust, are all connected to internal normative isomorphism. The DOG system needs to be functional and operational; the Kuwait government will need to recruit resources that are trained, skilled, and experienced individuals throughout the implementation phase, which is based on the external pressures. This implies that employees in the government sector who are operating online are highly qualified in public administration or finance, as well as skilled and knowledgeable in computer data storage, security, entry, and networking protocols. In this way, IT is not considered as a stand-alone unit within e-government; however, instead of an essential part, every department needs firm IT skilled resources.

The Kuwait government should set criteria for the level of openness, service quality, and corruption-free service it is willing to deliver to its residents. If there is complete transparency, the faults in the system and the process for dealing with complaints and requests, as well as the personnel responsible for each job, should be public. Furthermore, it is easy to purposefully or inadvertently postpone prescribed steps for resolving complaints that are creating external pressure on the government. When government demands that the system should be transparent, the public must be informed about everything along with the reason as well. It is not the government's wish that its citizens think the system is broken or that the reason behind the delay

is employees and their activities. Therefore it effective and corrective steps must be taken to improve its operations and service management methods. Mainly, the government framework of building relationships is on the basis of socio-cultural isomorphism, which relates it to the institutional theory's sociological aspect. This puts light on the efforts made by the government to gain an understanding of the DOG system from the citizens' perspectives in order to ensure maximum benefits are attained from the system. Therefore, what is required is accountability, transparency, and information security so that the citizens can be satisfied and attracted to the system. By designing a framework that is citizen-oriented and is capable of building relationships between the Kuwait government and the public will increase the readiness of them adopting this system that could lead toward the public and institutional values from the DOG in Kuwait.

Proper, timely, and speedy reporting is emphasized, which is one of the consequences of regulatory or coercive pressure which comes from inside from the institutions. If the government wishes to go online, any delays or errors in the manual system must be mitigated, as the DOG system makes it public information. There are few cons associated with it. Like, employees in Indonesia have claimed that their DOG has spiked their burden because of the anticipation that they will respond immediately to all queries, as well as to record the response for future use simultaneously. Similar inquiries are experienced at different times, which duplicates such queries and increases the workload exponentially. One of the many approaches is to strengthen the infrastructure of the IT system to eradicate similar queries from a single user that may be combined and reported at the same time. DOG officials created an OPEN network system so that they can develop categories of queries, complaints, and service requests submitted by different departments or at different times. The OPEN system automatically assigns a code to the query and build associated links so that they can identify comparable complaints, enabling quick reporting of all queries that are of similar nature. Resultantly, the DOG system's reporting considerably reduced its redundancy. The adoption of the DOG is based on the following:

1. Citizen's readiness regarding the adoption of model
2. Government's capacity to implement the model.

If there is a lack in either one of the aforesaid stipulations, the adoption process will face challenges. From the model, the following factors are required to adopt the model:

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1. Accessibility and accountability
2. Security concerns
3. Service expectations
4. IT literacy among employees, management and citizen

Four dimensions are required if the DOG service model needs to be grounded. It is clear that if the structure or technology implemented is not in accordance with the citizen's IT literacy, and then they will definitely hesitate because of differences in the design and capabilities. This is also true for other components as well, which ensures that every government effort is made to achieve objectives that are set in accordance with the expectations of citizens.

Therefore, the most important component in grounding framework objectives includes socio-cultural norms in the context of DOG, as is noted in 7.4 that the problems of the technological gap are interrelated. Furthermore, the technological gap is claimed to be the fundamental reason for the risk of security threats and data loss within the system. In this regard, government officials need to make sure that the technology lapse will stimulate the perceived and associated risks of the DOG system. The technological gap is linked with the government service framework of credibility, whereas risk is linked to professionalism. Therefore, by ensuring that all the government officials who are involved in the DOG system implementation possess sufficient expertise to carry out the implementation of the system along with the ability to evaluate components that are missing, enabling improvements in the system subsequently. Improvements made in the system on a timely basis will make sure that the system is safe from threats and data leaks. In addition, professionalism will help in creating trustworthiness of information and among citizens. In this way, the technological gap and risks associated with it can be addressed properly and mitigated accordingly with the increase of credibility. There must not be much deviation of the DOG framework from the traditional normal system process (Voutinioti, 2013). The above section explains the true adaptation of the new system that will be on the basis of compliance of the new system with the normal process. Thus, the DOG system must ensure that the process of inquiry remains similar to the ones in a normal processor manual process. This will not make any changes to the procedure, and just the transactions need to be carried out from the online process instead of a manual process.

Adoption of the system will be much more difficult and time-consuming for both the stakeholders (citizens and employees) if there are any kind of changes that occurred in the procedural steps along with the way in which communication takes place between citizens and government officials. Mimetic isomorphism is the principle on which the current framework is based upon, linking it to the theme of benefits. Thus, there is a need for initial identification and adoption of basic procedures from other DOG models that have been successfully implemented. The second step contains the modifications of these steps as per the needs of Kuwait, keeping in mind the prior processes of manual service so that the adaptability percentage from citizens and officials is higher. There needs to be a balance so that system can be developed, not too complex for employees and citizens to adopt, and not so simple that it can be exposed to various risks and errors (Yaghobi, Yazdani and Shakeri, 2010).

7.13 INTEGRATED DOG MODEL VALIDATION

For satisfactory consideration of research in the context of knowledge, there is a need to examine and validate the conclusions with the help of standard criteria on which validation is based (Amaratunga *et al.*, 2002). It is important to ensure the research outcome validity as it dictates the effectiveness, reliability, and generalizability of research (Dwan *et al.*, 2008). The criteria, on the basis of which validity is measured, depends on its adoption of philosophical stance. There are four types of criteria on which validity can be ascertained, which are:

1. Construct validity measuring the accuracy of the theoretical perspective of work that is in consideration. This is determined with the help of measuring the extent to which data-gathering strategies are accurate in addressing the research questions.
2. Internal validity determines the similarities in findings with the data that is utilized. This highlights the cause and effect whereby one condition leads to another.
3. External validity highlighting the extent to which justification is present for the research claims. This identifies the level to which findings of the research can be generalized.
4. Reliability containing the responsibility of outcomes if the procedure followed by another researcher is similar.

Provided that, validation contains forming of evidence in a documented format that offers higher satisfaction and assurance and is capable of yielding outcomes consistently that meets predetermined attributes and functional specifications of quality(Huber *et al.*, 2002). In this regard, assessing validity by making a comparison of outputs or outcomes from model to experimental data is relevant. Moreover, in this model, social constructionism is followed, whereby validation of research is not possible. Instead of this, the overall model was validated on the basis of subjective evaluation through expert interviews with professionals who have high expertise on the overall model of DOG operation. The fundamental purpose of conducting interviews, details of which are already given in Chapter 6, was to provide insights regarding the usefulness, robustness, completeness and relevance of a model that is stimulated by qualitative data, among other criteria for validation. The use of interviews not only helped in providing the primary qualitative data for assessing the model but also supported in disseminating the final outcomes of the overall research outputs.

Even though the expert interviews were conducted for the purpose of attaining their valuable opinions and insights, it was found out that the overall model of DOG fulfilled their desired expectations to a great deal, especially for the fact that it pertains to its successful workability in the context of Kuwait. There were some suggestions made by the experts to improve or enhance the overall model. For example, one of the experts from the interviews suggested some of the measures that could be taken to incorporate further improvements in the overall model implemented by the government of Kuwait, which are as follows: "the model that is implemented is quite robust in nature because it only accounts for certain key problems that are being inhibited in Kuwait regarding implementation of DOG. A few of the key issues are professional ethics, information trust and associated risk." There was another expert who stated that "I am in liking to the way how different factors are interconnected to generate the public and institutional values together in the overall model of DOG. The model is very easy to follow, and it is also open for further expansion in the future, considering the infrastructure of DOG in Kuwait". Because of the expert opinions during the evaluation phase of the model, the model became quite successful in terms of understanding and potential future implementation. In order to validate the model in an even better manner, another set of interviews is to be conducted

whereby the assumption would be that the model is implemented. However, this type of interview was out of the scope of our current research.

7.14 CHAPTER SUMMARY

In this chapter, research findings are discussed along with results from the fieldwork that was presented in the previous chapter. The focus of this part will be on explaining research questions that are on the basis of research outcomes. This chapter provides a greater sense of understanding towards research findings by employing institutional theory lenses to explore the issues in the context of DOG in Kuwait. This approach will critical and cooperatively discuss findings of research from a theoretical perspective and helps in formulating an integrated model for supporting DOG in Kuwait. This chapter includes the citizenry gap, technological gap, privacy and confidentiality, information trust, professional ethics as a source of public trust, risks of prevention, conditions for benefits as the pubic value of DOG, DOG acceptance at the institutional level, institutional feedback, institutional theory for implementation of DOG in Kuwait, institutional model to facilitate the value generation of the DOG at the institutional level in Kuwait, normative isomorphism, coercive isomorphism, mimetic isomorphism, an integrated model of DOG in Kuwait, institutional approach to generate the public and institutional values through DOG in Kuwait and finally, the integrated DOG model validation.

CHAPTER NO 8: CONCLUSION AND RECOMMENDATIONS

8.1 INTRODUCTION

This chapter concludes and provides an overall summary of the research conducted. Furthermore, it also provides recommendations for studies that may be conducted in the future, demonstrating the limitations of the study. Additionally, this chapter also sheds light on the primary contributions made by the study in research and examines how research criteria are fulfilled with the study.

The present study aims to understand the extent to which the institutional theory can help understand the implementation process of DOG and address the motives, challenges, best practices of this initiative in the Kuwaiti context. My research explores that how the institutional approach can generate public and institutional values from the DOG in Kuwait. **So,** the purpose of this study is to offer a conceptual framework after analyzing the key practices, enablers, opportunities, and motivators of digital open government (DOG), especially in the context of an Arab country. Therefore, the context has been explored through applying the institutional theory that would lead to understanding the institutional issues to generated public and institutional values through DOG in Kuwait. So, the researcher also intended to the present explores the challenges, motivators, enablers, and risks in the implementation of DOG, specifically in the context of Kuwait. As this research is interlinked with political, social, cultural, economic and technological context, which is interpretivism epistemological position is being taken for this research to interpret the overall institutional context of the DOG in Kuwait. The researcher used the qualitative research method with a semi-structured interviews tool of data collection because the interview gave me the opportunity to do a discussion with the ministries which are being involved in DOG in Kuwait.

The final developed model research is developed on the basis of research findings which is the major contribution of this research. This framework shows that there are some individual and organisational issues that impact the adoption of digital open government in Kuwait. The organisational issues included privacy policies, lack of skills of professionals within public organisations, lack of management participation to implement the new digital open government system, accountability pressure on the management data discuss them to implement the new

system, and lack of IT infrastructure in the government institution which heart and create the barriers for the successful implementation office turn open government in Kuwait.

This model also presented the role of organisational issues, which is about individual issues so these individual issues exist in public and these issues are included lack of awareness of digital open government services, the political ideology of the public because some people believe that whatever the government is doing they are wrong and they are against our government, so they don't want to use the system, privacy issues which decrease the trust of public on the system, lack of education and skills of the public is also a barrier for digital open government in Kuwait.

The developed model also shows that there is uncertainty and ambiguity of the government policies and regulations, for example, on ethic and privacy policies of the citizen in data sharing, which impact the trust and participation of the citizen to participate in the open digital government system. Additionally, there is a lack of accounting rules and regulations, which also impact the trust of professionals and citizens to participate in the digital open government system. This delta model also shows that there is a lack of transparency and collaboration within the public organisations, which also impact the implementation of digital open government, which is why this research suggested that there is a need to improve transparency, trust, accountability and transparency in an open detail government system that will generate the public and institutional values in Kuwait.

Public value creation takes place when different governmental agencies provide different public services to citizens with the common objective of achieving the objectives intended by citizens in the democratic process. Such services must be sustainable and politically legitimate (Dahl and Soss, 2014). Since there are different values found in public value creation, e.g. managerial and democratic values, the creation of such services involves combining different administrative processes to generate public value and balancing the consumption of such public services. Therefore, in order to effectively create public value in Kuwait that cannot be separated from the institutional value through DOG, it is imperative to the discussion as institutional values the intended outcomes and then balances the provision of public services accordingly. It is also important to note that merely combining the public goals and different administrative processes does not guarantee the creation of public and institutional values together. The public value will be created when public services are consumed in aggregation, and such a consumption remains unaffected despite large scale requirements of their products because of their efficient delivery to the public, such as through digital technologies, which is the required level of transparency,

accountability and trust among the citizen and organizational level in different public organizations in Kuwait. Therefore, creating public value requires balancing multiple odds. It may require balancing administrative processes which are not in line with each other or which may even run inroads into each other. Moreover, it may require balancing services that are consumed collectively on large scales. Public managers are continuously looking for ways to provide public service efficiently and also understand the effect of different public services on each other, which required political participation in the DOG projects in Kuwait.

However, previous analysis is necessary given the limited resources and technical constraints involved in the production and delivery of public services. Furthermore, the aspirations of citizens may also vary from time to time, making it complex for policymakers and public managers to devise services that can continuously meet the social expectations of citizens (Moore and Khagram, 2004). This is the reason that public managers are increasingly relying on digital technologies for the delivery of public services according to the expectations of the citizens. The digital technologies provide effective support in the production and delivery of public services and create two significant effects, but there is a lack of organization policies which are hindering the internal collaboration of the public organization, and it also discourages the manager participation in the DOG project which is the link with the institutional resources. Firstly, it increases the value of each individual service. Secondly, it enhances the overall value of public services. The second effect determines the creation of public and institutional value together. It is also a factor that is not well researched in the literature on public value creation. Therefore, this research explored the root causes and issues which play their role to generated public and institutional values together.

 Digital applications are helpful in delivering individual services and are also instrumental in balancing different public services. By using digital technologies, public managers can balance the integration of different public services and thereby create value for the public(Lauretti *et al.*, 2017). Digital technologies also help public managers with data collection, analysing through the big chunk of data and balancing the trade-offs. All these are essential elements of public value creation (Brimblecombe *et al.*, 2017). However, it is also important to point out that not all data applications can be used for value creation. Moreover, public value creation is also not always evident. Furthermore, different open data applications would be helpful in producing

public value at different individual levels and internal organizational levels, but they may not be helpful in creating overall public value so as to give an impression of general value creation for the public. Nevertheless, public managers can create even new values by using modern data analytics to deliver benefits to citizens to provide their service at their doorstep. But it is important to understand that the effect of new applications is not yet clear as these are recent innovations, and there is a dearth citizen understanding and skills to use these advanced applications for DOG in Kuwait. As such, their role in public value creation is not clear. Even when such applications are integrated together for creating public value, it can still be a daunting task to replicate the process of value creation. It is difficult to develop and sustain capabilities when they are spread across different departments of the government involving variation in skills, resources and other components. This gives rise to the discussion around the organizational capabilities for public value creation.

8.2   RESEARCH CONTRIBUTION

In this section, current research contributions to the theory are stated, which are as follows:

8.2.1   Theory Contribution

The institutional theory has been used for this research because most of the institutions in an organisational field have a legal structure and regulatory actions, and deal with external agents or suppliers or agents, and the generation of services and resources uses a mechanism that rules both its external and internal processes. Therefore, this theory proved helpful to explore the institutional barriers and enablers to implement DOG in Kuwait. Political, together with other influences and legal pressures, consists of the chief mechanisms of coercive or regulatory isomorphism. Organisations function inside the territory of a country but still may relate to several other countries, and so they are destined to adhere to the legal rules of that country(s). Legal policies and business structures build the foundation for any organisation and firm, and the social environment of the firm and its cultures also have a significant role to play. Hence, it is mandatory to know Digital open government in the context of the institutional theory.

Normative help to understand and explore the professional issues and barriers to implement this still open government in Kuwait. For example, it has been identified that there is a lack of skills and professional ethics in the data sharing controlling and consumption of the data through the open data system of the Digital open government. In relation to the Digital open government, the normative mechanism would have a series of policies concerning the level of

IT education and experience of each individual, and, in any case, if they do have experience with the system, she/he would be expected to have the prescribed level of qualification to match with the normative standards which impact on the DOG project internally, and these policies also impact on the citizen to use DOG. The institutional theory addresses, basically, three types of isomorphism, which proved useful to explore the issues and barriers of the implementation of the DOG in Kuwait to generated required values. The legal rules of the country where the organisation functions put down a certain level of transparency, quality of products and services, minimum wages, applied taxes. Coercive isomorphism means the political and legal environment of the country impact on the DOG in Kuwait.

The theoretical contribution of this research is that this research is based on institutional theory and the developed framework is developed and the expansion of institutional theory in the context of digital open government in Kuwait, which is why that theoretical contribution is an extension of institutional theory and use of extensional theory in the context of digital open government. There is a discussion regarding societal ethos in the context of DOG framework implementation; however, up till now, there are no studies conducted previously that have presented an integrated model that associates government's online services with the societal values and citizen's expectations in the previous chapter. This type of DOG value model is attained by implementing Institutional theory that laid the basis and from which norms, societal values, and beliefs are analysed during the implementation of the DOG model. This makes sure that there is accordance in the model and public expectations along with technological expertise. By incorporating Institutional theory, it has been highlighted that there are several serious mental blocks that are present in DOG systems and citizen's minds that are hindering their way of acceptance that would increase the public and institutional value together in Kuwait. Thus, not just the government has to take care of data theft, but also to address issues that are affecting security in the minds of Kuwaiti people.

8.3   KNOWLEDGE CONTRIBUTION

The practical contribution of this research is that this research provides comprehensive and detailed knowledge for the implementation of digital open government in Kuwait. Therefore the public organisations and government can use this knowledge to develop organisational and public policies and rules and regulations to improve the successful implementation of digital open government in Kuwait. This research for wide in-depth knowledge about the critical factors which play their role, for example, transparency, accountability, trust and collaboration.

The government can develop policies and organisational rules and regulations to deal with these factors specifically. In this study, the issue of the slow rate of acceptance of technology in Kuwait is raised, though internet access is available to almost everyone in Kuwait as compared to other Middle Eastern countries where the technology acceptance rate is higher. This clearly shows the distrust among people in KUWAIT towards online services. Resultantly, DOG implementation failed to yield desired outcomes due to the increasing amount of distrust in citizens. Therefore, the government of Kuwaiti Arabia should put a lot of effort to improve their online services and spreading awareness among people that measures they have taken to secure their data to promote online services and an acceptance rate of e-governance. From a theoretical perspective, it is stated that Kuwait requires greater efforts as compared to other Middle Eastern countries to promote their online services because of the distrust created inside people.

Another significant contribution of the study is that it offers a clear picture of risks that are associated with the implementation of the DOG system. There is a threat to privacy, confidentiality issues, and theft of data that are fundamentally linked to the DOG system. In this way, citizens, as well as the organization's employees, stated that there are no required skillsets and expertise possesses by the officials to secure and safeguard their data against cybercrimes.

This links to the topic of the technological gap in the previous chapter. The first domain of this topic covers the lack of capacity that is present in the system to overcome external threats, and the second one deals with the lack of personnel expertise which shows the gap between offered DOG system and citizens ability and competency to use the system. Thus, when the public organizational heads, government, and policymakers address these both domains, they will influence the views of the public and shifting their distrust into trust in the DOG system. This urges the need for engaging in forming or re-forming standards of HR and IT that are essential for designing and maintaining DOG, whereby not just the system gets efficient but also the officials are considered as technical experts who are able to fight against system breakdowns and external threats.

8.4   PERSONAL REFLECTION AND LIMITATIONS

8.4.1   Limitations

The scope and methodology of this research are not affected by its limitations, whereby some of them are discussed below:

1. Collection of data and analysis of procedures are examined in the context of Kuwait. This puts a limitation to the study's ability to generalize findings which are limited to Kuwait. The restrictions and cultural norms discussed in this study are also have been surrounded by Kuwait that may not be very helpful or applicable to other regions and countries.

2. For this study, three organizations of Kuwait were chosen that highlight prevailing trends and issues in the DOG system. However, it does not offer a holistic view of the data gathered for this research. Therefore, not considering various public sectors is another limitation of the study as it reduces the study's ability to generalize study findings for all public sectors across the country.

3. Institutional theory is adopted in this study for creating a link between the DOG system and socio-cultural values. However, there are other theories available such as Organizational Theory, System Theory and Technology Acceptance Theory, all of which have their own viewpoints that examine how one system should move towards a new one, provided the context of culture. These theories are not included in the development of the integrated model.

4. There are other issues than professional ethics, information trust and DOG risks that prevent the DOG system and move towards success in developing countries such as Kuwait, which is not covered. This type of issue is beyond the scope of the existing study.

8.5   PERSONAL REFLECTION

Critical reflection relates to the issues and experiences researchers face during the course of the PhD program. In pursuit to acquire PhD, I have attained quite a lot of skills that are useful for me, such as writing skills and research methods, management and planning of research, management of references and searching for literature. I have successfully acquired valuable skills that allowed me to organise my thought process from the beginning to the end of my PhD.

In order to gain an understanding of literature, searching and references helped in finding relevant books and journals, shaping my entire work understanding. In addition, time management during this project was very crucial, and I learned a lot from managing the research course that enabled me to implement effective time management tools like the Gantt chart that narrows down both short term and long-term goals. As far as research methodology is concerned, this work employed a qualitative method that helps in identifying drivers and themes of implementation of DOG in Kuwait. In doing so, my analytical skills and interpersonal skills were improved to a great extent. Overall, the journey of PhD was long and difficult, but after completing my project objectives, I felt fulfilled and accomplished.

8.6 FUTURE RESEARCH RECOMMENDATIONS

There are several recommendations provided in this study for future researchers in accordance with the findings of this study.

1. Future researchers can test the integrated model for analysis of socio-cultural factors to design the DOG model that influences adoption rates and acceptance rates for DOG publicly.
2. A quantitative study is carried out for identifying the importance of each variable of society regarding decision making and policy formulation of DOG. In addition, regression analysis could also support in identifying the extent of dependence of DOG on individual factors related to citizens.
3. A qualitative study can be conducted by future researchers because, in this study, the issues that are covered are limited and different as compared to institutional theory. There are certain beneficial theories that can be employed, such as Organizational Theory, System theory, and Technology acceptance theory.
4. A qualitative study can be conducted by future researchers, but in the current study, issues covered are other than professional ethics, information trust and risk that is merely the research's focus.
5. Another area that is slightly discussed in this study which is the marketing and promotional tactics of government to spread awareness among citizens about the advantages of DOG system and to address risks associated in the mind of people. Thus,

future researchers can conduct in-depth analysis regarding different interventions from the government, intentions of which are to promote DOG of Kuwait citizens.

8.7 RECOMMENDATIONS FOR DECISION MAKERS

It is suggested to decision-makers that they should adopt a process that is universal in designing accessibility of DOG system when it comes to recruitment of IT professionals who are credible and experts in their fields so that they can implement a stringent code for promoting professional ethics to educate citizens about DOG system and its benefits that will ensure successful implementation of new DOG system.

8.8 EVALUATION OF RESEARCH

8.8.1 Contributory

According to Tracy (Tracy and Hayashi, 2010), no study is good unless there is something to be added to the existing literature. Therefore, this study aims to make various contributions to the literature that is useful.

Through institutional theory, cultural factors are associated with DOG services, which is considered one of the major contributions made by the study to literature concerning Kuwait DOG implementation strategies.

Additionally, the study also found out that it is not because of the lack of access or knowledge of the internet. However, it is the distrust among citizens towards online services that hinders the acceptance rate of e-government in Kuwait.

8.8.2 Transparency

To ensure data transparency, research protocols are designed (see section 5.3), and by following the prescribed steps in the protocol, a study that is similar to this one is easily conducted along with similar findings.

Therefore, there should not be any kind of ambiguity in data collection as every step is clearly defined in the study. Additionally, every question is asked by the employees and citizens are presented in the current study.

8.8.3   Defensibility

According to (Alimohammadi *et al.*, 2009; Larsson, 2010) , primary and secondary data of the study must be capable of defending questions included in the study. There should be a sense of harmony amid questions of primary research and responses given. The questions of the research are identified and evaluated the major challenges that are faced by KUWAIT government for implementing DOG along with the perceived risks amongst the public that covers professional ethics, information trust and risks. Every response generated from the primary study is exclusive to the areas of research, whereby there was an association of information trust with professionalism and gaps in technology. Professional ethics is connected with a standard code of conduct for officials in the government, and risks are connected with data security loss.

8.8.4   Credibility

The credibility of the findings of the study is confirmed from two aspects. The first one is the study's scope that is limited to KUWAIT, and primary data is also extracted from KUWAIT. This means that there were no assumptions in responses as there is no societal or geographical consequence in the population that is interviewed. The second one is the topic of research which is DOG that is closely linked to information communication technology and networking.

Interviewers chosen for the study were professionals from IT and, therefore, had a greater understanding of the benefits and challenges that are surrounded by a layman from KUWAIT. This satisfies the second area of credibility by incorporating a sampling technique known as purposive sampling for the collection of data instead of implying random sampling.

8.9   CONCLUSION

This study has revealed the expectations and perceptions of citizens and employees of KUWAIT to be very low as far as professional ethics, trust and risks are concerned within the context of

KUWAIT DOG implementation. However, citizens from DOG are in favour of the implementation of the DOG system. The only situation whereby they disagree with each other is the one where they are concerned with details of the implementation of DOG implementation in KUWAIT. As far as the DOG universality is concerned, it was found that both citizens and employees are in agreement that DOG is the universally applicable system, and its benefits can be attained by all the government systems around the country.Generally, the primary research question was answered completely. However, for the secondary research question, there is a compulsion of stating the most sustainable and effective DOG model of KUWAIT that is based on the perceptions of employees and DOG citizens. For answering the second and third questions of this study, it is important to point out that there are valid recommendations available that can make improvements to information trust, risk issues and professional ethics that also ensure effective implementation of the DOG system in KUWAIT.

Following recommendations are to be taken into account:

1. The platforms provided by DOG must fulfil the expectations and interests of citizens.

It is expected that when a design fulfils the government requirements would lead to failure if there is no fulfilment seen in the end-user. There should be a proper understanding of the internal and external uses of the website to ensure the proper balance between the two objectives. It is very important for the KUWAIT government to stick to the user-centred website so that the implementation of DOG can be done that can generate sites that are not very complicated for users to understand and navigate to perform various tasks.

2. There should be equal platforms of DOG or superior from the private company website standards.

The continuous growth of electronic technologies is stimulating a strong connection amid private businesses of DOG as well as with other sources of government. Therefore, for the government, the rule claiming the client asking is not wrong. Similarly, in private business, there should be proper allocation of funds as far as DOG is concerned. When DOG successfully captures the attention of their users, they can save a lot of time and money for citizens and the government as well. When a government-owned website is given positive feedback, there is satisfaction seen in the citizens as to how their money is spent. If the system is well-organised, designed, and

efficient, then it means that the DOG has managed to use the enhanced use of capital and human resources. The success of DOG is measured by examining the experience of end-users and evaluating their level of satisfaction. Just a beautiful website is not adequate. Experience and satisfaction are essential. The website should be easy to use and easy to navigate, and in order to do so, every step should be redesigned in accordance with the requirements of the end-user. What the Kuwait government needs are experts that can analyse the end users' requirements and experiences through competitive research that can increase information trust among citizens.

3. DOG platform design must be uncluttered, informative and easy to navigate.

The content of the website should be easy enough that people from all cultural backgrounds and educational qualifications can read it easily. It is very crucial that website navigation is smooth to make the end-user experience pleasant. If the majority of citizens are included in end-user websites, such as DOG, the design must also be universal. There should not be any complications in design, yet it must be attractive. Website's accessibility and usability must ensure that the website is being viewed by the users and those views are being considered, Information can be easily accessed, and tasks are almost entirely straightforward. Moreover, the flow of programming should follow a normal administration process so that users can follow similar procedures that they know can make transitions from manual to DOG quite easy.

4. Updated practices and latest technological advances monitored and implemented at the time of need.

Kuwait government should make sure that website is in a working state. This means that the website needs to be in constant use and under testing activity which is crucial for DOG sites, provided the huge amount of data that it generates. Regular maintenance mechanism must be put in place so that its accessibility and longevity is ensured. Citizens take this interaction as the first one between them and the government. Thus, every website should be susceptible to incorporate maintenance plans that are for longer time periods. Website of government is incapable of remaining static, given the dynamics of market situations, user familiarity levels and population demographics as far as the internet is concerned. By incorporating continuous improvement of usability, DOG anticipates fulfilling the required objectives completely and efficiently so that citizens can be satisfied, thereby maintaining a high level of information trust among them.

Overall, developing commitments of DOG system for a longer-term comprises of conducting training, especially in professional ethics domain, that creates internal skills and understanding of benefits involved in change management, people should be taking care of latest trends of ICT development because they are entrusted with operating DOG system.

8.10 CHAPTER SUMMARY

This chapter concludes and provides an overall summary of the research conducted. Furthermore, it also provides recommendations for studies that may be conducted in the future, demonstrating the limitations of the study. Additionally, this chapter also sheds light on the primary contributions made by the study in research and examines how research criteria are fulfilled with the study; this chapter includes the research contribution, theory contribution, knowledge contribution, personal reflection and limitations, limitations, personal reflection, future research recommendations, recommendations for decision-makers, evaluation of research, contributory, transparency, defensibility, credibility and finally, the conclusion.

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10.1 APPENDIX 1: ETHICAL APPROVAL FROM THE UNIVERSITY OF SALFORD

University of Salford
MANCHESTER

Research, Innovation and Academic Engagement Ethical Approval Panel

Doctoral & Research Support
Research and Knowledge Exchange,
Room 827, Maxwell Building
University of Salford
Manchester
M5 4WT

T +44(0)161 295 7012

www.salford.ac.uk/

16 March 2020

Abdulrahman Alenizi

Dear Abdulrahman,

RE: ETHICS APPLICATION SBSR1920-011: Institutionalism of Digital Open Government Implementation: a case study from Kuwaiti Ministry of Home Security.

Based on the information that you provided, I am pleased to inform you that your application SBSR1920-011 has been approved.

If there are any changes to the project and/or its methodology, then please inform the Panel as soon as possible by contacting SBS-ResearchEthics@salford.ac.uk.

Yours sincerely,

Professor David F. Percy
Chair of the Staff and Postgraduate Research Ethics Panel
Salford Business School

10.2 Appendix 2: Consent form

University of Salford

University of
Salford
MANCHESTER

Research Participant Consent Form

Title of Project: Activity theory as a lens for Corporate Managerial Innovation:

A proposed systematic framework for managerial activities in the Amiri Guard in Kuwait

➤

Ethics Ref No: xxx

Name of Researcher:

➤ I confirm that I have read and understood the project information sheet titled and what my contribution will be.

Yes	No

➤ I have been given the opportunity to ask questions (face to face, via telephone or e-mail).

Yes	No

➤ I agree to take part in the interview.

Yes	No	NA

➤ I agree to the interview being tape recorded.

Yes	No	NA

➤ I understand that my participation is voluntary and that I can withdraw from the research at any time **without giving any reason.**

Yes	No

➤ I understand how the researcher will use my responses, who will see them and how the data will be stored.

Yes	No

➤ **I agree to take part in the above study**

Yes	No

Name of participant ....

Signature ....

Date ....

Name of researcher taking
consent

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University of
Saiford
MANCHESTER

PARTICIPANT INFORMATION SHEET

Title of study: Activity theory as a lens for Corporate Managerial Innovation:

A proposed systematic framework for managerial activities in the Amiri Guard in Kuwait

Name of Researcher: Abdulrahman Alenizi

Mobile No:

Email: A.Alenizi@edu.salford.ac.uk

Invitation paragraph

It is my pleasure that you are invited to take part in a doctoral research study, and Kindly you will agree of supporting my PhD research which I really appreciate. The purpose of the research will be mentioned in the next paragraph. Kindly read it to clarify the aims of the research.

What is the purpose of the study?

This research highlights the challenges that face by the Kuwaiti government to develop smart solutions for the service provision. The key stakeholders of this project are top officials who lead the digitalisation of governmental services, IT managers, front-office employees, and end-users. The researcher aims to explore the challenges, benefits, and processes of implementing the Digital Open Government (DOG) in Kuwaiti Home Security (Ministry of Interiors) organizations.

Do I have to take part in this study?

Participating in this study is completely voluntary, which you can stop and withdraw at any time even after agreeing of taking part in this study. You can withdraw if you want that, even without mentioning or providing any reason.

What will happen to me if I take part?

You are representing a participant of over 34 persons who are supporting this research, while these participants are allocated in three levels to explore and understand the challenges and benefits of implementing DOG in the Kuwaiti Ministry of Interior.

What do I need to do?

Face-to-face interviews will be conducted and preferably at your office or a suitable place at your work. It will take approximately less than an hour, and detailed notes will be taken and transcribed. A copy of the transcript will be sent to you, which you can read through it and check. Your confidentiality will be assured, and, name and personal identity will not be used or written as you will be anonymous that to keep you comfortable and flexible to share and express your opinions, perspectives.

By deciding of taking part in this study, you can kindly contact the researcher please;

 XXXX by email: xxxx@xxxx and the researcher will arrange an appropriate date and time with you for the interview. Moreover, you can forward any additional questions to the researcher, who will be welcoming to get them and answer them. By agreeing to the information on the consent sheet, you will be required to sign the consent form please. In addition, please be assured that you have the absolute freedom to withdraw at any time, even after signing the consent form.

Will I be paid for taking part?

Participation in this is study is completely voluntary. So, you will not be paid for taking part in this research. However, it is my pleasure if you request a summary report of the research findings after completing the doctoral thesis writing up.

What are the possible risks of taking part?

In this study, there is no risk that will be involved as well as you have the absolute freedom to withdraw from taking part in this study.

What if there is a problem?

If there is any concerns or issues of any aspects of this study or taking a part of this study, do not be hesitate to contact the researcher (contact details included in the upper form), and all your questions will be answered directly by him. In addition, for any further details or if you have any other concerns, you can forward your questions or requests directly to the main supervisor (see supervisor details below).

What will happen to the results of the research study?

The results of the research will be taking a part of a PhD thesis and research publications, while all participants will be anonymous. Also, you will be provided with a summary of the research findings.

Who is organising and sponsoring the research?

This research is undertaken as a PhD research in the University of Salford (Business School-Doctoral School). The supervision is under the guidance of my supervisor.

Further information and contact details:

Yours sincerely,